



September 18, 2017

Dawn Denham
Weston Solutions, Inc.
5599 San Felipe, Suite 700
Houston, Texas 77056

TEL: (713) 985-6610

FAX (713) 985-6703

RE: Humar-Harvey Sampling

Order No.: 1709099

Dear Dawn Denham:

DHL Analytical, Inc. received 3 sample(s) on 9/13/2017 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in red ink, appearing to read 'John DuPont', written in a cursive style.

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-17-19



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State Superfund Site	Soil COCs	Soil Analytical Methods	Water COCs	Water Analytical Methods
Hall Street	Arsenic	SW6020A	1,2-Dichlorobenzene	SW8260C
	Barium		1,4-Dichlorobenzene	
	Cadmium		bis(2-chloroethyl)ether	
	Lead		Benzene	
	Selenium		Chlorobenzene	
	Dioxin/Furans		SW8280B	
		Lead		
Houston Scrap	Antimony	SW6020A	Arsenic	SW6020A
	Arsenic		Cadmium	
	Beryllium		Lead	
	Lead		Beryllium	
			Mercury	
Hu-Mar Chemicals	p-chloroaniline	SW8270D	arsenic	SW6020A
			vanadium	
	S-Ethyl dipropylthiocarbamate (EPTC)	8270D	1,2-dichlorobenzene	SW8260C
			1,4-dichlorobenzene	
			benzene	SW8270D
			p-chloroaniline	
		S-Ethyl dipropylthiocarbamate		

Sample Receipt Checklist

Client Name Weston Solutions, Inc.

Date Received: 9/13/2017

Work Order Number 1709099

Received by EL

Checklist completed by: [Signature] 9/13/2017
Signature Date

Reviewed by: [Initials] 9/13/2017
Initials Date

Carrier name Hand Delivered

- Shipping container/cooler in good condition? Yes No Not Present
- Custody seals intact on shipping container/cooler? Yes No Not Present
- Custody seals intact on sample bottles? Yes No Not Present
- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Samples in proper container/bottle? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No
- All samples received within holding time? Yes No
- Container/Temp Blank temperature in compliance? Yes No 4.8 °C
- Water - VOA vials have zero headspace? Yes No No VOA vials submitted
- Water - pH<2 acceptable upon receipt? Yes No NA LOT # 8086
Adjusted? no Checked by EL
- Water - pH>9 (S) or pH>12 (CN) acceptable upon receipt? Yes No NA LOT #
Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Laboratory Name: DHL Analytical, Inc.							
Laboratory Review Checklist: Reportable Data							
Project Name: Humar-Harvey Sampling				LRC Date: 9/18/2017			
Reviewer Name: Angie O'Donnell				Laboratory Work Order: 1709099			
Prep Batch Number(s): See Prep Dates Report				Run Batch: See Analytical Dates Report			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-Custody (C-O-C)					
		1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? 2) Were all departures from standard conditions described in an exception report?	X			X	
R2	OI	Sample and Quality Control (QC) Identification					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X X				
R3	OI	Test Reports					
		1) Were all samples prepared and analyzed within holding times? 2) Other than those results < MQL, were all other raw values bracketed by calibration standards? 3) Were calculations checked by a peer or supervisor? 4) Were all analyte identifications checked by a peer or supervisor? 5) Were sample detection limits reported for all analytes not detected? 6) Were all results for soil and sediment samples reported on a dry weight basis? 7) Were % moisture (or solids) reported for all soil and sediment samples? 8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035? 9) If required for the project, TICs reported?	X X X X X X X X X				X X
R4	O	Surrogate Recovery Data					
		1) Were surrogates added prior to extraction? 2) Were surrogate percent recoveries in all samples within the laboratory QC limits?	X X				
R5	OI	Test Reports/Summary Forms for Blank Samples					
		1) Were appropriate type(s) of blanks analyzed? 2) Were blanks analyzed at the appropriate frequency? 3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? 4) Were blank concentrations < MDL? 5) For analyte(s) detected in a blank sample, was the concentration, unadjusted for sample specific factors, in all associated field samples, greater than 10 times the concentration in the blank sample?	X X X X				X
R6	OI	Laboratory Control Samples (LCS):					
		1) Were all COCs included in the LCS? 2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? 3) Were LCSs analyzed at the required frequency? 4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? 5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? 6) Was the LCSD RPD within QC limits (if applicable)?	X X X X X X				
R7	OI	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data					
		1) Were the project/method specified analytes included in the MS and MSD? 2) Were MS/MSD analyzed at the appropriate frequency? 3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? 4) Were MS/MSD RPDs within laboratory QC limits?				X X X X	
R8	OI	Analytical Duplicate Data					
		1) Were appropriate analytical duplicates analyzed for each matrix? 2) Were analytical duplicates analyzed at the appropriate frequency? 3) Were RPDs or relative standard deviations within the laboratory QC limits?	X X X				
R9	OI	Method Quantitation Limits (MQLs):					
		1) Are the MQLs for each method analyte included in the laboratory data package? 2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? 3) Are unadjusted MQLs and DCSs included in the laboratory data package?	X X X				
R10	OI	Other Problems/Anomalies					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER? 2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results? 3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X X X				R10-01

Laboratory Name: DHL Analytical, Inc.							
Laboratory Review Checklist (continued): Supporting Data							
Project Name: Humar-Harvey Sampling				LRC Date: 9/18/2017			
Reviewer Name: Angie O'Donnell				Laboratory Work Order: 1709099			
Prep Batch Number(s): See Prep Dates Report				Run Batch: See Analytical Dates Report			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial Calibration (ICAL)					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass Spectral Tuning:					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal Standards (IS):					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw Data (NELAC Section 5.5.10)					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual Column Confirmation					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively Identified Compounds (TICs):					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) Results:					
		1) Were percent recoveries within method QC limits?	X				
S9	I	Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method Detection Limit (MDL) Studies					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency Test Reports:					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards Documentation					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/Analyte Identification Procedures					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of Analyst Competency (DOC)					
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/Validation Documentation for Methods (NELAC Chapter 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory Standard Operating Procedures (SOPs):					
		1) Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC Chapter 5,
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) The amount of analyte measured in the duplicate,
 - b) The calculated RPD, and
 - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory is not accredited under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on March 27, 2017. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name: John DuPont
Official Title: General Manager


Signature

09/18/17
Date

Name: Scott Schroeder
Official Title: Technical Director

CLIENT: Weston Solutions, Inc.
Project: Humar-Harvey Sampling
Lab Order: 1709099

CASE NARRATIVE

The samples were analyzed using the methods outlined in the following references:

- Method SW8270D - Semivolatiles Analysis
- Method SW8260C - Volatiles Analysis
- Method SW6020A - Metals Analysis
- Method D2216 - Percent Moisture Analysis

Exception Report R1-01

The samples were received and log in performed on 9/13/2017. A total of 3 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

Exception Report R10-01

Per project specification, MS/MSDs are from workorder or project samples only.

CLIENT: Weston Solutions, Inc.
Project: Humar-Harvey Sampling
Lab Order: 1709099

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1709099-01	Hu-Mar W-1		09/13/17 09:15 AM	9/13/2017
1709099-02	Hu-Mar SO-1		09/13/17 09:40 AM	9/13/2017
1709099-03	Hu-Mar FB-1		09/13/17 09:45 AM	9/13/2017

Lab Order: 1709099
Client: Weston Solutions, Inc.
Project: Humar-Harvey Sampling

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1709099-01A	Hu-Mar W-1	09/13/17 09:15 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	09/14/17 09:53 AM	82366
1709099-01B	Hu-Mar W-1	09/13/17 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/14/17 08:20 AM	82354
1709099-01C	Hu-Mar W-1	09/13/17 09:15 AM	Aqueous	SW3510C	Aq Prep Sep Funnel: BNA	09/15/17 10:30 AM	82383
1709099-02A	Hu-Mar SO-1	09/13/17 09:40 AM	Soil	D2216	Moisture Preparation	09/15/17 10:54 AM	82392
	Hu-Mar SO-1	09/13/17 09:40 AM	Soil	SW3550C	Soil Prep Sonication: BNA	09/14/17 02:00 PM	82373
1709099-03A	Hu-Mar FB-1	09/13/17 09:45 AM	Field Blank	SW5030C	Purge and Trap Water GC/MS	09/14/17 09:53 AM	82366

Lab Order: 1709099
Client: Weston Solutions, Inc.
Project: Humar-Harvey Sampling

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1709099-01A	Hu-Mar W-1	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	82366	1	09/14/17 02:23 PM	GCMS5_170914A
1709099-01B	Hu-Mar W-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	82354	1	09/15/17 01:04 PM	ICP-MS4_170915A
1709099-01C	Hu-Mar W-1	Aqueous	SW8270D	Semivolatiles by GC/MS - Water	82383	1	09/15/17 05:32 PM	GCMS4_170915A
1709099-02A	Hu-Mar SO-1	Soil	D2216	Percent Moisture	82392	1	09/18/17 09:01 AM	PMOIST_170915A
	Hu-Mar SO-1	Soil	SW8270D	Semivolatiles by GC/MS - Soil	82373	1	09/14/17 05:46 PM	GCMS4_170914B
1709099-03A	Hu-Mar FB-1	Field Blank	SW8260C	8260 Water Volatiles by GC/MS	82366	1	09/14/17 12:25 PM	GCMS5_170914A

DHL Analytical, Inc.

Date: 18-Sep-17

CLIENT: Weston Solutions, Inc.
Project: Humar-Harvey Sampling
Project No:
Lab Order: 1709099

Client Sample ID: Hu-Mar W-1
Lab ID: 1709099-01
Collection Date: 09/13/17 09:15 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/15/17 01:04 PM
Vanadium	0.00198	0.000500	0.00100		mg/L	1	09/15/17 01:04 PM
IS: Germanium	90.4	0	70-200		%REC	1	09/15/17 01:04 PM
IS: Scandium(1)	95.2	0	70-200		%REC	1	09/15/17 01:04 PM
SEMIVOLATILES BY GC/MS - WATER		SW8270D		Analyst: DB			
4-Chloroaniline	<0.000549	0.000549	0.00219		mg/L	1	09/15/17 05:32 PM
EPTC	<0.00110	0.00110	0.00439		mg/L	1	09/15/17 05:32 PM
IS: 1,4-Dichlorobenzene-d4	86.9	0	50-200		%REC	1	09/15/17 05:32 PM
IS: Acenaphthene-d10	87.1	0	50-200		%REC	1	09/15/17 05:32 PM
IS: Chrysene-d12	82.4	0	50-200		%REC	1	09/15/17 05:32 PM
IS: Naphthalene-d8	90.8	0	50-200		%REC	1	09/15/17 05:32 PM
IS: Perylene-d12	96.8	0	50-200		%REC	1	09/15/17 05:32 PM
IS: Phenanthrene-d10	85.3	0	50-200		%REC	1	09/15/17 05:32 PM
Surr: 2-Fluorobiphenyl	59.2	0	48-120		%REC	1	09/15/17 05:32 PM
Surr: 4-Terphenyl-d14	66.3	0	51-135		%REC	1	09/15/17 05:32 PM
Surr: Nitrobenzene-d5	60.8	0	41-120		%REC	1	09/15/17 05:32 PM
8260 WATER VOLATILES BY GC/MS		SW8260C		Analyst: DEW			
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/14/17 02:23 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/14/17 02:23 PM
Benzene	<0.000300	0.000300	0.00100		mg/L	1	09/14/17 02:23 PM
IS: 1,4-Dichlorobenzene-d4	76.6	0	50-200		%REC	1	09/14/17 02:23 PM
IS: Chlorobenzene-d5	79.7	0	50-200		%REC	1	09/14/17 02:23 PM
IS: Fluorobenzene	77.1	0	50-200		%REC	1	09/14/17 02:23 PM
Surr: 1,2-Dichloroethane-d4	111	0	72-119		%REC	1	09/14/17 02:23 PM
Surr: 4-Bromofluorobenzene	98.8	0	76-119		%REC	1	09/14/17 02:23 PM
Surr: Dibromofluoromethane	101	0	85-115		%REC	1	09/14/17 02:23 PM
Surr: Toluene-d8	97.1	0	81-120		%REC	1	09/14/17 02:23 PM

Qualifiers: ND - Not Detected at the SDL
 J - Analyte detected between SDL and RL
 B - Analyte detected in the associated Method Blank
 DF- Dilution Factor
 N - Parameter not NELAC certified
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits
 C - Sample Result or QC discussed in Case Narrative
 RL - Reporting Limit (MQL adjusted for moisture and sample size)
 SDL - Sample Detection Limit
 E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: 18-Sep-17

CLIENT: Weston Solutions, Inc.
Project: Humar-Harvey Sampling
Project No:
Lab Order: 1709099

Client Sample ID: Hu-Mar SO-1
Lab ID: 1709099-02
Collection Date: 09/13/17 09:40 AM
Matrix: SOIL

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
SEMIVOLATILES BY GC/MS - SOIL		SW8270D			Analyst: DB		
4-Chloroaniline	<0.0330	0.0330	0.0725		mg/Kg-dry	1	09/14/17 05:46 PM
EPTC	<0.0330	0.0330	0.0725		mg/Kg-dry	1	09/14/17 05:46 PM
IS: 1,4-Dichlorobenzene-d4	78.6	0	50-200		%REC	1	09/14/17 05:46 PM
IS: Acenaphthene-d10	85.9	0	50-200		%REC	1	09/14/17 05:46 PM
IS: Chrysene-d12	91.2	0	50-200		%REC	1	09/14/17 05:46 PM
IS: Naphthalene-d8	83.4	0	50-200		%REC	1	09/14/17 05:46 PM
IS: Perylene-d12	101	0	50-200		%REC	1	09/14/17 05:46 PM
IS: Phenanthrene-d10	91.7	0	50-200		%REC	1	09/14/17 05:46 PM
Surr: 2-Fluorobiphenyl	81.0	0	60-125		%REC	1	09/14/17 05:46 PM
Surr: 4-Terphenyl-d14	83.0	0	45-125		%REC	1	09/14/17 05:46 PM
Surr: Nitrobenzene-d5	85.0	0	45-125		%REC	1	09/14/17 05:46 PM
PERCENT MOISTURE		D2216			Analyst: VA		
Percent Moisture	9.74	0	0		WT%	1	09/18/17 09:01 AM

Qualifiers: ND - Not Detected at the SDL
 J - Analyte detected between SDL and RL
 B - Analyte detected in the associated Method Blank
 DF- Dilution Factor
 N - Parameter not NELAC certified
 See Final Page of Report for MQLs and MDLs

S - Spike Recovery outside control limits
 C - Sample Result or QC discussed in Case Narrative
 RL - Reporting Limit (MQL adjusted for moisture and sample size)
 SDL - Sample Detection Limit
 E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: 18-Sep-17

CLIENT: Weston Solutions, Inc.
Project: Humar-Harvey Sampling
Project No:
Lab Order: 1709099

Client Sample ID: Hu-Mar FB-1
Lab ID: 1709099-03
Collection Date: 09/13/17 09:45 AM
Matrix: FIELD BLANK

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS		SW8260C			Analyst: DEW		
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/14/17 12:25 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	09/14/17 12:25 PM
Benzene	<0.000300	0.000300	0.00100		mg/L	1	09/14/17 12:25 PM
IS: 1,4-Dichlorobenzene-d4	78.6	0	50-200		%REC	1	09/14/17 12:25 PM
IS: Chlorobenzene-d5	82.6	0	50-200		%REC	1	09/14/17 12:25 PM
IS: Fluorobenzene	79.8	0	50-200		%REC	1	09/14/17 12:25 PM
Surr: 1,2-Dichloroethane-d4	108	0	72-119		%REC	1	09/14/17 12:25 PM
Surr: 4-Bromofluorobenzene	98.9	0	76-119		%REC	1	09/14/17 12:25 PM
Surr: Dibromofluoromethane	102	0	85-115		%REC	1	09/14/17 12:25 PM
Surr: Toluene-d8	97.6	0	81-120		%REC	1	09/14/17 12:25 PM

Qualifiers: ND - Not Detected at the SDL
 J - Analyte detected between SDL and RL
 B - Analyte detected in the associated Method Blank
 DF- Dilution Factor
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 See Final Page of Report for MQLs and MDLs

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 RL - Reporting Limit (MQL adjusted for moisture and sample size)
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CLIENT: Weston Solutions, Inc.

ANALYTICAL QC SUMMARY REPORT

Work Order: 1709099

Project: Humar-Harvey Sampling

RunID: ICP-MS4_170807E

Sample ID	DCS2-81788	Batch ID:	81788	TestNo:	SW6020A	Units:	mg/L				
SampType:	DCS2	Run ID:	ICP-MS4_170807E	Analysis Date:	8/7/2017 11:02:00 AM	Prep Date:	8/4/2017				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		0.00209	0.00500	0.00200	0	104	80	120	0	0	

Sample ID	DCS3-81788	Batch ID:	81788	TestNo:	SW6020A	Units:	mg/L				
SampType:	DCS3	Run ID:	ICP-MS4_170807E	Analysis Date:	8/7/2017 11:04:00 AM	Prep Date:	8/4/2017				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vanadium		0.00525	0.00100	0.00500	0	105	80	120	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170915A

The QC data in batch 82354 applies to the following samples: 1709099-01B

Sample ID	MB-82354	Batch ID:	82354	TestNo:	SW6020A	Units:	mg/L			
SampType:	MBLK	Run ID:	ICP-MS4_170915A	Analysis Date:	9/15/2017 12:46:00 PM	Prep Date:	9/14/2017			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	<0.00200	0.00500								
Vanadium	<0.000500	0.00100								
IS: Scandium(1)	0.200		0.200		103	70	200			

Sample ID	LCS-82354	Batch ID:	82354	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCS	Run ID:	ICP-MS4_170915A	Analysis Date:	9/15/2017 12:48:00 PM	Prep Date:	9/14/2017			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.199	0.00500	0.200	0	99.6	80	120			
Vanadium	0.193	0.00100	0.200	0	96.5	80	120			
IS: Scandium(1)	0.200		0.200		99.4	70	200			

Sample ID	LCSD-82354	Batch ID:	82354	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCSD	Run ID:	ICP-MS4_170915A	Analysis Date:	9/15/2017 12:50:00 PM	Prep Date:	9/14/2017			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.196	0.00500	0.200	0	98.1	80	120	1.56	15	
Vanadium	0.189	0.00100	0.200	0	94.4	80	120	2.18	15	
IS: Scandium(1)	0.200		0.200		100	70	200	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.
Work Order: 1709099
Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170915A

Sample ID ICV-170915	Batch ID: R94175	TestNo: SW6020A	Units: mg/L
SampType: ICV	Run ID: ICP-MS4_170915A	Analysis Date: 9/15/2017 10:40:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.102	0.00500	0.100	0	102	90	110			
Vanadium	0.100	0.00100	0.100	0	100	90	110			
IS: Scandium(1)	0.200		0.200		101	70	200			

Sample ID LCVL-170915	Batch ID: R94175	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_170915A	Analysis Date: 9/15/2017 10:50:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00472	0.00500	0.00500	0	94.4	70	130			
Vanadium	0.000916	0.00100	0.00100	0	91.6	70	130			
IS: Scandium(1)	0.200		0.200		99.0	70	200			

Sample ID CCV3-170915	Batch ID: R94175	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS4_170915A	Analysis Date: 9/15/2017 12:36:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.196	0.00500	0.200	0	97.8	90	110			
Vanadium	0.191	0.00100	0.200	0	95.6	90	110			
IS: Scandium(1)	0.200		0.200		99.8	70	200			

Sample ID LCVL3-170915	Batch ID: R94175	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_170915A	Analysis Date: 9/15/2017 12:42:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00478	0.00500	0.00500	0	95.5	70	130			
Vanadium	0.000981	0.00100	0.00100	0	98.1	70	130			
IS: Scandium(1)	0.200		0.200		101	70	200			

Sample ID CCV4-170915	Batch ID: R94175	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS4_170915A	Analysis Date: 9/15/2017 1:24:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.195	0.00500	0.200	0	97.4	90	110			
Vanadium	0.189	0.00100	0.200	0	94.6	90	110			
IS: Scandium(1)	0.200		0.200		94.5	70	200			

Sample ID LCVL4-170915	Batch ID: R94175	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_170915A	Analysis Date: 9/15/2017 1:46:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00467	0.00500	0.00500	0	93.4	70	130			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_170915A

Sample ID	LCVL4-170915	Batch ID:	R94175	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_170915A	Analysis Date:	9/15/2017 1:46:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vanadium		0.000942	0.00100	0.00100	0	94.2	70	130			
IS: Scandium(1)		0.200		0.200		92.7	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.
Work Order: 1709099
Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170912A

Sample ID	DCS2/LQV1-82088	Batch ID:	82088	TestNo:	SW8270D	Units:	mg/L			
SampType:	DCS2	Run ID:	GCMS4_170912A	Analysis Date:	9/12/2017 4:51:00 PM	Prep Date:	8/22/2017			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	0.000980	0.00200	0.00160	0	61.3	10	400	0	0	
EPTC	0.00136	0.00400	0.00160	0	85.0	10	400	0	0	

Qualifiers:	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAC certified	

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170914A

Sample ID	DCS1-82087	Batch ID:	82087	TestNo:	SW8270D	Units:	mg/Kg
SampType:	DCS	Run ID:	GCMS4_170914A	Analysis Date:	9/12/2017 6:11:00 PM	Prep Date:	8/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
EPTC	0.0307	0.0660	0.04000	0	76.7	20	145	0	0	
IS: 1,4-Dichlorobenzene-d4	2.67		2.660		92.4	50	200	0	0	
IS: Acenaphthene-d10	2.67		2.660		108	50	200	0	0	
IS: Chrysene-d12	2.67		2.660		91.3	50	200	0	0	
IS: Naphthalene-d8	2.67		2.660		99.6	50	200	0	0	
IS: Perylene-d12	2.67		2.660		102	50	200	0	0	
IS: Phenanthrene-d10	2.67		2.660		101	50	200	0	0	
Surr: 2-Fluorobiphenyl	0.547		0.6670		82.0	60	125	0	0	
Surr: 4-Terphenyl-d14	0.573		0.6670		86.0	45	125	0	0	
Surr: Nitrobenzene-d5	0.553		0.6670		83.0	45	125	0	0	

Sample ID	DCS2-82087	Batch ID:	82087	TestNo:	SW8270D	Units:	mg/Kg
SampType:	DCS2	Run ID:	GCMS4_170914A	Analysis Date:	9/12/2017 6:37:00 PM	Prep Date:	8/22/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	0.0587	0.0660	0.1000	0	58.7	10	145	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170914B

The QC data in batch 82373 applies to the following samples: 1709099-02A

Sample ID	Batch ID:	TestNo:	Units:							
LCS-82373	82373	SW8270D	mg/Kg							
SampType:	Run ID:	Analysis Date:	Prep Date:							
LCS	GCMS4_170914B	9/14/2017 4:27:00 PM	9/14/2017							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	0.801	0.0660	1.340	0	59.8	34	125			
EPTC	1.37	0.0660	1.340	0	102	40	125			
IS: 1,4-Dichlorobenzene-d4	2.67		2.660		88.5	50	200			
IS: Acenaphthene-d10	2.67		2.660		100	50	200			
IS: Chrysene-d12	2.67		2.660		94.2	50	200			
IS: Naphthalene-d8	2.67		2.660		96.7	50	200			
IS: Perylene-d12	2.67		2.660		98.8	50	200			
IS: Phenanthrene-d10	2.67		2.660		93.3	50	200			
Surr: 2-Fluorobiphenyl	0.540		0.6670		81.0	60	125			
Surr: 4-Terphenyl-d14	0.507		0.6670		76.0	45	125			
Surr: Nitrobenzene-d5	0.547		0.6670		82.0	45	125			

Sample ID	Batch ID:	TestNo:	Units:							
MB-82373	82373	SW8270D	mg/Kg							
SampType:	Run ID:	Analysis Date:	Prep Date:							
MBLK	GCMS4_170914B	9/14/2017 5:20:00 PM	9/14/2017							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	<0.0300	0.0660								
EPTC	<0.0300	0.0660								
IS: 1,4-Dichlorobenzene-d4	2.67		2.660		89.2	50	200			
IS: Acenaphthene-d10	2.67		2.660		100	50	200			
IS: Chrysene-d12	2.67		2.660		87.5	50	200			
IS: Naphthalene-d8	2.67		2.660		95.2	50	200			
IS: Perylene-d12	2.67		2.660		104	50	200			
IS: Phenanthrene-d10	2.67		2.660		95.9	50	200			
Surr: 2-Fluorobiphenyl	0.440		0.6670		66.0	60	125			
Surr: 4-Terphenyl-d14	0.533		0.6670		80.0	45	125			
Surr: Nitrobenzene-d5	0.467		0.6670		70.0	45	125			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.
Work Order: 1709099
Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170914B

Sample ID ICV-170914	Batch ID: R94165	TestNo: SW8270D	Units: mg/Kg
SampType: ICV	Run ID: GCMS4_170914B	Analysis Date: 9/14/2017 3:58:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	2.58	0.0660	2.500	0	103	80	120			
EPTC	2.72	0.0660	2.500	0	109	80	120			
IS: 1,4-Dichlorobenzene-d4	4.00		4.000		90.6	50	200			
IS: Acenaphthene-d10	4.00		4.000		91.4	50	200			
IS: Chrysene-d12	4.00		4.000		95.6	50	200			
IS: Naphthalene-d8	4.00		4.000		94.4	50	200			
IS: Perylene-d12	4.00		4.000		97.7	50	200			
IS: Phenanthrene-d10	4.00		4.000		90.8	50	200			
Surr: 2-Fluorobiphenyl	2.62		2.500		105	80	120			
Surr: 4-Terphenyl-d14	2.30		2.500		92.0	80	120			
Surr: Nitrobenzene-d5	2.66		2.500		106	80	120			

Qualifiers:	B Analyte detected in the associated Method Blank	DF Dilution Factor	
	J Analyte detected between MDL and RL	MDL Method Detection Limit	
	ND Not Detected at the Method Detection Limit	R RPD outside accepted control limits	
	RL Reporting Limit	S Spike Recovery outside control limits	
	J Analyte detected between SDL and RL	N Parameter not NELAC certified	

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170915A

The QC data in batch 82383 applies to the following samples: 1709099-01C

Sample ID	Batch ID:	TestNo:	Units:							
LCS-82383	82383	SW8270D	mg/L							
SampType: LCS	Run ID: GCMS4_170915A	Analysis Date: 9/15/2017 3:45:00 PM	Prep Date: 9/15/2017							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	0.0241	0.00200	0.0400	0	60.4	20	120			
EPTC	0.0278	0.00400	0.0400	0	69.6	20	120			
IS: 1,4-Dichlorobenzene-d4	0.0800		0.0800		99.0	50	200			
IS: Acenaphthene-d10	0.0800		0.0800		117	50	200			
IS: Chrysene-d12	0.0800		0.0800		90.1	50	200			
IS: Naphthalene-d8	0.0800		0.0800		109	50	200			
IS: Perylene-d12	0.0800		0.0800		99.5	50	200			
IS: Phenanthrene-d10	0.0800		0.0800		93.1	50	200			
Surr: 2-Fluorobiphenyl	52.8		80.00		66.0	48	120			
Surr: 4-Terphenyl-d14	49.8		80.00		62.3	51	135			
Surr: Nitrobenzene-d5	54.0		80.00		67.5	41	120			

Sample ID	Batch ID:	TestNo:	Units:							
LCSD-82383	82383	SW8270D	mg/L							
SampType: LCSD	Run ID: GCMS4_170915A	Analysis Date: 9/15/2017 4:12:00 PM	Prep Date: 9/15/2017							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	0.0244	0.00200	0.0400	0	61.1	20	120	1.24	20	
EPTC	0.0298	0.00400	0.0400	0	74.5	20	120	6.80	0	
IS: 1,4-Dichlorobenzene-d4	0.0800		0.0800		93.5	50	200	0	0	
IS: Acenaphthene-d10	0.0800		0.0800		97.6	50	200	0	0	
IS: Chrysene-d12	0.0800		0.0800		88.6	50	200	0	0	
IS: Naphthalene-d8	0.0800		0.0800		97.6	50	200	0	0	
IS: Perylene-d12	0.0800		0.0800		97.1	50	200	0	0	
IS: Phenanthrene-d10	0.0800		0.0800		85.5	50	200	0	0	
Surr: 2-Fluorobiphenyl	55.4		80.00		69.3	48	120	0	0	
Surr: 4-Terphenyl-d14	52.4		80.00		65.5	51	135	0	0	
Surr: Nitrobenzene-d5	56.2		80.00		70.2	41	120	0	0	

Sample ID	Batch ID:	TestNo:	Units:							
MB-82383	82383	SW8270D	mg/L							
SampType: MBLK	Run ID: GCMS4_170915A	Analysis Date: 9/15/2017 4:39:00 PM	Prep Date: 9/15/2017							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	<0.000500	0.00200								
EPTC	<0.00100	0.00400								
IS: 1,4-Dichlorobenzene-d4	0.0800		0.0800		85.3	50	200			
IS: Acenaphthene-d10	0.0800		0.0800		90.2	50	200			
IS: Chrysene-d12	0.0800		0.0800		77.8	50	200			
IS: Naphthalene-d8	0.0800		0.0800		92.1	50	200			
IS: Perylene-d12	0.0800		0.0800		97.3	50	200			
IS: Phenanthrene-d10	0.0800		0.0800		86.3	50	200			

- Qualifiers:**
- B Analyte detected in the associated Method Blank
 - J Analyte detected between MDL and RL
 - ND Not Detected at the Method Detection Limit
 - RL Reporting Limit
 - J Analyte detected between SDL and RL
 - DF Dilution Factor
 - MDL Method Detection Limit
 - R RPD outside accepted control limits
 - S Spike Recovery outside control limits
 - N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170915A

Sample ID MB-82383	Batch ID: 82383	TestNo: SW8270D	Units: mg/L							
SampType: MBLK	Run ID: GCMS4_170915A	Analysis Date: 9/15/2017 4:39:00 PM	Prep Date: 9/15/2017							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	47.6		80.00		59.5	48	120			
Surr: 4-Terphenyl-d14	59.2		80.00		74.0	51	135			
Surr: Nitrobenzene-d5	49.8		80.00		62.3	41	120			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS4_170915A

Sample ID	ICV-170915	Batch ID:	R94188	TestNo:	SW8270D	Units:	mg/L
SampType:	ICV	Run ID:	GCMS4_170915A	Analysis Date:	9/15/2017 3:17:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloroaniline	2.67	0.00200	2.50	0	107	80	120			
EPTC	2.43	0.00400	2.50	0	97.4	80	120			
IS: 1,4-Dichlorobenzene-d4	4.00		4.00		103	50	200			
IS: Acenaphthene-d10	4.00		4.00		97.6	50	200			
IS: Chrysene-d12	4.00		4.00		91.8	50	200			
IS: Naphthalene-d8	4.00		4.00		103	50	200			
IS: Perylene-d12	4.00		4.00		97.2	50	200			
IS: Phenanthrene-d10	4.00		4.00		83.6	50	200			
Surr: 2-Fluorobiphenyl	2640		2500		106	80	120			
Surr: 4-Terphenyl-d14	2130		2500		85.2	80	120			
Surr: Nitrobenzene-d5	2720		2500		109	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_170706A

Sample ID	DCS-81295	Batch ID:	81295	TestNo:	SW8260C	Units:	mg/L			
SampType:	DCS	Run ID:	GCMS5_170706A	Analysis Date:	7/6/2017 12:55:00 PM	Prep Date:	7/6/2017			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	0.000566	0.00100	0.000464	0	122	10	400	0	0	
1,4-Dichlorobenzene	0.000643	0.00100	0.000464	0	139	10	400	0	0	
Benzene	0.000479	0.00100	0.000464	0	103	10	400	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_170914A

The QC data in batch 82366 applies to the following samples: 1709099-01A, 1709099-03A

Sample ID	LCS-82366	Batch ID:	82366	TestNo:	SW8260C	Units:	mg/L
SampType:	LCS	Run ID:	GCMS5_170914A	Analysis Date:	9/14/2017 10:27:00 AM	Prep Date:	9/14/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	0.0254	0.00100	0.0232	0	109	75	122			
1,4-Dichlorobenzene	0.0249	0.00100	0.0232	0	107	74	123			
Benzene	0.0252	0.00100	0.0232	0	109	81	122			
IS: 1,4-Dichlorobenzene-d4	0.200		0.200		82.0	50	200			
IS: Chlorobenzene-d5	0.200		0.200		84.0	50	200			
IS: Fluorobenzene	0.200		0.200		80.8	50	200			
Surr: 1,2-Dichloroethane-d4	225		200.0		112	72	119			
Surr: 4-Bromofluorobenzene	199		200.0		99.4	76	119			
Surr: Dibromofluoromethane	206		200.0		103	85	115			
Surr: Toluene-d8	196		200.0		98.2	81	120			

Sample ID	LCSD-82366	Batch ID:	82366	TestNo:	SW8260C	Units:	mg/L
SampType:	LCSD	Run ID:	GCMS5_170914A	Analysis Date:	9/14/2017 10:50:00 AM	Prep Date:	9/14/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	0.0236	0.00100	0.0232	0	102	75	125	7.33	20	
1,4-Dichlorobenzene	0.0232	0.00100	0.0232	0	100	74	123	6.92	20	
Benzene	0.0237	0.00100	0.0232	0	102	81	120	6.27	20	
IS: 1,4-Dichlorobenzene-d4	0.200		0.200		83.2	50	200	0	0	
IS: Chlorobenzene-d5	0.200		0.200		84.5	50	200	0	0	
IS: Fluorobenzene	0.200		0.200		82.1	50	200	0	0	
Surr: 1,2-Dichloroethane-d4	224		200.0		112	72	119	0	0	
Surr: 4-Bromofluorobenzene	200		200.0		99.8	76	119	0	0	
Surr: Dibromofluoromethane	205		200.0		102	85	115	0	0	
Surr: Toluene-d8	198		200.0		99.1	81	120	0	0	

Sample ID	MB-82366	Batch ID:	82366	TestNo:	SW8260C	Units:	mg/L
SampType:	MBLK	Run ID:	GCMS5_170914A	Analysis Date:	9/14/2017 11:38:00 AM	Prep Date:	9/14/2017

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	<0.000300	0.00100								
1,4-Dichlorobenzene	<0.000300	0.00100								
Benzene	<0.000300	0.00100								
IS: 1,4-Dichlorobenzene-d4	0.200		0.200		80.9	50	200			
IS: Chlorobenzene-d5	0.200		0.200		85.1	50	200			
IS: Fluorobenzene	0.200		0.200		81.3	50	200			
Surr: 1,2-Dichloroethane-d4	217		200.0		109	72	119			
Surr: 4-Bromofluorobenzene	200		200.0		99.8	76	119			
Surr: Dibromofluoromethane	206		200.0		103	85	115			
Surr: Toluene-d8	195		200.0		97.6	81	120			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.
Work Order: 1709099
Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS5_170914A

Sample ID ICV-170914	Batch ID: R94155	TestNo: SW8260C	Units: mg/L
SampType: ICV	Run ID: GCMS5_170914A	Analysis Date: 9/14/2017 9:40:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	0.0458	0.00100	0.0464	0	98.6	80	120			
1,4-Dichlorobenzene	0.0452	0.00100	0.0464	0	97.4	80	120			
Benzene	0.0464	0.00100	0.0464	0	100	80	120			
IS: 1,4-Dichlorobenzene-d4	0.200		0.200		81.2	50	200			
IS: Chlorobenzene-d5	0.200		0.200		80.8	50	200			
IS: Fluorobenzene	0.200		0.200		78.9	50	200			
Surr: 1,2-Dichloroethane-d4	217		200.0		108	72	119			
Surr: 4-Bromofluorobenzene	198		200.0		99.0	76	119			
Surr: Dibromofluoromethane	206		200.0		103	85	115			
Surr: Toluene-d8	198		200.0		99.1	81	120			

Qualifiers:	<p>B Analyte detected in the associated Method Blank</p> <p>J Analyte detected between MDL and RL</p> <p>ND Not Detected at the Method Detection Limit</p> <p>RL Reporting Limit</p> <p>J Analyte detected between SDL and RL</p>	<p>DF Dilution Factor</p> <p>MDL Method Detection Limit</p> <p>R RPD outside accepted control limits</p> <p>S Spike Recovery outside control limits</p> <p>N Parameter not NELAC certified</p>
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CLIENT: Weston Solutions, Inc.

Work Order: 1709099

Project: Humar-Harvey Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_170915A

The QC data in batch 82392 applies to the following samples: 1709099-02A

Sample ID	1709115-09A-DUP	Batch ID:	82392	TestNo:	D2216	Units:	WT%				
SampType:	DUP	Run ID:	PMOIST_170915A	Analysis Date:	9/18/2017 9:01:00 AM	Prep Date:	9/15/2017				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Percent Moisture		8.38	0	0	9.800				15.6	30	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: Weston Solutions, Inc.
Work Order: 1709099
Project: Humar-Harvey Sampling

SQL SUMMARY REPORT

TestNo: SW6020A	MDL	SQL
Analyte	mg/L	mg/L
Arsenic	0.00200	0.00500
Vanadium	0.000500	0.00100

TestNo: SW8260C	MDL	SQL
Analyte	mg/L	mg/L
1,2-Dichlorobenzene	0.000300	0.00100
1,4-Dichlorobenzene	0.000300	0.00100
Benzene	0.000300	0.00100

TestNo: SW8270D	MDL	SQL
Analyte	mg/Kg	mg/Kg
4-Chloroaniline	0.0300	0.0660
EPTC	0.0300	0.0660

TestNo: SW8270D	MDL	SQL
Analyte	mg/L	mg/L
4-Chloroaniline	0.000500	0.00200
EPTC	0.00100	0.00400

GCMS4

For

DHL Work Order

1709099

GCMS4_170914B

For

DHL Work Order

1709099

Lab Data Review Check List
EPA Method 8270 / 625 - Semi-Volatile Organic Compounds

PROJECT AND BATCH NUMBERS ARE LISTED ON THE RUN LOG		Run ID: GCMS4_170914B				
		SOP: ORGANICS-SemiVol-01				
Review Item	Yes	No	N/A	2nd Level Review		
Data Folder Contents						
1. Is the Prep Batch Report included? Check and record the following: Prep Start/End Dates, Sample Amounts, Bottle #s	X				X	
2. Are the reagents and spikes listed on the Prep Batch Report current with a valid expiration date? All standard/QC sample preparations shall be documented in LIMS	X					
3. Is the Run Log and instrument sequence included? Check the Test Code, Sample Type, Batch ID, and Analysis Date/Time	X					
4. Is the System Verification - Tune Report included? Date/Tme of Tune starts 12-hour analysis window	X					
5. Is the Evaluate Continuing Calibration Report included?	X					
Daily Demonstration of Performance						
QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in the Variance/Comment Section on page 2.						
Review Item	Frequency	Limits	Pass	Fail (List Batch/Sample) **See Run Log**	2nd Level Review	
DFTPP Tune	Before ICAL Every 12 hours	See Tune Eval Report	Yes		X	
Breakdown Check/Tailing Factor	Prior to samples Every 12 hours	≤ 20% for DDT / Benzidine and PCP tailing factor < 2	Yes			
Initial Calibration Curve (ICAL) (minimum: 5 Standards)	Prior to samples and when ICV fails	Avg. RF - %RSD ≤15%(DoD), ≤20%(SF) Curve (COD) - R ² ≥ 0.990	Yes			
SSCV - (Second Source)	After calibration (ICAL)	70-130% (8270D/SF-QAPP) 80-120% (DoD)	Yes			
Review Item	Frequency	Limits	Pass	Fail	N/A	Review
ICV - (Daily Initial Cal Verification) 8270D - Corrective action required if >20% of target analytes have >20% drift	Every 12 hours	ISTDs Area% (50-200%) Surrogates %R (See LIMS) %R (80-120%) 8270D %R (80-120%) DoD %R (70-130%) SF-QAPP	X			X
Method Blank (MB) System Blank (SYS Blank)	Every Batch (MB) Daily (SYS BL)	< MQL (SF) / <½ RL (DoD) or <1/10 the sample/reg limit	X			
Lab Control Sample (LCS)	Every Batch	See LIMS	X			
Lab Control Sample Dup (LCSD)	Insufficient sample Sample Matrix	See LIMS			X	
LCSD - RPD	Every LCS/LCSD	≤ 20 (Aq) / ≤ 30 (Soil&DoD)			X	
Field Samples	Up to 20 per prep batch	ISTDs Area% (50-200%) Surrogates %R (See LIMS) RRT ± 0.06 RRT Standard Q value > 70 - check for #	X			
Matrix Spike (MS)	Every Batch/20 samples	See LIMS		X		
Matrix Spike Duplicate (MSD) (MSD is N/A for Method 625)	Every Prep Batch except Method 625			X		
MSD - RPD (MSD is N/A for Method 625)	Every MS/MSD except Method 625	≤ 20 (Aq) / ≤ 30 (Soil&DoD)		X		

Lab Data Review Check List

EPA Method 8270 / 625 - Semi-Volatile Organic Compounds

Review Item	Criteria	Yes	No	N/A	2nd Level Review
Sample Analysis 1. Are all sample hold times met?	7 days (Aq) - extraction			X	X
	14 days (Soil) - extraction	X			
	40 days analysis	X			
2. Are all manual integrations signed (Before & After) and printouts included ? Put in LIMS Comment Section <i>Include MI form for DoD work</i>	Before & After - signed Comment Section in LIMS MI Form - DoD only			X	
3. Are all samples with concentrations > the highest standard used for calibration diluted and reanalyzed?		X			
Review Item #3 is N/A ONLY if all sample results are within Calibration range or NO if dilution is in different folder					
4. Is mass spectra reviewed/verified if Q value is <70 and/or # flag for results >MDL?	Q value <70 - All hits	X			X
5. Are ALL reported analytes > MDL (+ J flags) highlighted by the analyst?		X		Confirm with analyst if LIMS result does not match LabCore	
VARIANCE REPORT					
QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in this section.					
NON-CONFORMANCES / VARIANCE 1. Are all non-conformances included and noted?	All deviations from the method and SOP that affect data quality			X	X
2. Are all corrective actions included?				X	
3. Does the variance require approval by the Technical Director/General Manager/QA Manager?				X	

TECHNICAL DIRECTOR / QA MANAGER APPROVAL
SIGNATURE AND DATE STAMP:

Description and Corrective Actions of QC items that do not meet method/SOP/project requirements:

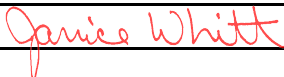
****INCLUDE VARIANCE ITEM / REASON / CORRECTIVE ACTION / IMPACT ON DATA****

VARIANCE ITEM	REASON	CORRECTIVE ACTION
___ Hold Time exceeded (7D/14D-Ext/40D-Analysis)	___ Sample Received out of HT	___ Reanalyze QC to confirm
___ ICV out of control (± 20%-DoD / 30%-SF-QAPP)	___ Carryover from previous run	___ Recalibrate
___ MB/SYS BL out of control (> MDL / >½ RL)	___ Cross contamination	___ Reprep/Reanalyze sample
___ LCS ___ LCSD out of control (See LIMS)	___ Lab Artifact	___ Reprep/Reanalyze Batch
___ RPD out of control for LCS/LCSD (>20/30)	___ Prep Spike error (describe)	___ Reanalyze Batch/Sample/QC
___ MS ___ MSD out of control (See LIMS)	___ High Levels of target analytes	___ Verify H2O/reagents are clean
___ RPD out of control for MS/MSD (>20/30)	___ High Levels of non-targets	___ Reanalyze sample to confirm
___ Internal Standard(s) out of control	___ Insufficient sample for QC	___ Sample results ND w/ dilution
___ Multiple Surrogates out of control	___ Prep Error	___ Client notified and approved
___ No MS/MSD prepared - LCS/LCSD used instead	___ Analytical Error	___ Flag data / Case narrative
___ Missing QC (other than MS/MSD)	___ Client Request	___ Instrument Maintenance
___ QC sample(s) was mis-spiked	___ Other (describe below)	___ Accept data
___ Other (describe below)		
	___ Cannot reanalyze (HT out/Lack of Sample)	

General Comments and Impact on Data:

Analyst: 

Date of Completion: 9/15/2017

Second-Level Review: 

Date Stamp: 9/18/2017



Run ID: GCMS4_170914B**Run No.:** 94165**Analytical Run Date:** 9/14/2017**InstrumentID:** GCMS4**Analyst:** Duston Bezner**Column:** ZB-SV (30m x 0.25mm ID x 0.25µm df)**Calibration ID:** 801**Column ID:** 0.25mm**Column Length:** 30m**Cal Comments:** SV170911.M

SampID	DF	TestCode	SampType	Batch ID	Analysis Date/Time	Q	Comments
DFTPP-170914	1	8270_S_LL	TUNE	R94165	9/14/2017 3:31:00 PM		
ICV-170914	1	8270_S_LL	ICV	R94165	9/14/2017 3:58:00 PM		
LCS-82373	1	8270_S_LL	LCS	82373	9/14/2017 4:27:00 PM		
MB-82373	1	8270_S_LL	MBLK	82373	9/14/2017 5:20:00 PM		
1709099-02A	1	8270_S_LL	SAMP	82373	9/14/2017 5:46:00 PM		
1709106-01A	1	8270_S_LL	SAMP	82373	9/14/2017 6:13:00 PM		
1709108-04B	5	8270_S_LL	SAMP	82373	9/14/2017 6:40:00 PM		
1709108-04BMS	5	8270_S_LL	MS	82373	9/14/2017 7:06:00 PM		Benzo[b]fluoranthene recovery low
1709108-04BMSD	5	8270_S_LL	MSD	82373	9/14/2017 7:33:00 PM		Benzo[b]fluoranthene recovery low. Carbazole RPD out.

Std ID	Std Name	Type	Exp. Date
SVCAL170911	5PPM SVOC CAL. STD.	CAL	12/10/2017
SVIS170104-4	4000 PPM INTERNAL STANDAR	CAL	08/29/2018
SVSSCV170911	5 PPM SSCV STANDARD	CAL	12/11/2017
SVSUR170104-17	4000 PPM SEMI-VOL SURROGA	CAL	10/18/2017

Sequence Name: C:\HPCHEM\1\SEQUENCE\170914.S
Comment:
Operator:
Data Path: C:\HPCHEM\1\DATA\170914\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	17091401	DFTPPLVI	DFTPP-170914
2	Sample	2	17091402	SV170911	ICV-170914
3	Sample	3	17091403	SV170911	LCS-82373
4	Sample	4	17091404	SV170911	SBLK
5	Sample	5	17091405	SV170911	MB-82373
6	Sample	6	17091406	SV170911	1709099-02A
7	Sample	7	17091407	SV170911	1709106-01A
8	Sample	8	17091408	SV170911	1709108-04B
9	Sample	9	17091409	SV170911	1709108-04BMS
10	Sample	10	17091410	SV170911	1709108-04BMSD



DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: 9/14/2017 2:00:00 PM

Digestion:

Prep End Date: 9/14/2017 @ 3:53 PM

Prep Batch 82373 Prep Code: 3550_B

Technician: Michael Payne

Prep Factor Units: mL/g

Equipment List

Turbo-Vap # 1,2
Balance # 25
Sonicators # 1,2,3,4

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709099-02A	Soil		15.13	10	0.667	1 of 1		
1709106-01A	Soil		15.28	10	0.667	1 of 1		
1709108-04B	Soil		15.07	10	0.667	1 of 1		
1709108-04BMS	Soil		15.41	10	0.667	of		Sand-like ↓
1709108-04BMSD	Soil		15.54	10	0.667	of		
LCS-82373	Soil		15	10	0.667	of		
MB-82373	Soil		15	10	0.667	of		

Number	Reagent Name	Amt	Units	Exp. Date	Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
11404	Purified Sodium Sulfate	10	g	05/18/2027	SVPREP170828	40 PPM Surrogate Standard	ALL	0.25	11/26/2017
11448	Methylene Chloride	8	ml	06/01/2027	SVPREP170831-1	20 PPM Spike #1 Base/Neutrals	DCS 1,2,3	LCS/MS/MSD 1	11/29/2017
11557	Whatman 41 Filter	1	filter	07/06/2027	SVPREP170831-2	20 PPM Spike #2 Benzidines	DCS 1,2,3	1	11/29/2017
11663	1:1 MeCl2/Acetone	120	ml	08/10/2027	SVPREP170831-3	20 PPM Spike #3 Amines	DCS 1,2,3	1	11/29/2017
					SVPREP170831-4	20 PPM Spike #4 Acids	DCS 1,2,3	1	11/29/2017
					SVPREP170831-5	20 PPM Spike #5	DCS 1,2,3	1	11/29/2017

REVIEWED BY
By Janice Whitt at 9:17:25 AM, 9/18/2017

MP 9/14/17 38

MP 9/14/17

DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: **9/14/2017 2:00:00 PM**

Digestion:

Prep End Date: **9/14/2017 3:53:00 PM**

Prep Batch **82373** Prep Code: **3550_B**

Technician: **Michael Payne**

Prep Factor Units:
mL/g

Equipment List
Turbo-Vap # 1,2
Balance # 25
Sonicators # 1,2,3,4

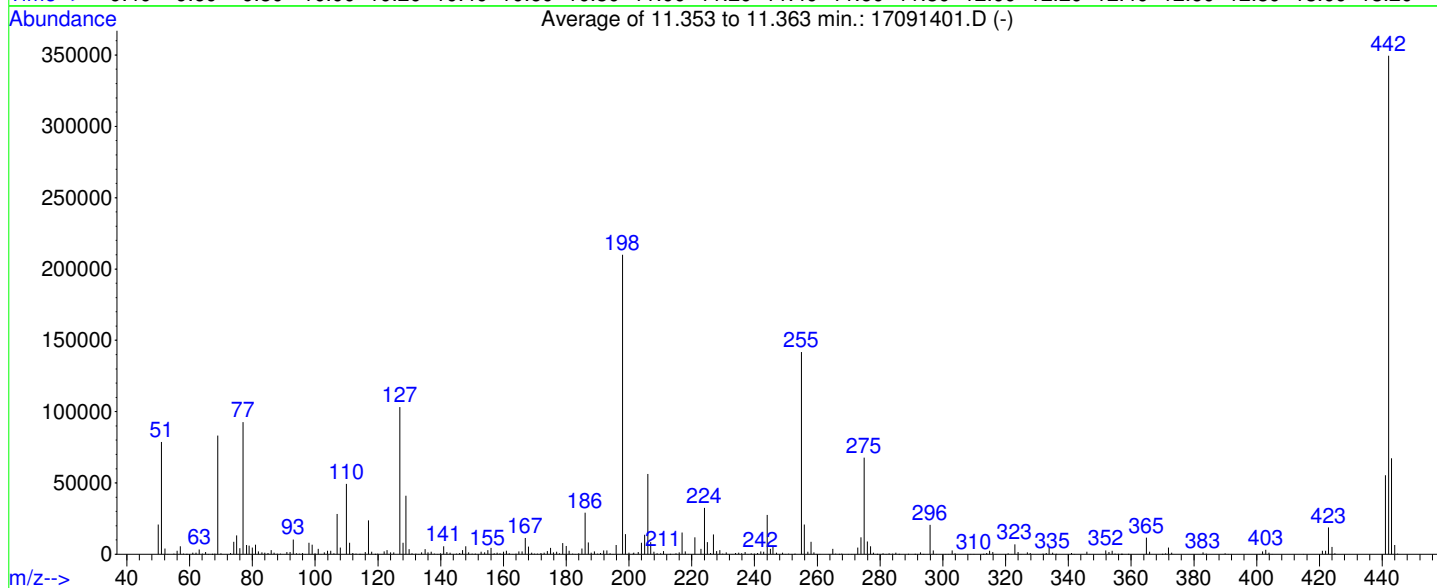
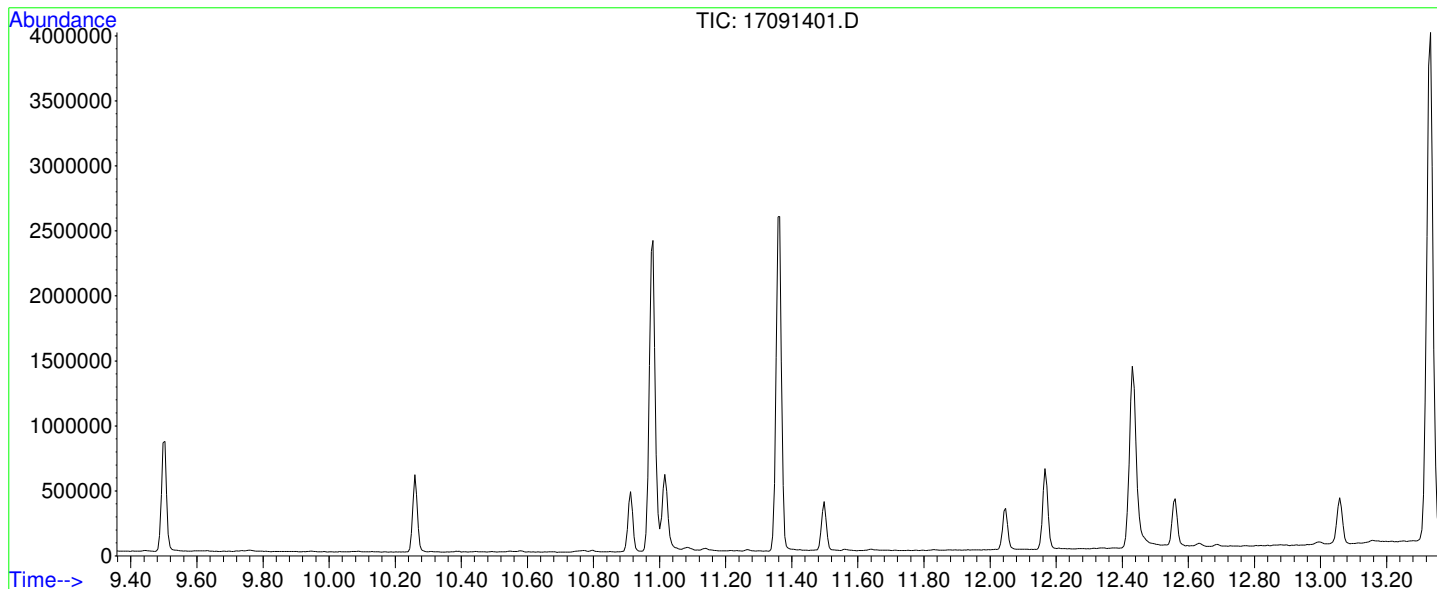
Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709099-02A	Soil		15.13	10	0.661	1 of 1		
1709106-01A	Soil		15.26	10	0.655	1 of 1		
1709108-04B	Soil		15.07	10	0.664	1 of 1		
	Sand-like							
1709108-04BMS	Soil		15.41	10	0.649	of		
	Sand-like							
1709108-04BMSD	Soil		15.54	10	0.644	of		
	Sand-like							
LCS-82373	Soil		15	10	0.667	of		
MB-82373	Soil		15	10	0.667	of		

Number	Reagent Name	Amt	Units	Exp. Date
11404	Purified Sodium Sulfate	10	g	05/18/2027
11448	Methylene Chloride	8	ml	06/01/2027
11557	Whatman 41 Filter	1	filter	07/06/2027
11663	1:1 MeCl2/Acetone	120	ml	08/10/2027

Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
SVPREP170828	40 PPM Surrogate Standard	ALL	0.25	11/26/2017
SVPREP170831-1	20 PPM Spike #1 Base/Neutrals	LCS/MS/MSD	1	11/29/2017
SVPREP170831-2	20 PPM Spike #2 Benzidines	LCS/MS/MSD	1	11/29/2017
SVPREP170831-3	20 PPM Spike #3 Amines	LCS/MS/MSD	1	11/29/2017
SVPREP170831-4	20 PPM Spike #4 Acids	LCS/MS/MSD	1	11/29/2017
SVPREP170831-5	20 PPM Spike #5	LCS/MS/MSD	1	11/29/2017

REVIEWED BY
By Janice Whitt at 9:17:27 AM, 9/18/2017

Data File : C:\HPCHEM\1\DATA\170914\17091401.D Vial: 1
 Acq On : 14 Sep 2017 3:31 pm Operator:
 Sample : DFTPP-170914 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Method : C:\HPCHEM\1\METHODS\DFTPLVI.M (RTE Integrator)
 Title :



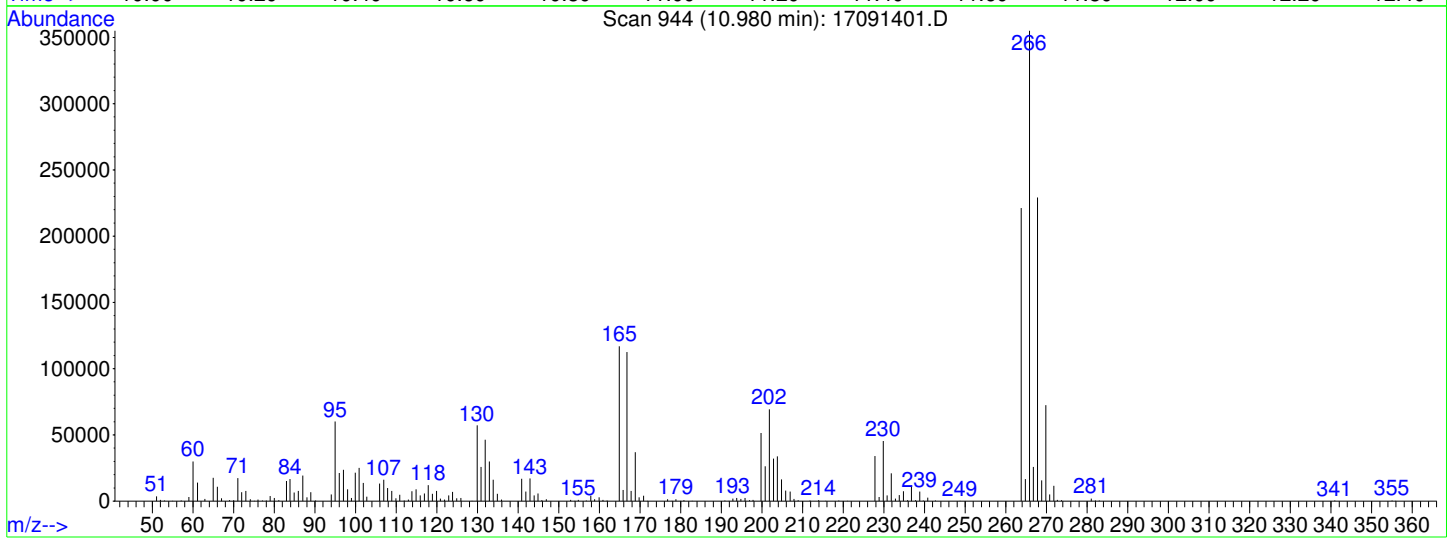
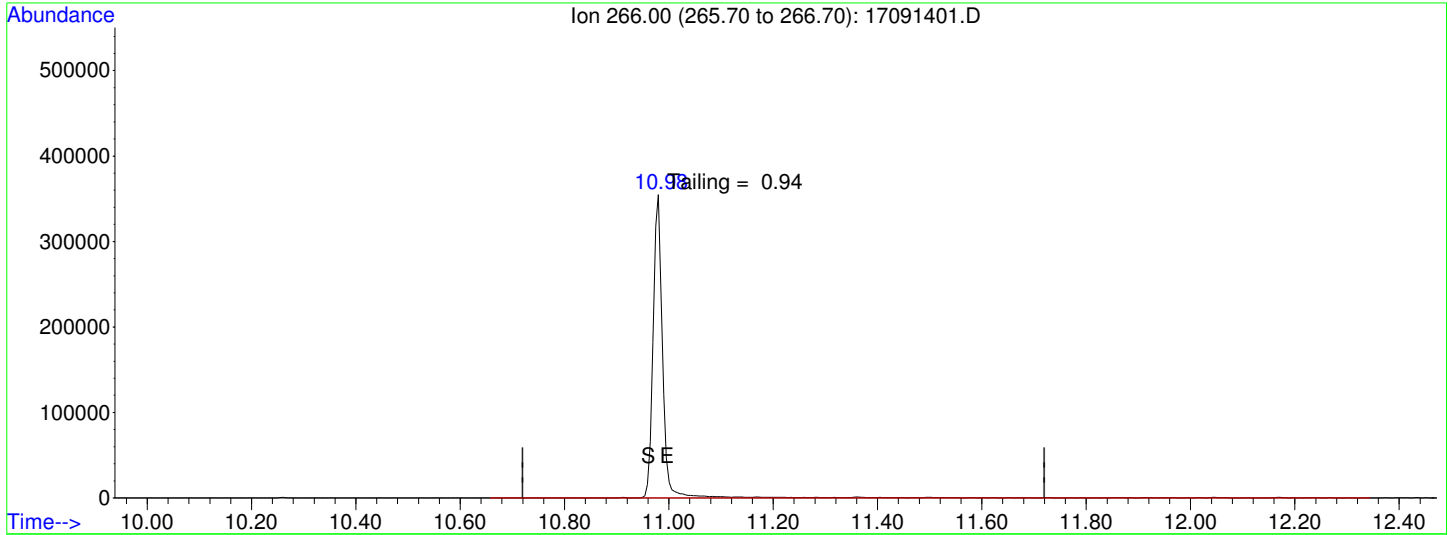
AutoFind: Scans 1016, 1017, 1018; Background Corrected with Scan 1010

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	37.5	78653	PASS
68	69	0.00	2	0.6	535	PASS
70	69	0.00	2	0.7	612	PASS
127	198	10	80	49.2	103216	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	209941	PASS
199	198	5	9	6.7	14090	PASS
275	198	10	60	32.3	67848	PASS
365	198	1	200	5.5	11634	PASS
441	442	0.01	24	15.8	55328	PASS
442	198	50	400	166.5	349547	PASS
443	442	15	24	19.3	67333	PASS

REVIEWED BY
 By Janice Whitt at 9:17:33 AM, 9/18/2017

Data File : C:\HPCHEM\1\DATA\170914\17091401.D Vial: 1
 Acq On : 14 Sep 2017 3:31 pm Operator:
 Sample : DFTPP-170914 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 14 15:50 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPLVI.M (RTE Integrator)
 Title :
 Last Update : Thu Sep 07 09:50:49 2017
 Response via : Single Level Calibration



TIC: 17091401.D

(1) Pentachlorophenol

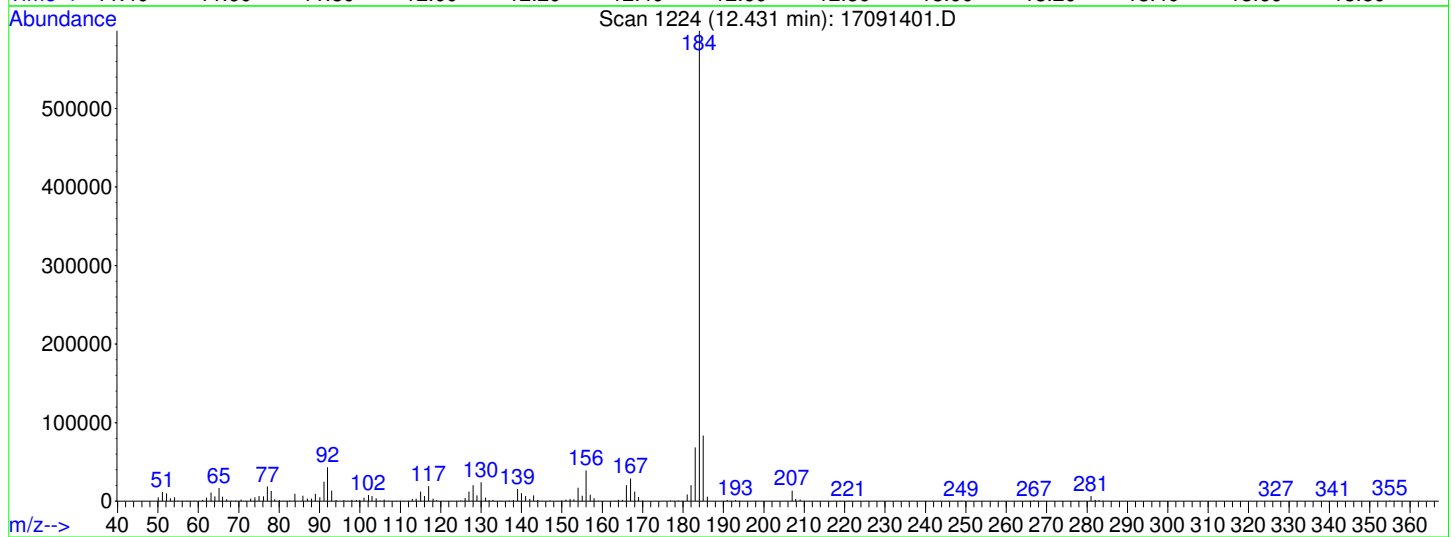
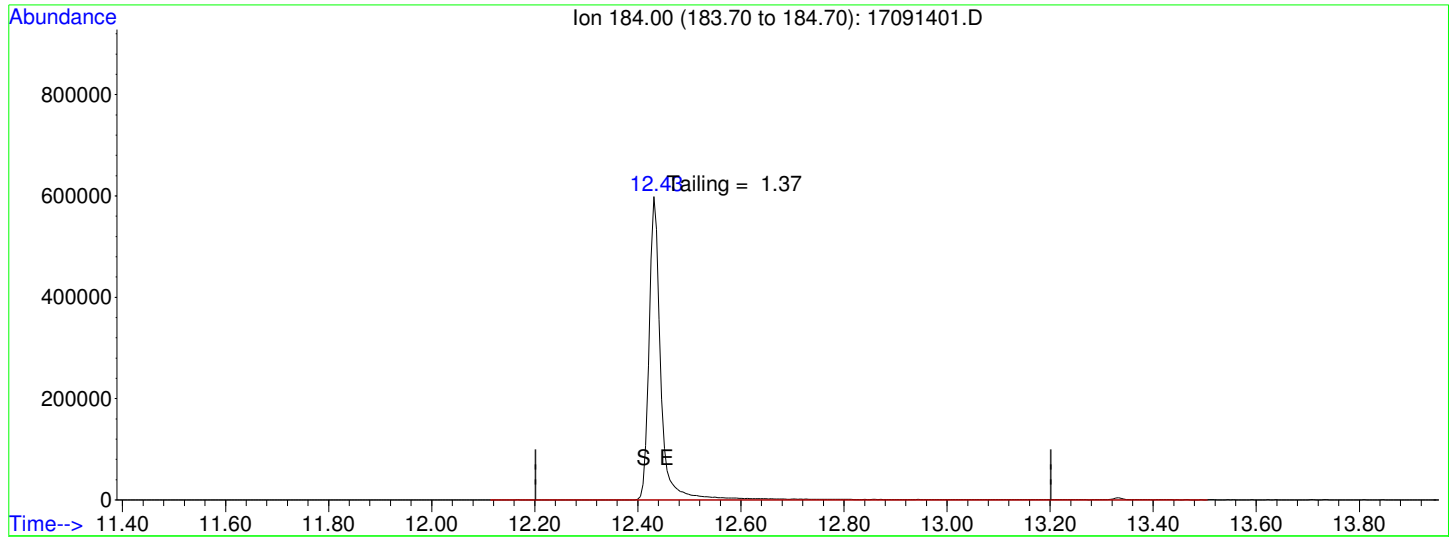
10.98min 77.565

response 447831 Qvalue 100

Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\170914\17091401.D Vial: 1
 Acq On : 14 Sep 2017 3:31 pm Operator:
 Sample : DFTPP-170914 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 14 15:50 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPLVI.M (RTE Integrator)
 Title :
 Last Update : Thu Sep 07 09:50:49 2017
 Response via : Single Level Calibration



TIC: 17091401.D

(2) Benzidine

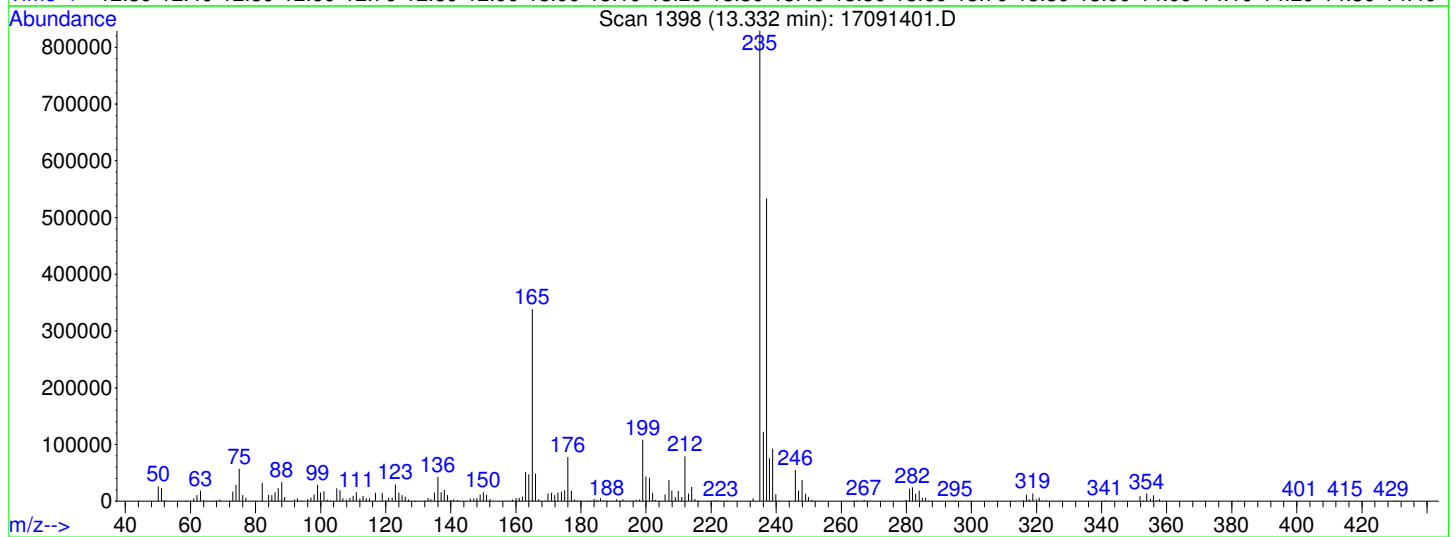
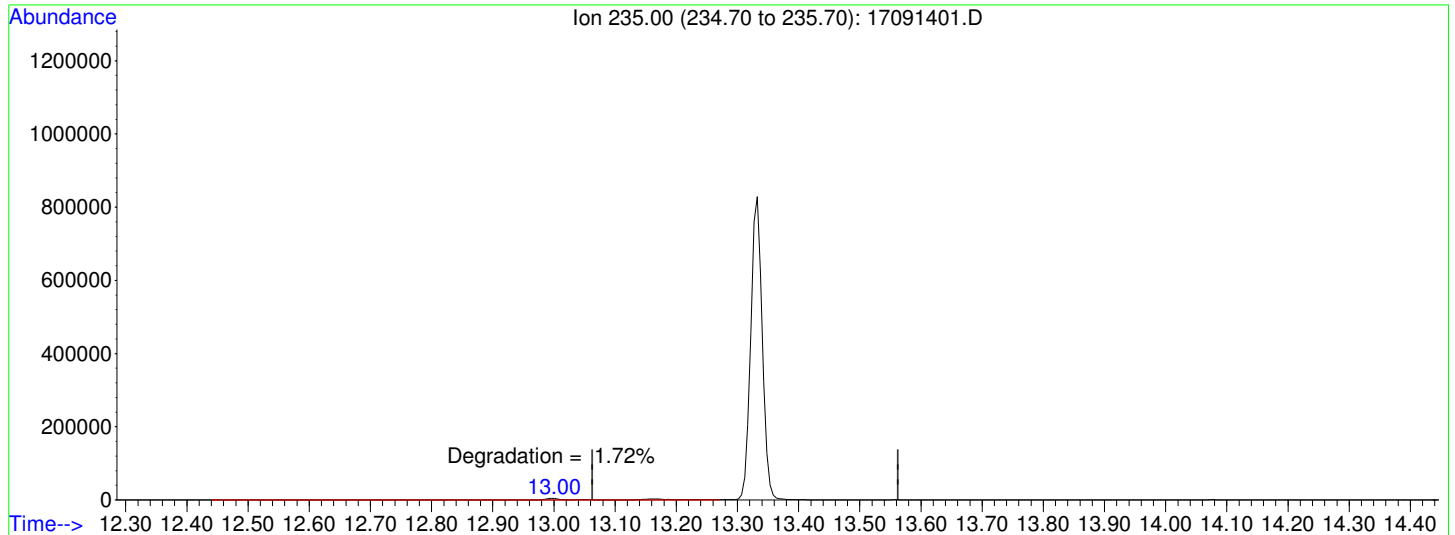
12.43min 57.877

response 941057 Qvalue 100

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\170914\17091401.D Vial: 1
 Acq On : 14 Sep 2017 3:31 pm Operator:
 Sample : DFTPP-170914 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 14 15:50 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPLVI.M (RTE Integrator)
 Title :
 Last Update : Thu Sep 07 09:50:49 2017
 Response via : Single Level Calibration



TIC: 17091401.D

(7) DDT		
13.33min	65.388	
response	1081722	Qvalue 100
Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

REVIEWED BY
 By Janice Whitt at 9:17:41 AM, 9/18/2017

Data File : C:\HPCHEM\1\DATA\170914\17091402.D Vial: 2
 Acq On : 14 Sep 2017 3:58 pm Operator:
 Sample : ICV-170914 Inst : GC/MS #4
 Misc : ICV Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 15 9:15 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Wed Sep 13 09:26:26 2017
 Response via : Initial Calibration
 DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.06	152	3987381	4.00	mg/kg	91
22) Naphthalene-d8	8.15	136	11378931	4.00	mg/kg	94
42) Acenaphthene-d10	9.76	164	5455432	4.00	mg/kg	91
65) Phenanthrene-d10	11.14	188	8730412	4.00	mg/kg	91
80) Chrysene-d12	13.95	240	12408004	4.00	mg/kg	96
89) Perylene-d12	15.68	264	10684300	4.00	mg/kg	98

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol	6.14	112	2170708	2.47	mg/kg	0.03
Spiked Amount	4.000	Range 20 - 120	Recovery	=	61.75%	
9) Phenol-d5	6.77	99	2658484	2.56	mg/kg	0.00
Spiked Amount	4.000	Range 20 - 120	Recovery	=	64.00%	
23) Nitrobenzene-d5	7.53	82	2365253	2.66	mg/kg	0.00
Spiked Amount	4.000	Range 41 - 120	Recovery	=	66.50%	
47) 2-Fluorobiphenyl	9.12	172	4742653	2.62	mg/kg	0.00
Spiked Amount	4.000	Range 48 - 120	Recovery	=	65.50%	
69) 2,4,6-Tribromophenol	10.50	330	865808	2.22	mg/kg	0.00
Spiked Amount	4.000	Range 42 - 124	Recovery	=	55.50%	
83) 4-Terphenyl-d14	12.69	244	5270856	2.30	mg/kg	0.00
Spiked Amount	4.000	Range 51 - 135	Recovery	=	57.50%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.52	74	961934	2.414	mg/kg	91
3) Pyridine	4.55	79	1939814	2.467	mg/kg	98
4) N-nitrosodiethylamine	6.31	102	951018	2.518	mg/kg	91
5) Benzaldehyde	6.74	106	1179214	2.435	mg/kg	97
6) Aniline	6.82	93	2141877	2.261	mg/kg	98
8) bis(2-Chloroethyl)ether	6.84	63	1487268	2.633	mg/kg	99
10) Phenol	6.78	94	2520623	2.621	mg/kg	97
11) 2-Chlorophenol	6.91	128	2471938	2.618	mg/kg	98
12) 1,3-Dichlorobenzene	7.02	146	2898884	2.494	mg/kg	99
13) 1,4-Dichlorobenzene	7.07	146	2618070	2.110	mg/kg	99
14) 1,2-Dichlorobenzene	7.21	146	2849082	2.530	mg/kg	98
15) Benzyl alcohol	7.16	108	1278250	3.031	mg/kg	97
16) bis(2-chloroisopropyl)...	7.27	45	2709479	2.551	mg/kg	99
17) 2-Methylphenol	7.25	108	1855842	2.380	mg/kg	99
18) Hexachloroethane	7.48	117	1145434	2.685	mg/kg	98
19) N-Nitrosodi-n-propylamine	7.39	70	1462667	2.826	mg/kg	99
20) 4-Methylphenol	7.37	108	1951896	2.738	mg/kg	98
21) Acetophenone	7.39	105	3096534	2.817	mg/kg	98
24) Nitrobenzene	7.54	77	2137110	2.653	mg/kg	97
25) Isophorone	7.74	82	3344478	2.687	mg/kg	99
26) 2-Nitrophenol	7.81	139	1236901	2.308	mg/kg	92
27) 2,4-Dimethylphenol	7.83	107	1721125	2.396	mg/kg	97
28) bis(2-Chloroethoxy)methane	7.91	93	2194200	2.562	mg/kg	99
29) Benzoic acid	7.93	105	1069873	2.044	mg/kg	97
30) 2,4-Dichlorophenol	8.02	162	1833800	2.508	mg/kg	99
31) 1,2,4-Trichlorobenzene	8.10	180	2410467	2.398	mg/kg	99
32) Naphthalene	8.17	128	6535097	2.444	mg/kg	99
33) 4-Chloroaniline	8.21	127	2194686	2.576	mg/kg	100
34) 2,6-Dichlorophenol	8.22	162	1867046	2.552	mg/kg	99
35) Hexachlorobutadiene	8.29	225	1551252	2.557	mg/kg	98
36) N-nitrosodi-n-butylamine	8.50	116	259935	2.384	mg/kg	98
37) Caprolactam	8.54	113	418163	2.311	mg/kg	93
38) 4-Chloro-3-methylphenol	8.63	107	1287541	2.656	mg/kg	94
39) 1,2,4,5-Tetrachlorobenzene	8.96	216	2441105	2.539	mg/kg	100
40) 2-Methylnaphthalene	8.78	142	4095384	2.496	mg/kg	98
41) 1-Methylnaphthalene	8.88	142	4013929	2.518	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170914\17091402.D

Vial: 2

Acq On : 14 Sep 2017 3:58 pm

Operator:

Sample : ICV-170914

Inst : GC/MS #4

Misc : ICV

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:15 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

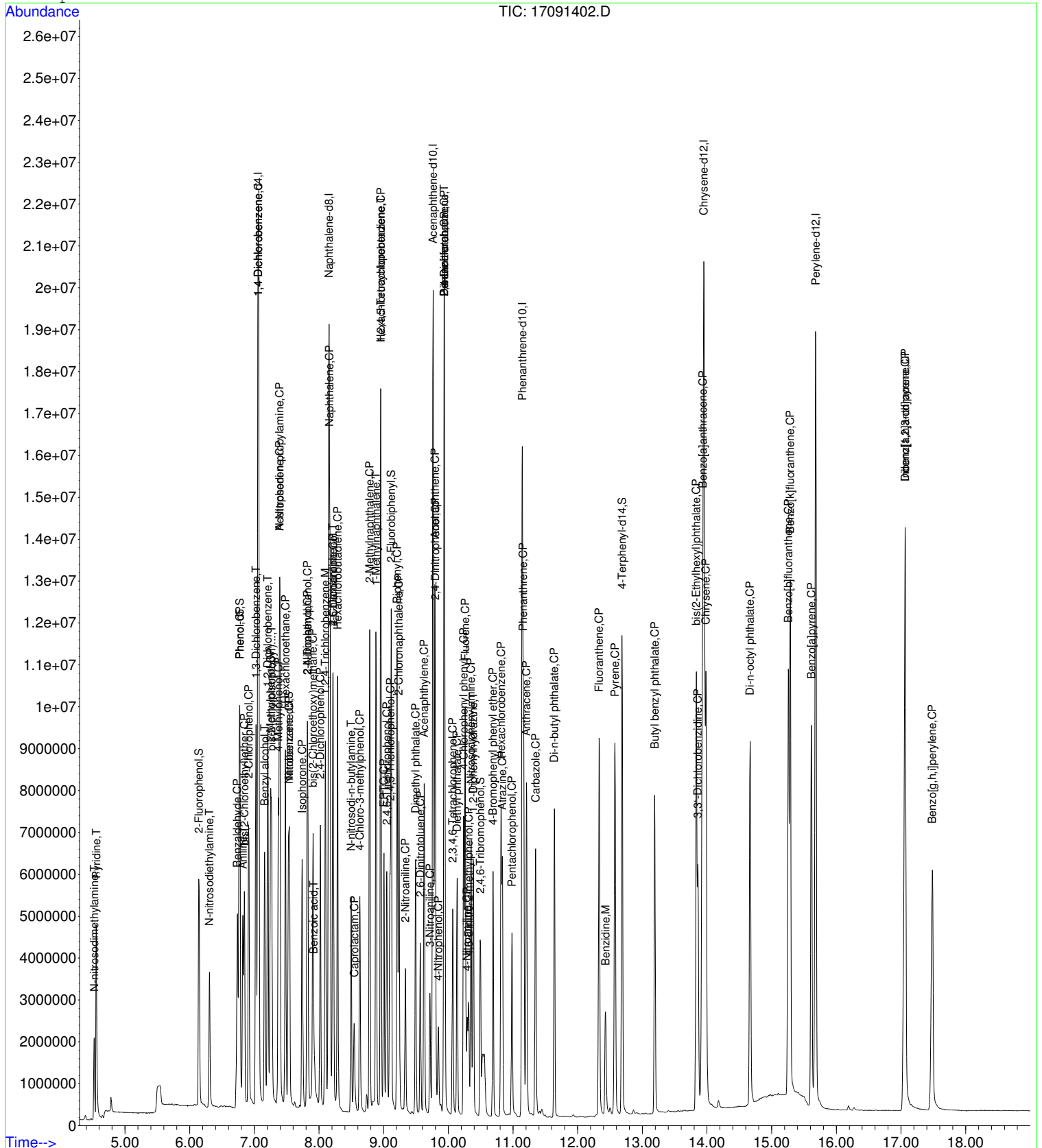
Response via : Initial Calibration

DataAcq Meth : SV170911

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.96	237	1505809	2.283	mg/kg	99
44) EPTC	9.00	128	1133021	2.717	mg/kg	99
45) 2,4,6-Trichlorophenol	9.05	196	1127112	2.407	mg/kg	99
46) 2,4,5-Trichlorophenol	9.10	196	1198341	2.369	mg/kg	99
48) Biphenyl	9.21	154	4450908	2.613	mg/kg	98
49) 2-Chloronaphthalene	9.24	162	3488312	2.560	mg/kg	98
50) 2-Nitroaniline	9.34	138	915813	2.484	mg/kg	95
51) Acenaphthylene	9.63	152	4551126	2.598	mg/kg	98
52) Dimethyl phthalate	9.49	163	3225637	2.634	mg/kg	99
53) 2,6-Dinitrotoluene	9.57	165	731178	2.375	mg/kg	90
54) Acenaphthene	9.79	153	3634083	2.548	mg/kg	99
55) 3-Nitroaniline	9.71	138	627131	2.317	mg/kg	89
56) 2,4-Dinitrophenol	9.80	184	348274	1.968	mg/kg	96
57) Dibenzofuran	9.94	168	5028207	2.718	mg/kg	98
58) 2,4-Dinitrotoluene	9.93	165	1069920	2.465	mg/kg	95
59) 4-Nitrophenol	9.85	109	320198	2.678	mg/kg	97
60) 2,3,4,6-Tetrachlorophenol	10.07	232	899966	2.264	mg/kg	95
61) Fluorene	10.26	166	3674026	2.595	mg/kg	100
62) 4-Chlorophenyl phenyl ...	10.24	204	1812815	2.480	mg/kg	99
63) Diethyl phthalate	10.14	149	2699436	2.549	mg/kg	98
64) 4-Nitroaniline	10.29	138	498508	2.163	mg/kg	88
66) 4,6-Dinitro-2-methylphenol	10.31	198	532900	2.139	mg/kg	91
67) 1,2-Diphenylhydrazine	10.38	77	2826053	2.805	mg/kg	96
68) n-Nitrosodiphenylamine	10.35	169	2111748	2.486	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.69	248	1124867	2.461	mg/kg	96
71) Atrazine	10.84	200	970382	2.799	mg/kg	99
72) Hexachlorobenzene	10.82	284	1536369	2.529	mg/kg	97
73) Pentachlorophenol	10.98	266	829533	2.265	mg/kg	98
74) Phenanthrene	11.16	178	4695007	2.454	mg/kg	99
75) Anthracene	11.21	178	4470562	2.493	mg/kg	99
76) Pentachlorobenzene	9.94	250	2401436	2.691	mg/kg	99
77) Carbazole	11.35	167	4003887	2.554	mg/kg	98
78) Di-n-butyl phthalate	11.64	149	4689224	2.512	mg/kg	98
79) Fluoranthene	12.33	202	5475100	2.463	mg/kg	98
81) Benzidine	12.43	184	1617815	2.095	mg/kg	99
82) Pyrene	12.58	202	5687886	2.288	mg/kg	97
84) Butyl benzyl phthalate	13.19	149	2323046	2.337	mg/kg	95
85) 3,3'-Dichlorobenzidine	13.86	252	2314092	2.362	mg/kg	100
86) Benzo[a]anthracene	13.93	228	6816404	2.274	mg/kg	99
87) Chrysene	13.98	228	6304709	2.386	mg/kg	99
88) bis(2-Ethylhexyl)phthalate	13.83	149	3518055	2.580	mg/kg	96
90) Di-n-octyl phthalate	14.67	149	5541671	2.332	mg/kg	98
91) Benzo[b]fluoranthene	15.26	252	6308613	2.514	mg/kg	98
92) Benzo[k]fluoranthene	15.29	252	6715947	2.726	mg/kg	99
93) Benzo[a]pyrene	15.62	252	5875591	2.707	mg/kg	99
94) Indeno[1,2,3-cd]pyrene	17.06	276	7288172	2.649	mg/kg	99
95) Dibenz[a,h]anthracene	17.07	278	6275711	2.648	mg/kg	99
96) Benzo[g,h,i]perylene	17.48	276	5375723	2.512	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170914\17091402.D Vial: 2
Acq On : 14 Sep 2017 3:58 pm Operator:
Sample : ICV-170914 Inst : GC/MS #4
Misc : ICV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 9:15 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170914\17091403.D

Vial: 3

Acq On : 14 Sep 2017 4:27 pm

Operator:

Sample : LCS-82373

Inst : GC/MS #4

Misc : LCS

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:15 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.07	152	3896521	4.00	mg/kg	88
22) Naphthalene-d8	8.14	136	11665109	4.00	mg/kg	97
42) Acenaphthene-d10	9.76	164	5973945	4.00	mg/kg	100
65) Phenanthrene-d10	11.14	188	8970337	4.00	mg/kg	93
80) Chrysene-d12	13.95	240	12225799	4.00	mg/kg	94
89) Perylene-d12	15.72	264	10802759	4.00	mg/kg	99

System Monitoring Compounds

7) 2-Fluorophenol		6.23	112	679315	0.79	mg/kg	0.11
Spiked Amount	4.000	Range	20 - 120	Recovery	=	19.75%#	
9) Phenol-d5		6.78	99	883137	0.87	mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	21.75%	
23) Nitrobenzene-d5		7.51	82	749315	0.82	mg/kg	-0.02
Spiked Amount	4.000	Range	41 - 120	Recovery	=	20.50%#	
47) 2-Fluorobiphenyl		9.11	172	1614604	0.81	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	20.25%#	
69) 2,4,6-Tribromophenol		10.49	330	293598	0.76	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	19.00%#	
83) 4-Terphenyl-d14		12.68	244	1721482	0.76	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	19.00%#	

Target Compounds

						Qvalue
4) N-nitrosodiethylamine	6.37	102	673295	1.824	mg/kg	89
5) Benzaldehyde	6.77	106	1193755	2.540	mg/kg	96
6) Aniline	6.86	93	2261557	2.442	mg/kg#	74
8) bis(2-Chloroethyl)ether	6.86	63	1019159	1.846	mg/kg	98
10) Phenol	6.79	94	1724137	1.834	mg/kg	98
11) 2-Chlorophenol	6.93	128	1580649	1.713	mg/kg	97
12) 1,3-Dichlorobenzene	7.04	146	1772062	1.560	mg/kg	99
13) 1,4-Dichlorobenzene	7.08	146	1707588	1.408	mg/kg	98
14) 1,2-Dichlorobenzene	7.21	146	1827652	1.661	mg/kg	98
15) Benzyl alcohol	7.15	108	923926	2.275	mg/kg	97
16) bis(2-chloroisopropyl)...	7.25	45	1854478	1.787	mg/kg	96
17) 2-Methylphenol	7.23	108	1342957	1.763	mg/kg	99
18) Hexachloroethane	7.47	117	673306	1.615	mg/kg	93
19) N-Nitrosodi-n-propylamine	7.37	70	1051071	2.078	mg/kg	96
20) 4-Methylphenol	7.35	108	1340393	1.924	mg/kg	98
21) Acetophenone	7.37	105	2310562	2.151	mg/kg	97
24) Nitrobenzene	7.53	77	1463891	1.773	mg/kg	95
25) Isophorone	7.72	82	2535646	1.987	mg/kg	97
26) 2-Nitrophenol	7.80	139	822861	1.516	mg/kg	89
27) 2,4-Dimethylphenol	7.81	107	1354218	1.839	mg/kg	95
28) bis(2-Chloroethoxy)methane	7.90	93	1561733	1.779	mg/kg	99
29) Benzoic acid	7.90	105	705592	1.371	mg/kg	85
30) 2,4-Dichlorophenol	8.01	162	1263116	1.685	mg/kg	99
31) 1,2,4-Trichlorobenzene	8.09	180	1591682	1.545	mg/kg	99
32) Naphthalene	8.16	128	4642426	1.693	mg/kg	97
33) 4-Chloroaniline	8.20	127	1044951	1.202	mg/kg	99
34) 2,6-Dichlorophenol	8.21	162	1246745	1.662	mg/kg	99
35) Hexachlorobutadiene	8.28	225	1009168	1.623	mg/kg	100
36) N-nitrosodi-n-butylamine	8.49	116	206056	1.868	mg/kg	100
37) Caprolactam	8.53	113	370616	1.969	mg/kg	93
38) 4-Chloro-3-methylphenol	8.62	107	982928	1.978	mg/kg	93
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	1692086	1.717	mg/kg	100
40) 2-Methylnaphthalene	8.78	142	2890935	1.719	mg/kg	99
41) 1-Methylnaphthalene	8.87	142	3049796	1.866	mg/kg	99
43) Hexachlorocyclopentadiene	8.95	237	1118072	1.607	mg/kg	99
44) EPTC	9.00	128	940213	2.059	mg/kg	99

(#) = qualifier out of range (m) = manual integration
 17091403.D SV170911.M Fri Sep 15 09:15:25 2017

Data File : C:\HPCHEM\1\DATA\170914\17091403.D

Vial: 3

Acq On : 14 Sep 2017 4:27 pm

Operator:

Sample : LCS-82373

Inst : GC/MS #4

Misc : LCS

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:15 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

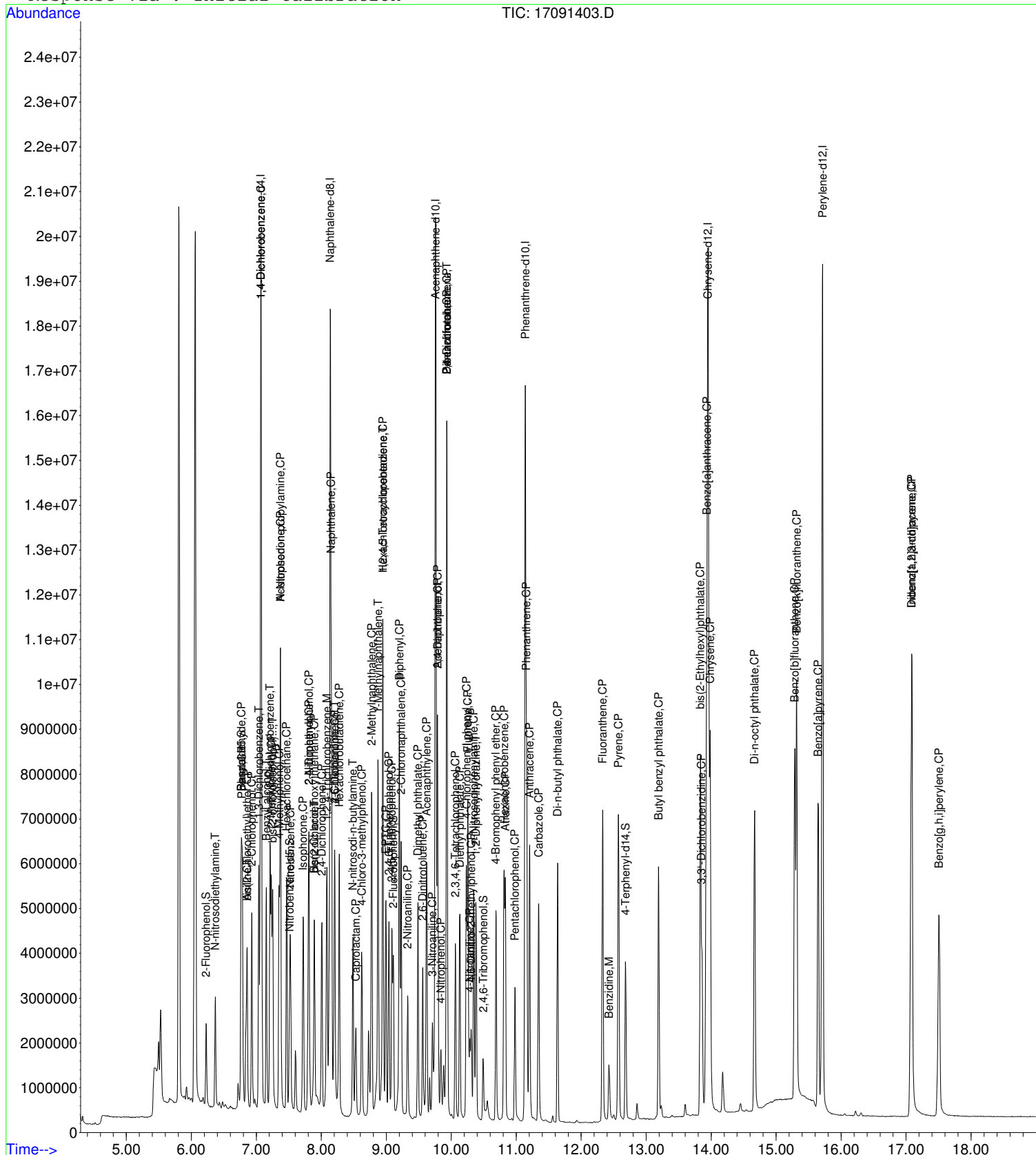
Response via : Initial Calibration

DataAcq Meth : SV170911

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
45) 2,4,6-Trichlorophenol	9.04	196	855262	1.694	mg/kg	98
46) 2,4,5-Trichlorophenol	9.09	196	869941	1.612	mg/kg	99
48) Biphenyl	9.20	154	3683845	1.975	mg/kg	99
49) 2-Chloronaphthalene	9.23	162	2677648	1.794	mg/kg	98
50) 2-Nitroaniline	9.33	138	737237	1.884	mg/kg	92
51) Acenaphthylene	9.62	152	3594755	1.874	mg/kg	98
52) Dimethyl phthalate	9.49	163	2709551	2.020	mg/kg	99
53) 2,6-Dinitrotoluene	9.56	165	596429	1.790	mg/kg	93
54) Acenaphthene	9.79	153	2839553	1.818	mg/kg	100
55) 3-Nitroaniline	9.71	138	409951	1.415	mg/kg	92
56) 2,4-Dinitrophenol	9.80	184	223058	1.280	mg/kg	93
57) Dibenzofuran	9.94	168	3866845	1.909	mg/kg	97
58) 2,4-Dinitrotoluene	9.93	165	830228	1.832	mg/kg	91
59) 4-Nitrophenol	9.84	109	241174	1.959	mg/kg	96
60) 2,3,4,6-Tetrachlorophenol	10.06	232	728646	1.691	mg/kg	97
61) Fluorene	10.26	166	2914778	1.880	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.23	204	1429210	1.786	mg/kg	97
63) Diethyl phthalate	10.13	149	2192729	1.891	mg/kg	98
64) 4-Nitroaniline	10.29	138	444691	1.777	mg/kg	89
66) 4,6-Dinitro-2-methylphenol	10.31	198	387616	1.584	mg/kg	95
67) 1,2-Diphenylhydrazine	10.38	77	2235976	2.160	mg/kg	95
68) n-Nitrosodiphenylamine	10.35	169	1692130	1.939	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.69	248	895288	1.906	mg/kg	97
71) Atrazine	10.83	200	870430	2.443	mg/kg	97
72) Hexachlorobenzene	10.81	284	1211748	1.941	mg/kg	99
73) Pentachlorophenol	10.98	266	588553	1.611	mg/kg	97
74) Phenanthrene	11.16	178	3736247	1.901	mg/kg	98
75) Anthracene	11.21	178	3404761	1.848	mg/kg	98
76) Pentachlorobenzene	9.93	250	1786145	1.948	mg/kg	98
77) Carbazole	11.35	167	3073892	1.908	mg/kg	98
78) Di-n-butyl phthalate	11.64	149	3666106	1.912	mg/kg	99
79) Fluoranthene	12.33	202	4282977	1.875	mg/kg	96
81) Benzidine	12.43	184	864471	1.136	mg/kg	99
82) Pyrene	12.57	202	4412122	1.801	mg/kg	97
84) Butyl benzyl phthalate	13.19	149	1779004	1.843	mg/kg	95
85) 3,3'-Dichlorobenzidine	13.86	252	1394537	1.445	mg/kg	99
86) Benzo[a]anthracene	13.93	228	5318580	1.801	mg/kg	99
87) Chrysene	13.98	228	4795593	1.842	mg/kg	98
88) bis(2-Ethylhexyl)phthalate	13.83	149	2734421	2.035	mg/kg	94
90) Di-n-octyl phthalate	14.67	149	4303657	1.813	mg/kg	98
91) Benzo[b]fluoranthene	15.29	252	5073726	2.000	mg/kg	97
92) Benzo[k]fluoranthene	15.32	252	5106670	2.050	mg/kg	97
93) Benzo[a]pyrene	15.65	252	4372090	1.992	mg/kg	98
94) Indeno[1,2,3-cd]pyrene	17.09	276	5653841	2.032	mg/kg	97
95) Dibenz[a,h]anthracene	17.09	278	4866189	2.031	mg/kg	99
96) Benzo[g,h,i]perylene	17.51	276	4179794	1.932	mg/kg	98

Data File : C:\HPCHEM\1\DATA\170914\17091403.D Vial: 3
Acq On : 14 Sep 2017 4:27 pm Operator:
Sample : LCS-82373 Inst : GC/MS #4
Misc : LCS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 9:15 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170914\17091405.D Vial: 5
 Acq On : 14 Sep 2017 5:20 pm Operator:
 Sample : MB-82373 Inst : GC/MS #4
 Misc : MBLK Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 15 9:15 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Wed Sep 13 09:26:26 2017
 Response via : Initial Calibration
 DataAcq Meth : SV170911

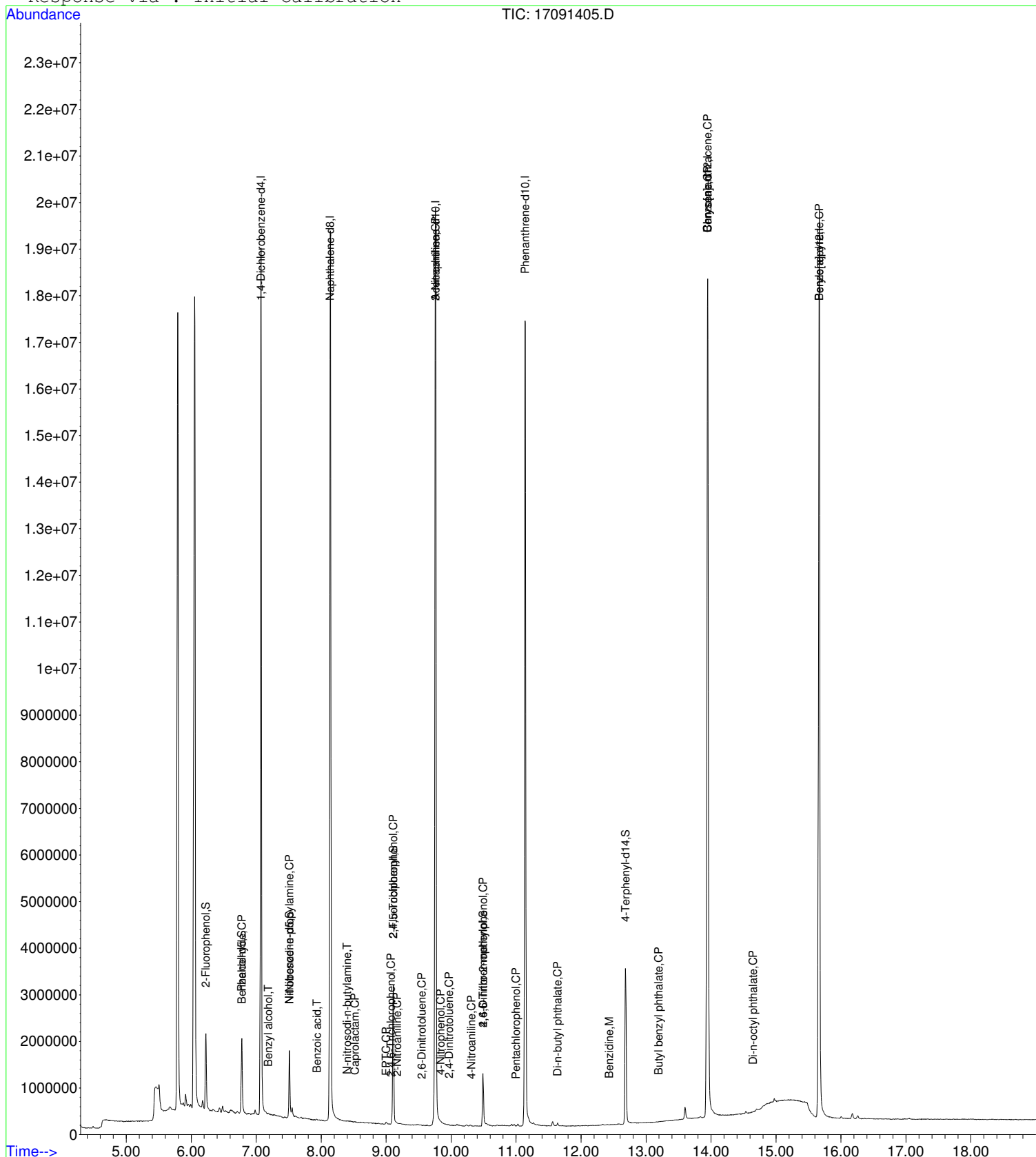
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.07	152	3928769	4.00	mg/kg	89
22) Naphthalene-d8	8.14	136	11481983	4.00	mg/kg	95
42) Acenaphthene-d10	9.76	164	5987094	4.00	mg/kg	100
65) Phenanthrene-d10	11.14	188	9220494	4.00	mg/kg	96
80) Chrysene-d12	13.95	240	11361633	4.00	mg/kg	88
89) Perylene-d12	15.67	264	11366255	4.00	mg/kg	104

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.22	112	610012	0.70	mg/kg	0.11
Spiked Amount	4.000	Range	20 - 120	Recovery	=	17.50%#	
9) Phenol-d5		6.78	99	708281	0.69	mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	17.25%#	
23) Nitrobenzene-d5		7.51	82	629146	0.70	mg/kg	-0.01
Spiked Amount	4.000	Range	41 - 120	Recovery	=	17.50%#	
47) 2-Fluorobiphenyl		9.11	172	1304666	0.66	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	16.50%#	
69) 2,4,6-Tribromophenol		10.49	330	224292	0.57	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	14.25%#	
83) 4-Terphenyl-d14		12.68	244	1669714	0.80	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	20.00%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
5) Benzaldehyde		6.79	106	777	0.011	mg/kg#	1
15) Benzyl alcohol		7.19	108	203	0.047	mg/kg#	20
19) N-Nitrosodi-n-propylamine		7.51	70	80017	0.157	mg/kg#	75
29) Benzoic acid		7.93	105	1326	0.075	mg/kg#	1
36) N-Nitrosodi-n-butylamine		8.40	116	55	0.023	mg/kg#	1
37) Caprolactam		8.53	113	157	0.033	mg/kg#	40
44) EPTC		9.01	128	97	0.000	mg/kg#	28
45) 2,4,6-Trichlorophenol		9.07	196	45	0.019	mg/kg#	11
46) 2,4,5-Trichlorophenol		9.11	196	56	0.016	mg/kg#	12
50) 2-Nitroaniline		9.18	138	521	0.025	mg/kg#	51
53) 2,6-Dinitrotoluene		9.55	165	99	0.023	mg/kg#	40
55) 3-Nitroaniline		9.76	138	1106	0.044	mg/kg#	1
58) 2,4-Dinitrotoluene		9.97	165	284	0.030	mg/kg#	43
59) 4-Nitrophenol		9.85	109	76	0.053	mg/kg#	17
64) 4-Nitroaniline		10.32	138	49	0.039	mg/kg#	25
66) 4,6-Dinitro-2-methylphenol		10.49	198	678	0.048	mg/kg#	66
73) Pentachlorophenol		10.99	266	237	0.028	mg/kg#	70
78) Di-n-butyl phthalate		11.64	149	36882	0.019	mg/kg	98
81) Benzidine		12.43	184	166	0.033	mg/kg	69
84) Butyl benzyl phthalate		13.19	149	1518	0.018	mg/kg#	68
86) Benzo[a]anthracene		13.95	228	32278	0.012	mg/kg#	73
87) Chrysene		13.95	228	32278	0.013	mg/kg#	70
90) Di-n-octyl phthalate		14.66	149	591	0.019	mg/kg	97
93) Benzo[a]pyrene		15.67	252	42187	0.018	mg/kg	89

Data File : C:\HPCHEM\1\DATA\170914\17091405.D Vial: 5
 Acq On : 14 Sep 2017 5:20 pm Operator:
 Sample : MB-82373 Inst : GC/MS #4
 Misc : MBLK Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 15 9:15 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Wed Sep 13 09:26:26 2017
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170914\17091406.D

Vial: 6

Acq On : 14 Sep 2017 5:46 pm

Operator:

Sample : 1709099-02A

Inst : GC/MS #4

Misc : SAMP

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:16 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.07	152	3459281	4.00	mg/kg	79
22) Naphthalene-d8	8.14	136	10057818	4.00	mg/kg	83
42) Acenaphthene-d10	9.76	164	5130273	4.00	mg/kg	86
65) Phenanthrene-d10	11.14	188	8812753	4.00	mg/kg	92
80) Chrysene-d12	13.95	240	11839359	4.00	mg/kg	91
89) Perylene-d12	15.67	264	10999381	4.00	mg/kg	101

System Monitoring Compounds

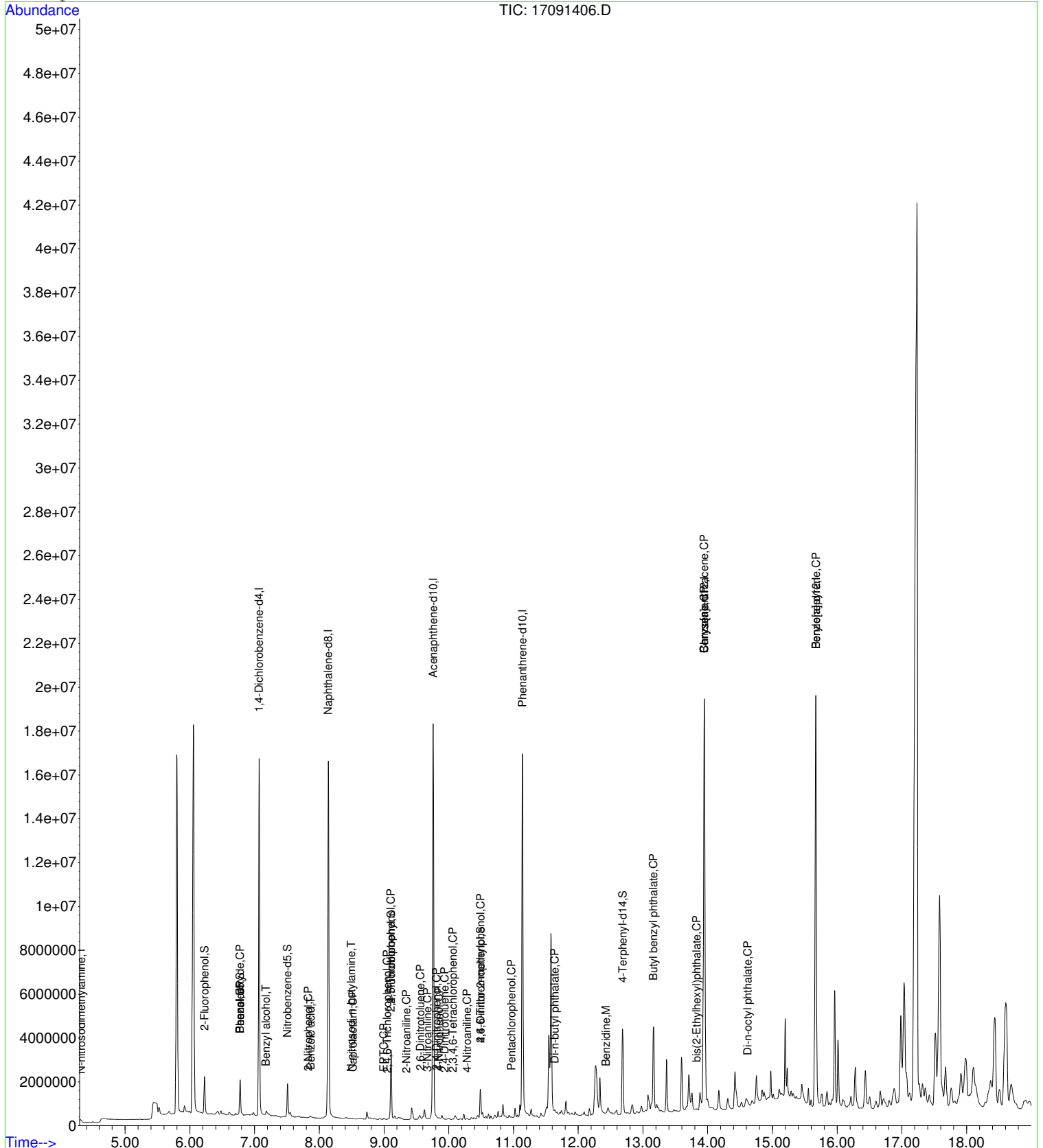
7) 2-Fluorophenol		6.23	112	636146	0.83	mg/kg	0.11
Spiked Amount	4.000	Range	20 - 120	Recovery	=	20.75%	
9) Phenol-d5		6.78	99	699916	0.78	mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	19.50%#	
23) Nitrobenzene-d5		7.51	82	667441	0.85	mg/kg	-0.02
Spiked Amount	4.000	Range	41 - 120	Recovery	=	21.25%#	
47) 2-Fluorobiphenyl		9.11	172	1378796	0.81	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	20.25%#	
69) 2,4,6-Tribromophenol		10.49	330	267944	0.71	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	17.75%#	
83) 4-Terphenyl-d14		12.69	244	1825777	0.83	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	20.75%#	

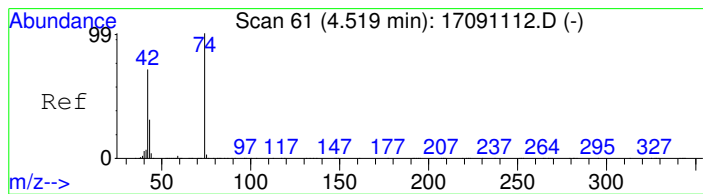
Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.33	74	34944	0.101	mg/kg#	13
5) Benzaldehyde	6.78	106	3918	0.018	mg/kg#	66
10) Phenol	6.78	94	10791	0.013	mg/kg#	1
15) Benzyl alcohol	7.17	108	985	0.049	mg/kg#	77
26) 2-Nitrophenol	7.82	139	51	0.022	mg/kg#	68
29) Benzoic acid	7.87	105	23577	0.125	mg/kg	84
36) N-nitrosodi-n-butylamine	8.49	116	59	0.023	mg/kg#	27
37) Caprolactam	8.52	113	525	0.035	mg/kg#	34
44) EPTC	8.99	128	753	0.002	mg/kg#	1
45) 2,4,6-Trichlorophenol	9.04	196	329	0.020	mg/kg#	81
46) 2,4,5-Trichlorophenol	9.10	196	51	0.016	mg/kg#	12
50) 2-Nitroaniline	9.34	138	121	0.024	mg/kg#	62
53) 2,6-Dinitrotoluene	9.57	165	49	0.023	mg/kg#	1
55) 3-Nitroaniline	9.68	138	3273	0.053	mg/kg#	14
56) 2,4-Dinitrophenol	9.82	184	54	0.065	mg/kg#	1
58) 2,4-Dinitrotoluene	9.94	165	173	0.030	mg/kg#	43
59) 4-Nitrophenol	9.85	109	190	0.054	mg/kg#	19
60) 2,3,4,6-Tetrachlorophenol	10.07	232	302	0.020	mg/kg	95
64) 4-Nitroaniline	10.29	138	741	0.043	mg/kg#	59
66) 4,6-Dinitro-2-methylphenol	10.49	198	439	0.048	mg/kg	84
73) Pentachlorophenol	10.98	266	807	0.030	mg/kg#	60
78) Di-n-butyl phthalate	11.64	149	45028	0.024	mg/kg	97
81) Benzidine	12.42	184	449	0.033	mg/kg	68
84) Butyl benzyl phthalate	13.16	149	5521	0.022	mg/kg#	1
86) Benzo[a]anthracene	13.94	228	43443	0.015	mg/kg	81
87) Chrysene	13.94	228	43443	0.017	mg/kg#	78
88) bis(2-Ethylhexyl)phthalate	13.83	149	15075	0.012	mg/kg	82
90) Di-n-octyl phthalate	14.62	149	400	0.019	mg/kg	71
93) Benzo[a]pyrene	15.67	252	40174	0.018	mg/kg	80

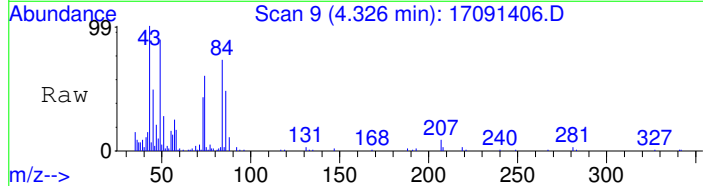
Data File : C:\HPCHEM\1\DATA\170914\17091406.D Vial: 6
Acq On : 14 Sep 2017 5:46 pm Operator:
Sample : 1709099-02A Inst : GC/MS #4
Misc : SAMP Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 9:16 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration

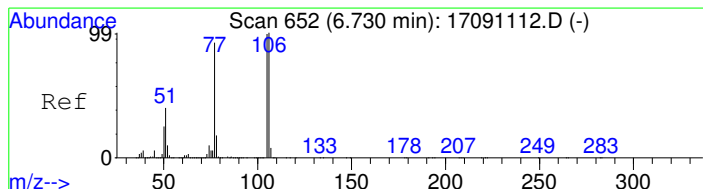
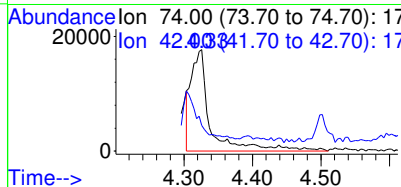
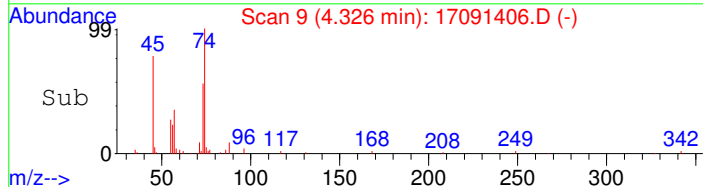




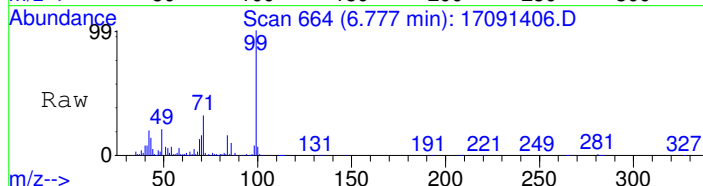
#2
 N-nitrosodimethylamine
 Concen: 0.101 mg/kg
 RT: 4.33 min Scan# 9
 Delta R.T. -0.15 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



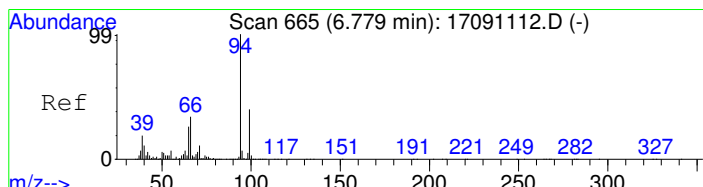
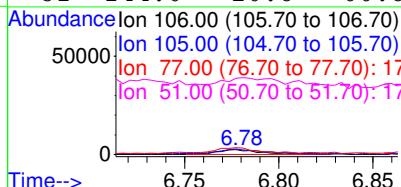
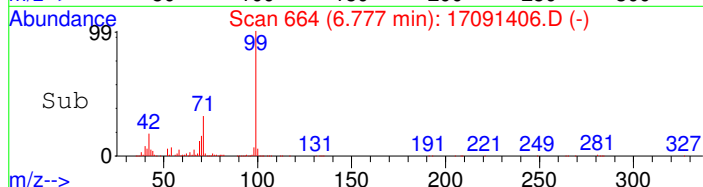
Tgt Ion: 74 Resp: 34944
 Ion Ratio Lower Upper
 74 100
 42 0.0 51.4 95.5#



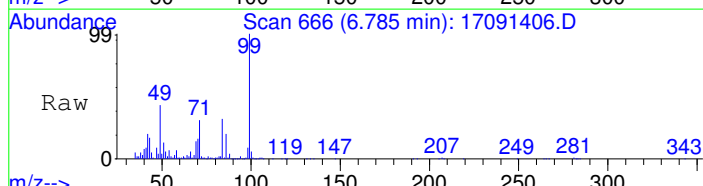
#5
 Benzaldehyde
 Concen: 0.018 mg/kg
 RT: 6.78 min Scan# 664
 Delta R.T. 0.06 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



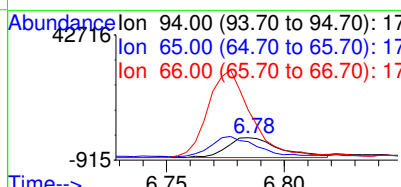
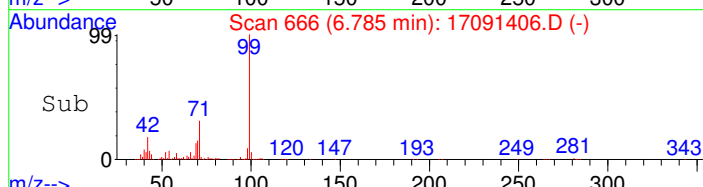
Tgt Ion: 106 Resp: 3918
 Ion Ratio Lower Upper
 106 100
 105 97.4 78.3 118.3
 77 103.8 72.8 112.8
 51 144.0 20.8 60.8#

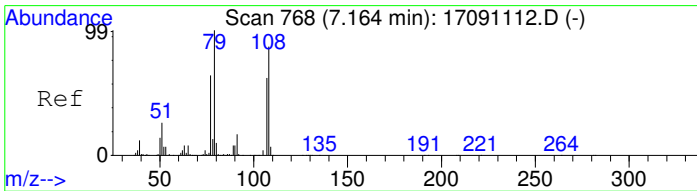


#10
 Phenol
 Concen: 0.013 mg/kg
 RT: 6.78 min Scan# 666
 Delta R.T. 0.02 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

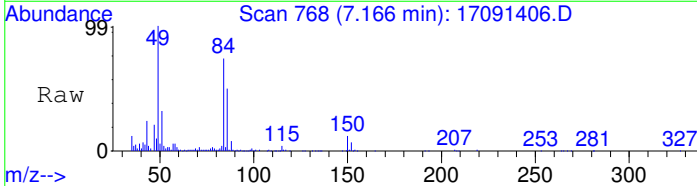


Tgt Ion: 94 Resp: 10791
 Ion Ratio Lower Upper
 94 100
 65 73.4 6.2 46.2#
 66 224.2 14.0 54.0#

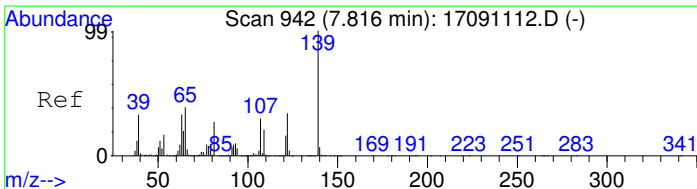
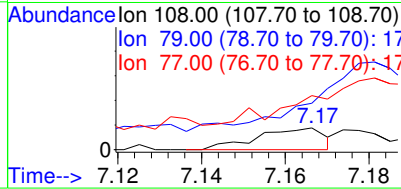
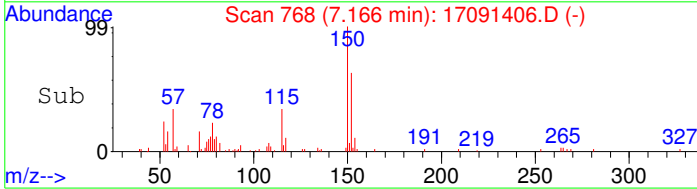




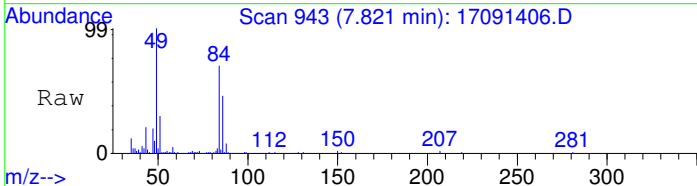
#15
 Benzyl alcohol
 Concen: 0.049 mg/kg
 RT: 7.17 min Scan# 768
 Delta R.T. 0.01 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



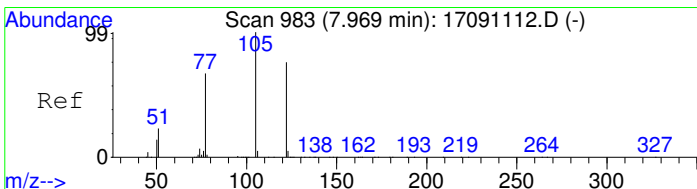
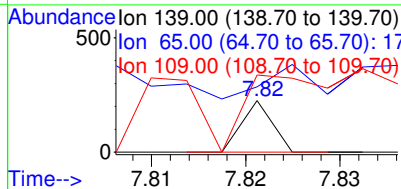
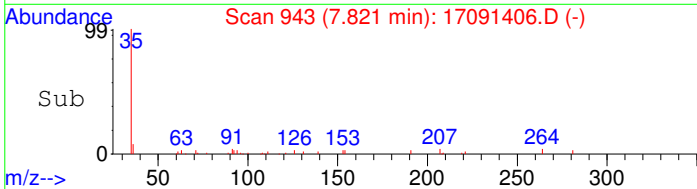
Tgt Ion	Resp	Lower	Upper
108	985		
108	100		
79	129.2	95.4	135.4
77	106.0	53.1	93.1#



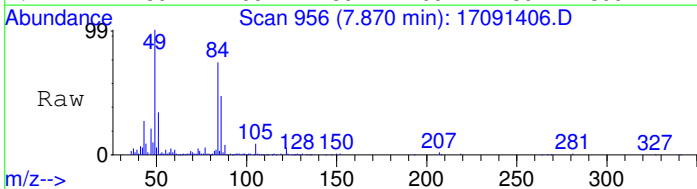
#26
 2-Nitrophenol
 Concen: 0.022 mg/kg
 RT: 7.82 min Scan# 943
 Delta R.T. 0.01 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



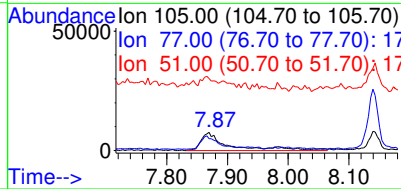
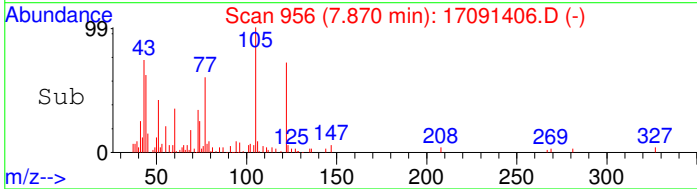
Tgt Ion	Resp	Lower	Upper
139	51		
139	100		
65	14.7	21.1	61.1#
109	25.8	0.6	40.6

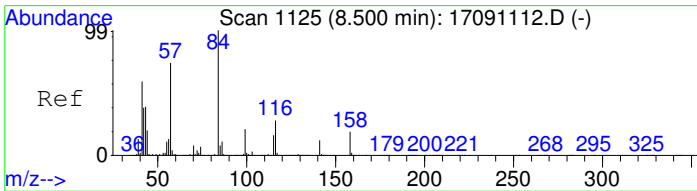


#29
 Benzoic acid
 Concen: 0.125 mg/kg
 RT: 7.87 min Scan# 956
 Delta R.T. -0.07 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

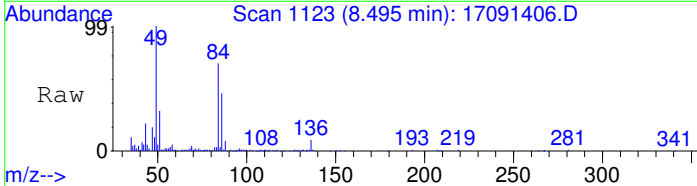


Tgt Ion	Resp	Lower	Upper
105	23577		
105	100		
77	56.8	38.7	98.7
51	43.8	3.8	63.8

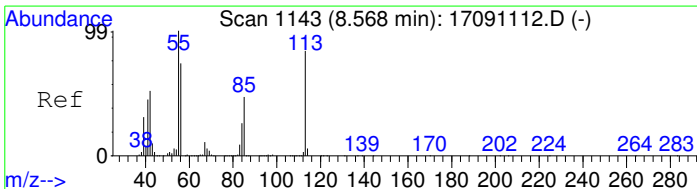
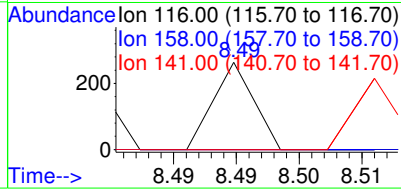
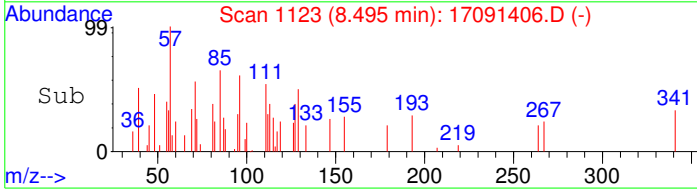




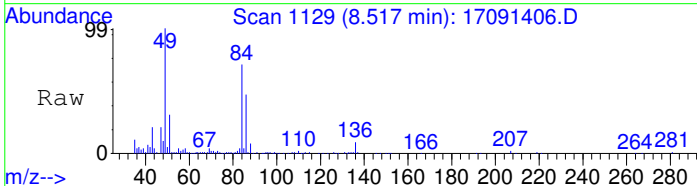
#36
 N-nitrosodi-n-butylamine
 Concen: 0.023 mg/kg
 RT: 8.49 min Scan# 1123
 Delta R.T. -0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



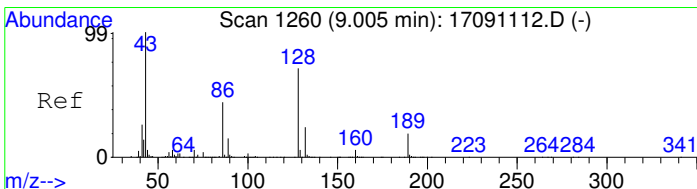
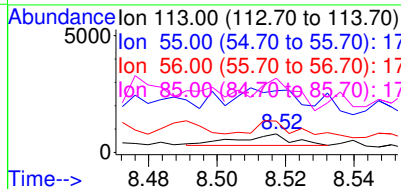
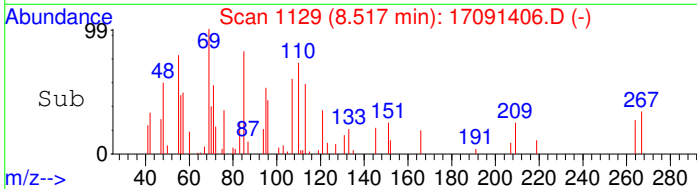
Tgt Ion:116 Resp: 59
 Ion Ratio Lower Upper
 116 100
 158 0.0 45.8 85.8#
 141 81.4 24.0 64.0#



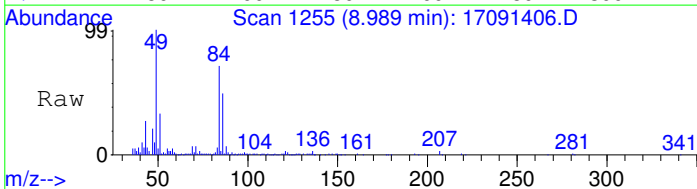
#37
 Caprolactam
 Concen: 0.035 mg/kg
 RT: 8.52 min Scan# 1129
 Delta R.T. -0.03 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



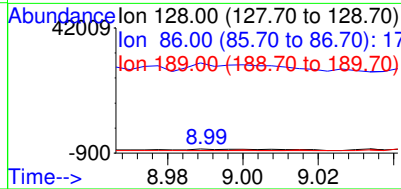
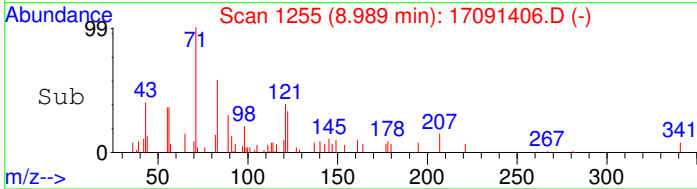
Tgt Ion:113 Resp: 525
 Ion Ratio Lower Upper
 113 100
 55 79.3 98.7 138.7#
 56 100.6 69.6 109.6
 85 215.0 35.6 75.6#

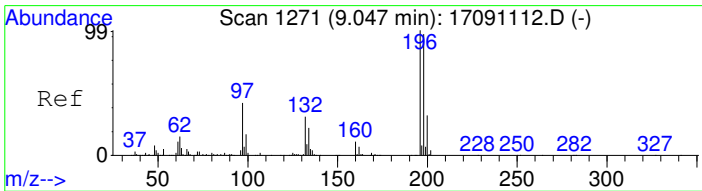


#44
 EPTC
 Concen: 0.002 mg/kg
 RT: 8.99 min Scan# 1255
 Delta R.T. -0.01 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

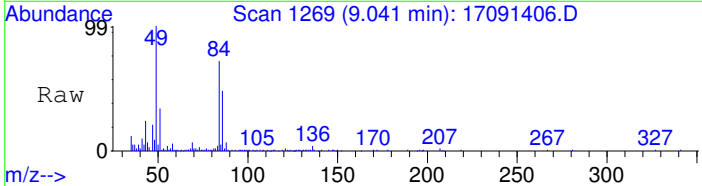


Tgt Ion:128 Resp: 753
 Ion Ratio Lower Upper
 128 100
 86 541.0 49.3 73.9#
 189 0.0 20.2 30.4#

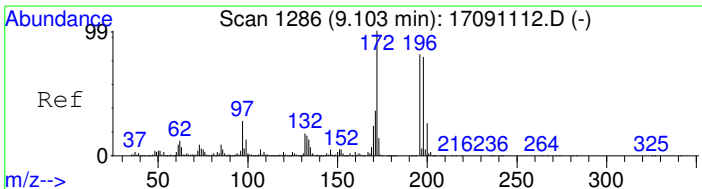
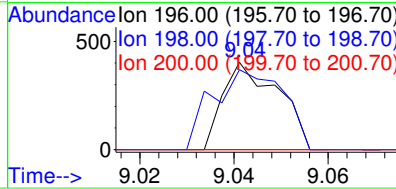
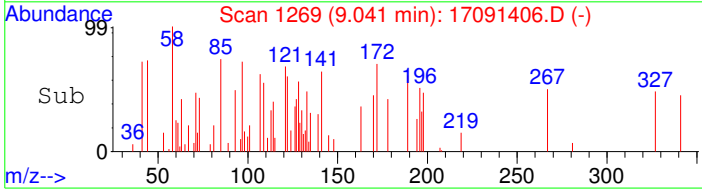




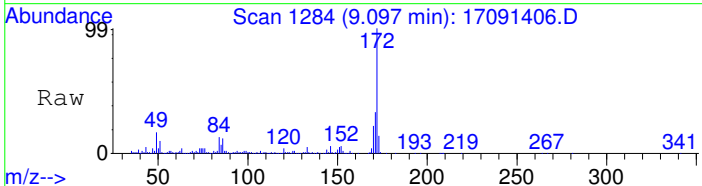
#45
 2,4,6-Trichlorophenol
 Concen: 0.020 mg/kg
 RT: 9.04 min Scan# 1269
 Delta R.T. -0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



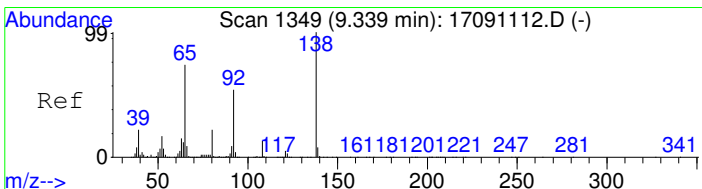
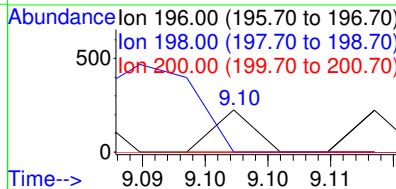
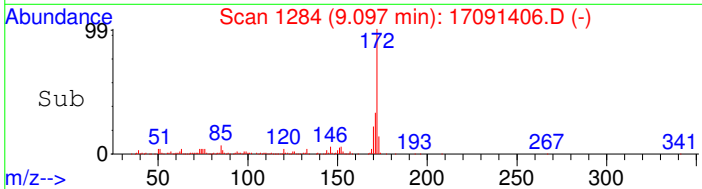
Tgt Ion	Ratio	Lower	Upper
196	100		
198	91.6	78.3	118.3
200	0.0	12.5	52.5#



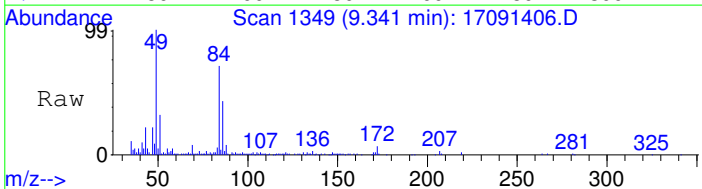
#46
 2,4,5-Trichlorophenol
 Concen: 0.016 mg/kg
 RT: 9.10 min Scan# 1284
 Delta R.T. 0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



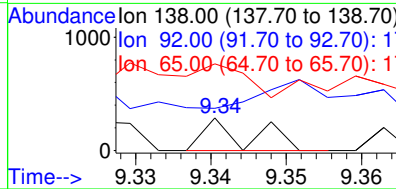
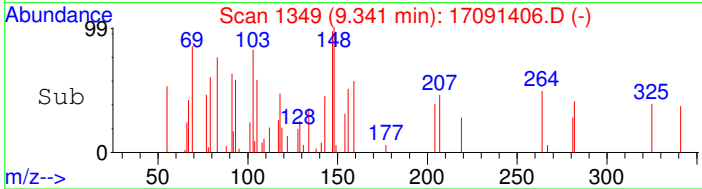
Tgt Ion	Ratio	Lower	Upper
196	100		
198	0.0	77.0	117.0#
200	0.0	12.2	52.2#

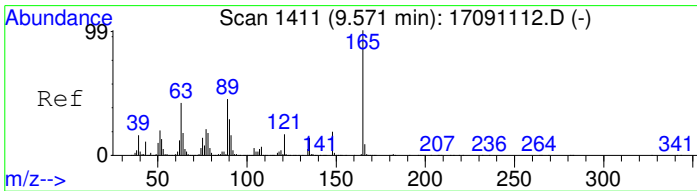


#50
 2-Nitroaniline
 Concen: 0.024 mg/kg
 RT: 9.34 min Scan# 1349
 Delta R.T. 0.01 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

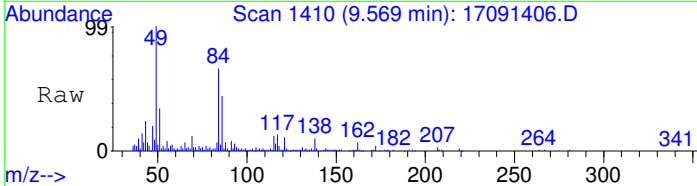


Tgt Ion	Ratio	Lower	Upper
138	100		
92	0.0	32.9	72.9#
65	84.0	54.3	94.3

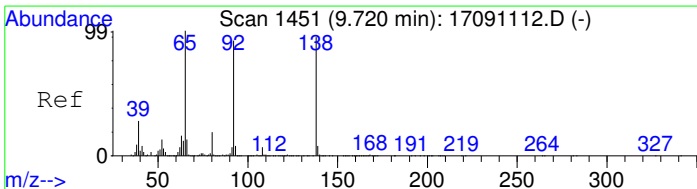
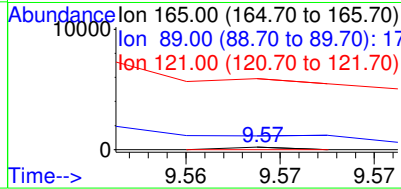
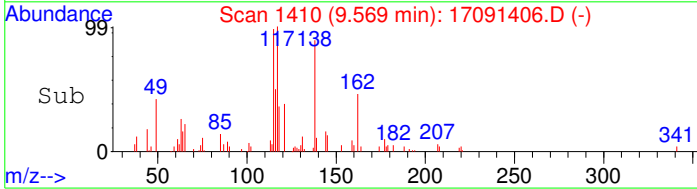




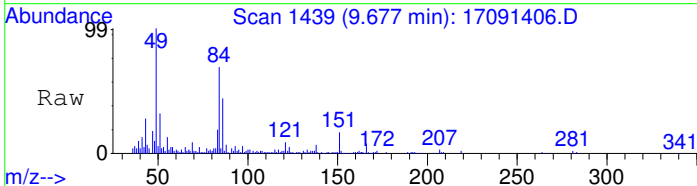
#53
 2,6-Dinitrotoluene
 Concen: 0.023 mg/kg
 RT: 9.57 min Scan# 1410
 Delta R.T. 0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



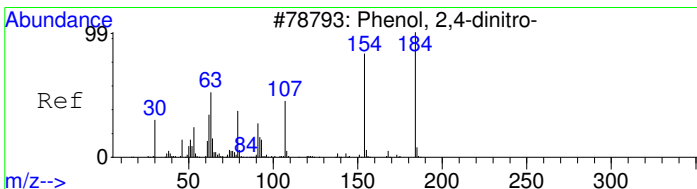
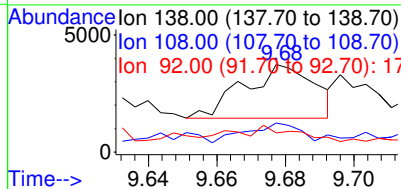
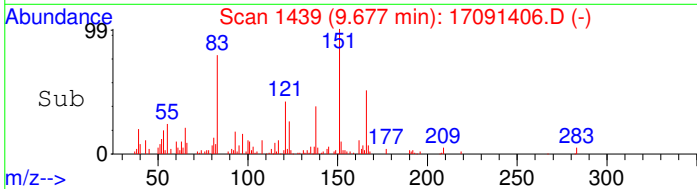
Tgt Ion:165 Resp: 49
 Ion Ratio Lower Upper
 165 100
 89 0.0 24.4 64.4#
 121 200.0 0.0 37.6#



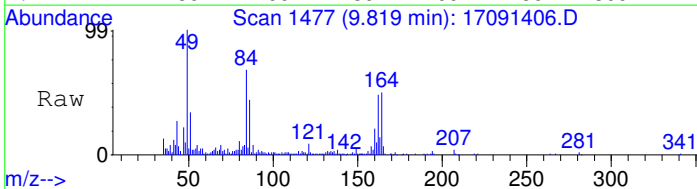
#55
 3-Nitroaniline
 Concen: 0.053 mg/kg
 RT: 9.68 min Scan# 1439
 Delta R.T. -0.04 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



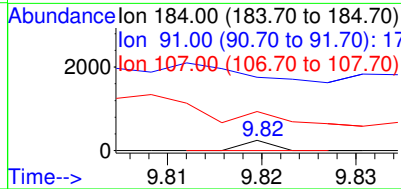
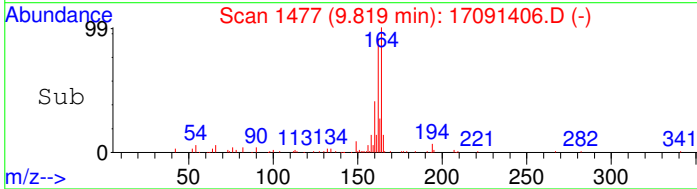
Tgt Ion:138 Resp: 3273
 Ion Ratio Lower Upper
 138 100
 108 22.0 0.0 27.6
 92 7.6 73.6 113.6#

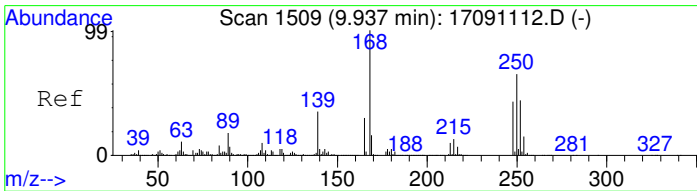


#56
 2,4-Dinitrophenol
 Concen: 0.065 mg/kg
 RT: 9.82 min Scan# 1477
 Delta R.T. 0.02 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

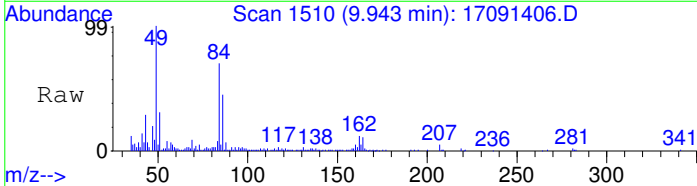


Tgt Ion:184 Resp: 54
 Ion Ratio Lower Upper
 184 100
 91 52.5 12.3 52.3#
 107 120.7 8.3 48.3#

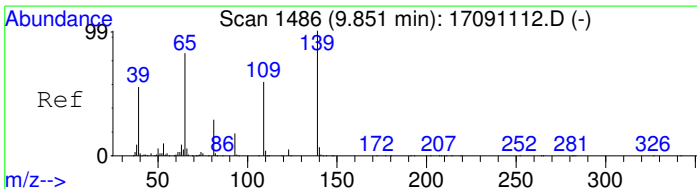
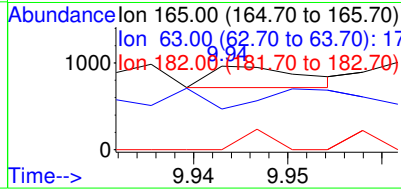
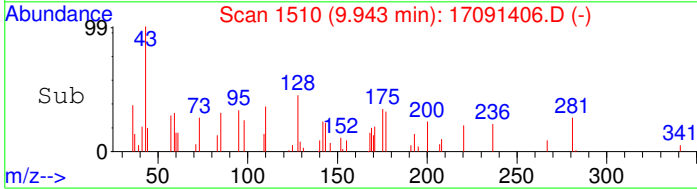




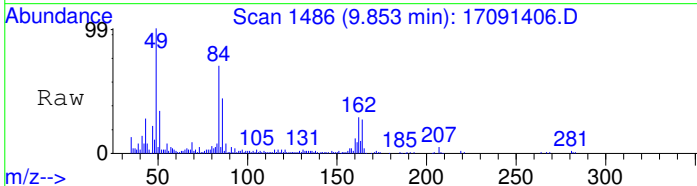
#58
 2,4-Dinitrotoluene
 Concen: 0.030 mg/kg
 RT: 9.94 min Scan# 1510
 Delta R.T. 0.01 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



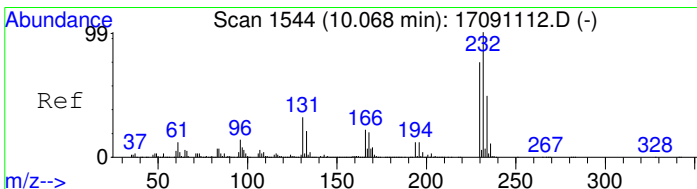
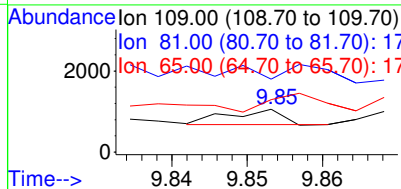
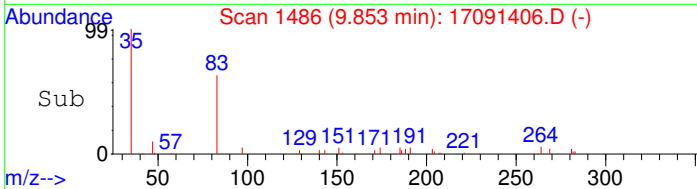
Tgt Ion	Ratio	Lower	Upper
165	100		
63	0.0	20.1	60.1#
182	0.0	0.0	30.9



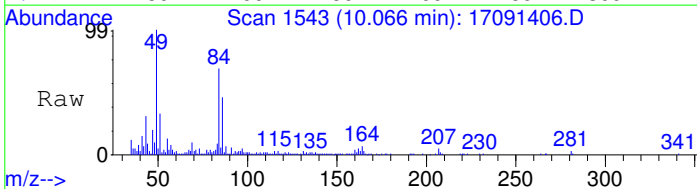
#59
 4-Nitrophenol
 Concen: 0.054 mg/kg
 RT: 9.85 min Scan# 1486
 Delta R.T. 0.01 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



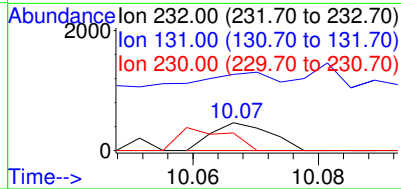
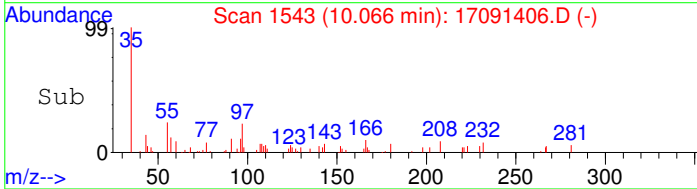
Tgt Ion	Ratio	Lower	Upper
109	100		
81	0.0	26.7	66.7#
65	35.8	119.1	159.1#

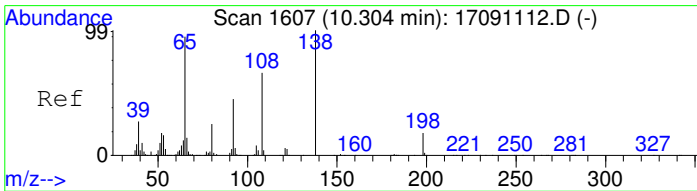


#60
 2,3,4,6-Tetrachlorophenol
 Concen: 0.020 mg/kg
 RT: 10.07 min Scan# 1543
 Delta R.T. 0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

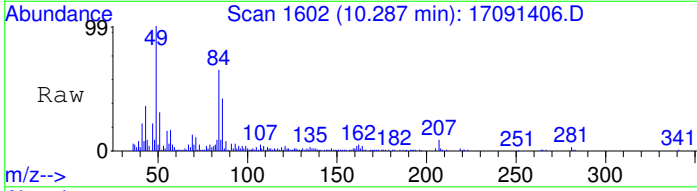


Tgt Ion	Ratio	Lower	Upper
232	100		
131	34.8	12.3	52.3
230	70.5	55.3	95.3

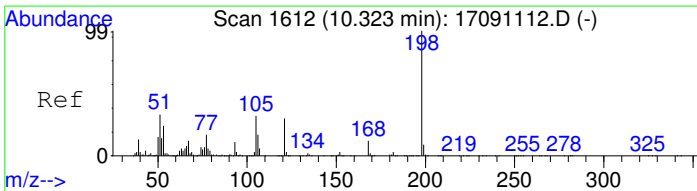
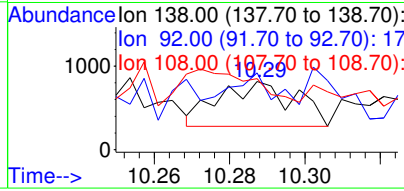
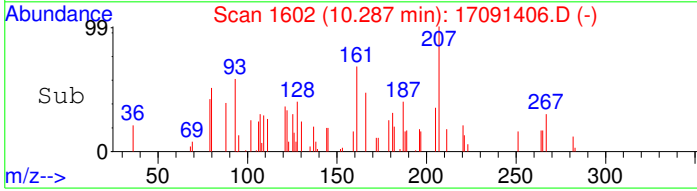




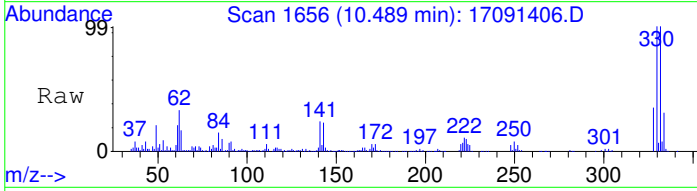
#64
 4-Nitroaniline
 Concen: 0.043 mg/kg
 RT: 10.29 min Scan# 1602
 Delta R.T. -0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



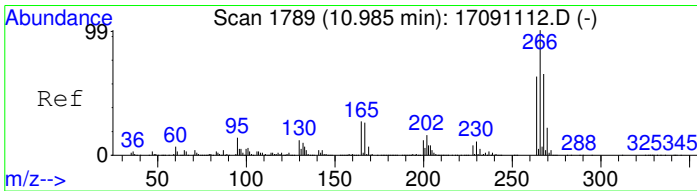
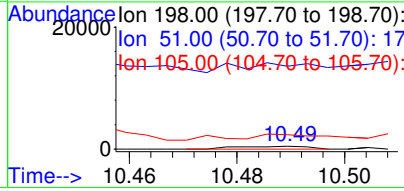
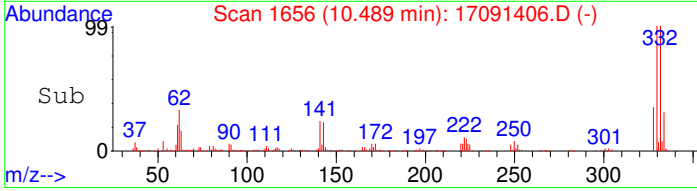
Tgt Ion:138 Resp: 741
 Ion Ratio Lower Upper
 138 100
 92 17.3 23.1 63.1#
 108 30.0 42.7 82.7#



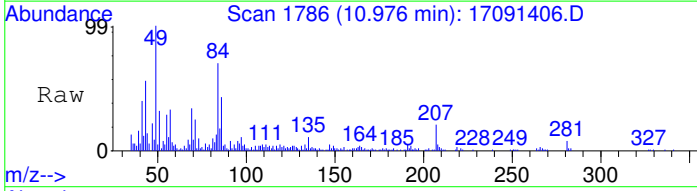
#66
 4,6-Dinitro-2-methylphenol
 Concen: 0.048 mg/kg
 RT: 10.49 min Scan# 1656
 Delta R.T. 0.18 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



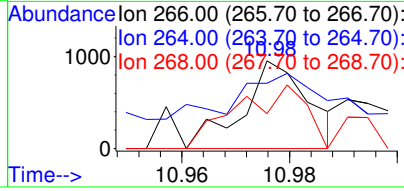
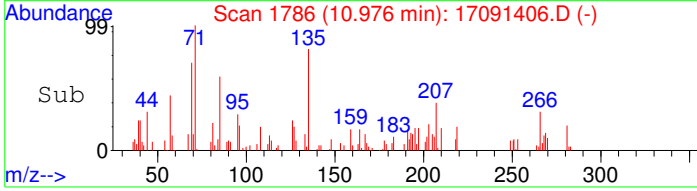
Tgt Ion:198 Resp: 439
 Ion Ratio Lower Upper
 198 100
 51 20.4 11.7 51.7
 105 39.4 12.5 52.5

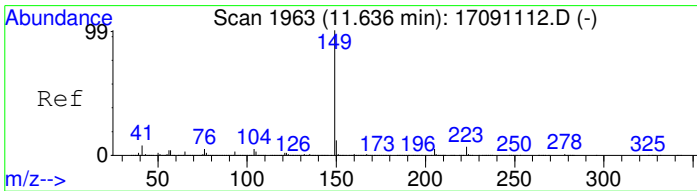


#73
 Pentachlorophenol
 Concen: 0.030 mg/kg
 RT: 10.98 min Scan# 1786
 Delta R.T. -0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

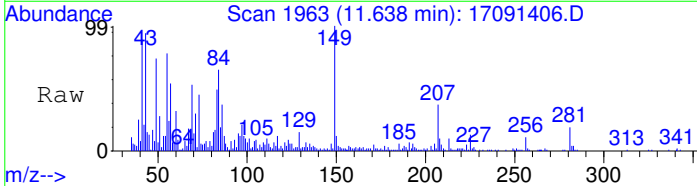


Tgt Ion:266 Resp: 807
 Ion Ratio Lower Upper
 266 100
 264 24.1 42.4 82.4#
 268 39.8 44.1 84.1#

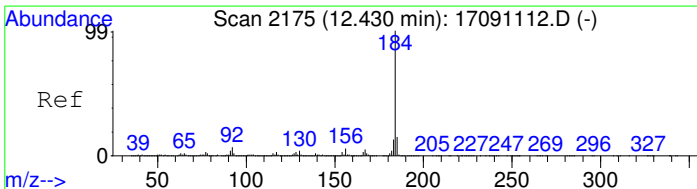
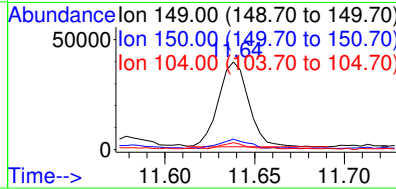
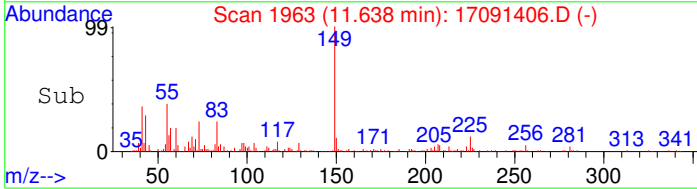




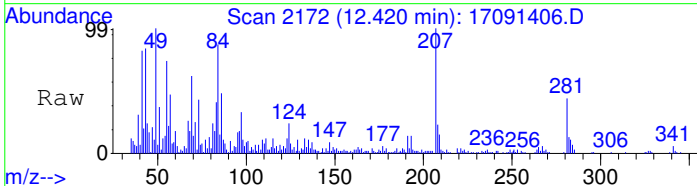
#78
 Di-n-butyl phthalate
 Concen: 0.024 mg/kg
 RT: 11.64 min Scan# 1963
 Delta R.T. 0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



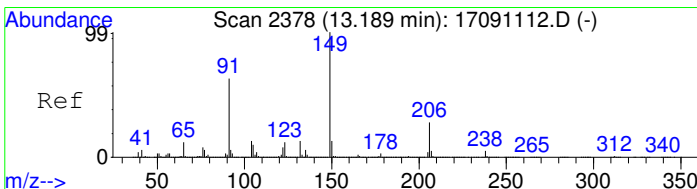
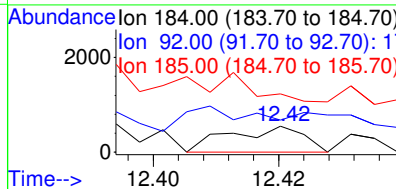
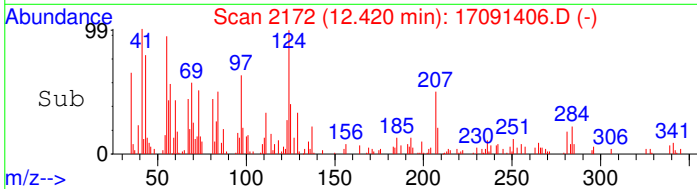
Tgt Ion	Resp	Lower	Upper
149	100		
150	10.9	0.0	30.5
104	6.9	0.0	24.9



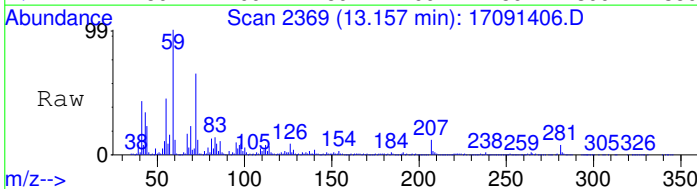
#81
 Benzidine
 Concen: 0.033 mg/kg
 RT: 12.42 min Scan# 2172
 Delta R.T. -0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



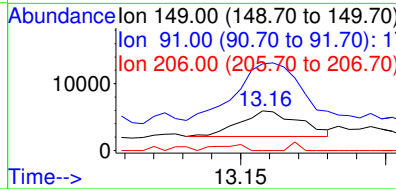
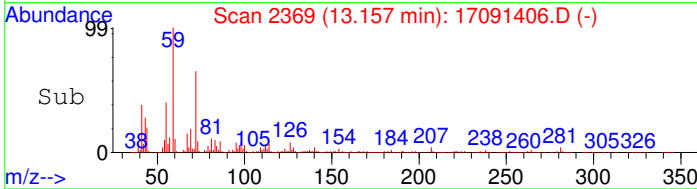
Tgt Ion	Resp	Lower	Upper
184	100		
92	0.0	0.0	27.2
185	31.0	0.0	35.2

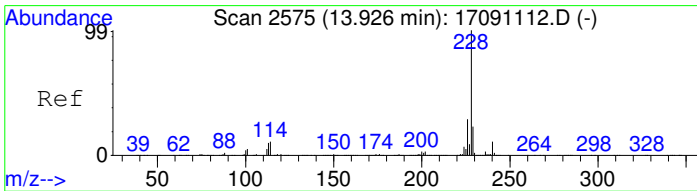


#84
 Butyl benzyl phthalate
 Concen: 0.022 mg/kg
 RT: 13.16 min Scan# 2369
 Delta R.T. -0.03 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

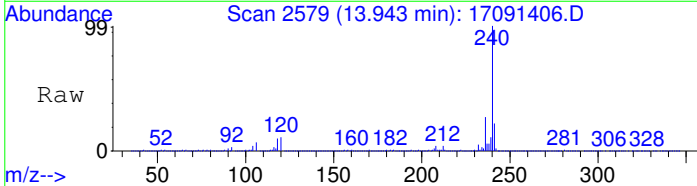


Tgt Ion	Resp	Lower	Upper
149	100		
91	221.5	42.9	82.9#
206	0.0	7.0	47.0#

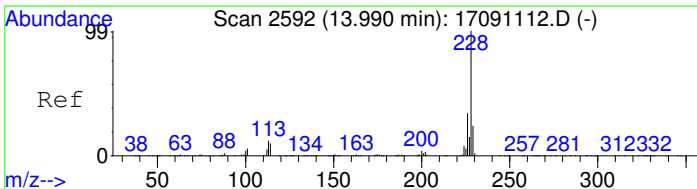
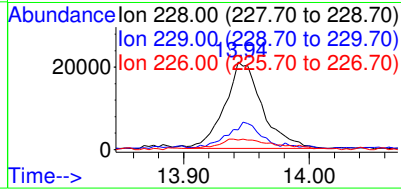
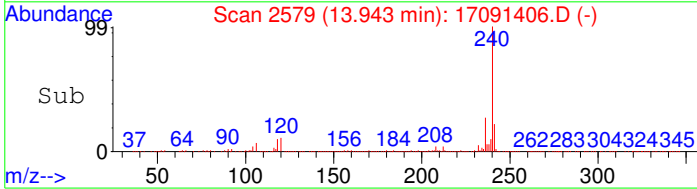




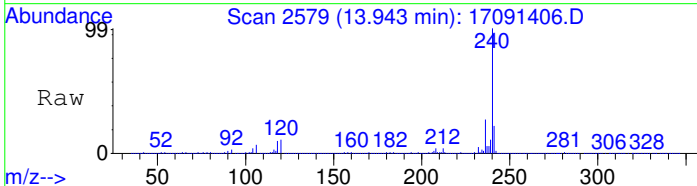
#86
 Benzo[a]anthracene
 Concen: 0.015 mg/kg
 RT: 13.94 min Scan# 2579
 Delta R.T. 0.02 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



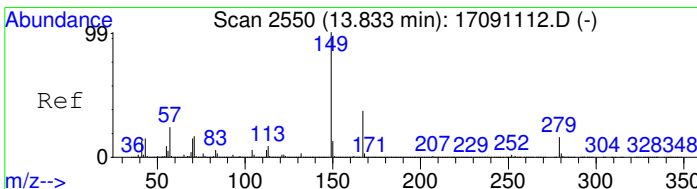
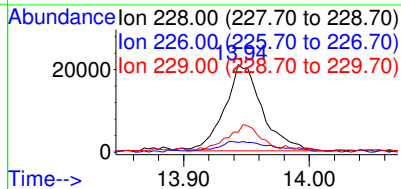
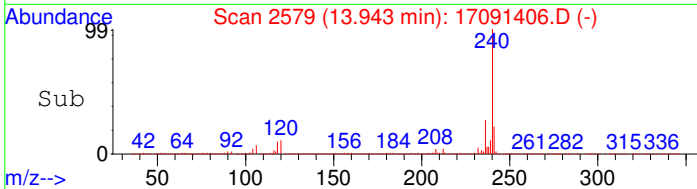
Tgt Ion	Resp	Lower	Upper
228	100		
229	21.4	1.4	41.4
226	9.8	7.2	47.2



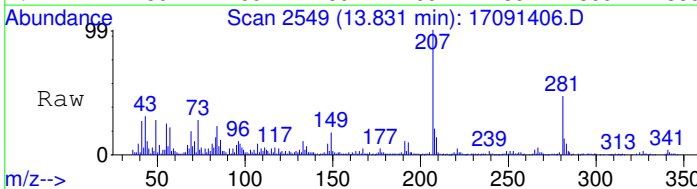
#87
 Chrysene
 Concen: 0.017 mg/kg
 RT: 13.94 min Scan# 2579
 Delta R.T. -0.04 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



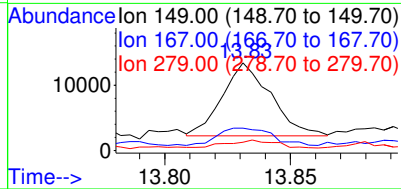
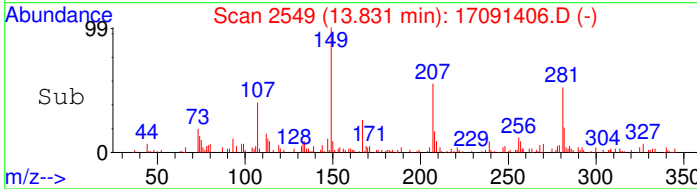
Tgt Ion	Resp	Lower	Upper
228	100		
226	9.8	10.0	50.0#
229	21.4	1.7	41.7

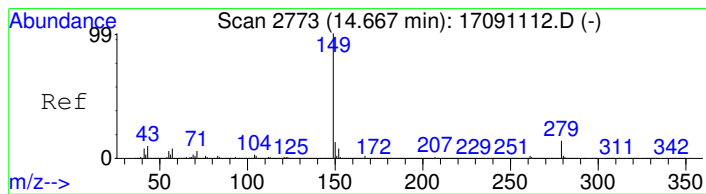


#88
 bis(2-Ethylhexyl)phthalate
 Concen: 0.012 mg/kg
 RT: 13.83 min Scan# 2549
 Delta R.T. 0.00 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm

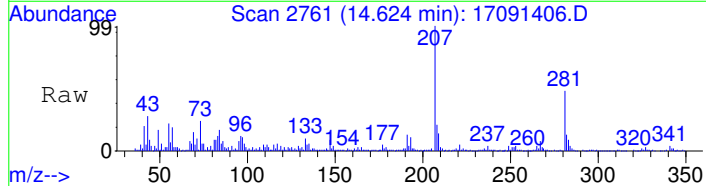


Tgt Ion	Resp	Lower	Upper
149	100		
167	24.4	14.8	54.8
279	7.4	0.0	35.3

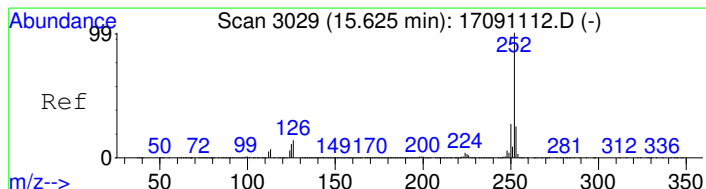
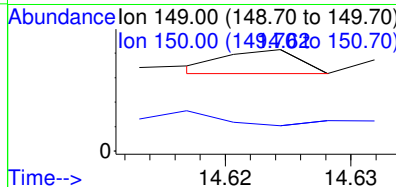
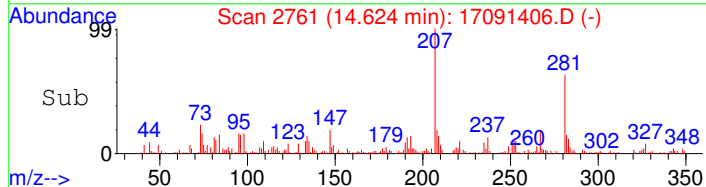




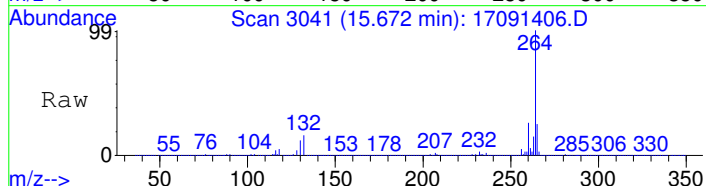
#90
 Di-n-octyl phthalate
 Concen: 0.019 mg/kg
 RT: 14.62 min Scan# 2761
 Delta R.T. -0.04 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



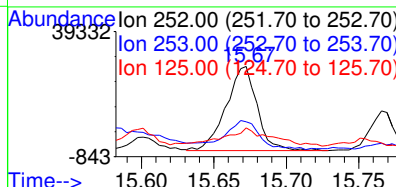
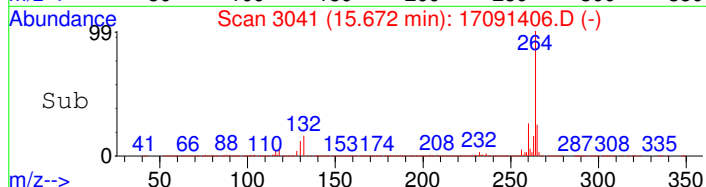
Tgt Ion:149 Resp: 400
 Ion Ratio Lower Upper
 149 100
 150 0.0 0.0 31.2



#93
 Benzo[a]pyrene
 Concen: 0.018 mg/kg
 RT: 15.67 min Scan# 3041
 Delta R.T. 0.05 min
 Lab File: 17091406.D
 Acq: 14 Sep 2017 5:46 pm



Tgt Ion:252 Resp: 40174
 Ion Ratio Lower Upper
 252 100
 253 32.1 3.7 43.7
 125 20.8 0.0 30.3



Data File : C:\HPCHEM\1\DATA\170914\17091409.D
 Acq On : 14 Sep 2017 7:06 pm
 Sample : 1709108-04BMS
 Misc : MS

Vial: 9
 Operator:
 Inst : GC/MS #4
 Multiplr: 5.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:15 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.06	152	3992858	4.00	mg/kg	91
22) Naphthalene-d8	8.15	136	10890994	4.00	mg/kg	90
42) Acenaphthene-d10	9.76	164	5485071	4.00	mg/kg	92
65) Phenanthrene-d10	11.14	188	9839444	4.00	mg/kg	102
80) Chrysene-d12	13.96	240	12144959	4.00	mg/kg	94
89) Perylene-d12	15.70	264	10811521	4.00	mg/kg	99

System Monitoring Compounds

7) 2-Fluorophenol		6.15	112	130139	0.15	mg/kg	0.03
Spiked Amount	4.000	Range	20 - 120	Recovery	=	3.75%#	
9) Phenol-d5		6.76	99	149735	0.14	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	3.50%#	
23) Nitrobenzene-d5		7.52	82	131621	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	3.75%#	
47) 2-Fluorobiphenyl		9.11	172	279165	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	3.75%#	
69) 2,4,6-Tribromophenol		10.49	330	58720	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	3.75%#	
83) 4-Terphenyl-d14		12.69	244	333907	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	3.75%#	

Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.52	74	131722	0.330	mg/kg#	30
3) Pyridine	4.57	79	166215	0.211	mg/kg	82
4) N-nitrosodiethylamine	6.31	102	127672	0.338	mg/kg	87
5) Benzaldehyde	6.74	106	227044	0.421	mg/kg	97
6) Aniline	6.82	93	139235	0.155	mg/kg	87
8) bis(2-Chloroethyl)ether	6.84	63	186291	0.329	mg/kg	97
10) Phenol	6.77	94	291661	0.303	mg/kg	99
11) 2-Chlorophenol	6.91	128	286339	0.303	mg/kg	96
12) 1,3-Dichlorobenzene	7.03	146	333886	0.287	mg/kg	97
13) 1,4-Dichlorobenzene	7.07	146	325752	0.262	mg/kg	95
14) 1,2-Dichlorobenzene	7.21	146	327633	0.290	mg/kg	97
15) Benzyl alcohol	7.15	108	156120	0.423	mg/kg	95
16) bis(2-chloroisopropyl)...	7.26	45	370933	0.349	mg/kg	92
17) 2-Methylphenol	7.24	108	226691	0.290	mg/kg	99
18) Hexachloroethane	7.48	117	122608	0.287	mg/kg	95
19) N-Nitrosodi-n-propylamine	7.38	70	192819	0.372	mg/kg	93
20) 4-Methylphenol	7.36	108	216058	0.303	mg/kg	98
21) Acetophenone	7.38	105	391762	0.356	mg/kg	93
24) Nitrobenzene	7.54	77	256211	0.332	mg/kg	93
25) Isophorone	7.73	82	459410	0.386	mg/kg	94
26) 2-Nitrophenol	7.81	139	128075	0.273	mg/kg	78
27) 2,4-Dimethylphenol	7.82	107	231654	0.337	mg/kg	94
28) bis(2-Chloroethoxy)methane	7.90	93	275661	0.336	mg/kg	97
29) Benzoic acid	7.89	105	39098	0.153	mg/kg	94
30) 2,4-Dichlorophenol	8.02	162	199665	0.285	mg/kg	98
31) 1,2,4-Trichlorobenzene	8.09	180	283590	0.295	mg/kg	98
32) Naphthalene	8.17	128	869689	0.340	mg/kg	95
33) 4-Chloroaniline	8.21	127	197374	0.251	mg/kg	99
34) 2,6-Dichlorophenol	8.22	162	203249	0.290	mg/kg	98
35) Hexachlorobutadiene	8.29	225	178038	0.307	mg/kg	98
36) N-nitrosodi-n-butylamine	8.49	116	36628	0.385	mg/kg	96
37) Caprolactam	8.50	113	62505	0.356	mg/kg#	77
38) 4-Chloro-3-methylphenol	8.62	107	160856	0.347	mg/kg	92
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	261943	0.285	mg/kg	99
40) 2-Methylnaphthalene	8.78	142	634457	0.404	mg/kg	97
41) 1-Methylnaphthalene	8.88	142	749336	0.491	mg/kg	99

(#) = qualifier out of range (m) = manual integration
 17091409.D SV170911.M Fri Sep 15 09:15:51 2017

Data File : C:\HPCHEM\1\DATA\170914\17091409.D

Vial: 9

Acq On : 14 Sep 2017 7:06 pm

Operator:

Sample : 1709108-04BMS

Inst : GC/MS #4

Misc : MS

Multiplr: 5.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:15 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.96	237	24092	0.073	mg/kg	95
44) EPTC	8.99	128	159374	0.380	mg/kg	96
45) 2,4,6-Trichlorophenol	9.05	196	133004	0.310	mg/kg	99
46) 2,4,5-Trichlorophenol	9.09	196	142824	0.313	mg/kg	99
48) Biphenyl	9.20	154	763050	0.446	mg/kg	96
49) 2-Chloronaphthalene	9.23	162	444081	0.324	mg/kg	98
50) 2-Nitroaniline	9.33	138	125719	0.395	mg/kg	96
51) Acenaphthylene	9.63	152	748979	0.425	mg/kg	97
52) Dimethyl phthalate	9.49	163	482657	0.392	mg/kg	98
53) 2,6-Dinitrotoluene	9.56	165	100989	0.356	mg/kg	86
54) Acenaphthene	9.79	153	4180366	2.915	mg/kg	99
55) 3-Nitroaniline	9.72	138	83962	0.351	mg/kg	96
56) 2,4-Dinitrophenol	9.81	184	13872	0.162	mg/kg	90
57) Dibenzofuran	9.94	168	3081346	1.657	mg/kg	97
58) 2,4-Dinitrotoluene	9.93	165	130495	0.373	mg/kg#	39
59) 4-Nitrophenol	9.85	109	38802	0.431	mg/kg	95
60) 2,3,4,6-Tetrachlorophenol	10.07	232	117596	0.319	mg/kg	95
61) Fluorene	10.26	166	4393485	3.086	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.24	204	252158	0.343	mg/kg	95
63) Diethyl phthalate	10.13	149	450580	0.423	mg/kg	96
64) 4-Nitroaniline	10.28	138	53289	0.270	mg/kg	94
66) 4,6-Dinitro-2-methylphenol	10.31	198	39240	0.202	mg/kg	84
67) 1,2-Diphenylhydrazine	10.38	77	445686	0.392	mg/kg#	1
68) n-Nitrosodiphenylamine	10.34	169	429863	0.449	mg/kg#	19
70) 4-Bromophenyl phenyl ether	10.69	248	164523	0.319	mg/kg	95
71) Atrazine	10.83	200	154972	0.397	mg/kg	96
72) Hexachlorobenzene	10.82	284	220001	0.321	mg/kg	95
73) Pentachlorophenol	10.99	266	86512	0.251	mg/kg	98
74) Phenanthrene	11.16	178	14879291	6.900	mg/kg	90
75) Anthracene	11.21	178	3590316	1.777	mg/kg	99
76) Pentachlorobenzene	9.94	250	294660	0.293	mg/kg	98
77) Carbazole	11.35	167	755694	0.428	mg/kg	97
78) Di-n-butyl phthalate	11.64	149	834632	0.397	mg/kg	97
81) Benzidine	12.44	184	23157	0.062	mg/kg	90
82) Pyrene	12.59	202	14948632	6.143	mg/kg	94
84) Butyl benzyl phthalate	13.20	149	322648	0.363	mg/kg	96
85) 3,3'-Dichlorobenzidine	13.86	252	203974	0.213	mg/kg	94
86) Benzo[a]anthracene	13.94	228	5522361	1.882	mg/kg	99
87) Chrysene	13.99	228	4293509	1.660	mg/kg	100
88) bis(2-Ethylhexyl)phthalate	13.84	149	500944	0.375	mg/kg	93
90) Di-n-octyl phthalate	14.67	149	805607	0.364	mg/kg	97
91) Benzo[b]fluoranthene	15.27	252	3049922	1.201	mg/kg	96
92) Benzo[k]fluoranthene	15.29	252	1980216	0.794	mg/kg	96
93) Benzo[a]pyrene	15.62	252	1982233	0.902	mg/kg	98
94) Indeno[1,2,3-cd]pyrene	17.06	276	1356451	0.487	mg/kg	90
95) Dibenz[a,h]anthracene	17.06	278	900563	0.376	mg/kg	96
96) Benzo[g,h,i]perylene	17.48	276	1054814	0.487	mg/kg	96

Data File : C:\HPCHEM\1\DATA\170914\17091410.D

Vial: 10

Acq On : 14 Sep 2017 7:33 pm

Operator:

Sample : 1709108-04BMSD

Inst : GC/MS #4

Misc : MSD

Multiplr: 5.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:16 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.06	152	3880407	4.00	mg/kg	88
22) Naphthalene-d8	8.15	136	10548199	4.00	mg/kg	87
42) Acenaphthene-d10	9.76	164	5283635	4.00	mg/kg	88
65) Phenanthrene-d10	11.14	188	9450213	4.00	mg/kg	98
80) Chrysene-d12	13.96	240	11888660	4.00	mg/kg	92
89) Perylene-d12	15.70	264	10307748	4.00	mg/kg	94

System Monitoring Compounds

7) 2-Fluorophenol		6.16	112	131162	0.15	mg/kg	0.04
Spiked Amount	4.000	Range	20 - 120	Recovery	=	3.75%#	
9) Phenol-d5		6.77	99	150842	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	3.75%#	
23) Nitrobenzene-d5		7.52	82	127878	0.16	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	4.00%#	
47) 2-Fluorobiphenyl		9.11	172	263599	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	3.75%#	
69) 2,4,6-Tribromophenol		10.49	330	55568	0.15	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	3.75%#	
83) 4-Terphenyl-d14		12.69	244	306702	0.14	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	3.50%#	

Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.54	74	133669	0.345	mg/kg#	66
3) Pyridine	4.58	79	186054	0.243	mg/kg	100
4) N-nitrosodiethylamine	6.31	102	130871	0.356	mg/kg	88
5) Benzaldehyde	6.75	106	232089	0.443	mg/kg	98
6) Aniline	6.85	93	428555	0.471	mg/kg#	75
8) bis(2-Chloroethyl)ether	6.85	63	190687	0.347	mg/kg	99
10) Phenol	6.77	94	291057	0.311	mg/kg	98
11) 2-Chlorophenol	6.92	128	288310	0.314	mg/kg	96
12) 1,3-Dichlorobenzene	7.03	146	331890	0.293	mg/kg	99
13) 1,4-Dichlorobenzene	7.08	146	342618	0.284	mg/kg	97
14) 1,2-Dichlorobenzene	7.21	146	326981	0.298	mg/kg	99
15) Benzyl alcohol	7.16	108	147798	0.413	mg/kg	97
16) bis(2-chloroisopropyl)...	7.26	45	372712	0.361	mg/kg	92
17) 2-Methylphenol	7.24	108	225477	0.297	mg/kg	99
18) Hexachloroethane	7.48	117	118199	0.285	mg/kg	96
19) N-Nitrosodi-n-propylamine	7.38	70	188543	0.374	mg/kg	94
20) 4-Methylphenol	7.36	108	210083	0.303	mg/kg	99
21) Acetophenone	7.39	105	388286	0.363	mg/kg	96
24) Nitrobenzene	7.54	77	252675	0.338	mg/kg	89
25) Isophorone	7.73	82	445622	0.386	mg/kg	97
26) 2-Nitrophenol	7.81	139	126664	0.279	mg/kg	82
27) 2,4-Dimethylphenol	7.82	107	224550	0.337	mg/kg	93
28) bis(2-Chloroethoxy)methane	7.90	93	267545	0.337	mg/kg	99
29) Benzoic acid	7.89	105	41199	0.160	mg/kg	91
30) 2,4-Dichlorophenol	8.02	162	190813	0.281	mg/kg	99
31) 1,2,4-Trichlorobenzene	8.10	180	276688	0.297	mg/kg	97
32) Naphthalene	8.17	128	864961	0.349	mg/kg	96
33) 4-Chloroaniline	8.21	127	182644	0.240	mg/kg	93
34) 2,6-Dichlorophenol	8.22	162	196130	0.289	mg/kg	97
35) Hexachlorobutadiene	8.28	225	177417	0.316	mg/kg	97
36) N-nitrosodi-n-butylamine	8.49	116	34528	0.376	mg/kg	94
37) Caprolactam	8.50	113	59005	0.347	mg/kg#	78
38) 4-Chloro-3-methylphenol	8.63	107	156118	0.347	mg/kg	93
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	254895	0.286	mg/kg	99
40) 2-Methylnaphthalene	8.78	142	639874	0.421	mg/kg	98
41) 1-Methylnaphthalene	8.88	142	717238	0.485	mg/kg	98

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

Data File : C:\HPCHEM\1\DATA\170914\17091410.D

Vial: 10

Acq On : 14 Sep 2017 7:33 pm

Operator:

Sample : 1709108-04BMSD

Inst : GC/MS #4

Misc : MSD

Multiplr: 5.00

MS Integration Params: RTEINT.P

Quant Time: Sep 15 9:16 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

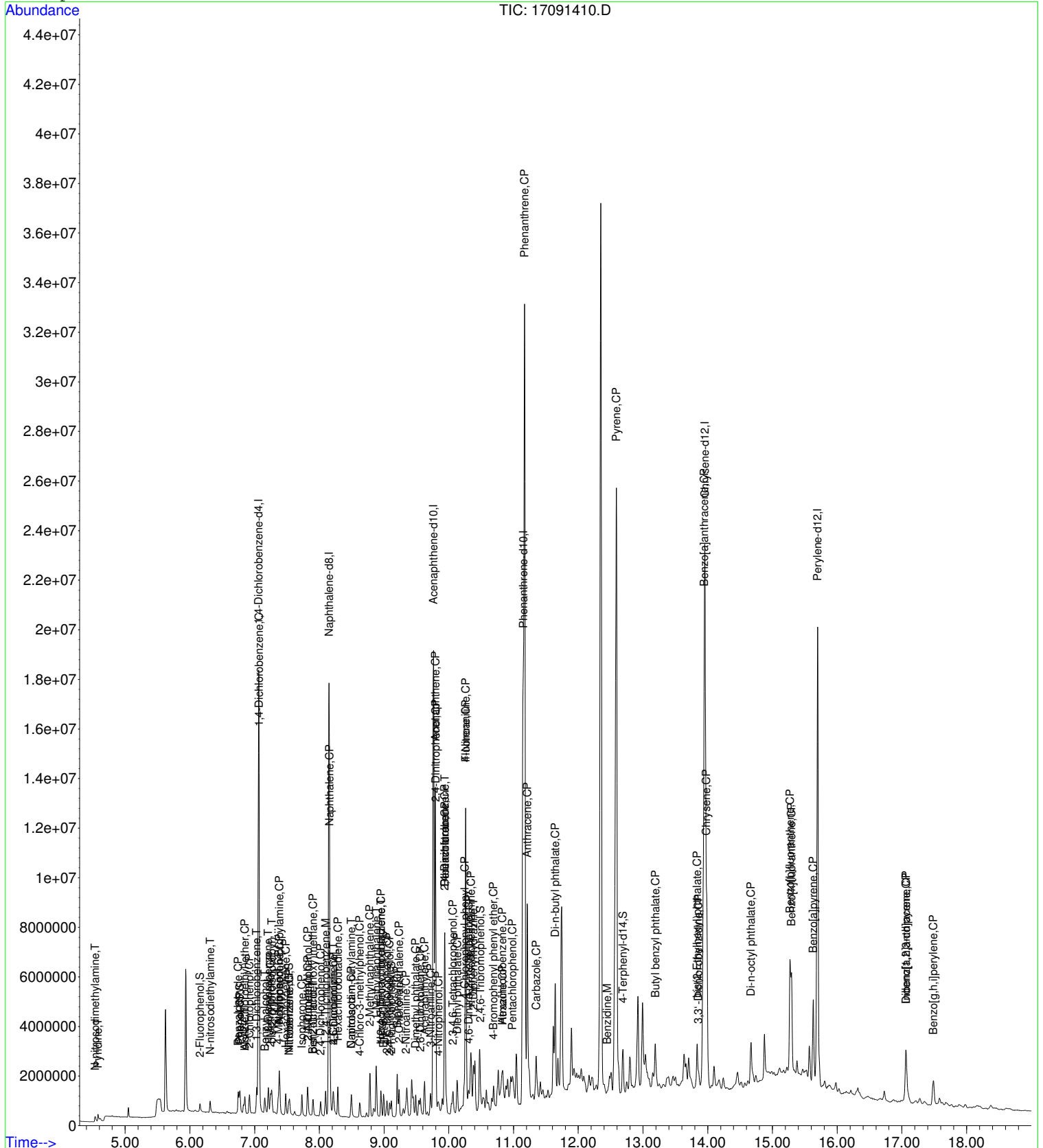
Response via : Initial Calibration

DataAcq Meth : SV170911

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	13511	0.056	mg/kg	87
44) EPTC	8.99	128	155156	0.384	mg/kg	99
45) 2,4,6-Trichlorophenol	9.04	196	126056	0.305	mg/kg	96
46) 2,4,5-Trichlorophenol	9.09	196	137587	0.313	mg/kg	99
48) Biphenyl	9.21	154	744260	0.451	mg/kg	97
49) 2-Chloronaphthalene	9.23	162	420817	0.319	mg/kg	97
50) 2-Nitroaniline	9.33	138	112357	0.369	mg/kg	96
51) Acenaphthylene	9.62	152	716022	0.422	mg/kg	97
52) Dimethyl phthalate	9.49	163	455492	0.384	mg/kg	98
53) 2,6-Dinitrotoluene	9.56	165	97620	0.357	mg/kg	93
54) Acenaphthene	9.79	153	4226012	3.059	mg/kg	99
55) 3-Nitroaniline	9.71	138	80238	0.349	mg/kg	92
56) 2,4-Dinitrophenol	9.80	184	15440	0.176	mg/kg#	72
57) Dibenzofuran	9.94	168	3119310	1.741	mg/kg	95
58) 2,4-Dinitrotoluene	9.93	165	121286	0.362	mg/kg#	43
59) 4-Nitrophenol	9.85	109	36929	0.427	mg/kg	93
60) 2,3,4,6-Tetrachlorophenol	10.07	232	111968	0.315	mg/kg	95
61) Fluorene	10.26	166	4522219	3.298	mg/kg	100
62) 4-Chlorophenyl phenyl ...	10.24	204	237843	0.336	mg/kg	97
63) Diethyl phthalate	10.13	149	426877	0.416	mg/kg	97
64) 4-Nitroaniline	10.26	138	56017	0.291	mg/kg#	33
66) 4,6-Dinitro-2-methylphenol	10.31	198	40555	0.214	mg/kg	91
67) 1,2-Diphenylhydrazine	10.38	77	421521	0.386	mg/kg#	1
68) n-Nitrosodiphenylamine	10.35	169	387995	0.422	mg/kg#	24
70) 4-Bromophenyl phenyl ether	10.69	248	152568	0.308	mg/kg	96
71) Atrazine	10.83	200	143615	0.383	mg/kg	96
72) Hexachlorobenzene	10.82	284	199837	0.304	mg/kg	97
73) Pentachlorophenol	10.99	266	82287	0.249	mg/kg	99
74) Phenanthrene	11.17	178	14931871	7.210	mg/kg	79
75) Anthracene	11.21	178	4526813	2.332	mg/kg	99
76) Pentachlorobenzene	9.94	250	281739	0.292	mg/kg	96
77) Carbazole	11.35	167	1026694	0.605	mg/kg	97
78) Di-n-butyl phthalate	11.64	149	776044	0.384	mg/kg	96
81) Benzidine	12.44	184	18216	0.056	mg/kg	91
82) Pyrene	12.58	202	15160214	6.365	mg/kg	92
84) Butyl benzyl phthalate	13.19	149	307241	0.354	mg/kg	92
85) 3,3'-Dichlorobenzidine	13.86	252	203121	0.216	mg/kg	100
86) Benzo[a]anthracene	13.94	228	5626732	1.959	mg/kg	98
87) Chrysene	13.98	228	4432860	1.751	mg/kg	100
88) bis(2-Ethylhexyl)phthalate	13.83	149	468145	0.358	mg/kg	90
90) Di-n-octyl phthalate	14.67	149	751208	0.356	mg/kg	97
91) Benzo[b]fluoranthene	15.27	252	2969586	1.227	mg/kg	97
92) Benzo[k]fluoranthene	15.29	252	1947841	0.819	mg/kg	96
93) Benzo[a]pyrene	15.63	252	1877527	0.897	mg/kg	98
94) Indeno[1,2,3-cd]pyrene	17.06	276	1226355	0.462	mg/kg	90
95) Dibenz[a,h]anthracene	17.07	278	864934	0.378	mg/kg	99
96) Benzo[g,h,i]perylene	17.49	276	949154	0.460	mg/kg	96

Data File : C:\HPCHEM\1\DATA\170914\17091410.D Vial: 10
Acq On : 14 Sep 2017 7:33 pm Operator:
Sample : 1709108-04BMSD Inst : GC/MS #4
Misc : MSD Multiplr: 5.00
MS Integration Params: RTEINT.P
Quant Time: Sep 15 9:16 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration



GCMS4_170915A

For

DHL Work Order

1709099

Lab Data Review Check List
EPA Method 8270 / 625 - Semi-Volatile Organic Compounds

PROJECT AND BATCH NUMBERS ARE LISTED ON THE RUN LOG		Run ID: GCMS4_170915A				
		SOP: ORGANICS-SemiVol-01				
Review Item	Yes	No	N/A	2nd Level Review		
Data Folder Contents						
1. Is the Prep Batch Report included? Check and record the following: <i>Prep Start/End Dates, Sample Amounts, Bottle #s</i>	X				X	
2. Are the reagents and spikes listed on the Prep Batch Report current with a valid expiration date? <i>All standard/QC sample preparations shall be documented in LIMS</i>	X					
3. Is the Run Log and instrument sequence included? <i>Check the Test Code, Sample Type, Batch ID, and Analysis Date/Time</i>	X					
4. Is the System Verification - Tune Report included? <i>Date/Tme of Tune starts 12-hour analysis window</i>	X					
5. Is the Evaluate Continuing Calibration Report included?	X					
Daily Demonstration of Performance						
QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in the Variance/Comment Section on page 2.						
Review Item	Frequency	Limits	Pass	Fail (List Batch/Sample) **See Run Log**	2nd Level Review	
DFTPP Tune	Before ICAL Every 12 hours	See Tune Eval Report	Yes		X	
Breakdown Check/Tailing Factor	Prior to samples Every 12 hours	≤ 20% for DDT / Benzidine and PCP tailing factor < 2	Yes			
Initial Calibration Curve (ICAL) (minimum: 5 Standards)	Prior to samples and when ICV fails	Avg. RF - %RSD ≤15%(DoD), ≤20%(SF) Curve (COD) - R ² ≥ 0.990	Yes			
SSCV - (Second Source)	After calibration (ICAL)	70-130% (8270D/SF-QAPP) 80-120% (DoD)	Yes			
Review Item	Frequency	Limits	Pass	Fail	N/A	Review
ICV - (Daily Initial Cal Verification) 8270D - Corrective action required if >20% of target analytes have >20% drift	Every 12 hours	ISTDs Area% (50-200%) Surrogates %R (See LIMS) %R (80-120%) 8270D %R (80-120%) DoD %R (70-130%) SF-QAPP	X			X
Method Blank (MB) System Blank (SYS Blank)	Every Batch (MB) Daily (SYS BL)	< MQL (SF) / < 1/2 RL (DoD) or < 1/10 the sample/reg limit	X			
Lab Control Sample (LCS)	Every Batch	See LIMS	X			
Lab Control Sample Dup (LCSD)	Insufficient sample Sample Matrix	See LIMS	X			
LCSD - RPD	Every LCS/LCSD	≤ 20 (Aq) / ≤ 30 (Soil&DoD)	X			
Field Samples	Up to 20 per prep batch	ISTDs Area% (50-200%) Surrogates %R (See LIMS) RRT ± 0.06 RRT Standard Q value > 70 - check for #	X			
Matrix Spike (MS)	Every Batch/20 samples	See LIMS			X	
Matrix Spike Duplicate (MSD) (MSD is N/A for Method 625)	Every Prep Batch except Method 625				X	
MSD - RPD (MSD is N/A for Method 625)	Every MS/MSD except Method 625	≤ 20 (Aq) / ≤ 30 (Soil&DoD)			X	

Lab Data Review Check List

EPA Method 8270 / 625 - Semi-Volatile Organic Compounds

Review Item	Criteria	Yes	No	N/A	2nd Level Review
Sample Analysis 1. Are all sample hold times met?	7 days (Aq) - extraction	X			X
	14 days (Soil) - extraction			X	
	40 days analysis	X			
2. Are all manual integrations signed (Before & After) and printouts included ? Put in LIMS Comment Section <i>Include MI form for DoD work</i>	Before & After - signed Comment Section in LIMS MI Form - DoD only			X	X
3. Are all samples with concentrations > the highest standard used for calibration diluted and reanalyzed?				X	
Review Item #3 is N/A ONLY if all sample results are within Calibration range or NO if dilution is in different folder					
4. Is mass spectra reviewed/verified if Q value is <70 and/or # flag for results >MDL?	Q value <70 - All hits	X			X
5. Are ALL reported analytes > MDL (+ J flags) highlighted by the analyst?		X		Confirm with analyst if LIMS result does not match LabCore	
VARIANCE REPORT					
QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in this section.					
NON-CONFORMANCES / VARIANCE				X	X
1. Are all non-conformances included and noted?	All deviations from the method and SOP that affect data quality			X	
2. Are all corrective actions included?				X	
3. Does the variance require approval by the Technical Director/General Manager/QA Manager?				X	

TECHNICAL DIRECTOR / QA MANAGER APPROVAL
SIGNATURE AND DATE STAMP:

Description and Corrective Actions of QC items that do not meet method/SOP/project requirements:

****INCLUDE VARIANCE ITEM / REASON / CORRECTIVE ACTION / IMPACT ON DATA****

VARIANCE ITEM	REASON	CORRECTIVE ACTION
___ Hold Time exceeded (7D/14D-Ext/40D-Analysis)	___ Sample Received out of HT	___ Reanalyze QC to confirm
___ ICV out of control (± 20%-DoD / 30%-SF-QAPP)	___ Carryover from previous run	___ Recalibrate
___ MB/SYS BL out of control (> MDL / >½ RL)	___ Cross contamination	___ Reprep/Reanalyze sample
___ LCS ___ LCSD out of control (See LIMS)	___ Lab Artifact	___ Reprep/Reanalyze Batch
___ RPD out of control for LCS/LCSD (>20/30)	___ Prep Spike error (describe)	___ Reanalyze Batch/Sample/QC
___ MS ___ MSD out of control (See LIMS)	___ High Levels of target analytes	___ Verify H2O/reagents are clean
___ RPD out of control for MS/MSD (>20/30)	___ High Levels of non-targets	___ Reanalyze sample to confirm
___ Internal Standard(s) out of control	___ Insufficient sample for QC	___ Sample results ND w/ dilution
___ Multiple Surrogates out of control	___ Prep Error	___ Client notified and approved
___ No MS/MSD prepared - LCS/LCSD used instead	___ Analytical Error	___ Flag data / Case narrative
___ Missing QC (other than MS/MSD)	___ Client Request	___ Instrument Maintenance
___ QC sample(s) was mis-spiked	___ Other (describe below)	___ Accept data
___ Other (describe below)		
	___ Cannot reanalyze (HT out/Lack of Sample)	

General Comments and Impact on Data:

Analyst: *Dustin Bay* Date of Completion: 9/18/2017
 Second-Level Review: *Angie O'Donnell* Date Stamp: 9/18/2017

Run ID: GCMS4_170915A**Run No.:** 94188**Analytical Run Date:** 9/15/2017**InstrumentID:** GCMS4**Analyst:** Duston Bezner**Column:** ZB-SV (30m x 0.25mm ID x 0.25µm df)**Calibration ID:** 801**Column ID:** 0.25mm**Column Length:** 30m**Cal Comments:** SV170911.M

SampID	DF	TestCode	SampType	Batch ID	Analysis Date/Time	Q	Comments
DFTPP-170915	1	8270_W_LL	TUNE	R94188	9/15/2017 2:16:00 PM		
ICV-170915	1	8270_W_LL	ICV	R94188	9/15/2017 3:17:00 PM		
LCS-82383	1	8270_W_LL	LCS	82383	9/15/2017 3:45:00 PM		
LCSD-82383	1	8270_W_LL	LCSD	82383	9/15/2017 4:12:00 PM		
MB-82383	1	8270_W_LL	MBLK	82383	9/15/2017 4:39:00 PM		
1709099-01C	1	8270_W_LL	SAMP	82383	9/15/2017 5:32:00 PM		
1709108-02C	1	8270_W_LL	SAMP	82383	9/15/2017 5:58:00 PM		

Std ID	Std Name	Type	Exp. Date
SVCAL170911	5PPM SVOC CAL. STD.	CAL	12/10/2017
SVIS170104-4	4000 PPM INTERNAL STANDARD	CAL	08/29/2018
SVSSCV170911	5 PPM SSCV STANDARD	CAL	12/11/2017
SVSUR170104-17	4000 PPM SEMI-VOL SURROGATE	CAL	10/18/2017

Sequence Name: C:\HPCHEM\1\SEQUENCE\170915.S
Comment:
Operator:
Data Path: C:\HPCHEM\1\DATA\170915\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch
(X) Full Method (X) Inject Anyway
() Reprocessing Only () Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	1	17091501	DFTPPLVI	DFTPP-170915
2	Sample	1	17091502	SV170911	MMMEOH
3	Sample	2	17091503	DFTPPLVI	DFTPP-170915
4	Sample	3	17091504	SV170911	ICV-170915
5	Sample	3	17091505	SV170911	ICV-170915
6	Sample	4	17091506	SV170911	LCS-82363
7	Sample	5	17091507	SV170911	LCSD-82363
8	Sample	6	17091508	SV170911	MB-82363
9	Sample	7	17091509	SV170911	MB-82363
10	Sample	8	17091510	SV170911	1709099-01C
11	Sample	9	17091511	SV170911	1709108-02C
12	Sample	10	17091512	SV170911	1709116-03A

DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: **9/15/2017 10:30:00 AM**

Digestion:

Prep End Date: **9/15/2017 1:15:00 PM**

Prep Batch **82383** Prep Code: **3510_B**

Technician: **Alice Dacic**

Prep Factor Units:
mL/mL

Equipment List
Balance # 25
Turbo-Vap # 3
Balance #29

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709099-01C	Aqueous	6, <2, >11	455.6	10	0.022	1 of 2		
1709108-02C	Aqueous	6, <2, >11	503.3 505.3	10	0.020	1 of 2		afo 9/18/2017
LCS-82383	Aqueous	6, <2, >11	500	10	0.020	of		insufficient sample for MS/MSD. Shared with 82384
LCSD-82383	Aqueous	6, <2, >11	500	10	0.020	of		Shared with 82384
MB-82383	Aqueous	6, <2, >11	500	10	0.020	of		Shared with 82384

Number	Reagent Name	Amt	Units	Exp. Date
7180	pH paper 11-13	1	paper	05/14/2023
8086	pH paper 0-3	1	paper	12/15/2025
11181	Sulfuric Acid (Certified ACS PLUS)	2	ml	02/27/2027
11404	Purified Sodium Sulfate	20	g	05/18/2027
11448	Methylene Chloride	140	ml	06/01/2027
11557	Whatman 41 Filter	1	filter	07/06/2027
11644	pH paper 0-14	1	paper	10/30/2019
11689	5M Sodium Hydroxide Solution	20	ml	02/17/2018

Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
SVPREP170828	40 PPM Surrogate Standard	ALL	1	11/26/2017
SVPREP170831-1	20 PPM Spike #1 Base/Neutrals	LCS/LCSD	1	11/29/2017
SVPREP170831-2	20 PPM Spike #2 Benzidines	LCS/LCSD	1	11/29/2017
SVPREP170831-3	20 PPM Spike #3 Amines	LCS/LCSD	1	11/29/2017
SVPREP170831-4	20 PPM Spike #4 Acids	LCS/LCSD	1	11/29/2017
SVPREP170831-5	20 PPM Spike #5	LCS/LCSD	1	11/29/2017

DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: 9/15/2017 10:30:00 AM

Digestion:

Prep End Date: 9/15/17 1:15 PM

Prep Batch 82383 Prep Code: 3510_B

Technician: Alice Dacic

Prep Factor Units:
mL/mL

Equipment List	
Balance # 25	
Turbo-Vap # 3	
Balance #29	

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709099-01C	Aqueous	6, <2, >11	500	10	0.020	1 of 2		730.3 - 274.7 = 455.6
1709108-02C	Aqueous	6, ↓ ↓	500	10	0.020	1 of 2		779.6 - 274.5 = 505.3
LCS-82383	Aqueous	6, ↓ ↓	500	10	0.020	of		
insufficient sample for MS/MSD. Shared with 82384								
LCSD-82383	Aqueous	6, ↓ ↓	500	10	0.020	of		
Shared with 82384								
MB-82383	Aqueous	6, ↓ ↓	500	10	0.020	of		
Shared with 82384								

Number	Reagent Name	Amt	Units	Exp. Date
7180	pH paper 11-13	1	paper	05/14/2023
8086	pH paper 0-3	1	paper	12/15/2025
11181	Sulfuric Acid (Certified ACS PLUS)	2	ml	02/27/2027
11404	Purified Sodium Sulfate	20	g	05/18/2027
11448	Methylene Chloride	140	ml	06/01/2027
11557	Whatman 41 Filter	1	filter	07/06/2027
11644	pH paper 0-14	1	paper	10/30/2019
11689	5M Sodium Hydroxide Solution	20	ml	02/17/2018

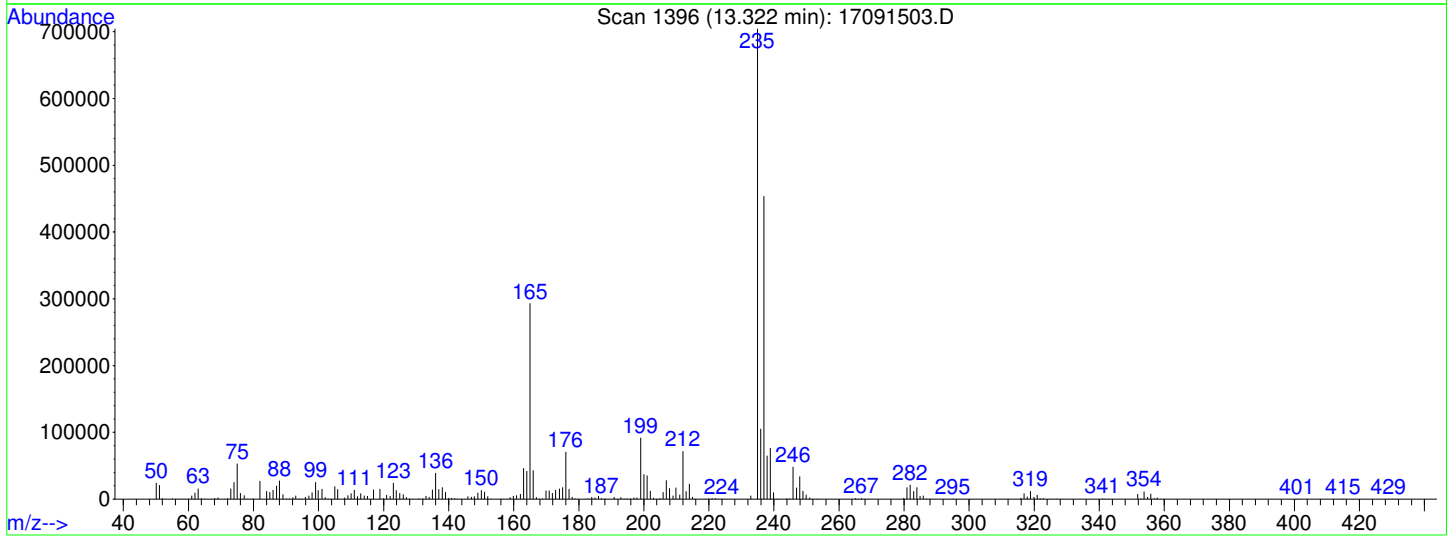
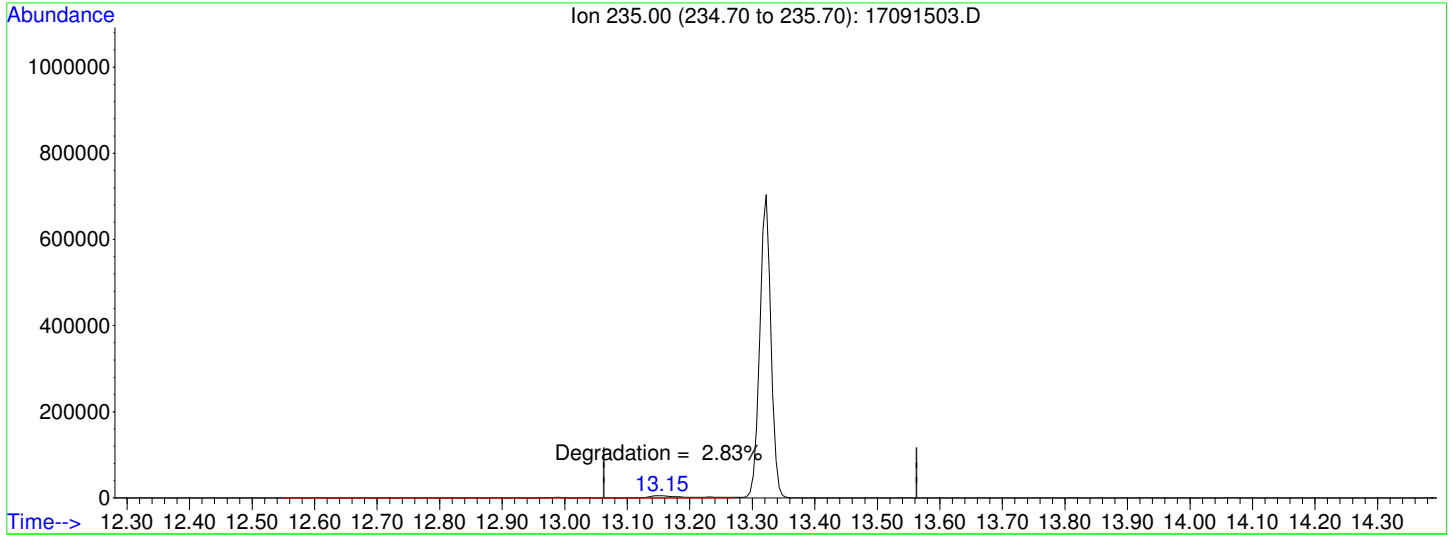
Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
SVPREP170828	40 PPM Surrogate Standard	ALL	1	11/26/2017
SVPREP170831-1	20 PPM Spike #1 Base/Neutrals	LCS/LCSD	1	11/29/2017
SVPREP170831-2	20 PPM Spike #2 Benzidines	LCS/LCSD	1	11/29/2017
SVPREP170831-3	20 PPM Spike #3 Amines	LCS/LCSD	1	11/29/2017
SVPREP170831-4	20 PPM Spike #4 Acids	LCS/LCSD	1	11/29/2017
SVPREP170831-5	20 PPM Spike #5	LCS/LCSD	1	11/29/2017

AD 9/15/17

AD 9/15/17

Data File : C:\HPCHEM\1\DATA\170915\17091503.D Vial: 2
 Acq On : 15 Sep 2017 2:16 pm Operator:
 Sample : DFTPP-170915 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 15 14:35 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPLVI.M (RTE Integrator)
 Title :
 Last Update : Thu Sep 07 09:50:49 2017
 Response via : Single Level Calibration



TIC: 17091503.D

(7) DDT

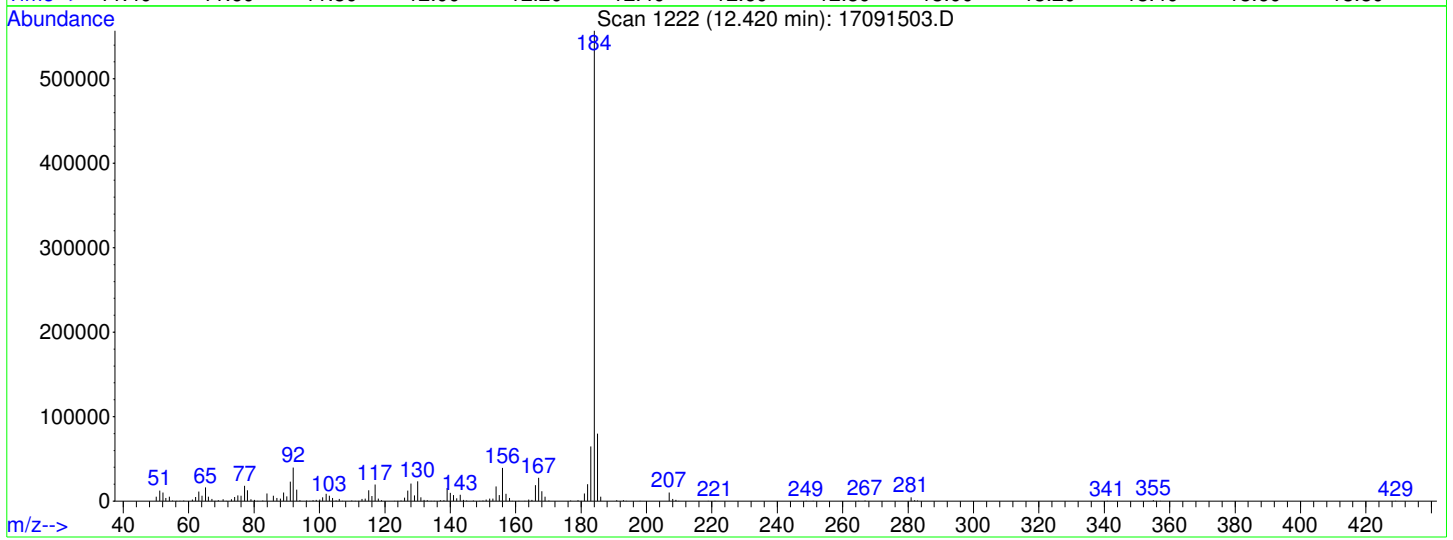
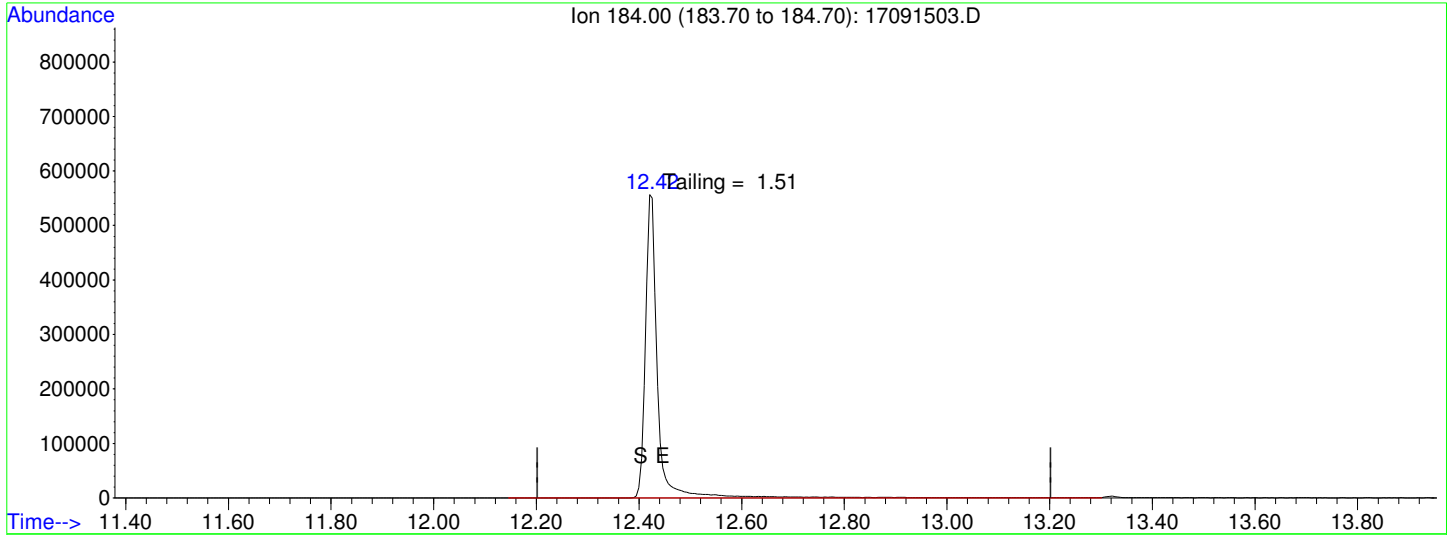
13.32min 52.996

response 876727 Qvalue 100

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\170915\17091503.D Vial: 2
 Acq On : 15 Sep 2017 2:16 pm Operator:
 Sample : DFTPP-170915 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 15 14:35 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPLVI.M (RTE Integrator)
 Title :
 Last Update : Thu Sep 07 09:50:49 2017
 Response via : Single Level Calibration



TIC: 17091503.D

(2) Benzidine

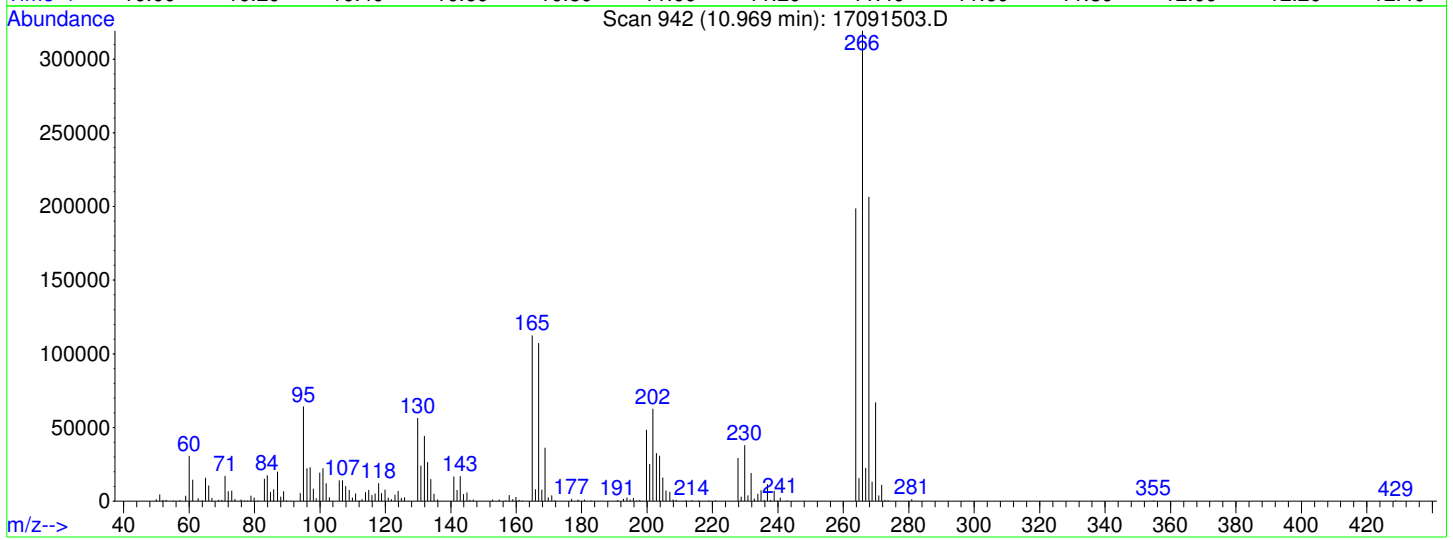
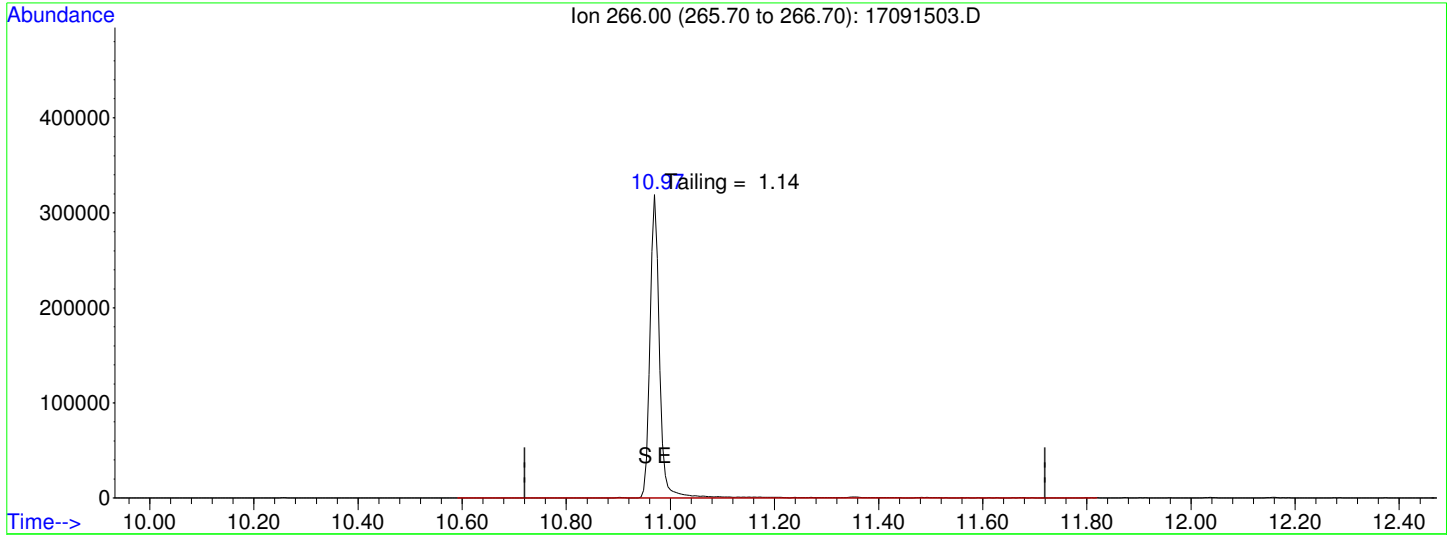
12.42min 54.332

response 883419 Qvalue 100

Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\170915\17091503.D Vial: 2
 Acq On : 15 Sep 2017 2:16 pm Operator:
 Sample : DFTPP-170915 Inst : GC/MS #4
 Misc : TUNE Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Sep 15 14:35 2017 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPLVI.M (RTE Integrator)
 Title :
 Last Update : Thu Sep 07 09:50:49 2017
 Response via : Single Level Calibration



TIC: 17091503.D

(1) Pentachlorophenol

10.97min 69.942

response 403817 Qvalue 100

Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\170915\17091505.D

Vial: 3

Acq On : 15 Sep 2017 3:17 pm

Operator:

Sample : ICV-170915

Inst : GC/MS #4

Misc : ICV

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 18 9:12 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.04	152	4523718	4.00	mg/kg	103
22) Naphthalene-d8	8.15	136	12400195	4.00	mg/kg	103
42) Acenaphthene-d10	9.76	164	5825570	4.00	mg/kg	98
65) Phenanthrene-d10	11.14	188	8040043	4.00	mg/kg	84
80) Chrysene-d12	13.95	240	11921108	4.00	mg/kg	92
89) Perylene-d12	15.71	264	10628521	4.00	mg/kg	97

System Monitoring Compounds

7) 2-Fluorophenol		6.07	112	2537423	2.54	mg/kg	-0.05
Spiked Amount	4.000	Range	20 - 120	Recovery	=	63.50%	
9) Phenol-d5		6.76	99	3123774	2.65	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	66.25%	
23) Nitrobenzene-d5		7.52	82	2638881	2.72	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	68.00%	
47) 2-Fluorobiphenyl		9.11	172	5094023	2.64	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	66.00%	
69) 2,4,6-Tribromophenol		10.49	330	787002	2.19	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	54.75%	
83) 4-Terphenyl-d14		12.68	244	4684434	2.13	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	53.25%	

Target Compounds

						Qvalue	
2) N-nitrosodimethylamine		4.33	74	1146500	2.536	mg/kg	92
3) Pyridine		4.36	79	2206609	2.474	mg/kg	98
4) N-nitrosodiethylamine		6.25	102	1126971	2.630	mg/kg	90
5) Benzaldehyde		6.71	106	1484603	2.761	mg/kg	97
6) Aniline		6.80	93	2774335	2.580	mg/kg	98
8) bis(2-Chloroethyl)ether		6.83	63	1689205	2.636	mg/kg	96
10) Phenol		6.76	94	2995433	2.745	mg/kg	96
11) 2-Chlorophenol		6.89	128	2790431	2.605	mg/kg	98
12) 1,3-Dichlorobenzene		7.01	146	3264647	2.476	mg/kg	100
13) 1,4-Dichlorobenzene		7.05	146	3128305	2.222	mg/kg	99
14) 1,2-Dichlorobenzene		7.20	146	3232569	2.530	mg/kg	99
15) Benzyl alcohol		7.15	108	1450536	3.032	mg/kg	95
16) bis(2-chloroisopropyl)...		7.26	45	3003147	2.492	mg/kg	99
17) 2-Methylphenol		7.24	108	2112945	2.389	mg/kg	98
18) Hexachloroethane		7.47	117	1246270	2.575	mg/kg	97
19) N-Nitrosodi-n-propylamine		7.39	70	1601941	2.728	mg/kg	98
20) 4-Methylphenol		7.37	108	2202956	2.723	mg/kg	100
21) Acetophenone		7.38	105	3471628	2.784	mg/kg	97
24) Nitrobenzene		7.53	77	2418517	2.755	mg/kg	95
25) Isophorone		7.74	82	3514855	2.591	mg/kg	97
26) 2-Nitrophenol		7.81	139	1365243	2.337	mg/kg	90
27) 2,4-Dimethylphenol		7.82	107	2152038	2.749	mg/kg	94
28) bis(2-Chloroethoxy)methane		7.90	93	2364636	2.533	mg/kg	100
29) Benzoic acid		7.93	105	1300196	2.255	mg/kg	96
30) 2,4-Dichlorophenol		8.02	162	2045555	2.567	mg/kg	99
31) 1,2,4-Trichlorobenzene		8.09	180	2627009	2.398	mg/kg	99
32) Naphthalene		8.17	128	7258469	2.491	mg/kg	99
33) 4-Chloroaniline		8.21	127	2479652	2.671	mg/kg	99
34) 2,6-Dichlorophenol		8.21	162	2098446	2.632	mg/kg	99
35) Hexachlorobutadiene		8.28	225	1719935	2.602	mg/kg	98
36) N-nitrosodi-n-butylamine		8.50	116	262028	2.214	mg/kg	98
37) Caprolactam		8.54	113	388956	1.942	mg/kg	90
38) 4-Chloro-3-methylphenol		8.63	107	1414378	2.677	mg/kg	92
39) 1,2,4,5-Tetrachlorobenzene		8.95	216	2741399	2.617	mg/kg	99
40) 2-Methylnaphthalene		8.78	142	4410574	2.467	mg/kg	98
41) 1-Methylnaphthalene		8.88	142	4344747	2.501	mg/kg	98

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

Data File : C:\HPCHEM\1\DATA\170915\17091505.D

Vial: 3

Acq On : 15 Sep 2017 3:17 pm

Operator:

Sample : ICV-170915

Inst : GC/MS #4

Misc : ICV

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 18 9:12 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

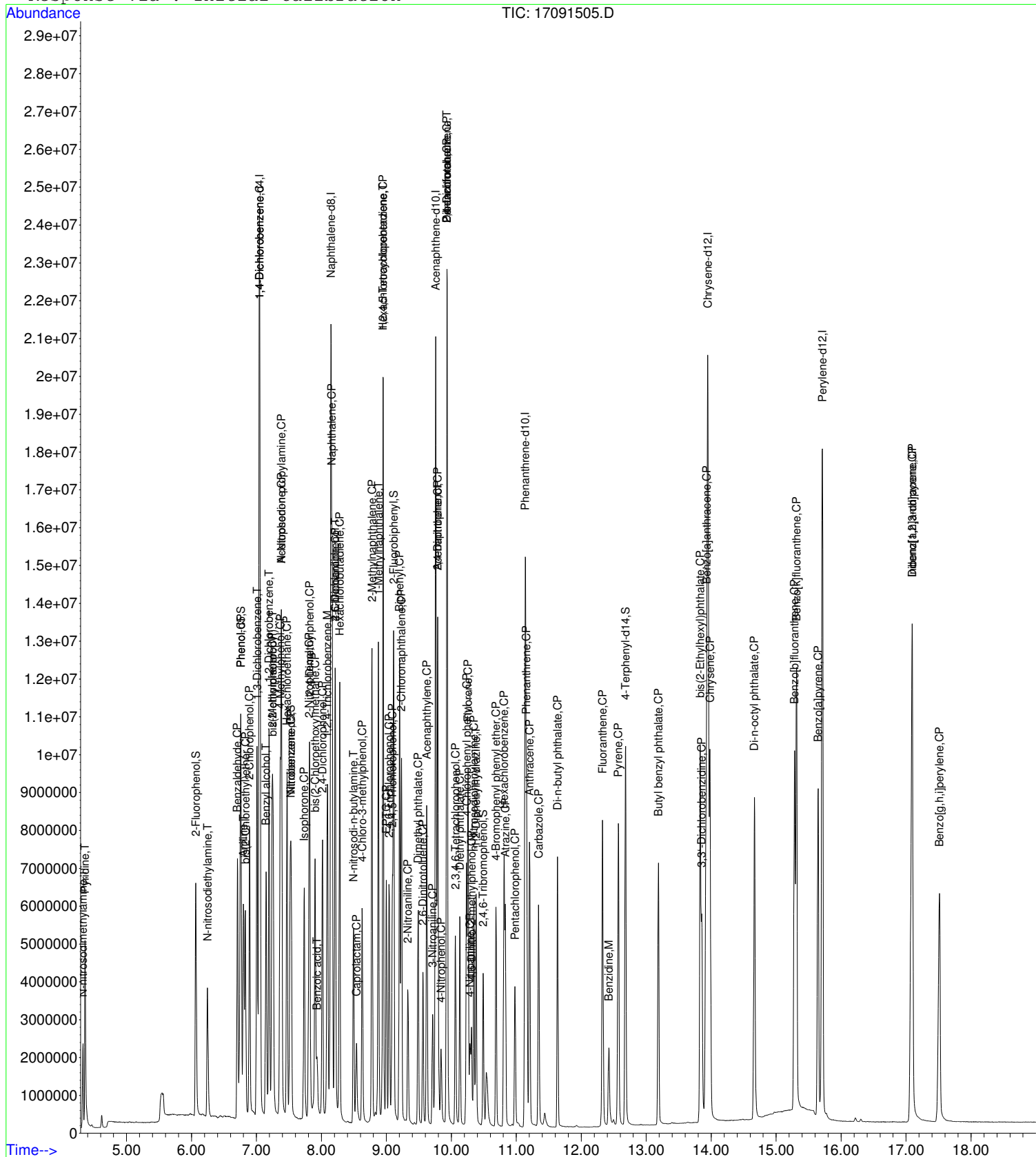
Response via : Initial Calibration

DataAcq Meth : SV170911

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	1913748	2.666	mg/kg	99
44) EPTC	9.00	128	1083907	2.434	mg/kg	98
45) 2,4,6-Trichlorophenol	9.04	196	1213992	2.427	mg/kg	99
46) 2,4,5-Trichlorophenol	9.09	196	1308966	2.420	mg/kg	100
48) Biphenyl	9.20	154	4780781	2.629	mg/kg	99
49) 2-Chloronaphthalene	9.23	162	3726433	2.561	mg/kg	98
50) 2-Nitroaniline	9.33	138	883064	2.267	mg/kg	89
51) Acenaphthylene	9.62	152	4699302	2.512	mg/kg	98
52) Dimethyl phthalate	9.49	163	2975064	2.275	mg/kg	99
53) 2,6-Dinitrotoluene	9.56	165	691987	2.115	mg/kg	86
54) Acenaphthene	9.79	153	3791311	2.489	mg/kg	99
55) 3-Nitroaniline	9.72	138	585774	2.039	mg/kg	90
56) 2,4-Dinitrophenol	9.80	184	378985	1.997	mg/kg	91
57) Dibenzofuran	9.94	168	5153524	2.609	mg/kg	95
58) 2,4-Dinitrotoluene	9.93	165	1051581	2.297	mg/kg	93
59) 4-Nitrophenol	9.84	109	313824	2.495	mg/kg	95
60) 2,3,4,6-Tetrachlorophenol	10.06	232	859856	2.034	mg/kg	94
61) Fluorene	10.26	166	3526751	2.333	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.24	204	1723129	2.208	mg/kg	96
63) Diethyl phthalate	10.13	149	2477543	2.191	mg/kg	96
64) 4-Nitroaniline	10.29	138	430818	1.765	mg/kg#	80
66) 4,6-Dinitro-2-methylphenol	10.31	198	467326	2.051	mg/kg	84
67) 1,2-Diphenylhydrazine	10.38	77	2685691	2.894	mg/kg	94
68) n-Nitrosodiphenylamine	10.35	169	1877230	2.400	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.69	248	1008520	2.396	mg/kg	95
71) Atrazine	10.83	200	907407	2.842	mg/kg	97
72) Hexachlorobenzene	10.81	284	1410471	2.521	mg/kg	98
73) Pentachlorophenol	10.98	266	689913	2.064	mg/kg	97
74) Phenanthrene	11.16	178	4274698	2.426	mg/kg	98
75) Anthracene	11.20	178	3884794	2.353	mg/kg	99
76) Pentachlorobenzene	9.93	250	2535175	3.085	mg/kg	99
77) Carbazole	11.34	167	3477917	2.409	mg/kg	98
78) Di-n-butyl phthalate	11.63	149	4211104	2.450	mg/kg	98
79) Fluoranthene	12.33	202	4902131	2.395	mg/kg	96
81) Benzidine	12.42	184	1405304	1.892	mg/kg	98
82) Pyrene	12.57	202	4948990	2.072	mg/kg	97
84) Butyl benzyl phthalate	13.19	149	2101343	2.208	mg/kg	93
85) 3,3'-Dichlorobenzidine	13.85	252	2224313	2.363	mg/kg	99
86) Benzo[a]anthracene	13.93	228	6283769	2.182	mg/kg	99
87) Chrysene	13.98	228	5701821	2.246	mg/kg	100
88) bis(2-Ethylhexyl)phthalate	13.83	149	3318143	2.533	mg/kg	97
90) Di-n-octyl phthalate	14.67	149	5336379	2.261	mg/kg	99
91) Benzo[b]fluoranthene	15.28	252	6149592	2.464	mg/kg	98
92) Benzo[k]fluoranthene	15.31	252	6363076	2.596	mg/kg	99
93) Benzo[a]pyrene	15.65	252	5583899	2.586	mg/kg	98
94) Indeno[1,2,3-cd]pyrene	17.09	276	7375781	2.694	mg/kg	97
95) Dibenz[a,h]anthracene	17.10	278	6340438	2.689	mg/kg	99
96) Benzo[g,h,i]perylene	17.51	276	5456846	2.563	mg/kg	98

Data File : C:\HPCHEM\1\DATA\170915\17091505.D Vial: 3
Acq On : 15 Sep 2017 3:17 pm Operator:
Sample : ICV-170915 Inst : GC/MS #4
Misc : ICV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 18 9:12 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170915\17091506.D Vial: 4
 Acq On : 15 Sep 2017 3:45 pm Operator:
 Sample : LCS-82383 Inst : GC/MS #4
 Misc : LCS Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 18 9:12 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Wed Sep 13 09:26:26 2017
 Response via : Initial Calibration
 DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.06	152	4360079	4.00	mg/kg	99
22) Naphthalene-d8	8.14	136	13087924	4.00	mg/kg	109
42) Acenaphthene-d10	9.76	164	6956872	4.00	mg/kg	117
65) Phenanthrene-d10	11.14	188	8950620	4.00	mg/kg	93
80) Chrysene-d12	13.95	240	11693550	4.00	mg/kg	90
89) Perylene-d12	15.70	264	10878789	4.00	mg/kg	100

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.23	112	2200038	2.29	mg/kg	0.11
Spiked Amount	4.000	Range	20 - 120	Recovery	=	57.25%	
9) Phenol-d5		6.77	99	2266563	2.00	mg/kg	0.01
Spiked Amount	4.000	Range	20 - 120	Recovery	=	50.00%	
23) Nitrobenzene-d5		7.51	82	2766856	2.70	mg/kg	-0.01
Spiked Amount	4.000	Range	41 - 120	Recovery	=	67.50%	
47) 2-Fluorobiphenyl		9.11	172	6087571	2.64	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	66.00%	
69) 2,4,6-Tribromophenol		10.49	330	1038649	2.58	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	64.50%	
83) 4-Terphenyl-d14		12.68	244	5375732	2.49	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	62.25%	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine		4.40	74	5864	0.013	mg/kg#	72
4) N-nitrosodiethylamine		6.37	102	578406	1.401	mg/kg	83
5) Benzaldehyde		6.76	106	1099178	2.022	mg/kg	98
6) Aniline		6.85	93	2197280	2.122	mg/kg	77
8) bis(2-Chloroethyl)ether		6.85	63	887281	1.437	mg/kg	97
10) Phenol		6.78	94	1150182	1.094	mg/kg	95
11) 2-Chlorophenol		6.92	128	1336221	1.294	mg/kg	97
12) 1,3-Dichlorobenzene		7.03	146	1518105	1.194	mg/kg	99
13) 1,4-Dichlorobenzene		7.07	146	1440383	1.062	mg/kg	98
14) 1,2-Dichlorobenzene		7.20	146	1489564	1.209	mg/kg	98
15) Benzyl alcohol		7.15	108	766500	1.711	mg/kg	93
16) bis(2-chloroisopropyl)...		7.25	45	1620544	1.395	mg/kg	94
17) 2-Methylphenol		7.23	108	1148600	1.347	mg/kg	98
18) Hexachloroethane		7.47	117	563310	1.207	mg/kg	97
19) N-Nitrosodi-n-propylamine		7.37	70	931424	1.646	mg/kg	94
20) 4-Methylphenol		7.35	108	1109409	1.423	mg/kg	98
21) Acetophenone		7.37	105	1956229	1.628	mg/kg	95
24) Nitrobenzene		7.53	77	1342614	1.449	mg/kg	94
25) Isophorone		7.72	82	2193724	1.532	mg/kg	94
26) 2-Nitrophenol		7.80	139	702767	1.162	mg/kg	87
27) 2,4-Dimethylphenol		7.81	107	1153677	1.396	mg/kg	94
28) bis(2-Chloroethoxy)methane		7.89	93	1329347	1.349	mg/kg	98
29) Benzoic acid		7.89	105	425870	0.785	mg/kg	89
30) 2,4-Dichlorophenol		8.01	162	1076564	1.280	mg/kg	98
31) 1,2,4-Trichlorobenzene		8.08	180	1312857	1.136	mg/kg	99
32) Naphthalene		8.16	128	4080384	1.327	mg/kg	96
33) 4-Chloroaniline		8.20	127	1177603	1.207	mg/kg	98
34) 2,6-Dichlorophenol		8.21	162	1070717	1.272	mg/kg	99
35) Hexachlorobutadiene		8.28	225	822611	1.179	mg/kg	99
36) N-nitrosodi-n-butylamine		8.48	116	164161	1.348	mg/kg	97
37) Caprolactam		8.51	113	86808	0.407	mg/kg	84
38) 4-Chloro-3-methylphenol		8.62	107	802141	1.439	mg/kg	92
39) 1,2,4,5-Tetrachlorobenzene		8.94	216	1422492	1.286	mg/kg	99
40) 2-Methylnaphthalene		8.77	142	2429785	1.288	mg/kg	97
41) 1-Methylnaphthalene		8.87	142	2589332	1.412	mg/kg	97
43) Hexachlorocyclopentadiene		8.94	237	871126	1.111	mg/kg	98

Data File : C:\HPCHEM\1\DATA\170915\17091506.D

Vial: 4

Acq On : 15 Sep 2017 3:45 pm

Operator:

Sample :

Inst : GC/MS #4

Misc : LCS

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 18 9:12 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

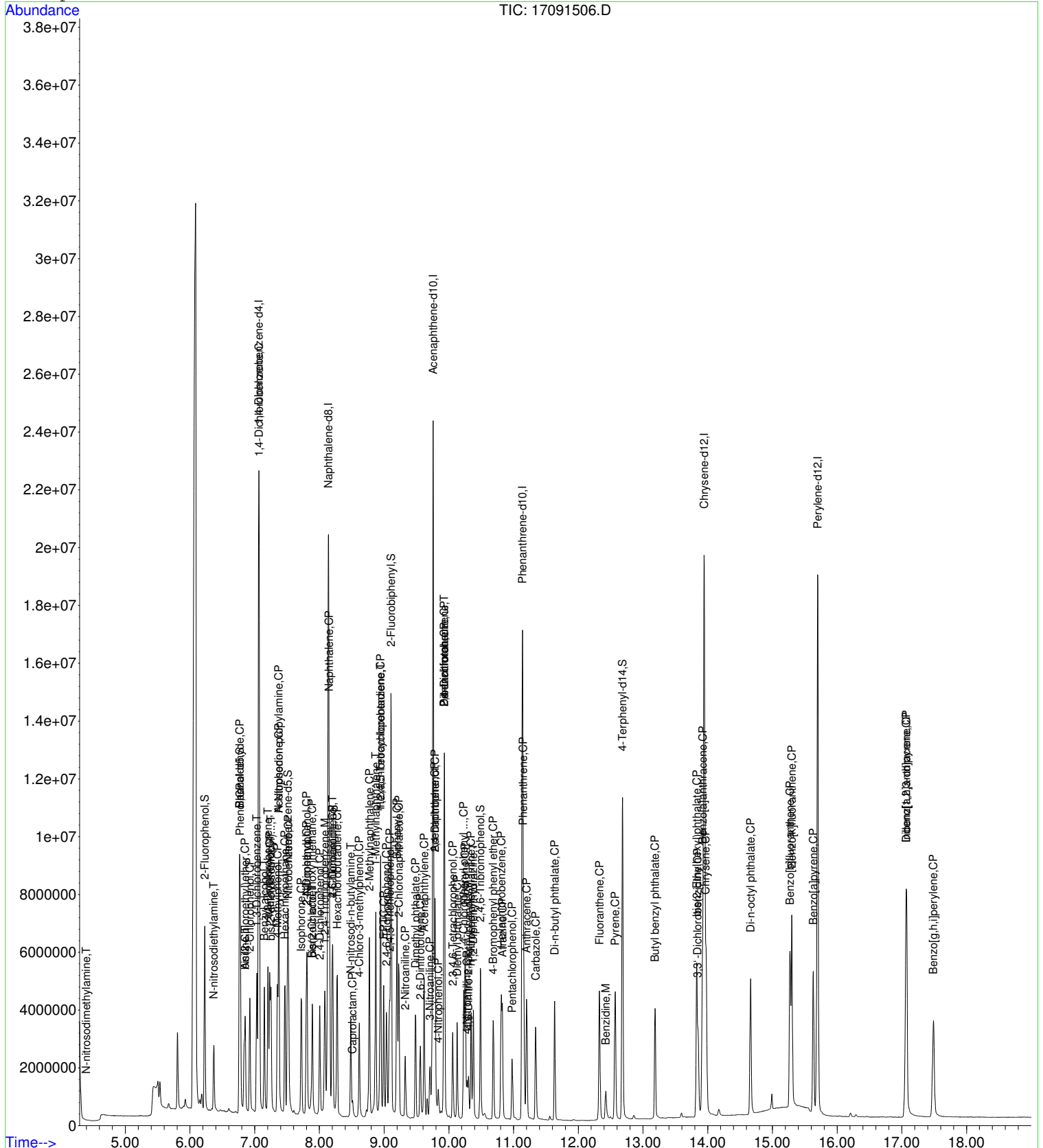
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44) EPTC	8.99	128	740321	1.392	mg/kg	99
45) 2,4,6-Trichlorophenol	9.04	196	706936	1.218	mg/kg	99
46) 2,4,5-Trichlorophenol	9.08	196	758610	1.226	mg/kg	100
48) Biphenyl	9.20	154	3029151	1.395	mg/kg	99
49) 2-Chloronaphthalene	9.23	162	2210933	1.272	mg/kg	98
50) 2-Nitroaniline	9.33	138	543349	1.238	mg/kg	89
51) Acenaphthylene	9.62	152	2923332	1.309	mg/kg	98
52) Dimethyl phthalate	9.48	163	1945867	1.246	mg/kg	99
53) 2,6-Dinitrotoluene	9.56	165	436622	1.144	mg/kg	87
54) Acenaphthene	9.78	153	2367160	1.301	mg/kg	99
55) 3-Nitroaniline	9.71	138	353394	1.063	mg/kg	93
56) 2,4-Dinitrophenol	9.79	184	187470	0.979	mg/kg	89
57) Dibenzofuran	9.93	168	3110288	1.319	mg/kg	96
58) 2,4-Dinitrotoluene	9.93	165	609402	1.217	mg/kg	87
59) 4-Nitrophenol	9.84	109	156834	1.185	mg/kg	91
60) 2,3,4,6-Tetrachlorophenol	10.06	232	533399	1.079	mg/kg	94
61) Fluorene	10.25	166	2234181	1.237	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.23	204	1073887	1.152	mg/kg	93
63) Diethyl phthalate	10.13	149	1507599	1.116	mg/kg	97
64) 4-Nitroaniline	10.28	138	311595	1.092	mg/kg	81
66) 4,6-Dinitro-2-methylphenol	10.31	198	264465	1.131	mg/kg	94
67) 1,2-Diphenylhydrazine	10.38	77	1708947	1.654	mg/kg	94
68) n-Nitrosodiphenylamine	10.34	169	1212568	1.393	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.69	248	642889	1.372	mg/kg	96
71) Atrazine	10.83	200	583691	1.642	mg/kg	96
72) Hexachlorobenzene	10.81	284	887925	1.426	mg/kg	97
73) Pentachlorophenol	10.98	266	421231	1.182	mg/kg	99
74) Phenanthrene	11.16	178	2592392	1.322	mg/kg	98
75) Anthracene	11.20	178	2378327	1.294	mg/kg	97
76) Pentachlorobenzene	9.93	250	1458501	1.594	mg/kg	97
77) Carbazole	11.34	167	2034080	1.266	mg/kg	98
78) Di-n-butyl phthalate	11.64	149	2599297	1.358	mg/kg	97
79) Fluoranthene	12.33	202	2907059	1.276	mg/kg	94
81) Benzidine	12.43	184	687725	0.948	mg/kg	98
82) Pyrene	12.57	202	2949790	1.259	mg/kg	95
84) Butyl benzyl phthalate	13.18	149	1199333	1.321	mg/kg	91
85) 3,3'-Dichlorobenzidine	13.85	252	1145188	1.240	mg/kg	98
86) Benzo[a]anthracene	13.92	228	3521252	1.246	mg/kg	98
87) Chrysene	13.97	228	3148321	1.264	mg/kg	98
88) bis(2-Ethylhexyl)phthalate	13.83	149	1826382	1.421	mg/kg	93
90) Di-n-octyl phthalate	14.66	149	2937522	1.248	mg/kg	98
91) Benzo[b]fluoranthene	15.27	252	3328670	1.303	mg/kg	96
92) Benzo[k]fluoranthene	15.30	252	3802887	1.516	mg/kg	96
93) Benzo[a]pyrene	15.63	252	3105291	1.405	mg/kg	97
94) Indeno[1,2,3-cd]pyrene	17.07	276	4247118	1.516	mg/kg	95
95) Dibenz[a,h]anthracene	17.07	278	3637052	1.507	mg/kg	99
96) Benzo[g,h,i]perylene	17.49	276	3167968	1.454	mg/kg	97

Data File : C:\HPCHEM\1\DATA\170915\17091506.D
Acq On : 15 Sep 2017 3:45 pm
Sample :
Misc : LCS
MS Integration Params: RTEINT.P
Quant Time: Sep 18 9:12 2017

Vial: 4
Operator:
Inst : GC/MS #4
Multiplr: 1.00

Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170915\17091507.D Vial: 5
 Acq On : 15 Sep 2017 4:12 pm Operator:
 Sample : LCSD-82383 Inst : GC/MS #4
 Misc : LCSD Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 18 9:12 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Wed Sep 13 09:26:26 2017
 Response via : Initial Calibration
 DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.07	152	4116404	4.00	mg/kg	93
22) Naphthalene-d8	8.14	136	11775085	4.00	mg/kg	98
42) Acenaphthene-d10	9.76	164	5830133	4.00	mg/kg	98
65) Phenanthrene-d10	11.13	188	8221318	4.00	mg/kg	86
80) Chrysene-d12	13.94	240	11494633	4.00	mg/kg	89
89) Perylene-d12	15.66	264	10620257	4.00	mg/kg	97

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol	6.19	112	2094307	2.31	mg/kg	0.07
Spiked Amount	4.000	Range 20 - 120	Recovery	=	57.75%	
9) Phenol-d5	6.78	99	2055046	1.92	mg/kg	0.02
Spiked Amount	4.000	Range 20 - 120	Recovery	=	48.00%	
23) Nitrobenzene-d5	7.52	82	2589938	2.81	mg/kg	0.00
Spiked Amount	4.000	Range 41 - 120	Recovery	=	70.25%	
47) 2-Fluorobiphenyl	9.11	172	5352989	2.77	mg/kg	0.00
Spiked Amount	4.000	Range 48 - 120	Recovery	=	69.25%	
69) 2,4,6-Tribromophenol	10.49	330	944296	2.56	mg/kg	0.00
Spiked Amount	4.000	Range 42 - 124	Recovery	=	64.00%	
83) 4-Terphenyl-d14	12.68	244	5564595	2.62	mg/kg	0.00
Spiked Amount	4.000	Range 51 - 135	Recovery	=	65.50%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.60	74	438133	1.065	mg/kg	77
3) Pyridine	4.63	79	865804	1.067	mg/kg	98
4) N-nitrosodiethylamine	6.34	102	560126	1.437	mg/kg	84
5) Benzaldehyde	6.76	106	1034509	2.015	mg/kg	96
6) Aniline	6.84	93	986365	1.013	mg/kg	94
8) bis(2-Chloroethyl)ether	6.86	63	852610	1.462	mg/kg	96
10) Phenol	6.79	94	1046843	1.054	mg/kg	93
11) 2-Chlorophenol	6.93	128	1279808	1.313	mg/kg	97
12) 1,3-Dichlorobenzene	7.04	146	1448305	1.207	mg/kg	98
13) 1,4-Dichlorobenzene	7.08	146	1317010	1.028	mg/kg	98
14) 1,2-Dichlorobenzene	7.21	146	1445699	1.243	mg/kg	98
15) Benzyl alcohol	7.16	108	697724	1.652	mg/kg	92
16) bis(2-chloroisopropyl)...	7.26	45	1522275	1.388	mg/kg	95
17) 2-Methylphenol	7.24	108	1017745	1.264	mg/kg	100
18) Hexachloroethane	7.47	117	551339	1.252	mg/kg	91
19) N-Nitrosodi-n-propylamine	7.38	70	870933	1.630	mg/kg	95
20) 4-Methylphenol	7.35	108	1030846	1.401	mg/kg	98
21) Acetophenone	7.38	105	1843081	1.624	mg/kg	96
24) Nitrobenzene	7.53	77	1235579	1.482	mg/kg	94
25) Isophorone	7.73	82	1988753	1.544	mg/kg	96
26) 2-Nitrophenol	7.80	139	663744	1.219	mg/kg	88
27) 2,4-Dimethylphenol	7.82	107	1051103	1.414	mg/kg	96
28) bis(2-Chloroethoxy)methane	7.90	93	1225274	1.382	mg/kg	97
29) Benzoic acid	7.89	105	341783	0.710	mg/kg	85
30) 2,4-Dichlorophenol	8.01	162	969195	1.281	mg/kg	98
31) 1,2,4-Trichlorobenzene	8.09	180	1246541	1.198	mg/kg	99
32) Naphthalene	8.16	128	3715716	1.343	mg/kg	97
33) 4-Chloroaniline	8.20	127	1072883	1.222	mg/kg	99
34) 2,6-Dichlorophenol	8.21	162	995015	1.314	mg/kg	99
35) Hexachlorobutadiene	8.28	225	769333	1.226	mg/kg	99
36) N-nitrosodi-n-butylamine	8.49	116	145114	1.325	mg/kg	98
37) Caprolactam	8.51	113	79842	0.416	mg/kg#	81
38) 4-Chloro-3-methylphenol	8.62	107	703849	1.403	mg/kg	89
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	1317762	1.325	mg/kg	99
40) 2-Methylnaphthalene	8.77	142	2208886	1.301	mg/kg	98
41) 1-Methylnaphthalene	8.87	142	2369038	1.436	mg/kg	97

Data File : C:\HPCHEM\1\DATA\170915\17091507.D

Vial: 5

Acq On : 15 Sep 2017 4:12 pm

Operator:

Sample : LCSD-82383

Inst : GC/MS #4

Misc : LCSD

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 18 9:12 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

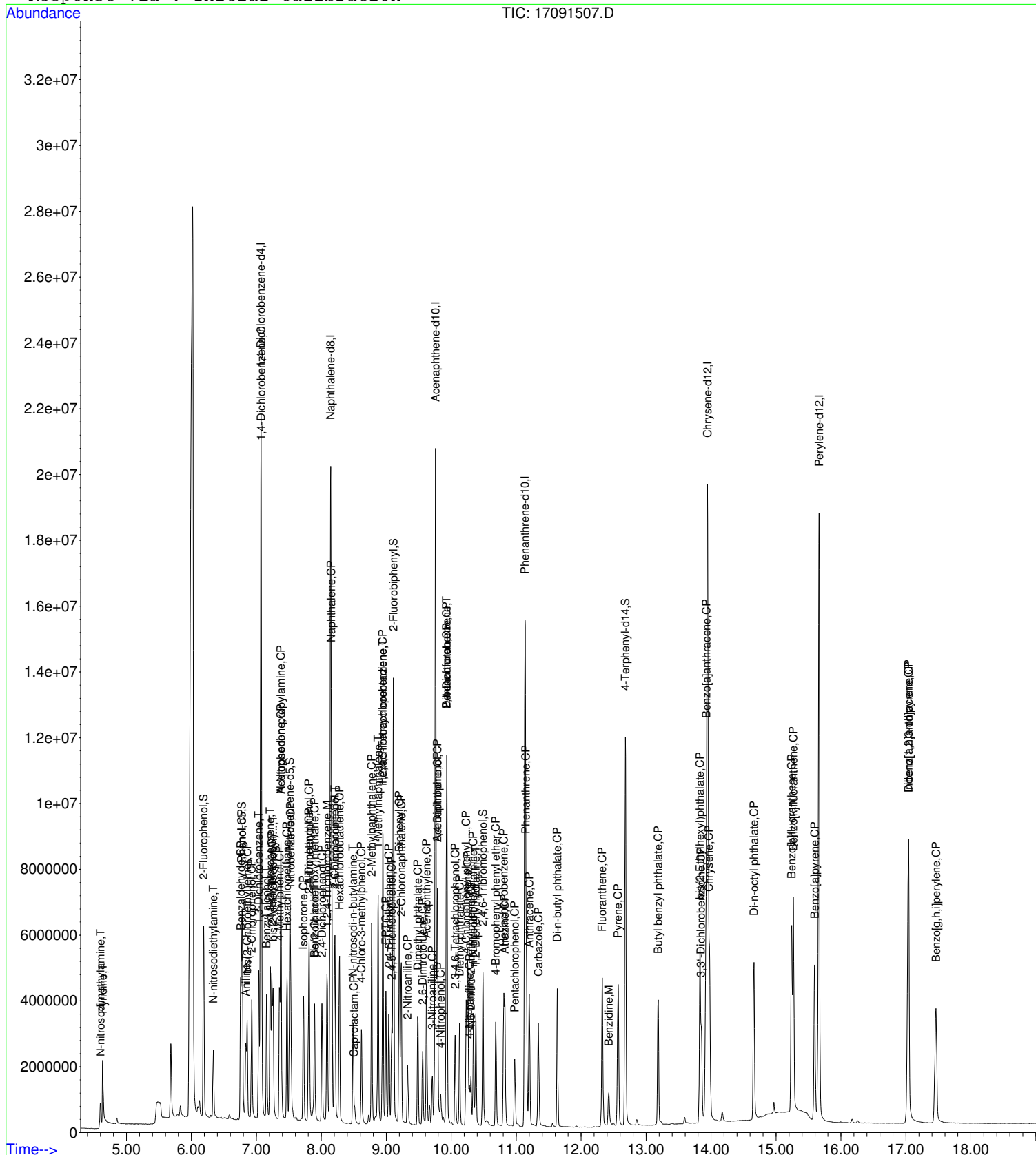
Response via : Initial Calibration

DataAcq Meth : SV170911

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	762664	1.156	mg/kg	98
44) EPTC	8.99	128	663971	1.490	mg/kg	97
45) 2,4,6-Trichlorophenol	9.04	196	608762	1.250	mg/kg	99
46) 2,4,5-Trichlorophenol	9.08	196	649915	1.252	mg/kg	99
48) Biphenyl	9.20	154	2701972	1.484	mg/kg	98
49) 2-Chloronaphthalene	9.23	162	1964094	1.349	mg/kg	97
50) 2-Nitroaniline	9.33	138	468257	1.270	mg/kg	89
51) Acenaphthylene	9.62	152	2509426	1.340	mg/kg	98
52) Dimethyl phthalate	9.48	163	1713134	1.309	mg/kg	99
53) 2,6-Dinitrotoluene	9.56	165	391816	1.222	mg/kg	87
54) Acenaphthene	9.79	153	2042090	1.340	mg/kg	100
55) 3-Nitroaniline	9.71	138	313648	1.122	mg/kg	91
56) 2,4-Dinitrophenol	9.79	184	197130	1.180	mg/kg	89
57) Dibenzofuran	9.93	168	2643868	1.338	mg/kg	96
58) 2,4-Dinitrotoluene	9.93	165	548297	1.297	mg/kg	89
59) 4-Nitrophenol	9.84	109	148291	1.316	mg/kg	90
60) 2,3,4,6-Tetrachlorophenol	10.06	232	484381	1.166	mg/kg	94
61) Fluorene	10.25	166	1923934	1.272	mg/kg	98
62) 4-Chlorophenyl phenyl ...	10.23	204	953896	1.221	mg/kg	95
63) Diethyl phthalate	10.13	149	1440471	1.273	mg/kg	96
64) 4-Nitroaniline	10.28	138	309142	1.283	mg/kg	87
66) 4,6-Dinitro-2-methylphenol	10.30	198	261112	1.206	mg/kg	87
67) 1,2-Diphenylhydrazine	10.38	77	1531523	1.614	mg/kg	94
68) n-Nitrosodiphenylamine	10.34	169	1105293	1.382	mg/kg	100
70) 4-Bromophenyl phenyl ether	10.69	248	585455	1.360	mg/kg	95
71) Atrazine	10.83	200	562710	1.723	mg/kg	96
72) Hexachlorobenzene	10.81	284	783956	1.370	mg/kg	97
73) Pentachlorophenol	10.98	266	409065	1.246	mg/kg	99
74) Phenanthrene	11.16	178	2434553	1.351	mg/kg	98
75) Anthracene	11.20	178	2294993	1.359	mg/kg	97
76) Pentachlorobenzene	9.93	250	1269364	1.511	mg/kg	98
77) Carbazole	11.34	167	1985418	1.345	mg/kg	97
78) Di-n-butyl phthalate	11.63	149	2587289	1.472	mg/kg	98
79) Fluoranthene	12.32	202	2826077	1.350	mg/kg	95
81) Benzidine	12.43	184	720373	1.009	mg/kg	98
82) Pyrene	12.57	202	2897950	1.258	mg/kg	96
84) Butyl benzyl phthalate	13.19	149	1179425	1.322	mg/kg	94
85) 3,3'-Dichlorobenzidine	13.85	252	1088341	1.199	mg/kg	99
86) Benzo[a]anthracene	13.92	228	3460936	1.246	mg/kg	98
87) Chrysene	13.97	228	3130504	1.279	mg/kg	98
88) bis(2-Ethylhexyl)phthalate	13.83	149	1765788	1.398	mg/kg	93
90) Di-n-octyl phthalate	14.66	149	2861407	1.245	mg/kg	98
91) Benzo[b]fluoranthene	15.24	252	3275888	1.313	mg/kg	97
92) Benzo[k]fluoranthene	15.27	252	3674103	1.500	mg/kg	97
93) Benzo[a]pyrene	15.60	252	3041865	1.410	mg/kg	97
94) Indeno[1,2,3-cd]pyrene	17.04	276	4293512	1.570	mg/kg	96
95) Dibenz[a,h]anthracene	17.04	278	3689345	1.566	mg/kg	99
96) Benzo[g,h,i]perylene	17.46	276	3249925	1.528	mg/kg	97

Data File : C:\HPCHEM\1\DATA\170915\17091507.D Vial: 5
Acq On : 15 Sep 2017 4:12 pm Operator:
Sample : LCSD-82383 Inst : GC/MS #4
Misc : LCSD Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 18 9:12 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170915\17091508.D

Vial: 6

Acq On : 15 Sep 2017 4:39 pm

Operator:

Sample : MB-82383

Inst : GC/MS #4

Misc : MBLK

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 18 9:12 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.06	152	3754118	4.00	mg/kg	85
22) Naphthalene-d8	8.14	136	11103593	4.00	mg/kg	92
42) Acenaphthene-d10	9.76	164	5387492	4.00	mg/kg	90
65) Phenanthrene-d10	11.13	188	8297444	4.00	mg/kg	86
80) Chrysene-d12	13.94	240	10099573	4.00	mg/kg	78
89) Perylene-d12	15.66	264	10640079	4.00	mg/kg	97

System Monitoring Compounds

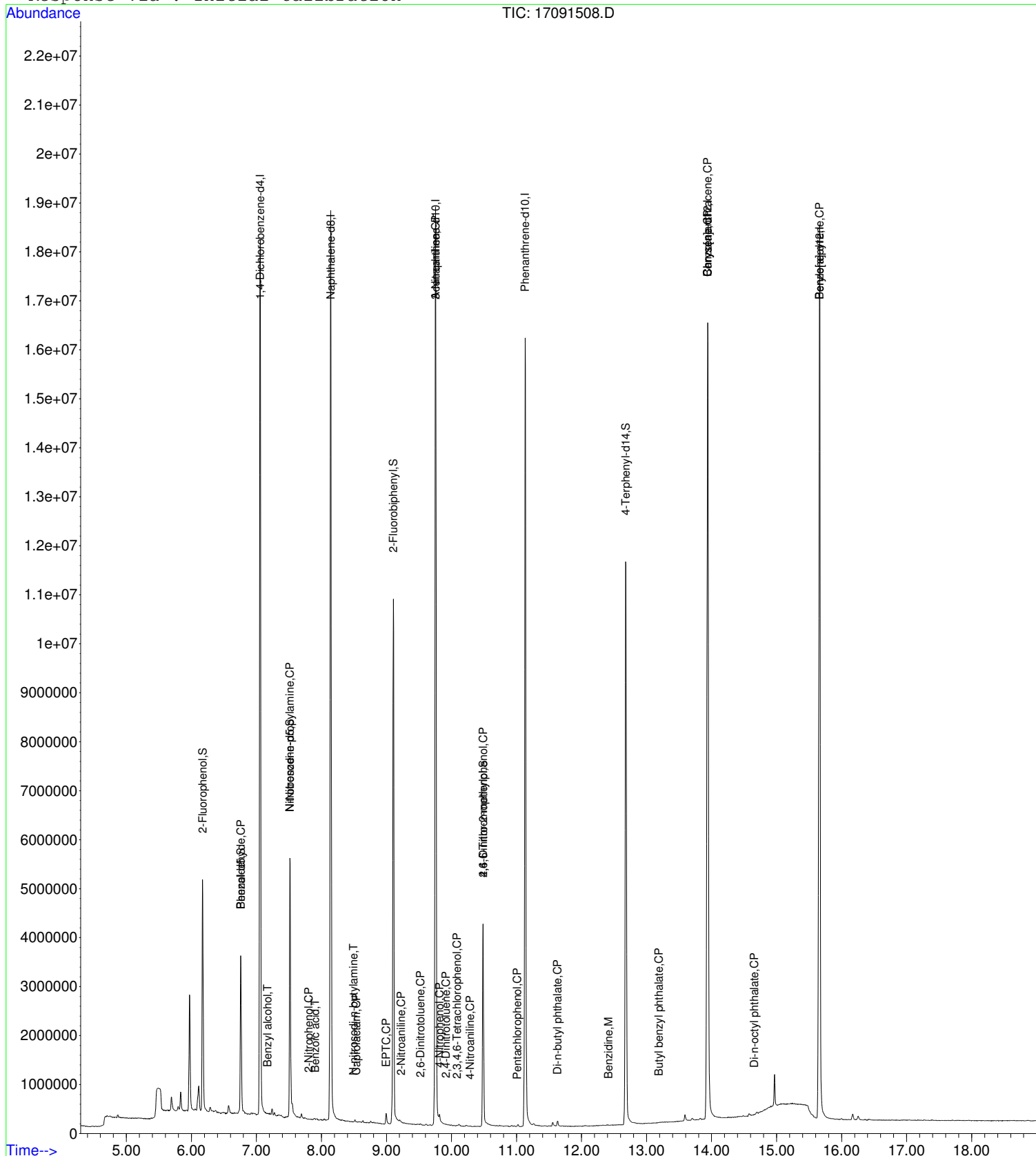
7) 2-Fluorophenol		6.17	112	1692508	2.04	mg/kg	0.06
Spiked Amount	4.000	Range	20 - 120	Recovery	=	51.00%	
9) Phenol-d5		6.76	99	1360789	1.39	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	34.75%	
23) Nitrobenzene-d5		7.51	82	2159183	2.49	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	62.25%	
47) 2-Fluorobiphenyl		9.11	172	4245399	2.38	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	59.50%	
69) 2,4,6-Tribromophenol		10.49	330	800236	2.16	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	54.00%	
83) 4-Terphenyl-d14		12.68	244	5529839	2.96	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	74.00%	

Target Compounds

						Qvalue
5) Benzaldehyde		6.76	106	2567	0.015	mg/kg# 1
15) Benzyl alcohol		7.18	108	1505	0.050	mg/kg# 69
19) N-Nitrosodi-n-propylamine		7.51	70	295831	0.607	mg/kg# 73
26) 2-Nitrophenol		7.81	139	51	0.022	mg/kg# 41
29) Benzoic acid		7.91	105	285	0.073	mg/kg 80
36) N-nitrosodi-n-butylamine		8.49	116	48	0.023	mg/kg# 1
37) Caprolactam		8.54	113	76	0.032	mg/kg# 49
44) EPTC		9.00	128	810	0.002	mg/kg# 1
50) 2-Nitroaniline		9.23	138	48	0.024	mg/kg# 47
53) 2,6-Dinitrotoluene		9.53	165	1015	0.027	mg/kg# 61
55) 3-Nitroaniline		9.75	138	1109	0.044	mg/kg# 1
58) 2,4-Dinitrotoluene		9.92	165	260	0.030	mg/kg 81
59) 4-Nitrophenol		9.82	109	1173	0.064	mg/kg# 1
60) 2,3,4,6-Tetrachlorophenol		10.09	232	47	0.020	mg/kg# 1
64) 4-Nitroaniline		10.28	138	55	0.040	mg/kg# 25
66) 4,6-Dinitro-2-methylphenol		10.48	198	1525	0.053	mg/kg# 1
73) Pentachlorophenol		11.00	266	71	0.028	mg/kg# 82
78) Di-n-butyl phthalate		11.63	149	65512	0.037	mg/kg 96
81) Benzidine		12.42	184	57	0.033	mg/kg 69
84) Butyl benzyl phthalate		13.19	149	1882	0.019	mg/kg# 84
86) Benzo[a]anthracene		13.94	228	27972	0.011	mg/kg 77
87) Chrysene		13.94	228	27972	0.013	mg/kg# 74
90) Di-n-octyl phthalate		14.65	149	1297	0.020	mg/kg 85
93) Benzo[a]pyrene		15.66	252	38771	0.018	mg/kg 92

Data File : C:\HPCHEM\1\DATA\170915\17091508.D Vial: 6
 Acq On : 15 Sep 2017 4:39 pm Operator:
 Sample : MB-82383 Inst : GC/MS #4
 Misc : MBLK Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 18 9:12 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Wed Sep 13 09:26:26 2017
 Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170915\17091510.D

Vial: 8

Acq On : 15 Sep 2017 5:32 pm

Operator:

Sample : 1709099-01C

Inst : GC/MS #4

Misc : SAMP

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 18 9:20 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Wed Sep 13 09:26:26 2017

Response via : Initial Calibration

DataAcq Meth : SV170911

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.06	152	3824205	4.00	mg/kg	87
22) Naphthalene-d8	8.14	136	10951123	4.00	mg/kg	91
42) Acenaphthene-d10	9.76	164	5200825	4.00	mg/kg	87
65) Phenanthrene-d10	11.13	188	8199608	4.00	mg/kg	85
80) Chrysene-d12	13.94	240	10691570	4.00	mg/kg	82
89) Perylene-d12	15.65	264	10586480	4.00	mg/kg	97

System Monitoring Compounds

7) 2-Fluorophenol		6.16	112	1740727	2.06	mg/kg	0.04
Spiked Amount	4.000	Range	20 - 120	Recovery	=	51.50%	
9) Phenol-d5		6.76	99	1282776	1.29	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	32.25%	
23) Nitrobenzene-d5		7.52	82	2084780	2.43	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	60.75%	
47) 2-Fluorobiphenyl		9.11	172	4090195	2.37	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	59.25%	
69) 2,4,6-Tribromophenol		10.49	330	796177	2.17	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	54.25%	
83) 4-Terphenyl-d14		12.68	244	5230732	2.65	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	66.25%	

Target Compounds

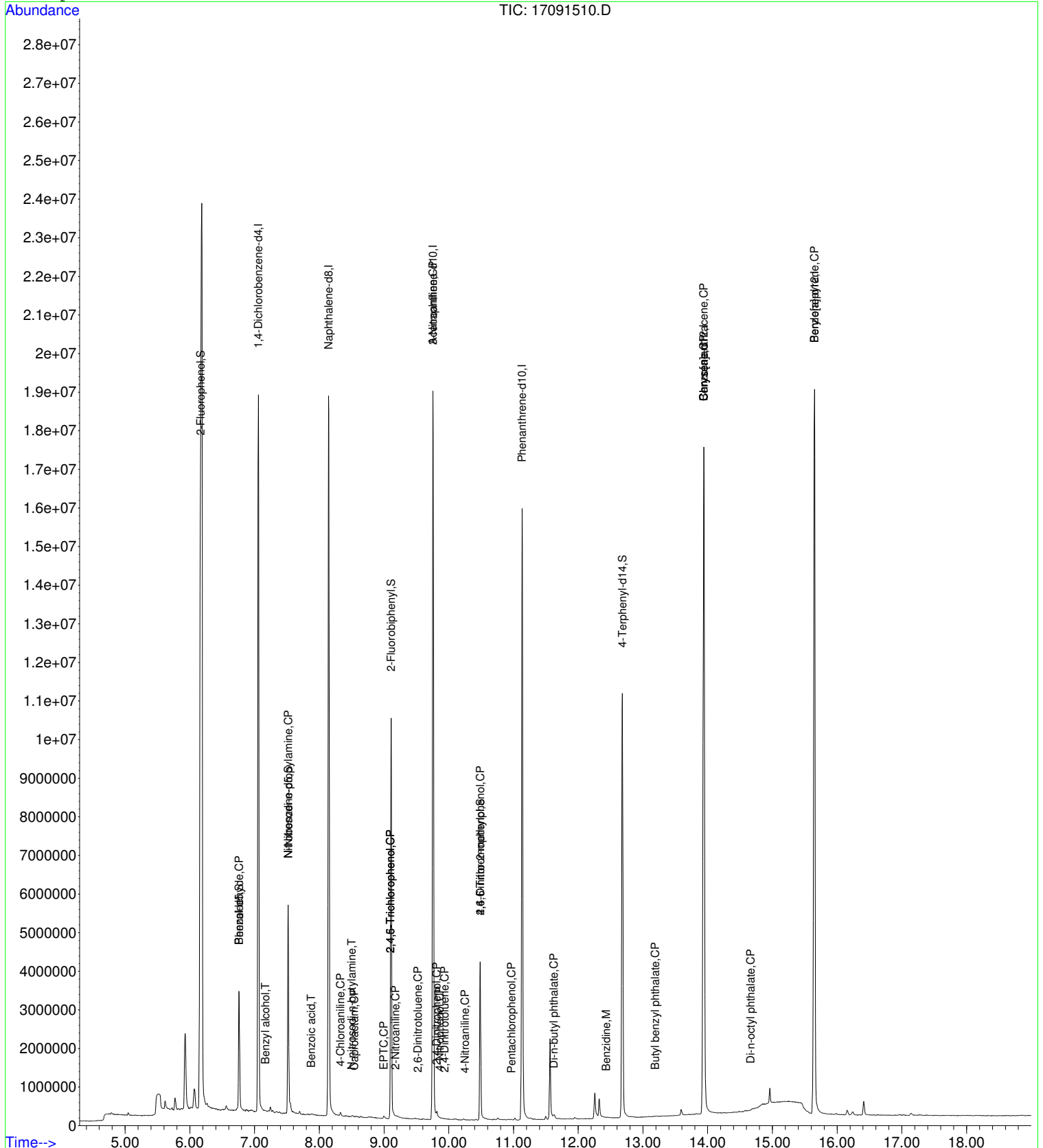
						Qvalue
5) Benzaldehyde		6.76	106	1390	0.013	mg/kg# 1
15) Benzyl alcohol		7.17	108	352	0.047	mg/kg# 48
19) N-Nitrosodi-n-propylamine		7.52	70	293923	0.592	mg/kg# 74
29) Benzoic acid		7.87	105	10450	0.094	mg/kg# 61
33) 4-Chloroaniline		8.33	127	2453	0.012	mg/kg 71
36) N-nitrosodi-n-butylamine		8.50	116	111	0.023	mg/kg# 45
37) Caprolactam		8.55	113	49	0.032	mg/kg# 20
44) EPTC		9.00	128	228	0.001	mg/kg# 67
45) 2,4,6-Trichlorophenol		9.09	196	48	0.019	mg/kg# 11
46) 2,4,5-Trichlorophenol		9.09	196	48	0.016	mg/kg# 12
50) 2-Nitroaniline		9.18	138	342	0.025	mg/kg# 57
53) 2,6-Dinitrotoluene		9.53	165	325	0.024	mg/kg# 40
55) 3-Nitroaniline		9.75	138	1353	0.045	mg/kg# 1
56) 2,4-Dinitrophenol		9.80	184	70	0.066	mg/kg# 1
58) 2,4-Dinitrotoluene		9.93	165	89	0.029	mg/kg# 32
59) 4-Nitrophenol		9.86	109	227	0.054	mg/kg# 23
64) 4-Nitroaniline		10.25	138	51	0.040	mg/kg# 1
66) 4,6-Dinitro-2-methylphenol		10.48	198	1499	0.053	mg/kg# 1
73) Pentachlorophenol		10.98	266	108	0.028	mg/kg 94
78) Di-n-butyl phthalate		11.63	149	40660	0.023	mg/kg 96
81) Benzidine		12.44	184	103	0.033	mg/kg 92
84) Butyl benzyl phthalate		13.19	149	1402	0.018	mg/kg# 55
86) Benzo[a]anthracene		13.94	228	30576	0.012	mg/kg 74
87) Chrysene		13.94	228	30576	0.013	mg/kg# 72
90) Di-n-octyl phthalate		14.65	149	1722	0.020	mg/kg 71
93) Benzo[a]pyrene		15.65	252	40138	0.019	mg/kg 91

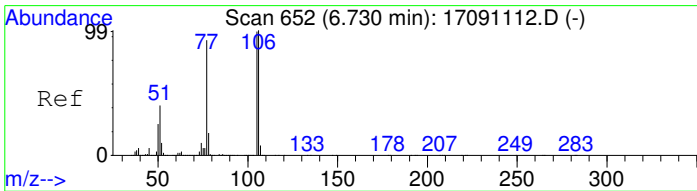
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Acq On : 15 Sep 2017 5:32 pm
Sample : 1709099-01C
Misc : SAMP
MS Integration Params: RTEINT.P
Quant Time: Sep 18 9:20 2017

Vial: 8
Operator:
Inst : GC/MS #4
Multiplr: 1.00

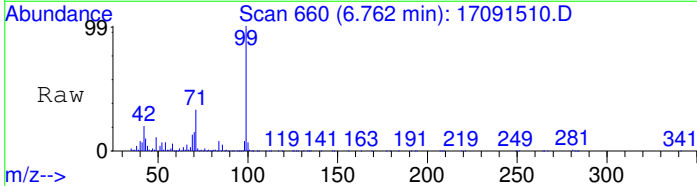
Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Wed Sep 13 09:26:26 2017
Response via : Initial Calibration

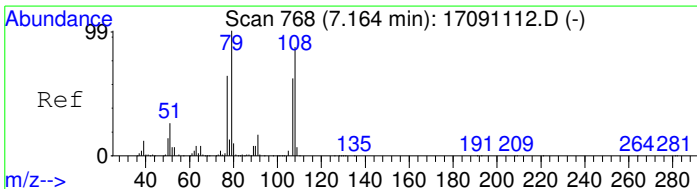
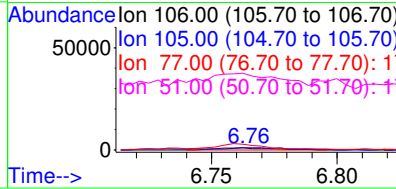
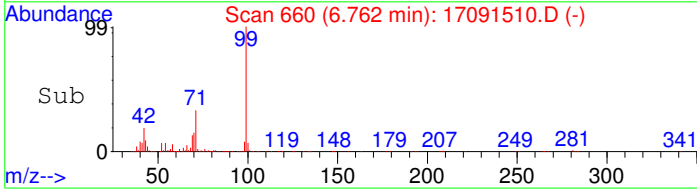




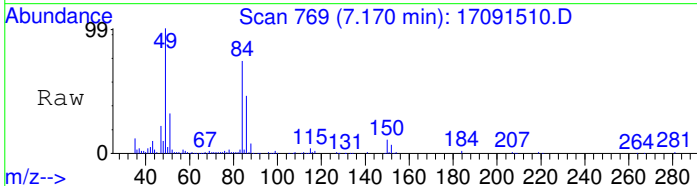
#5
Benzaldehyde
Concen: 0.013 mg/kg
RT: 6.76 min Scan# 660
Delta R.T. 0.04 min
Lab File: 17091510.D
Acq: 15 Sep 2017 5:32 pm



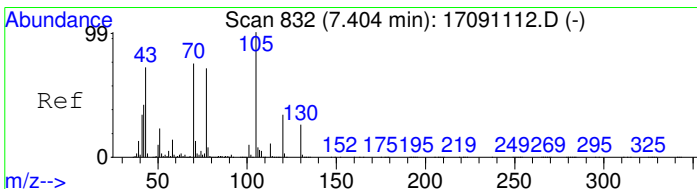
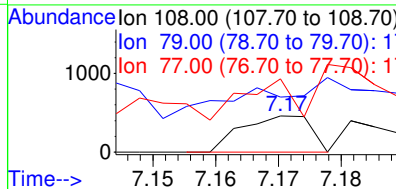
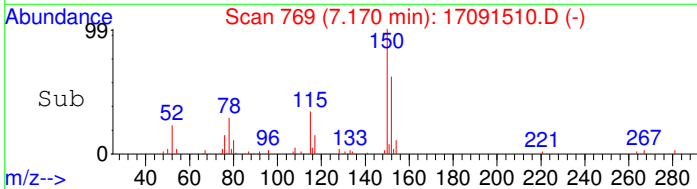
Tgt Ion:106 Resp: 1390
Ion Ratio Lower Upper
106 100
105 68.1 78.3 118.3#
77 207.0 72.8 112.8#
51 404.2 20.8 60.8#



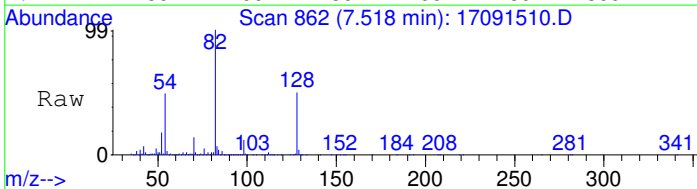
#15
Benzyl alcohol
Concen: 0.047 mg/kg
RT: 7.17 min Scan# 769
Delta R.T. 0.01 min
Lab File: 17091510.D
Acq: 15 Sep 2017 5:32 pm



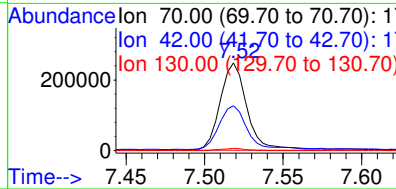
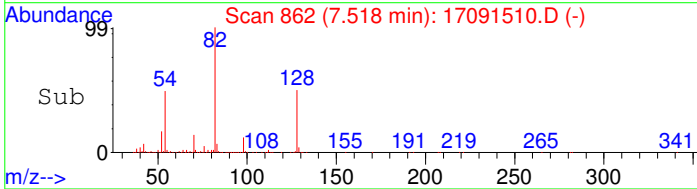
Tgt Ion:108 Resp: 352
Ion Ratio Lower Upper
108 100
79 26.1 95.4 135.4#
77 68.8 53.1 93.1

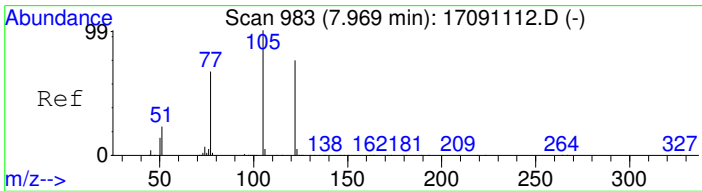


#19
N-Nitrosodi-n-propylamine
Concen: 0.592 mg/kg
RT: 7.52 min Scan# 862
Delta R.T. 0.13 min
Lab File: 17091510.D
Acq: 15 Sep 2017 5:32 pm

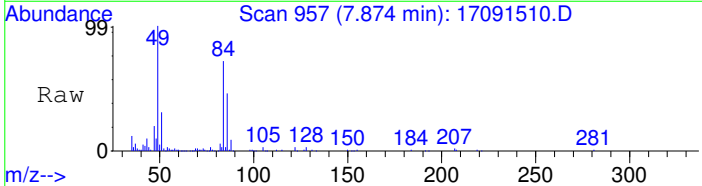


Tgt Ion: 70 Resp: 293923
Ion Ratio Lower Upper
70 100
42 50.0 36.4 76.4
130 2.4 14.2 54.2#

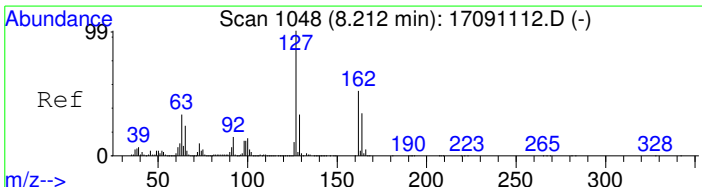
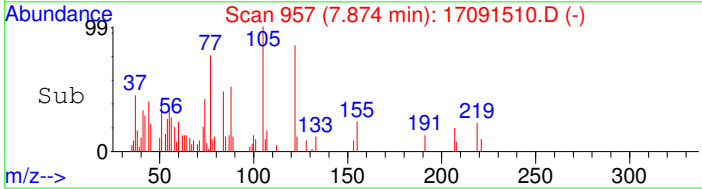




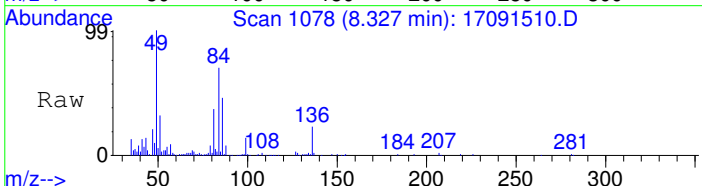
#29
 Benzoic acid
 Concen: 0.094 mg/kg
 RT: 7.87 min Scan# 957
 Delta R.T. -0.06 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



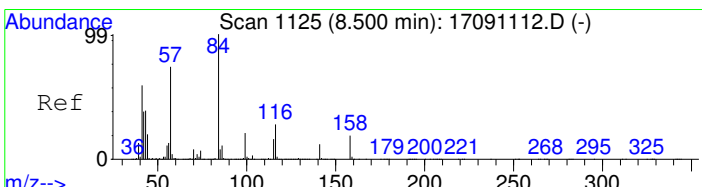
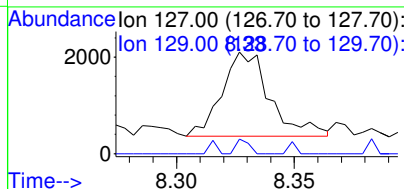
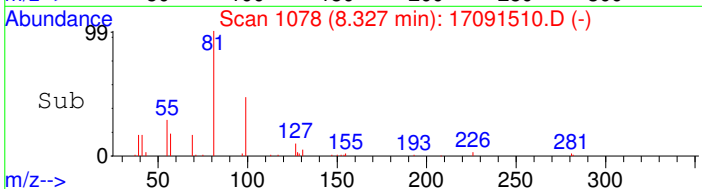
Tgt Ion:105 Resp: 10450
 Ion Ratio Lower Upper
 105 100
 77 74.7 38.7 98.7
 51 93.5 3.8 63.8#



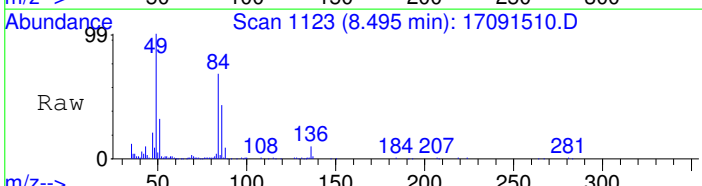
#33
 4-Chloroaniline
 Concen: 0.012 mg/kg
 RT: 8.33 min Scan# 1078
 Delta R.T. 0.12 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



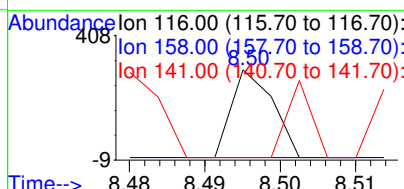
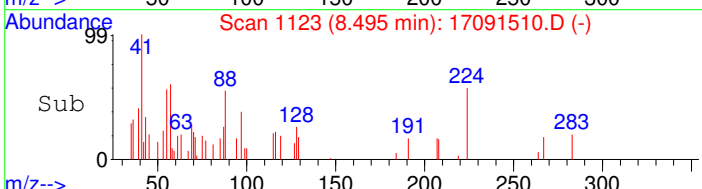
Tgt Ion:127 Resp: 2453
 Ion Ratio Lower Upper
 127 100
 129 17.2 13.9 53.9

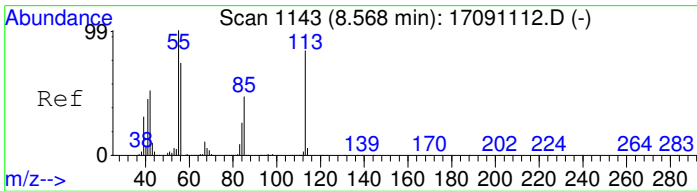


#36
 N-nitrosodi-n-butylamine
 Concen: 0.023 mg/kg
 RT: 8.50 min Scan# 1123
 Delta R.T. -0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

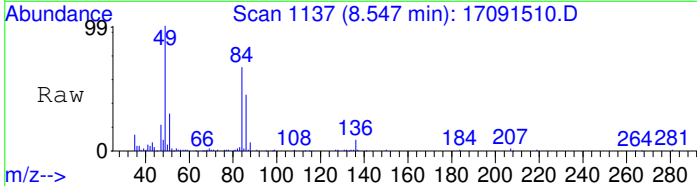


Tgt Ion:116 Resp: 111
 Ion Ratio Lower Upper
 116 100
 158 0.0 45.8 85.8#
 141 52.3 24.0 64.0

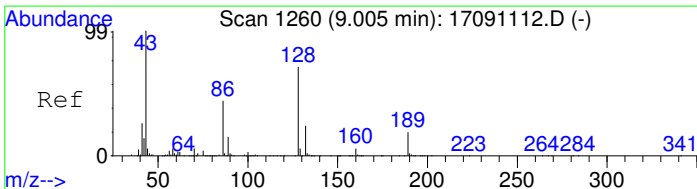
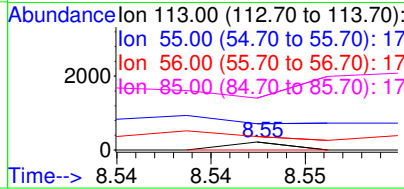
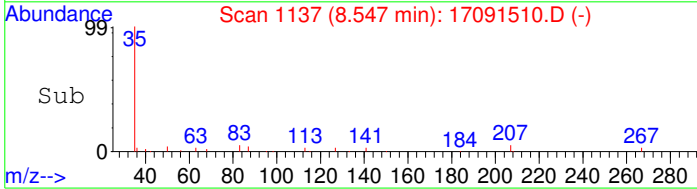




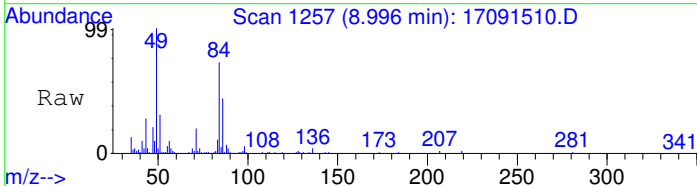
#37
 Caprolactam
 Concen: 0.032 mg/kg
 RT: 8.55 min Scan# 1137
 Delta R.T. 0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



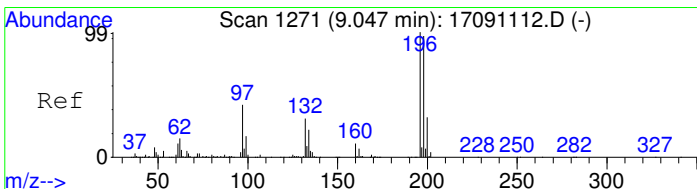
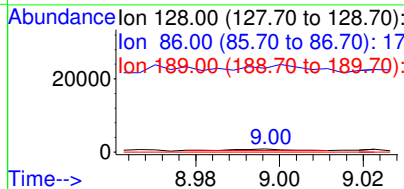
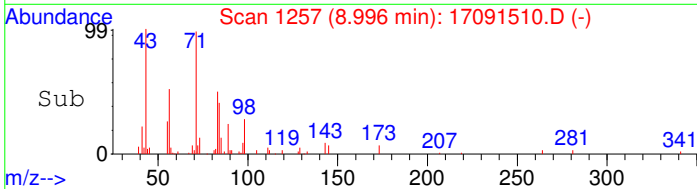
Tgt Ion	Ratio	Lower	Upper
113	100		
55	0.0	98.7	138.7#
56	47.0	69.6	109.6#
85	0.0	35.6	75.6#



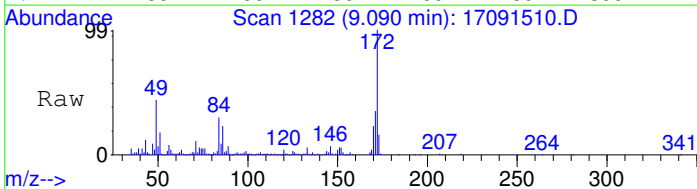
#44
 EPTC
 Concen: 0.001 mg/kg
 RT: 9.00 min Scan# 1257
 Delta R.T. -0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



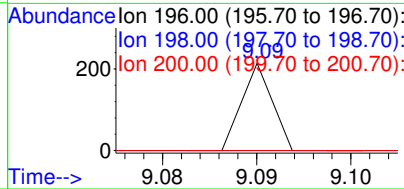
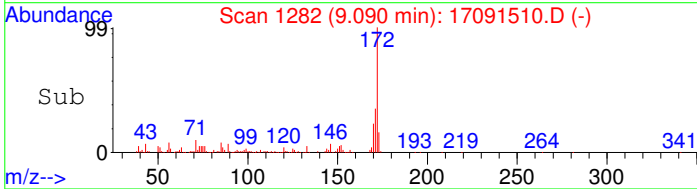
Tgt Ion	Ratio	Lower	Upper
128	100		
86	41.5	49.3	73.9#
189	0.0	20.2	30.4#

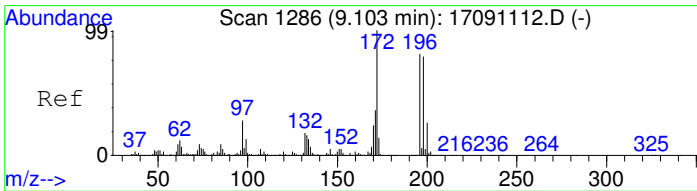


#45
 2,4,6-Trichlorophenol
 Concen: 0.019 mg/kg
 RT: 9.09 min Scan# 1282
 Delta R.T. 0.04 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

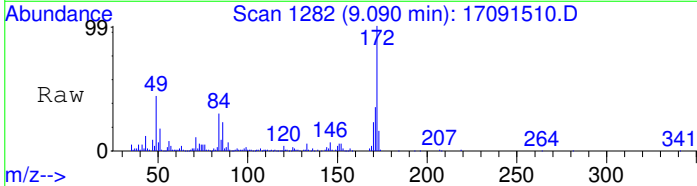


Tgt Ion	Ratio	Lower	Upper
196	100		
198	0.0	78.3	118.3#
200	0.0	12.5	52.5#

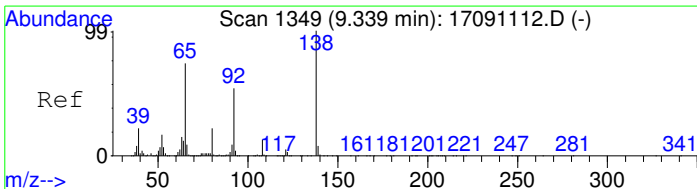
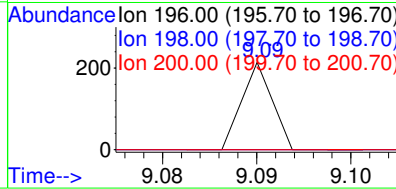
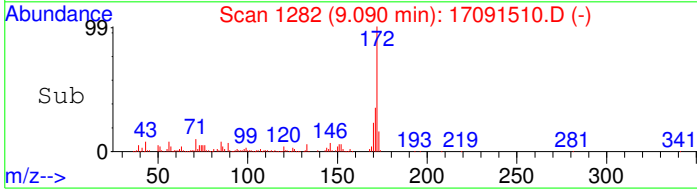




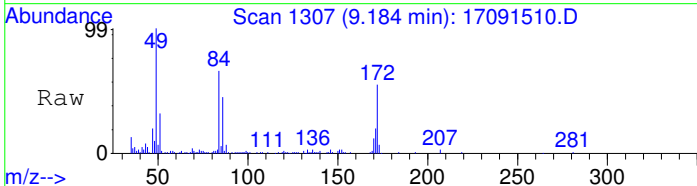
#46
 2,4,5-Trichlorophenol
 Concen: 0.016 mg/kg
 RT: 9.09 min Scan# 1282
 Delta R.T. -0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



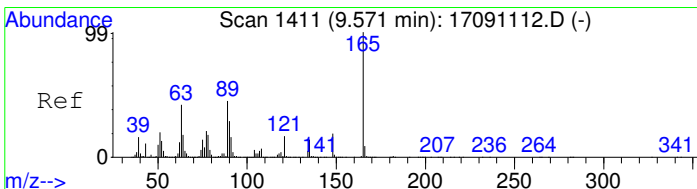
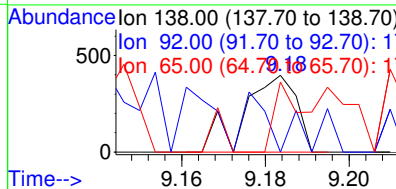
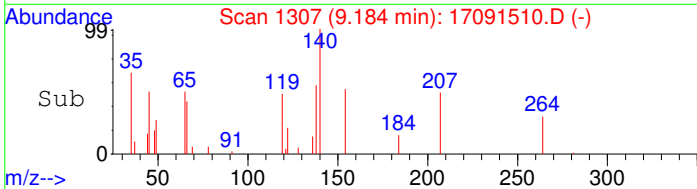
Tgt Ion	Resp	Lower	Upper
196	100		
198	0.0	77.0	117.0#
200	0.0	12.2	52.2#



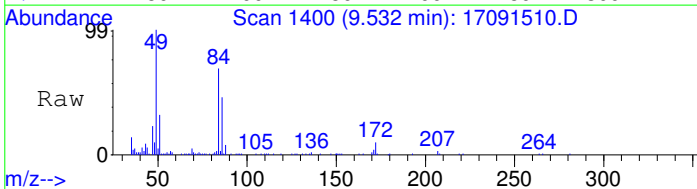
#50
 2-Nitroaniline
 Concen: 0.025 mg/kg
 RT: 9.18 min Scan# 1307
 Delta R.T. -0.15 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



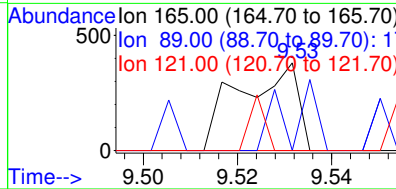
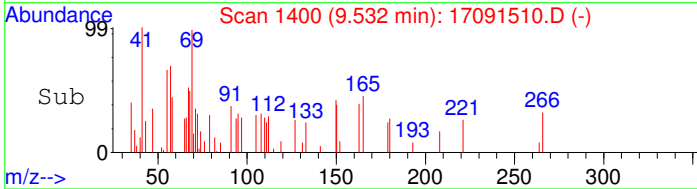
Tgt Ion	Resp	Lower	Upper
138	100		
92	0.0	32.9	72.9#
65	91.4	54.3	94.3

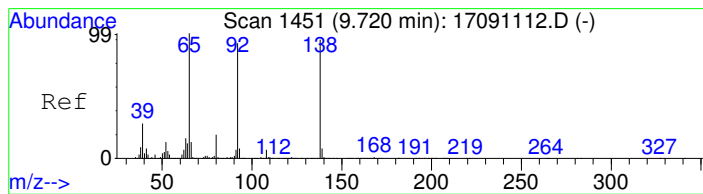


#53
 2,6-Dinitrotoluene
 Concen: 0.024 mg/kg
 RT: 9.53 min Scan# 1400
 Delta R.T. -0.03 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

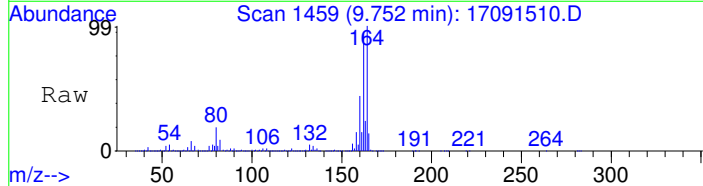


Tgt Ion	Resp	Lower	Upper
165	100		
89	0.0	24.4	64.4#
121	0.0	0.0	37.6

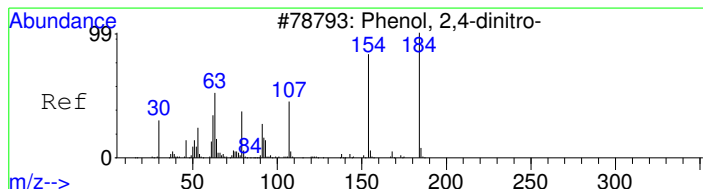
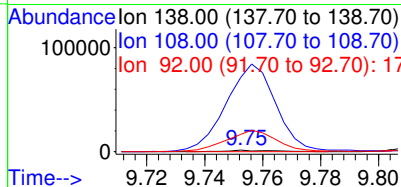
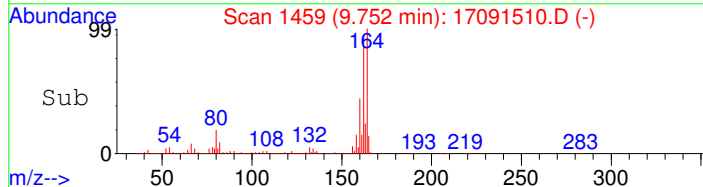




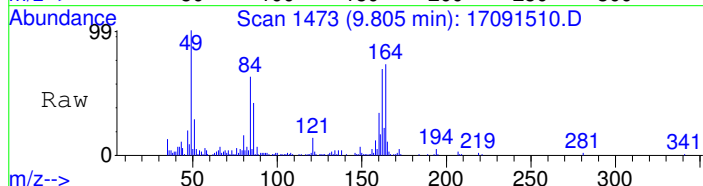
#55
 3-Nitroaniline
 Concen: 0.045 mg/kg
 RT: 9.75 min Scan# 1459
 Delta R.T. 0.04 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



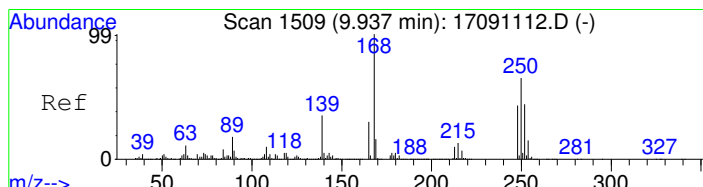
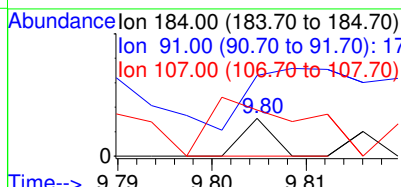
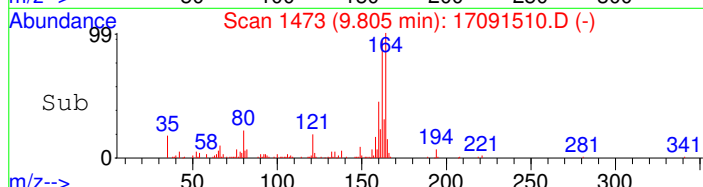
Tgt Ion:138 Resp: 1353
 Ion Ratio Lower Upper
 138 100
 108 4996.4 0.0 27.6#
 92 1146.3 73.6 113.6#



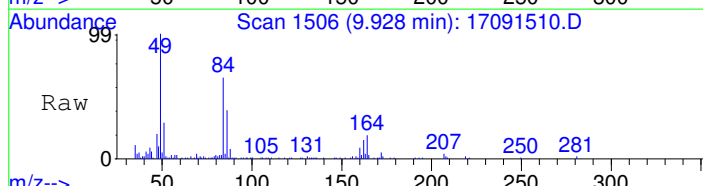
#56
 2,4-Dinitrophenol
 Concen: 0.066 mg/kg
 RT: 9.80 min Scan# 1473
 Delta R.T. 0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



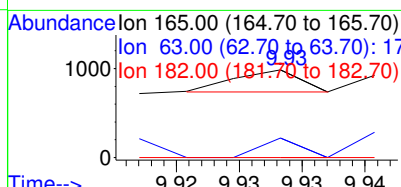
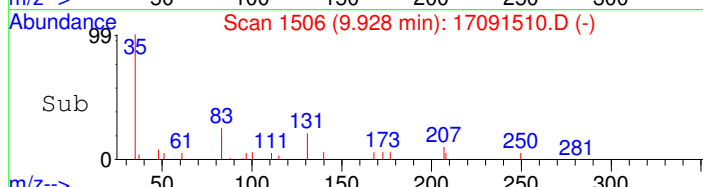
Tgt Ion:184 Resp: 70
 Ion Ratio Lower Upper
 184 100
 91 106.1 12.3 52.3#
 107 121.9 8.3 48.3#

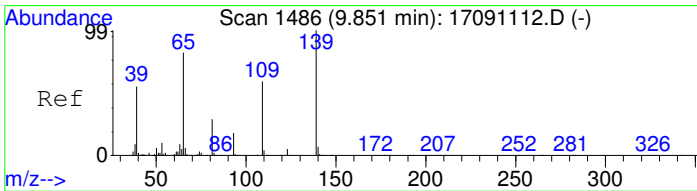


#58
 2,4-Dinitrotoluene
 Concen: 0.029 mg/kg
 RT: 9.93 min Scan# 1506
 Delta R.T. -0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

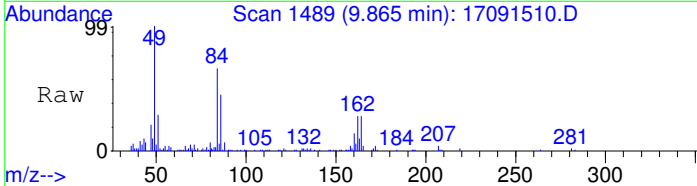


Tgt Ion:165 Resp: 89
 Ion Ratio Lower Upper
 165 100
 63 89.0 20.1 60.1#
 182 0.0 0.0 30.9

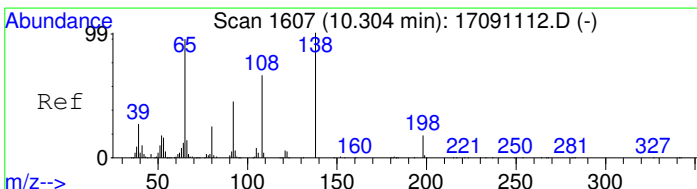
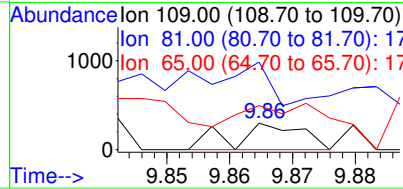
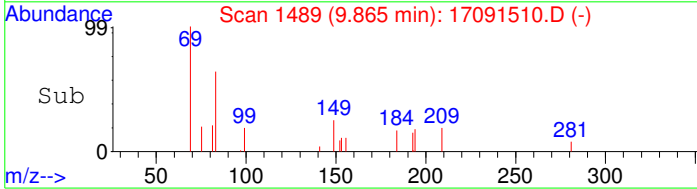




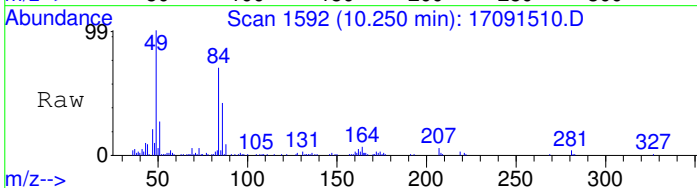
#59
 4-Nitrophenol
 Concen: 0.054 mg/kg
 RT: 9.86 min Scan# 1489
 Delta R.T. 0.02 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



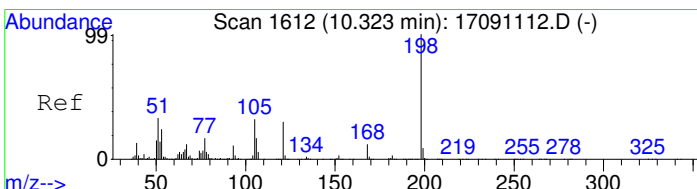
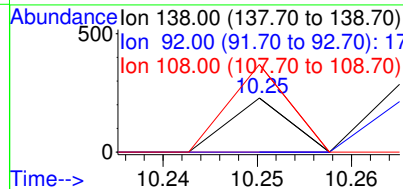
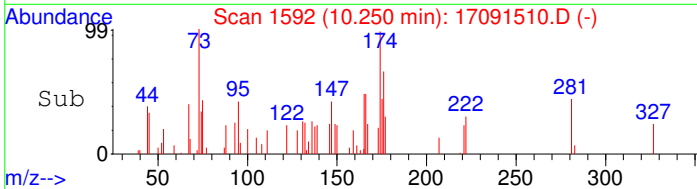
Tgt Ion:109 Resp: 227
 Ion Ratio Lower Upper
 109 100
 81 126.7 26.7 66.7#
 65 64.0 119.1 159.1#



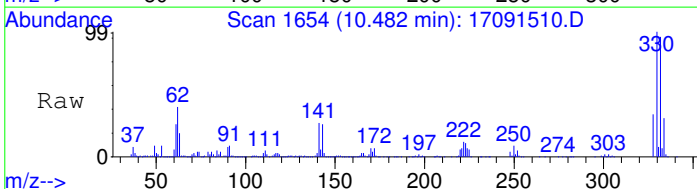
#64
 4-Nitroaniline
 Concen: 0.040 mg/kg
 RT: 10.25 min Scan# 1592
 Delta R.T. -0.04 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



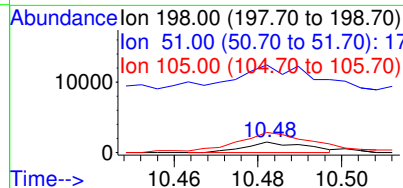
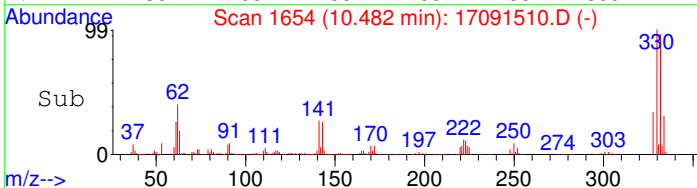
Tgt Ion:138 Resp: 51
 Ion Ratio Lower Upper
 138 100
 92 0.0 23.1 63.1#
 108 162.3 42.7 82.7#

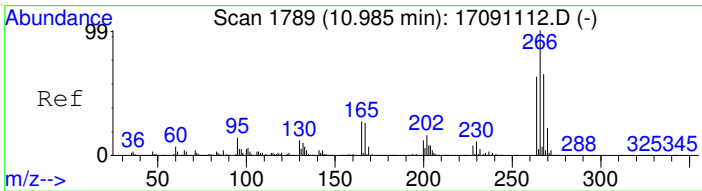


#66
 4,6-Dinitro-2-methylphenol
 Concen: 0.053 mg/kg
 RT: 10.48 min Scan# 1654
 Delta R.T. 0.17 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

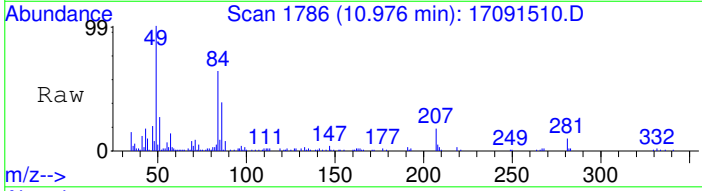


Tgt Ion:198 Resp: 1499
 Ion Ratio Lower Upper
 198 100
 51 158.7 11.7 51.7#
 105 173.1 12.5 52.5#



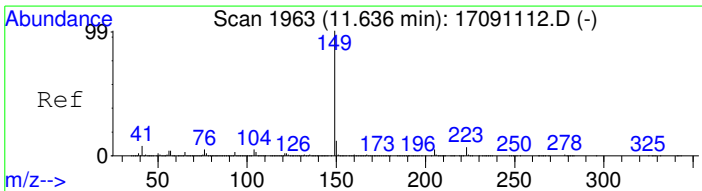
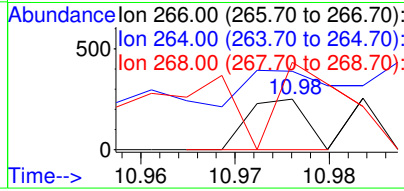
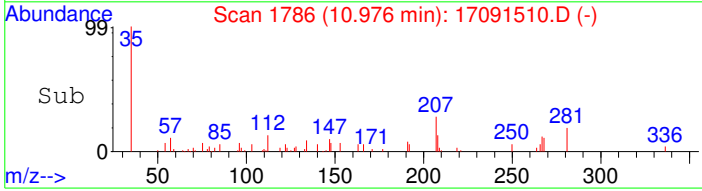


#73
 Pentachlorophenol
 Concen: 0.028 mg/kg
 RT: 10.98 min Scan# 1786
 Delta R.T. -0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

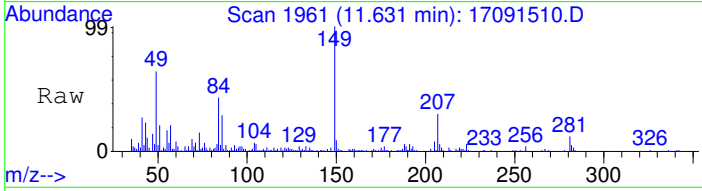


Tgt Ion: 266 Resp: 108

Ion	Ratio	Lower	Upper
266	100		
264	58.2	42.4	82.4
268	68.9	44.1	84.1

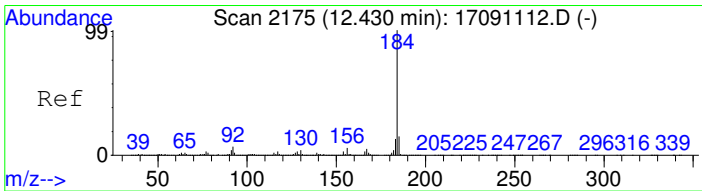
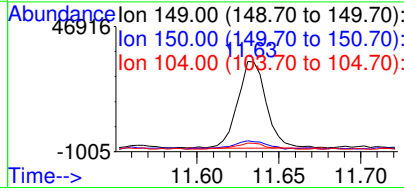
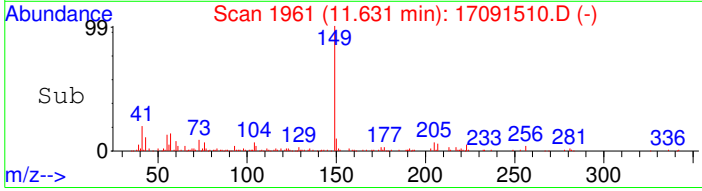


#78
 Di-n-butyl phthalate
 Concen: 0.023 mg/kg
 RT: 11.63 min Scan# 1961
 Delta R.T. -0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

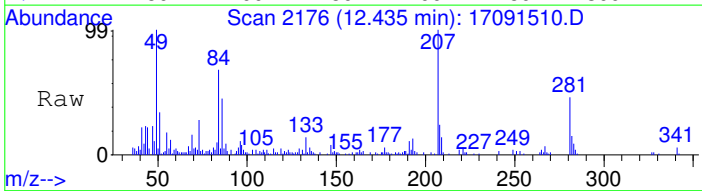


Tgt Ion: 149 Resp: 40660

Ion	Ratio	Lower	Upper
149	100		
150	9.6	0.0	30.5
104	6.9	0.0	24.9

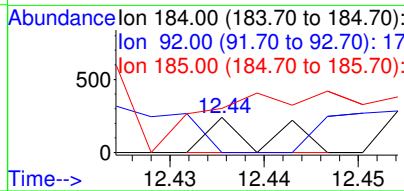
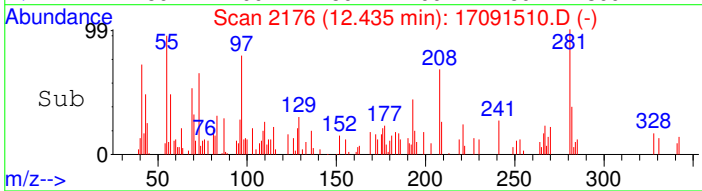


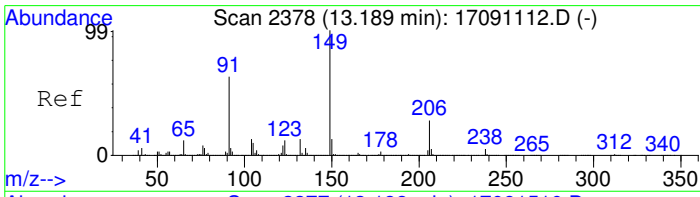
#81
 Benzidine
 Concen: 0.033 mg/kg
 RT: 12.44 min Scan# 2176
 Delta R.T. 0.01 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



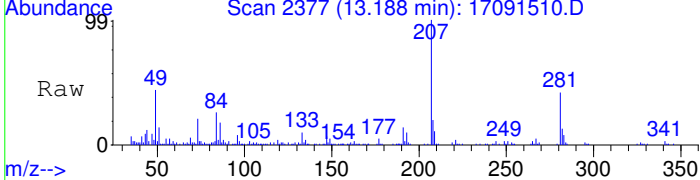
Tgt Ion: 184 Resp: 103

Ion	Ratio	Lower	Upper
184	100		
92	0.0	0.0	27.2
185	16.3	0.0	35.2

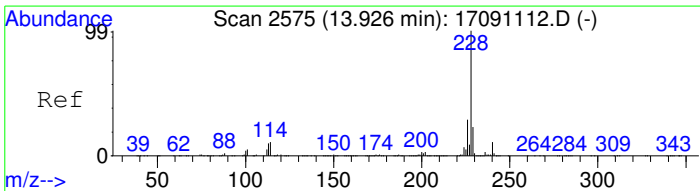
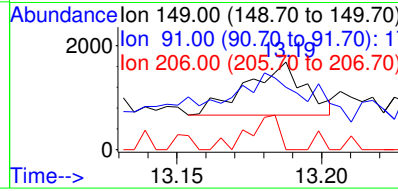
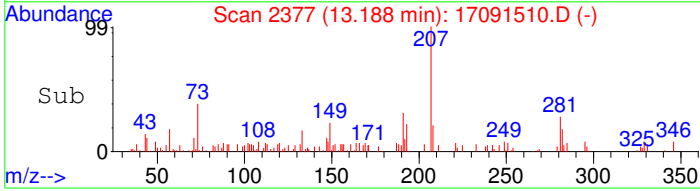




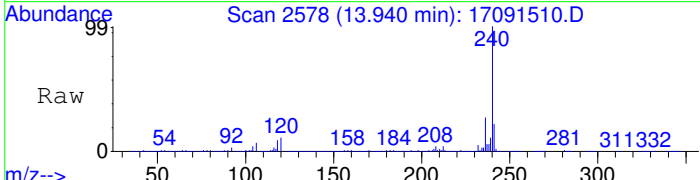
#84
 Butyl benzyl phthalate
 Concen: 0.018 mg/kg
 RT: 13.19 min Scan# 2377
 Delta R.T. 0.00 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



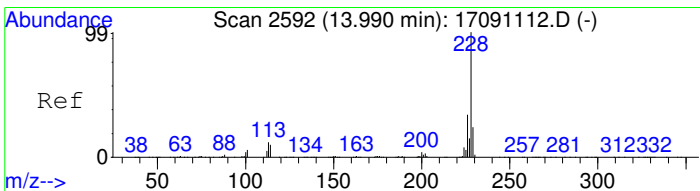
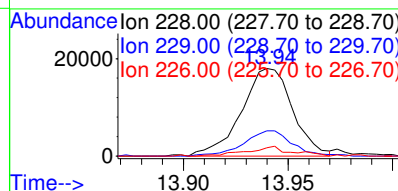
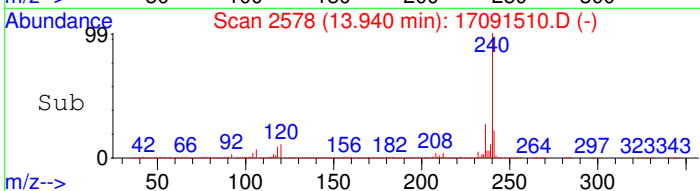
Tgt Ion	Ratio	Lower	Upper
149	100		
91	30.6	42.9	82.9#
206	0.0	7.0	47.0#



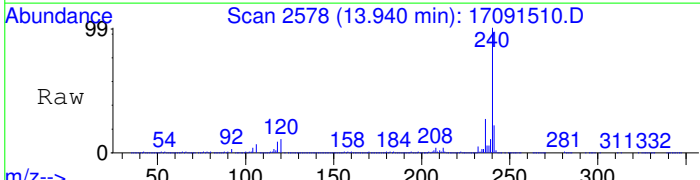
#86
 Benzo[a]anthracene
 Concen: 0.012 mg/kg
 RT: 13.94 min Scan# 2578
 Delta R.T. 0.02 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



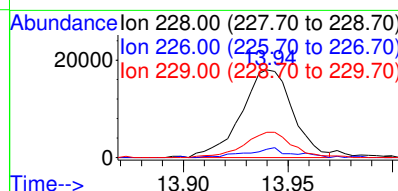
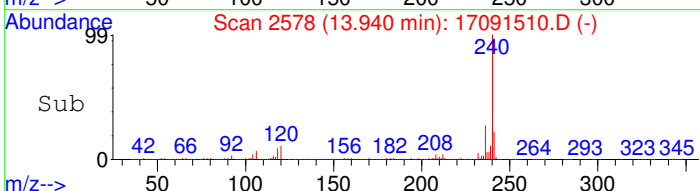
Tgt Ion	Ratio	Lower	Upper
228	100		
229	28.6	1.4	41.4
226	9.6	7.2	47.2

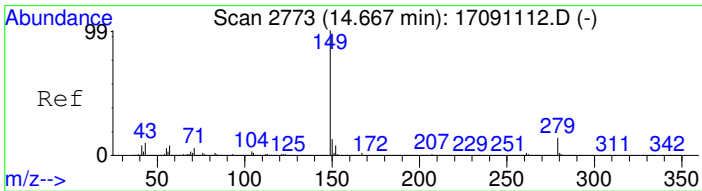


#87
 Chrysene
 Concen: 0.013 mg/kg
 RT: 13.94 min Scan# 2578
 Delta R.T. -0.04 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm

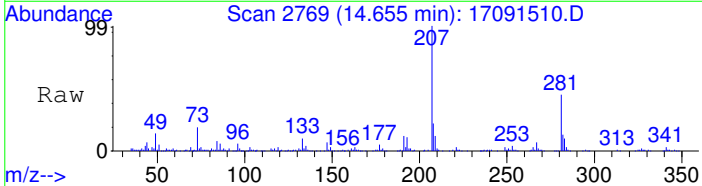


Tgt Ion	Ratio	Lower	Upper
228	100		
226	9.6	10.0	50.0#
229	28.6	1.7	41.7

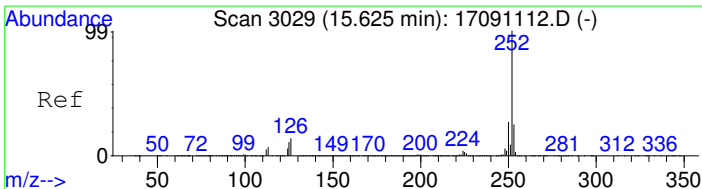
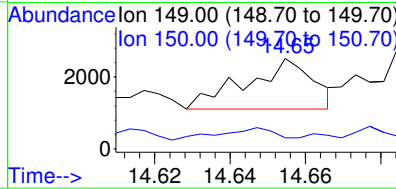
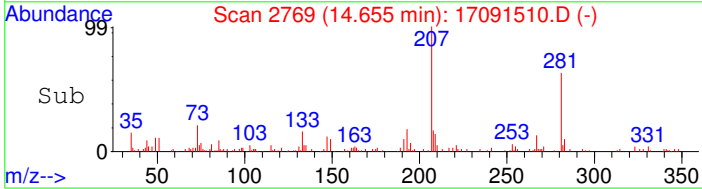




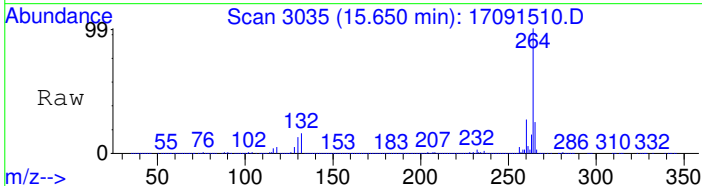
#90
 Di-n-octyl phthalate
 Concen: 0.020 mg/kg
 RT: 14.65 min Scan# 2769
 Delta R.T. -0.01 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



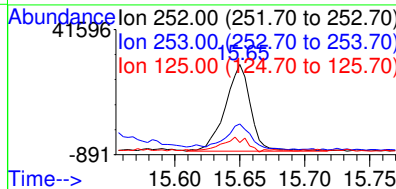
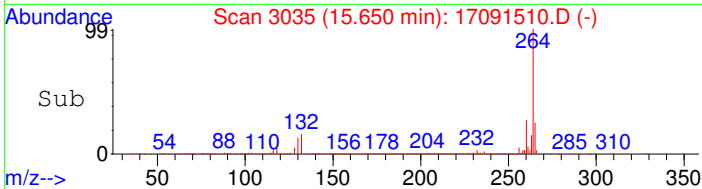
Tgt Ion:149 Resp: 1722
 Ion Ratio Lower Upper
 149 100
 150 0.0 0.0 31.2



#93
 Benzo[a]pyrene
 Concen: 0.019 mg/kg
 RT: 15.65 min Scan# 3035
 Delta R.T. 0.03 min
 Lab File: 17091510.D
 Acq: 15 Sep 2017 5:32 pm



Tgt Ion:252 Resp: 40138
 Ion Ratio Lower Upper
 252 100
 253 29.9 3.7 43.7
 125 9.7 0.0 30.3



**GCMS4
Calibration Curve
For
DHL Work Order
1709099**

Method 8270 / 625 SVOC Calibration Curve Sheet

Instrument ID: GCMS # 4

Calibration File Name: SV170911.CAL

Target Concentration	Standard Preparation Stocks and Surrogate (µL/mL)	Final Volume mL
0.04 ppm	0.008 mL of 5.0 ppm	1
0.10 ppm	0.02 mL of 5.0 ppm	1
0.50 ppm	0.10 mL of 5.0 ppm	1
1.0 ppm	0.20 mL of 5.0 ppm	1
2.0 ppm	0.40 mL of 5.0 ppm	1
3.0 ppm	0.60 mL of 5.0 ppm	1
4.0 ppm	0.80 mL of 5.0 ppm	1
5.0 ppm	1.0 mL of SVCAL170911	1
SSCV 2.5 ppm	0.5 mL of SVSSCV170911	1
SSCV 2.5 ppm	SVSSCV170911-1	1

Standards Used for the Calibration Curve

STANDARD NAME	DHL Standard ID
5.0 PPM SEMIVOL CAL STANDARD	SVCAL170911
5.0 PPM SEMIVOL SSCV STANDARD	SVSSCV170911
4000PPM SVOL SURROGATE	SVSUR170104-17
4000PPB INTERNAL STANDARD	SVIS-170104-4

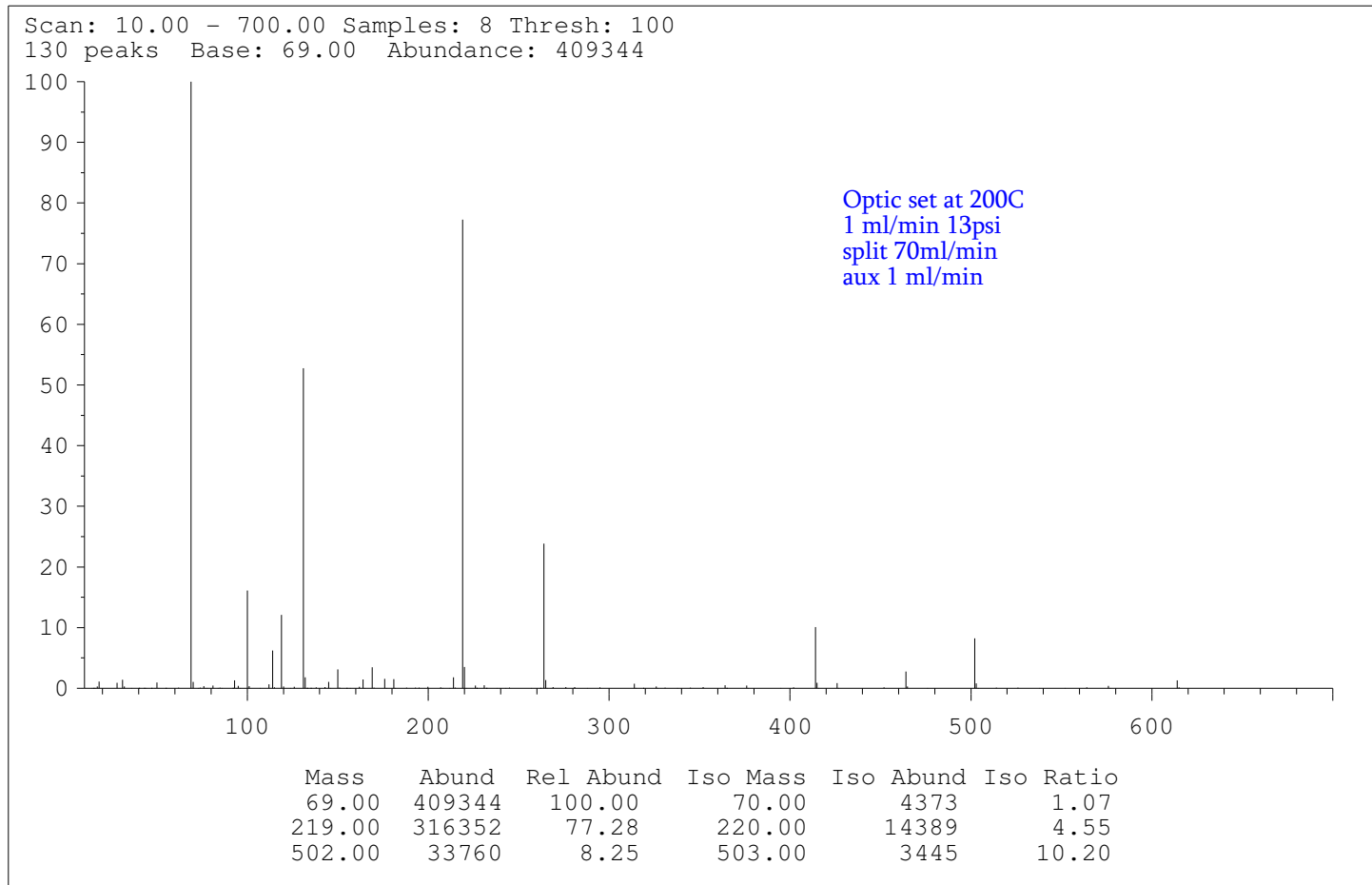
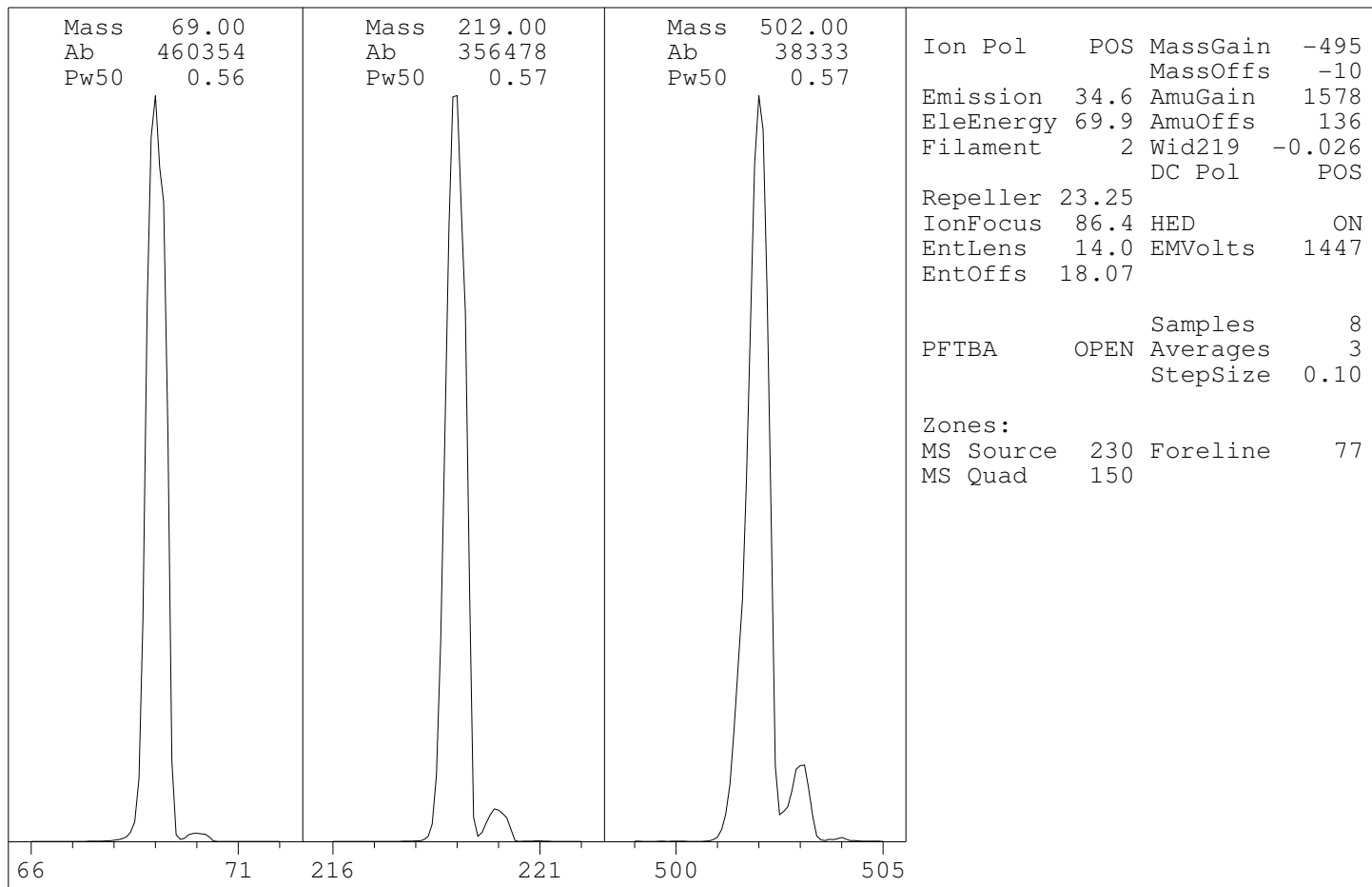
Review Item	Acceptance Criteria	Yes	No	N/A	2nd Level Review
1. Are all standards within expiration dates?	Primary Stocks = 1 year Intermediate Standards = 6 months	X			X
2. Are all manual integrations listed on MI tracking form? (DoD Projects only)	Manual Integration Tracking Form			X	X
3. Does the tune and DFTPP (breakdown / tailing factor) meet criteria?	≤ 20% for DDT / Benzidine and PCP tailing factor < 2 See Tune Eval Report	X			X
3. Does the ICAL curve meet criteria? Use average CF only if %RSD < 15%	%RSD < 15% COD ≥ 0.990	X			X
4. Has the low point been reprocessed under the new ICAL curve and meets criteria?	70-130% recovery	X			X
5. Has the SSCV been analyzed and meets criteria?	80-120% recovery – DoD 70-130% recovery – non-DoD	X			X

Analyst: *Justin Bay*

Date: 9/12/2017

Second-Level Review: *DeW Nencel*

Date: 09/14/2017



Method Path : F:\IC\Gcms#4\
 Method File : SV170911.M
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 09:58:25 2017
 Response Via : Initial Calibration

Calibration Files

0.04=17091104.D 0.1 =17091105.D 0.5 =17091107.D 1 =17091108.D 2 =17091109.D 3 =17091110.D 4 =17091111.D
 5 =17091112.D 0.2 =17091106.D

Compound		0.04	0.1	0.5	1	2	3	4	5	0.2	Avg	%RSD	Fit	RSD/CF	Constant	Linear	Quad
1) I	1,4-Dichlorobenzen...	-----ISTD-----															
2) T	N-nitrosodimet...	0.391	0.373	0.399	0.425	0.391	0.408	0.409	0.406	0.395	0.400	3.64	A	0.036	0.0000	0.3998	0.0000
3) T	Pyridine	0.739	0.723	0.811	0.855	0.800	0.808	0.809	0.797	0.755	0.789	5.29	A	0.053	0.0000	0.7887	0.0000
4) T	N-nitrosodieth...	0.285	0.306	0.383	0.418	0.402	0.428	0.415	0.424	0.347	0.379	14.17	A	0.142	0.0000	0.3789	0.0000
5) CP	Benzaldehyde	0.405	0.457	0.603	0.595	0.450	0.470	0.413	0.421	0.525	0.482	15.65#	*Q	0.995	-0.0014	0.5674	-0.13
6) T	Aniline	0.829	0.791	0.930	1.067	0.878	0.964	0.918	0.980	0.875	0.915	9.09	*L	0.997	-0.0020	0.9539	0.000
7) S	2-Fluorophenol	0.733	0.779	0.884	0.966	0.914	0.958	0.939	0.956	0.812	0.882	9.83	A	0.098	0.0000	0.8824	0.0000
8) CP	bis(2-Chloroet...	0.440	0.509	0.610	0.635	0.583	0.598	0.586	0.585	0.551	0.567#	10.46	A	0.105	0.0000	0.5666	0.0000
9) S	Phenol-d5	0.858	0.923	1.064	1.149	1.070	1.127	1.088	1.106	0.986	1.041	9.42	A	0.094	0.0000	1.0413	0.0000
10) CP	Phenol	0.733	0.842	1.019	1.083	1.007	1.046	1.003	1.020	0.932	0.965	11.56	A	0.116	0.0000	0.9648	0.0000
11) CP	2-Chlorophenol	0.742	0.778	0.999	1.066	0.998	1.023	1.007	1.017	0.895	0.947	12.22	A	0.122	0.0000	0.9473	0.0000
12) T	1,3-Dichlorobe...	1.136	1.119	1.166	1.240	1.157	1.211	1.170	1.169	1.124	1.166	3.38	A	0.034	0.0000	1.1660	0.0000
13) C	1,4-Dichlorobe...	1.282	1.231	1.295	1.334	1.233	1.122	1.243	1.223	1.240	1.245	4.73	A	0.047	0.0000	1.2446	0.0000
14) T	1,2-Dichlorobe...	1.046	1.080	1.130	1.212	1.120	1.192	1.148	1.145	1.096	1.130	4.64	A	0.046	0.0000	1.1299	0.0000
15) T	Benzyl alcohol	0.066	0.150	0.363	0.424	0.409	0.435	0.422	0.437	0.245	0.328	42.59	*Q	0.999	-0.0048	0.4132	0.021
16) T	bis(2-chlorois...	1.056	1.065	1.133	1.168	1.058	1.052	0.993	0.974	1.091	1.065	5.73	A	0.057	0.0000	1.0655	0.0000
17) CP	2-Methylphenol	0.649	0.697	0.817	0.866	0.801	0.839	0.791	0.796	0.783	0.782	8.73	A	0.087	0.0000	0.7821	0.0000
18) CP	Hexachloroethane	0.393	0.381	0.446	0.464	0.435	0.449	0.437	0.438	0.410	0.428	6.41	A	0.064	0.0000	0.4280	0.0000
19) CP	N-Nitrosodi-n-...	0.434	0.429	0.548	0.586	0.543	0.561	0.534	0.540	0.498	0.519	10.59	A	0.106	0.0000	0.5192	0.0000
20) CP	4-Methylphenol	0.500	0.615	0.760	0.835	0.758	0.783	0.745	0.760	0.683	0.715	14.24	A	0.142	0.0000	0.7152	0.0000
21) CP	Acetophenone	0.851	0.948	1.145	1.226	1.145	1.216	1.165	1.166	1.061	1.103	11.50#	A	0.115	0.0000	1.1025	0.0000
22) I	Naphthalene-d8	-----ISTD-----															
23) S	Nitrobenzene-d5	0.248	0.271	0.330	0.344	0.329	0.336	0.332	0.333	0.292	0.313	10.82	A	0.108	0.0000	0.3128	0.0000
24) CP	Nitrobenzene	0.225	0.255	0.301	0.311	0.295	0.301	0.296	0.294	0.271	0.283	9.71	A	0.097	0.0000	0.2832	0.0000
25) CP	Isophorone	0.343	0.362	0.467	0.492	0.461	0.475	0.462	0.470	0.406	0.438	12.32	A	0.123	0.0000	0.4376	0.0000
26) CP	2-Nitrophenol	0.116	0.131	0.175	0.189	0.185	0.193	0.193	0.192	0.151	0.169	17.39	*Q	1.000	-0.0010	0.1864	0.006
27) CP	2,4-Dimethylph...	0.209	0.233	0.258	0.278	0.259	0.264	0.261	0.262	0.249	0.252	8.00	A	0.080	0.0000	0.2525	0.0000
28) CP	bis(2-Chloroet...	0.254	0.258	0.313	0.323	0.311	0.325	0.320	0.324	0.282	0.301	9.48	A	0.095	0.0000	0.3011	0.0000
29) T	Benzoic acid		0.071	0.138	0.176	0.178	0.200	0.201	0.205	0.104	0.159	31.38	*Q	0.999	-0.0032	0.1768	0.026
30) CP	2,4-Dichloroph...	0.196	0.221	0.270	0.283	0.267	0.278	0.274	0.279	0.245	0.257	11.73	A	0.117	0.0000	0.2571	0.0000
31) M	1,2,4-Trichlor...	0.341	0.329	0.362	0.372	0.353	0.361	0.359	0.360	0.344	0.353	3.72	A	0.037	0.0000	0.3533	0.0000
32) CP	Naphthalene	0.995	0.970	0.997	1.009	0.919	0.915	0.866	0.822	0.967	0.940	6.85	A	0.068	0.0000	0.9401	0.0000
33) CP	4-Chloroaniline	0.232	0.259	0.302	0.321	0.291	0.304	0.297	0.298	0.274	0.287	9.45	*L	0.999	-0.0007	0.3006	0.000
34) T	2,6-Dichloroph...	0.216	0.224	0.268	0.279	0.263	0.273	0.272	0.278	0.241	0.257	9.30	A	0.093	0.0000	0.2572	0.0000
35) CP	Hexachlorobuta...	0.194	0.199	0.216	0.221	0.215	0.223	0.224	0.227	0.200	0.213	5.68	A	0.057	0.0000	0.2132	0.0000

Method	Path	Title : CLP BNA Calibration - Large Volume Injection																
36)	T	N-nitrosodi-n-...	0.022	0.025	0.036	0.039	0.036	0.040	0.040	0.041	0.030	0.034	20.48	*Q	0.999	-0.0002	0.0367	0.003
37)	CP	Caprolactam	0.033	0.042	0.061	0.068	0.063	0.066	0.057	0.055	0.050	0.055	21.19	#*Q	0.998	-0.0006	0.0722	-0.01
38)	CP	4-Chloro-3-met...	0.123	0.145	0.174	0.189	0.176	0.190	0.187	0.192	0.158	0.170	14.08	A	0.141	0.0000	0.1704	0.0000
39)	T	1,2,4,5-Tetrac...	0.302	0.296	0.333	0.363	0.341	0.364	0.359	0.368	0.315	0.338	8.28	A	0.083	0.0000	0.3380	0.0000
40)	CP	2-Methylnaphth...	0.516	0.531	0.591	0.613	0.578	0.607	0.600	0.601	0.553	0.577	6.11	A	0.061	0.0000	0.5767	0.0000
41)	T	1-Methylnaphth...	0.527	0.510	0.573	0.592	0.570	0.576	0.580	0.582	0.534	0.560	5.16	A	0.052	0.0000	0.5604	0.0000
42)	I	Acenaphthene-d10	-----ISTD-----															
43)	CP	Hexachlorocycl...	0.211	0.255	0.381	0.453	0.481	0.517	0.525	0.540	0.297	0.407	30.84	*Q	0.999	-0.0036	0.4396	0.088
44)	CP	EPTC	0.253	0.262	0.304	0.326	0.313	0.337	0.334	0.346	0.277	0.306	11.25	#A	0.112	0.0000	0.3058	0.0000
45)	CP	2,4,6-Trichlor...	0.209	0.249	0.319	0.347	0.333	0.354	0.346	0.363	0.276	0.311	17.29	*Q	0.999	-0.0016	0.3317	0.023
46)	CP	2,4,5-Trichlor...	0.243	0.276	0.336	0.365	0.361	0.381	0.389	0.402	0.304	0.340	16.05	*Q	1.000	-0.0013	0.3465	0.045
47)	S	2-Fluorobiphenyl	1.224	1.176	1.295	1.419	1.349	1.434	1.398	1.425	1.221	1.327	7.57	A	0.076	0.0000	1.3267	0.0000
48)	CP	Biphenyl	1.101	1.144	1.238	1.324	1.280	1.340	1.320	1.336	1.156	1.249	7.44	#A	0.074	0.0000	1.2488	0.0000
49)	CP	2-Chloronaphth...	0.881	0.920	1.003	1.062	1.010	1.071	1.053	1.062	0.930	0.999	7.17	A	0.072	0.0000	0.9992	0.0000
50)	CP	2-Nitroaniline	0.116	0.150	0.240	0.277	0.274	0.288	0.286	0.291	0.198	0.236	27.92	#*Q	0.994	-0.0014	0.2414	0.050
51)	CP	Acenaphthylene	1.105	1.136	1.298	1.401	1.333	1.383	1.346	1.365	1.193	1.284	8.64	A	0.086	0.0000	1.2844	0.0000
52)	CP	Dimethyl phtha...	0.773	0.799	0.901	0.961	0.934	0.968	0.949	0.959	0.838	0.898	8.39	A	0.084	0.0000	0.8979	0.0000
53)	CP	2,6-Dinitrotol...	0.139	0.146	0.202	0.227	0.222	0.233	0.231	0.235	0.174	0.201	19.09	*Q	0.999	-0.0013	0.2201	0.013
54)	CP	Acenaphthene	1.031	0.990	1.013	1.077	1.029	1.093	1.080	1.110	0.991	1.046	4.30	A	0.043	0.0000	1.0459	0.0000
55)	CP	3-Nitroaniline	0.031	0.101	0.169	0.195	0.199	0.202	0.206	0.205	0.148	0.162	37.17	#*Q	1.000	-0.0020	0.1959	0.010
56)	CP	2,4-Dinitrophenol	0.003	0.001	0.078	0.118	0.131	0.151	0.168	0.178	0.044	0.097	70.23	#*Q	0.998	-0.0017	0.1009	0.065
57)	CP	Dibenzofuran	1.224	1.190	1.267	1.424	1.397	1.502	1.481	1.487	1.234	1.356	9.33	A	0.093	0.0000	1.3562	0.0000
58)	CP	2,4-Dinitrotol...	0.127	0.160	0.256	0.294	0.300	0.337	0.354	0.373	0.209	0.268	32.33	#*Q	1.000	-0.0019	0.2676	0.087
59)	CP	4-Nitrophenol	0.002	0.026	0.063	0.075	0.082	0.093	0.099	0.102	0.042	0.065	53.89	#*Q	0.999	-0.0009	0.0715	0.026
60)	CP	2,3,4,6-Tetrac...	0.182	0.211	0.266	0.297	0.286	0.303	0.292	0.306	0.238	0.264	16.80	#*Q	0.999	-0.0014	0.2852	0.015
61)	CP	Fluorene	0.929	0.956	0.995	1.084	1.057	1.112	1.108	1.128	0.975	1.038	7.24	A	0.072	0.0000	1.0381	0.0000
62)	CP	4-Chlorophenyl...	0.473	0.489	0.509	0.550	0.547	0.585	0.585	0.603	0.482	0.536	9.20	A	0.092	0.0000	0.5359	0.0000
63)	CP	Diethyl phthalate	0.704	0.716	0.766	0.786	0.766	0.810	0.835	0.861	0.744	0.777	6.72	A	0.067	0.0000	0.7766	0.0000
64)	CP	4-Nitroaniline	0.038	0.069	0.146	0.160	0.175	0.169	0.178	0.173	0.142	0.139	36.46	#*Q	0.999	-0.0017	0.1682	0.007
65)	I	Phenanthrene-d10	-----ISTD-----															
66)	CP	4,6-Dinitro-2-...	0.027	0.042	0.079	0.104	0.114	0.128	0.131	0.135	0.059	0.091	44.51	#*Q	0.998	-0.0011	0.0998	0.030
67)	T	1,2-Diphenylhy...	0.355	0.399	0.483	0.527	0.493	0.504	0.472	0.469	0.451	0.462	11.64	A	0.116	0.0000	0.4616	0.0000
68)	CP	n-Nitrosodiphe...	0.359	0.370	0.403	0.417	0.385	0.397	0.388	0.399	0.384	0.389	4.51	A	0.045	0.0000	0.3891	0.0000
69)	S	2,4,6-Tribromo...	0.132	0.129	0.160	0.185	0.175	0.184	0.182	0.187	0.146	0.164	14.22	*Q	0.999	-0.0007	0.1745	0.010
70)	CP	4-Bromophenyl ...	0.182	0.180	0.211	0.230	0.217	0.228	0.220	0.224	0.193	0.209	9.23	A	0.092	0.0000	0.2095	0.0000
71)	CP	Atrazine	0.127	0.133	0.169	0.191	0.182	0.161	0.156	0.159	0.151	0.159	13.09	#A	0.131	0.0000	0.1589	0.0000

Method Path : F:\IC\Gcms#4\ Method File : SV170911.M																		
Title : CLP BNA Calibration - Large Volume Injection																		
72)	CP	Hexachlorobenzene	0.248	0.245	0.274	0.302	0.288	0.304	0.295	0.301	0.247	0.278	9.15	A	0.091	0.0000	0.2783	0.0000
73)	CP	Pentachlorophenol	0.086	0.102	0.136	0.161	0.164	0.180	0.179	0.184	0.116	0.145	25.36	*Q	0.999	-0.0011	0.1553	0.025
74)	CP	Phenanthrene	0.941	0.846	0.874	0.907	0.840	0.889	0.860	0.871	0.861	0.877	3.60	A	0.036	0.0000	0.8766	0.0000
75)	CP	Anthracene	0.761	0.776	0.796	0.882	0.817	0.883	0.853	0.830	0.797	0.821	5.36	A	0.054	0.0000	0.8215	0.0000
76)	T	Pentachloroben...	0.361	0.355	0.393	0.441	0.418	0.459	0.438	0.441	0.372	0.409	9.62	A	0.096	0.0000	0.4089	0.0000
77)	CP	Carbazole	0.621	0.650	0.721	0.808	0.757	0.779	0.721	0.719	0.689	0.718	8.29#	A	0.083	0.0000	0.7182	0.0000
78)	CP	Di-n-butyl pht...	0.841	0.790	0.867	0.963	0.883	0.882	0.837	0.830	0.803	0.855	6.04	A	0.060	0.0000	0.8551	0.0000
79)	CP	Fluoranthene	0.928	0.942	1.021	1.131	1.080	1.076	1.021	1.027	0.942	1.018	6.92	A	0.069	0.0000	1.0184	0.0000
80)	I	Chrysene-d12	-----ISTD-----															
81)	M	Benzidine	0.130	0.141	0.223	0.265	0.244	0.257	0.241	0.239	0.169	0.212	24.29	*Q	0.998	-0.0021	0.2608	-0.01
82)	CP	Pyrene	0.770	0.761	0.843	0.873	0.801	0.818	0.785	0.786	0.776	0.801	4.60	A	0.046	0.0000	0.8014	0.0000
83)	S	4-Terphenyl-d14	0.725	0.682	0.753	0.800	0.735	0.767	0.746	0.743	0.699	0.739	4.74	A	0.047	0.0000	0.7389	0.0000
84)	CP	Butyl benzyl p...	0.236	0.221	0.293	0.321	0.306	0.337	0.332	0.343	0.253	0.294	15.69	*Q	0.999	-0.0012	0.3034	0.032
85)	CP	3,3`-Dichlorob...	0.293	0.256	0.317	0.328	0.323	0.351	0.346	0.353	0.276	0.316	10.90	A	0.109	0.0000	0.3158	0.0000
86)	CP	Benzo[a]anthra...	1.148	0.990	0.950	0.995	0.900	0.947	0.909	0.914	0.943	0.966	7.84	A	0.078	0.0000	0.9664	0.0000
87)	CP	Chrysene	0.868	0.825	0.841	0.919	0.842	0.866	0.827	0.827	0.851	0.852	3.50	A	0.035	0.0000	0.8518	0.0000
88)	CP	bis(2-Ethylhex...	0.368	0.357	0.444	0.475	0.457	0.494	0.489	0.497	0.376	0.440	13.00	A	0.130	0.0000	0.4395	0.0000
89)	I	Perylene-d12	-----ISTD-----															
90)	CP	Di-n-octyl pht...	0.594	0.650	0.786	0.899	0.856	0.931	0.923	0.929	0.692	0.807	16.29	*Q	0.999	-0.0041	0.8580	0.066
91)	CP	Benzo[b]fluora...	0.780	0.825	0.873	1.015	0.951	1.049	1.047	1.054	0.860	0.939	11.42	A	0.114	0.0000	0.9394	0.0000
92)	CP	Benzo[k]fluora...	0.845	0.834	0.973	0.981	0.957	0.988	0.942	0.914	0.867	0.922	6.49	A	0.065	0.0000	0.9225	0.0000
93)	CP	Benzo[a]pyrene	0.688	0.682	0.784	0.860	0.870	0.913	0.893	0.901	0.722	0.813	11.64	A	0.116	0.0000	0.8126	0.0000
94)	CP	Indeno[1,2,3-c...	0.912	0.923	0.988	1.014	1.062	1.113	1.125	1.168	0.967	1.030	8.89	A	0.089	0.0000	1.0302	0.0000
95)	CP	Dibenz[a,h]ant...	0.778	0.797	0.853	0.890	0.917	0.958	0.962	0.993	0.837	0.887	8.58	A	0.086	0.0000	0.8872	0.0000
96)	CP	Benzo[g,h,i]pe...	0.788	0.761	0.796	0.770	0.796	0.828	0.829	0.864	0.778	0.801	4.13	A	0.041	0.0000	0.8011	0.0000

(#) = Out of Range

Data File : C:\HPCHEM\1\DATA\170911\17091104.D

Vial: 4

Acq On : 11 Sep 2017 2:01 pm

Operator:

Sample : 0.04 PPM-170911

Inst : GC/MS #4

Misc : CAL1

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.04	152	4564645	4.00	mg/kg	104
22) Naphthalene-d8	8.14	136	12513587	4.00	mg/kg	104
42) Acenaphthene-d10	9.75	164	6471603	4.00	mg/kg	108
65) Phenanthrene-d10	11.13	188	10360531	4.00	mg/kg	108
80) Chrysene-d12	13.94	240	13060444	4.00	mg/kg	101
89) Perylene-d12	15.69	264	11677170	4.00	mg/kg	107

System Monitoring Compounds

7) 2-Fluorophenol		6.12	112	32675	0.03 mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	0.75%#
9) Phenol-d5		6.75	99	39179	0.03 mg/kg	-0.01
Spiked Amount	4.000	Range	20 - 120	Recovery	=	0.75%#
23) Nitrobenzene-d5		7.52	82	31049	0.03 mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	0.75%#
47) 2-Fluorobiphenyl		9.11	172	79233	0.04 mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	1.00%#
69) 2,4,6-Tribromophenol		10.48	330	13727	0.05 mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	1.25%#
83) 4-Terphenyl-d14		12.68	244	94684	0.04 mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	1.00%#

Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.51	74	17848	0.039 mg/kg#		1
3) Pyridine	4.59	79	33717	0.037 mg/kg#		54
4) N-nitrosodiethylamine	6.29	102	13005	0.030 mg/kg		96
5) Benzaldehyde	6.73	106	18469	0.039 mg/kg		94
6) Aniline	6.81	93	37857	0.043 mg/kg		98
8) bis(2-Chloroethyl)ether	6.83	63	20104	0.031 mg/kg		90
10) Phenol	6.75	94	33464	0.030 mg/kg		94
11) 2-Chlorophenol	6.90	128	33860	0.031 mg/kg		96
12) 1,3-Dichlorobenzene	7.01	146	51870	0.039 mg/kg		99
13) 1,4-Dichlorobenzene	7.05	146	52133	0.037 mg/kg#		71
14) 1,2-Dichlorobenzene	7.20	146	47753	0.037 mg/kg		98
15) Benzyl alcohol	7.19	108	3022	0.053 mg/kg#		77
16) bis(2-chloroisopropyl)...	7.26	45	48186	0.040 mg/kg		92
17) 2-Methylphenol	7.24	108	29603	0.033 mg/kg		97
18) Hexachloroethane	7.47	117	17929	0.037 mg/kg		92
19) N-Nitrosodi-n-propylamine	7.38	70	19803	0.033 mg/kg#		74
20) 4-Methylphenol	7.36	108	22809	0.028 mg/kg		95
21) Acetophenone	7.39	105	38838	0.031 mg/kg		95
24) Nitrobenzene	7.53	77	28195	0.032 mg/kg		90
25) Isophorone	7.73	82	42845	0.031 mg/kg		95
26) 2-Nitrophenol	7.81	139	14533	0.046 mg/kg		86
27) 2,4-Dimethylphenol	7.82	107	26137	0.033 mg/kg		96
28) bis(2-Chloroethoxy)methane	7.90	93	31832	0.034 mg/kg		96
29) Benzoic acid	7.92	105	4400	0.080 mg/kg#		1
30) 2,4-Dichlorophenol	8.02	162	24535	0.031 mg/kg		93
31) 1,2,4-Trichlorobenzene	8.09	180	42624	0.039 mg/kg		98
32) Naphthalene	8.16	128	124458	0.042 mg/kg		94
33) 4-Chloroaniline	8.21	127	29046	0.040 mg/kg		92
34) 2,6-Dichlorophenol	8.22	162	27004	0.034 mg/kg		94
35) Hexachlorobutadiene	8.28	225	24311	0.036 mg/kg		97
36) N-nitrosodi-n-butylamine	8.49	116	2702	0.046 mg/kg		92
37) Caprolactam	8.57	113	260	0.033 mg/kg#		29
38) 4-Chloro-3-methylphenol	8.63	107	15335	0.029 mg/kg		89
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	37795	0.036 mg/kg		98
40) 2-Methylnaphthalene	8.78	142	64578	0.036 mg/kg		94
41) 1-Methylnaphthalene	8.87	142	65864	0.038 mg/kg		97

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

Data File : C:\HPCHEM\1\DATA\170911\17091104.D

Vial: 4

Acq On : 11 Sep 2017 2:01 pm

Operator:

Sample : 0.04 PPM-170911

Inst : GC/MS #4

Misc : CAL1

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

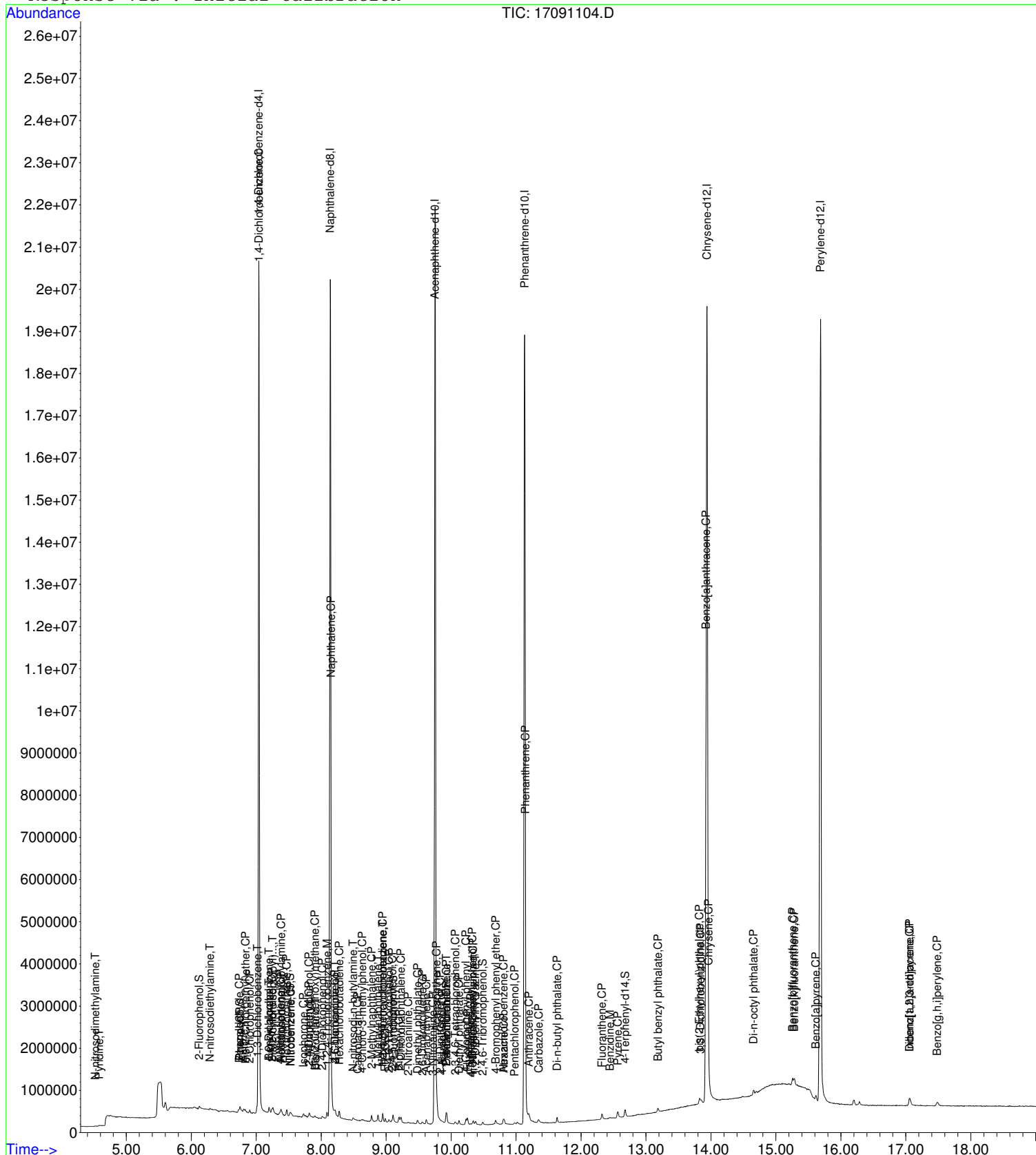
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	13638	0.052	mg/kg	97
44) EPTC	8.99	128	16365	0.033	mg/kg#	88
45) 2,4,6-Trichlorophenol	9.04	196	13540	0.044	mg/kg	97
46) 2,4,5-Trichlorophenol	9.09	196	15709	0.044	mg/kg	93
48) Biphenyl	9.20	154	71262	0.035	mg/kg	97
49) 2-Chloronaphthalene	9.23	162	57018	0.035	mg/kg	95
50) 2-Nitroaniline	9.34	138	7489	0.043	mg/kg	85
51) Acenaphthylene	9.62	152	71538	0.034	mg/kg	97
52) Dimethyl phthalate	9.48	163	50054	0.034	mg/kg	97
53) 2,6-Dinitrotoluene	9.56	165	9014	0.048	mg/kg	82
54) Acenaphthene	9.78	153	66701	0.039	mg/kg	96
55) 3-Nitroaniline	9.71	138	2022	0.046	mg/kg	93
56) 2,4-Dinitrophenol	9.84	184	213	0.066	mg/kg#	20
57) Dibenzofuran	9.93	168	79201	0.036	mg/kg	96
58) 2,4-Dinitrotoluene	9.92	165	8229	0.048	mg/kg#	67
59) 4-Nitrophenol	9.87	109	437	0.056	mg/kg#	54
60) 2,3,4,6-Tetrachlorophenol	10.06	232	11780	0.045	mg/kg	89
61) Fluorene	10.25	166	60141	0.036	mg/kg	95
62) 4-Chlorophenyl phenyl ...	10.23	204	30618	0.035	mg/kg	92
63) Diethyl phthalate	10.12	149	45578	0.036	mg/kg	98
64) 4-Nitroaniline	10.30	138	2453	0.048	mg/kg	85
66) 4,6-Dinitro-2-methylphenol	10.32	198	2803	0.056	mg/kg#	70
67) 1,2-Diphenylhydrazine	10.38	77	36774	0.031	mg/kg	98
68) n-Nitrosodiphenylamine	10.34	169	37202	0.037	mg/kg	96
70) 4-Bromophenyl phenyl ether	10.69	248	18889	0.035	mg/kg	97
71) Atrazine	10.82	200	13164	0.032	mg/kg	94
72) Hexachlorobenzene	10.81	284	25659	0.036	mg/kg	90
73) Pentachlorophenol	10.98	266	8859	0.050	mg/kg	99
74) Phenanthrene	11.15	178	97442	0.043	mg/kg	96
75) Anthracene	11.20	178	78798	0.037	mg/kg	94
76) Pentachlorobenzene	9.92	250	37435	0.035	mg/kg	98
77) Carbazole	11.35	167	64313	0.035	mg/kg	99
78) Di-n-butyl phthalate	11.63	149	87143	0.039	mg/kg	98
79) Fluoranthene	12.32	202	96115	0.036	mg/kg	100
81) Benzidine	12.44	184	16940	0.053	mg/kg	91
82) Pyrene	12.57	202	100502	0.038	mg/kg	97
84) Butyl benzyl phthalate	13.18	149	30769	0.047	mg/kg	98
85) 3,3'-Dichlorobenzidine	13.85	252	38211	0.037	mg/kg	94
86) Benzo[a]anthracene	13.92	228	149902	0.048	mg/kg	96
87) Chrysene	13.97	228	113423	0.041	mg/kg	96
88) bis(2-Ethylhexyl)phthalate	13.82	149	48039	0.033	mg/kg	96
90) Di-n-octyl phthalate	14.65	149	69387	0.047	mg/kg	99
91) Benzo[b]fluoranthene	15.26	252	91104	0.033	mg/kg	97
92) Benzo[k]fluoranthene	15.28	252	98714	0.037	mg/kg	99
93) Benzo[a]pyrene	15.62	252	80315	0.034	mg/kg	91
94) Indeno[1,2,3-cd]pyrene	17.05	276	106515	0.035	mg/kg	96
95) Dibenz[a,h]anthracene	17.06	278	90823	0.035	mg/kg	94
96) Benzo[g,h,i]perylene	17.48	276	91959	0.039	mg/kg	94

Data File : C:\HPCHEM\1\DATA\170911\17091104.D Vial: 4
Acq On : 11 Sep 2017 2:01 pm Operator:
Sample : 0.04 PPM-170911 Inst : GC/MS #4
Misc : CAL1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:49 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091105.D

Vial: 5

Acq On : 11 Sep 2017 2:28 pm

Operator:

Sample : 0.10 PPM-170911

Inst : GC/MS #4

Misc : CAL2

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.04	152	4419282	4.00	mg/kg	100
22) Naphthalene-d8	8.14	136	12218273	4.00	mg/kg	101
42) Acenaphthene-d10	9.75	164	6364551	4.00	mg/kg	107
65) Phenanthrene-d10	11.13	188	10243957	4.00	mg/kg	107
80) Chrysene-d12	13.94	240	13158498	4.00	mg/kg	101
89) Perylene-d12	15.68	264	11631470	4.00	mg/kg	106

System Monitoring Compounds

7) 2-Fluorophenol		6.12	112	84738	0.09 mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	2.25%#
9) Phenol-d5		6.74	99	102026	0.09 mg/kg	-0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	2.25%#
23) Nitrobenzene-d5		7.51	82	82827	0.09 mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	2.25%#
47) 2-Fluorobiphenyl		9.10	172	187132	0.09 mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	2.25%#
69) 2,4,6-Tribromophenol		10.49	330	33074	0.09 mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	2.25%#
83) 4-Terphenyl-d14		12.67	244	224288	0.09 mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	2.25%#

Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.51	74	41254	0.093 mg/kg#		27
3) Pyridine	4.57	79	79867	0.092 mg/kg		80
4) N-nitrosodiethylamine	6.29	102	33813	0.081 mg/kg		94
5) Benzaldehyde	6.72	106	50506	0.091 mg/kg		93
6) Aniline	6.81	93	87435	0.091 mg/kg		94
8) bis(2-Chloroethyl)ether	6.83	63	56273	0.090 mg/kg		95
10) Phenol	6.75	94	92993	0.087 mg/kg		95
11) 2-Chlorophenol	6.90	128	85928	0.082 mg/kg		99
12) 1,3-Dichlorobenzene	7.01	146	123657	0.096 mg/kg		99
13) 1,4-Dichlorobenzene	7.05	146	118131	0.086 mg/kg#		89
14) 1,2-Dichlorobenzene	7.20	146	119307	0.096 mg/kg		99
15) Benzyl alcohol	7.18	108	16612	0.083 mg/kg		90
16) bis(2-chloroisopropyl)...	7.26	45	117660	0.100 mg/kg		95
17) 2-Methylphenol	7.24	108	77507	0.090 mg/kg		97
18) Hexachloroethane	7.47	117	42140	0.089 mg/kg		95
19) N-Nitrosodi-n-propylamine	7.37	70	47372	0.083 mg/kg		95
20) 4-Methylphenol	7.36	108	67928	0.086 mg/kg		99
21) Acetophenone	7.38	105	104726	0.086 mg/kg		96
24) Nitrobenzene	7.53	77	78019	0.090 mg/kg		89
25) Isophorone	7.72	82	110465	0.083 mg/kg		98
26) 2-Nitrophenol	7.81	139	40008	0.092 mg/kg		85
27) 2,4-Dimethylphenol	7.81	107	71275	0.092 mg/kg		95
28) bis(2-Chloroethoxy)methane	7.90	93	78908	0.086 mg/kg		95
29) Benzoic acid	7.89	105	18207	0.106 mg/kg#		60
30) 2,4-Dichlorophenol	8.01	162	67650	0.086 mg/kg		98
31) 1,2,4-Trichlorobenzene	8.09	180	100561	0.093 mg/kg		99
32) Naphthalene	8.16	128	296258	0.103 mg/kg		95
33) 4-Chloroaniline	8.21	127	78032	0.094 mg/kg		95
34) 2,6-Dichlorophenol	8.21	162	68498	0.087 mg/kg		98
35) Hexachlorobutadiene	8.28	225	60904	0.094 mg/kg		96
36) N-nitrosodi-n-butylamine	8.49	116	7599	0.090 mg/kg		92
37) Caprolactam	8.49	113	12760	0.090 mg/kg#		76
38) 4-Chloro-3-methylphenol	8.62	107	44290	0.085 mg/kg		99
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	90326	0.087 mg/kg		100
40) 2-Methylnaphthalene	8.78	142	162076	0.092 mg/kg		98
41) 1-Methylnaphthalene	8.87	142	155784	0.091 mg/kg		99

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

Data File : C:\HPCHEM\1\DATA\170911\17091105.D

Vial: 5

Acq On : 11 Sep 2017 2:28 pm

Operator:

Sample : 0.10 PPM-170911

Inst : GC/MS #4

Misc : CAL2

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	40557	0.091	mg/kg	98
44) EPTC	8.99	128	41692	0.086	mg/kg	92
45) 2,4,6-Trichlorophenol	9.04	196	39629	0.094	mg/kg	98
46) 2,4,5-Trichlorophenol	9.08	196	43956	0.095	mg/kg	89
48) Biphenyl	9.20	154	182057	0.092	mg/kg	94
49) 2-Chloronaphthalene	9.23	162	146459	0.092	mg/kg	97
50) 2-Nitroaniline	9.33	138	23924	0.085	mg/kg	95
51) Acenaphthylene	9.62	152	180804	0.088	mg/kg	94
52) Dimethyl phthalate	9.48	163	127068	0.089	mg/kg	99
53) 2,6-Dinitrotoluene	9.55	165	23213	0.089	mg/kg	98
54) Acenaphthene	9.78	153	157495	0.095	mg/kg	96
55) 3-Nitroaniline	9.71	138	16000	0.091	mg/kg	96
56) 2,4-Dinitrophenol	9.81	184	3138	0.084	mg/kg	78
57) Dibenzofuran	9.93	168	189365	0.088	mg/kg	97
58) 2,4-Dinitrotoluene	9.92	165	25479	0.088	mg/kg	87
59) 4-Nitrophenol	9.85	109	4108	0.088	mg/kg#	74
60) 2,3,4,6-Tetrachlorophenol	10.06	232	33532	0.093	mg/kg	94
61) Fluorene	10.25	166	152041	0.092	mg/kg	98
62) 4-Chlorophenyl phenyl ...	10.23	204	77845	0.091	mg/kg	96
63) Diethyl phthalate	10.12	149	113989	0.092	mg/kg	95
64) 4-Nitroaniline	10.28	138	10932	0.080	mg/kg	91
66) 4,6-Dinitro-2-methylphenol	10.30	198	10854	0.088	mg/kg#	74
67) 1,2-Diphenylhydrazine	10.37	77	102299	0.087	mg/kg	98
68) n-Nitrosodiphenylamine	10.34	169	94700	0.095	mg/kg	97
70) 4-Bromophenyl phenyl ether	10.68	248	46204	0.086	mg/kg	91
71) Atrazine	10.82	200	33958	0.083	mg/kg	96
72) Hexachlorobenzene	10.80	284	62774	0.088	mg/kg	98
73) Pentachlorophenol	10.98	266	26098	0.093	mg/kg	97
74) Phenanthrene	11.15	178	216535	0.096	mg/kg	99
75) Anthracene	11.20	178	198709	0.094	mg/kg	95
76) Pentachlorobenzene	9.92	250	90864	0.087	mg/kg	99
77) Carbazole	11.34	167	166402	0.090	mg/kg	99
78) Di-n-butyl phthalate	11.63	149	202226	0.092	mg/kg	98
79) Fluoranthene	12.32	202	241203	0.092	mg/kg	94
81) Benzidine	12.44	184	46396	0.087	mg/kg	98
82) Pyrene	12.57	202	250272	0.095	mg/kg	97
84) Butyl benzyl phthalate	13.18	149	72718	0.089	mg/kg	98
85) 3,3'-Dichlorobenzidine	13.85	252	84058	0.081	mg/kg	97
86) Benzo[a]anthracene	13.92	228	325777	0.102	mg/kg	97
87) Chrysene	13.97	228	271506	0.097	mg/kg	95
88) bis(2-Ethylhexyl)phthalate	13.82	149	117419	0.081	mg/kg	97
90) Di-n-octyl phthalate	14.65	149	189063	0.095	mg/kg	96
91) Benzo[b]fluoranthene	15.25	252	239797	0.088	mg/kg	94
92) Benzo[k]fluoranthene	15.28	252	242610	0.090	mg/kg	93
93) Benzo[a]pyrene	15.61	252	198268	0.084	mg/kg	99
94) Indeno[1,2,3-cd]pyrene	17.05	276	268529	0.090	mg/kg	92
95) Dibenz[a,h]anthracene	17.06	278	231758	0.090	mg/kg	99
96) Benzo[g,h,i]perylene	17.48	276	221381	0.095	mg/kg	97

Data File : C:\HPCHEM\1\DATA\170911\17091106.D

Vial: 6

Acq On : 11 Sep 2017 2:55 pm

Operator:

Sample : 0.20 PPM-170911

Inst : GC/MS #4

Misc : CAL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.04	152	4404881	4.00	mg/kg	100
22) Naphthalene-d8	8.14	136	12359123	4.00	mg/kg	102
42) Acenaphthene-d10	9.75	164	6536470	4.00	mg/kg	109
65) Phenanthrene-d10	11.13	188	10259012	4.00	mg/kg	107
80) Chrysene-d12	13.94	240	13126890	4.00	mg/kg	101
89) Perylene-d12	15.67	264	11612950	4.00	mg/kg	106

System Monitoring Compounds

7) 2-Fluorophenol	6.11	112	177400	0.18	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	4.50%#
9) Phenol-d5	6.74	99	217138	0.19	mg/kg	-0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	4.75%#
23) Nitrobenzene-d5	7.51	82	180628	0.19	mg/kg	-0.01
Spiked Amount	4.000	Range	41 - 120	Recovery	=	4.75%#
47) 2-Fluorobiphenyl	9.10	172	398924	0.18	mg/kg	-0.01
Spiked Amount	4.000	Range	48 - 120	Recovery	=	4.50%#
69) 2,4,6-Tribromophenol	10.48	330	74670	0.18	mg/kg	-0.01
Spiked Amount	4.000	Range	42 - 124	Recovery	=	4.50%#
83) 4-Terphenyl-d14	12.68	244	458913	0.19	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	4.75%#

Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.48	74	84679	0.192	mg/kg#	60
3) Pyridine	4.53	79	166276	0.191	mg/kg	90
4) N-nitrosodiethylamine	6.28	102	76108	0.182	mg/kg	92
5) Benzaldehyde	6.72	106	115727	0.197	mg/kg	99
6) Aniline	6.80	93	192634	0.192	mg/kg	94
8) bis(2-Chloroethyl)ether	6.82	63	121407	0.195	mg/kg	93
10) Phenol	6.75	94	205174	0.193	mg/kg	99
11) 2-Chlorophenol	6.89	128	197202	0.189	mg/kg	99
12) 1,3-Dichlorobenzene	7.01	146	247551	0.193	mg/kg	96
13) 1,4-Dichlorobenzene	7.05	146	226169	0.165	mg/kg	95
14) 1,2-Dichlorobenzene	7.19	146	241322	0.194	mg/kg	100
15) Benzyl alcohol	7.16	108	54001	0.165	mg/kg	96
16) bis(2-chloroisopropyl)...	7.25	45	240305	0.205	mg/kg	95
17) 2-Methylphenol	7.23	108	174229	0.202	mg/kg	99
18) Hexachloroethane	7.47	117	90223	0.191	mg/kg	92
19) N-Nitrosodi-n-propylamine	7.37	70	109664	0.192	mg/kg	96
20) 4-Methylphenol	7.35	108	150427	0.191	mg/kg	100
21) Acetophenone	7.38	105	233741	0.193	mg/kg	98
24) Nitrobenzene	7.53	77	167444	0.191	mg/kg	97
25) Isophorone	7.72	82	251089	0.186	mg/kg	98
26) 2-Nitrophenol	7.80	139	93156	0.183	mg/kg	89
27) 2,4-Dimethylphenol	7.81	107	153999	0.197	mg/kg	98
28) bis(2-Chloroethoxy)methane	7.89	93	174080	0.187	mg/kg	97
29) Benzoic acid	7.86	105	62694	0.186	mg/kg	77
30) 2,4-Dichlorophenol	8.01	162	151449	0.191	mg/kg	98
31) 1,2,4-Trichlorobenzene	8.09	180	212456	0.195	mg/kg	100
32) Naphthalene	8.16	128	597765	0.206	mg/kg	95
33) 4-Chloroaniline	8.20	127	168132	0.190	mg/kg	93
34) 2,6-Dichlorophenol	8.21	162	149017	0.188	mg/kg	100
35) Hexachlorobutadiene	8.28	225	123646	0.188	mg/kg	99
36) N-nitrosodi-n-butylamine	8.49	116	18581	0.185	mg/kg	97
37) Caprolactam	8.49	113	31024	0.172	mg/kg#	81
38) 4-Chloro-3-methylphenol	8.62	107	97886	0.186	mg/kg	94
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	194888	0.187	mg/kg	99
40) 2-Methylnaphthalene	8.77	142	341764	0.192	mg/kg	98
41) 1-Methylnaphthalene	8.87	142	330261	0.191	mg/kg	99

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

Data File : C:\HPCHEM\1\DATA\170911\17091106.D

Vial: 6

Acq On : 11 Sep 2017 2:55 pm

Operator:

Sample : 0.20 PPM-170911

Inst : GC/MS #4

Misc : CAL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

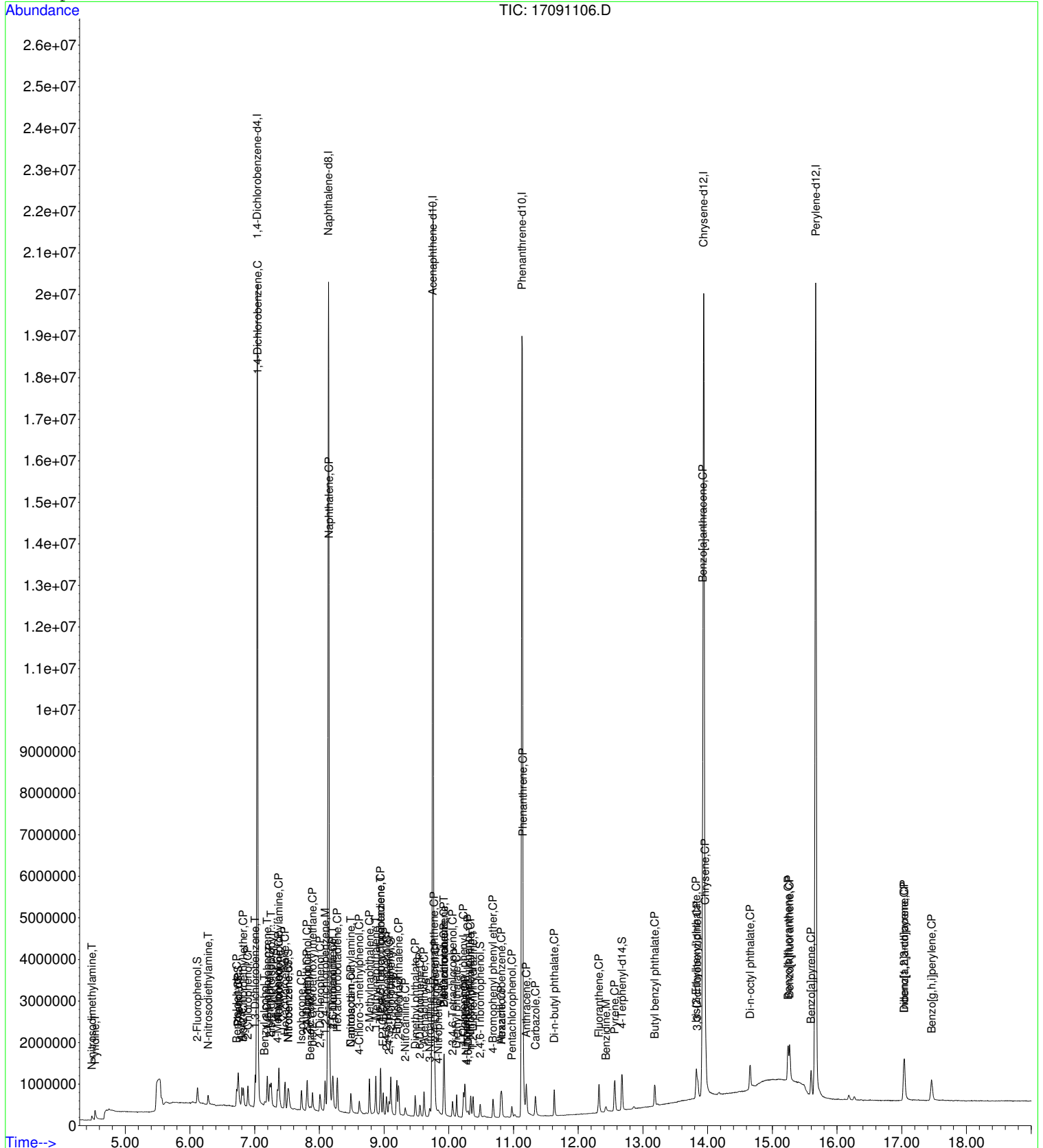
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	97012	0.167	mg/kg	99
44) EPTC	8.99	128	90385	0.181	mg/kg	96
45) 2,4,6-Trichlorophenol	9.04	196	90175	0.185	mg/kg	99
46) 2,4,5-Trichlorophenol	9.08	196	99513	0.190	mg/kg	96
48) Biphenyl	9.20	154	377822	0.185	mg/kg	96
49) 2-Chloronaphthalene	9.23	162	303914	0.186	mg/kg	98
50) 2-Nitroaniline	9.33	138	64778	0.186	mg/kg	97
51) Acenaphthylene	9.62	152	389781	0.186	mg/kg	97
52) Dimethyl phthalate	9.48	163	273915	0.187	mg/kg	98
53) 2,6-Dinitrotoluene	9.55	165	56708	0.180	mg/kg	97
54) Acenaphthene	9.78	153	323872	0.189	mg/kg	100
55) 3-Nitroaniline	9.71	138	48442	0.191	mg/kg	92
56) 2,4-Dinitrophenol	9.80	184	14482	0.150	mg/kg	84
57) Dibenzofuran	9.93	168	403437	0.182	mg/kg	99
58) 2,4-Dinitrotoluene	9.92	165	68240	0.182	mg/kg	91
59) 4-Nitrophenol	9.84	109	13682	0.167	mg/kg	99
60) 2,3,4,6-Tetrachlorophenol	10.06	232	77799	0.186	mg/kg	97
61) Fluorene	10.25	166	318787	0.188	mg/kg	98
62) 4-Chlorophenyl phenyl ...	10.23	204	157439	0.180	mg/kg	98
63) Diethyl phthalate	10.12	149	243217	0.192	mg/kg	97
64) 4-Nitroaniline	10.28	138	46531	0.208	mg/kg	93
66) 4,6-Dinitro-2-methylphenol	10.30	198	30406	0.162	mg/kg	91
67) 1,2-Diphenylhydrazine	10.37	77	231331	0.195	mg/kg	99
68) n-Nitrosodiphenylamine	10.34	169	196870	0.197	mg/kg	98
70) 4-Bromophenyl phenyl ether	10.69	248	98902	0.184	mg/kg	98
71) Atrazine	10.82	200	77566	0.190	mg/kg	98
72) Hexachlorobenzene	10.81	284	126708	0.178	mg/kg	99
73) Pentachlorophenol	10.98	266	59456	0.176	mg/kg	96
74) Phenanthrene	11.15	178	441785	0.197	mg/kg	96
75) Anthracene	11.20	178	408675	0.194	mg/kg	96
76) Pentachlorobenzene	9.92	250	190849	0.182	mg/kg	98
77) Carbazole	11.34	167	353319	0.192	mg/kg	100
78) Di-n-butyl phthalate	11.63	149	412080	0.188	mg/kg	97
79) Fluoranthene	12.32	202	483111	0.185	mg/kg	96
81) Benzidine	12.43	184	110967	0.163	mg/kg	98
82) Pyrene	12.56	202	509448	0.194	mg/kg	97
84) Butyl benzyl phthalate	13.18	149	166113	0.182	mg/kg	98
85) 3,3'-Dichlorobenzidine	13.84	252	181149	0.175	mg/kg	98
86) Benzo[a]anthracene	13.92	228	619082	0.195	mg/kg	96
87) Chrysene	13.97	228	558446	0.200	mg/kg	95
88) bis(2-Ethylhexyl)phthalate	13.83	149	247086	0.171	mg/kg	96
90) Di-n-octyl phthalate	14.66	149	402088	0.180	mg/kg	97
91) Benzo[b]fluoranthene	15.24	252	499494	0.183	mg/kg	96
92) Benzo[k]fluoranthene	15.27	252	503664	0.188	mg/kg	95
93) Benzo[a]pyrene	15.60	252	419422	0.178	mg/kg	96
94) Indeno[1,2,3-cd]pyrene	17.04	276	561579	0.188	mg/kg	93
95) Dibenz[a,h]anthracene	17.04	278	486258	0.189	mg/kg	95
96) Benzo[g,h,i]perylene	17.46	276	451558	0.194	mg/kg	97

Data File : C:\HPCHEM\1\DATA\170911\17091106.D
Acq On : 11 Sep 2017 2:55 pm
Sample : 0.20 PPM-170911
Misc : CAL
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:49 2017

Vial: 6
Operator:
Inst : GC/MS #4
Multiplr: 1.00

Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091107.D Vial: 7
 Acq On : 11 Sep 2017 3:21 pm Operator:
 Sample : 0.50 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:49 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4473686	4.00	mg/kg	102
22) Naphthalene-d8	8.14	136	12377406	4.00	mg/kg	103
42) Acenaphthene-d10	9.76	164	6493190	4.00	mg/kg	109
65) Phenanthrene-d10	11.13	188	10093926	4.00	mg/kg	105
80) Chrysene-d12	13.94	240	12822813	4.00	mg/kg	99
89) Perylene-d12	15.69	264	11752202	4.00	mg/kg	107

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.16	112	491935	0.50	mg/kg	0.05
Spiked Amount	4.000	Range	20 - 120	Recovery	=	12.50%#	
9) Phenol-d5		6.75	99	595014	0.51	mg/kg	-0.01
Spiked Amount	4.000	Range	20 - 120	Recovery	=	12.75%#	
23) Nitrobenzene-d5		7.52	82	510579	0.53	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	13.25%#	
47) 2-Fluorobiphenyl		9.11	172	1050854	0.49	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	12.25%#	
69) 2,4,6-Tribromophenol		10.49	330	202072	0.47	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	11.75%#	
83) 4-Terphenyl-d14		12.68	244	1207712	0.51	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	12.75%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine		4.60	74	220970	0.494	mg/kg	90
3) Pyridine		4.65	79	451060	0.511	mg/kg	95
4) N-nitrosodiethylamine		6.31	102	213994	0.505	mg/kg	95
5) Benzaldehyde		6.74	106	337273	0.559	mg/kg	99
6) Aniline		6.82	93	519797	0.496	mg/kg	98
8) bis(2-Chloroethyl)ether		6.83	63	341271	0.539	mg/kg	96
10) Phenol		6.76	94	569789	0.528	mg/kg	99
11) 2-Chlorophenol		6.91	128	558559	0.527	mg/kg	99
12) 1,3-Dichlorobenzene		7.02	146	652317	0.500	mg/kg	99
13) 1,4-Dichlorobenzene		7.06	146	624382	0.449	mg/kg	97
14) 1,2-Dichlorobenzene		7.20	146	631772	0.500	mg/kg	97
15) Benzyl alcohol		7.15	108	202942	0.483	mg/kg	97
16) bis(2-chloroisopropyl)...		7.26	45	633675	0.532	mg/kg	95
17) 2-Methylphenol		7.23	108	463223	0.530	mg/kg	99
18) Hexachloroethane		7.47	117	249473	0.521	mg/kg	98
19) N-Nitrosodi-n-propylamine		7.38	70	306236	0.527	mg/kg	97
20) 4-Methylphenol		7.35	108	424998	0.531	mg/kg	99
21) Acetophenone		7.38	105	640318	0.519	mg/kg	97
24) Nitrobenzene		7.53	77	465349	0.531	mg/kg	96
25) Isophorone		7.73	82	722273	0.533	mg/kg	97
26) 2-Nitrophenol		7.81	139	270856	0.489	mg/kg	92
27) 2,4-Dimethylphenol		7.82	107	398687	0.510	mg/kg	98
28) bis(2-Chloroethoxy)methane		7.90	93	484499	0.520	mg/kg	97
29) Benzoic acid		7.88	105	214308	0.456	mg/kg	98
30) 2,4-Dichlorophenol		8.01	162	417138	0.524	mg/kg	98
31) 1,2,4-Trichlorobenzene		8.09	180	560466	0.513	mg/kg	99
32) Naphthalene		8.16	128	1542641	0.530	mg/kg	96
33) 4-Chloroaniline		8.20	127	467726	0.512	mg/kg	99
34) 2,6-Dichlorophenol		8.21	162	415137	0.522	mg/kg	99
35) Hexachlorobutadiene		8.28	225	334704	0.507	mg/kg	99
36) N-nitrosodi-n-butylamine		8.49	116	55434	0.504	mg/kg	98
37) Caprolactam		8.50	113	94313	0.464	mg/kg	85
38) 4-Chloro-3-methylphenol		8.62	107	268593	0.509	mg/kg	98
39) 1,2,4,5-Tetrachlorobenzene		8.95	216	515381	0.493	mg/kg	99
40) 2-Methylnaphthalene		8.78	142	913910	0.512	mg/kg	98
41) 1-Methylnaphthalene		8.87	142	886009	0.511	mg/kg	100

(#) = qualifier out of range (m) = manual integration
 17091107.D SV170911.M Tue Sep 12 10:49:49 2017

Data File : C:\HPCHEM\1\DATA\170911\17091107.D

Vial: 7

Acq On : 11 Sep 2017 3:21 pm

Operator:

Sample : 0.50 PPM-170911

Inst : GC/MS #4

Misc : CAL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

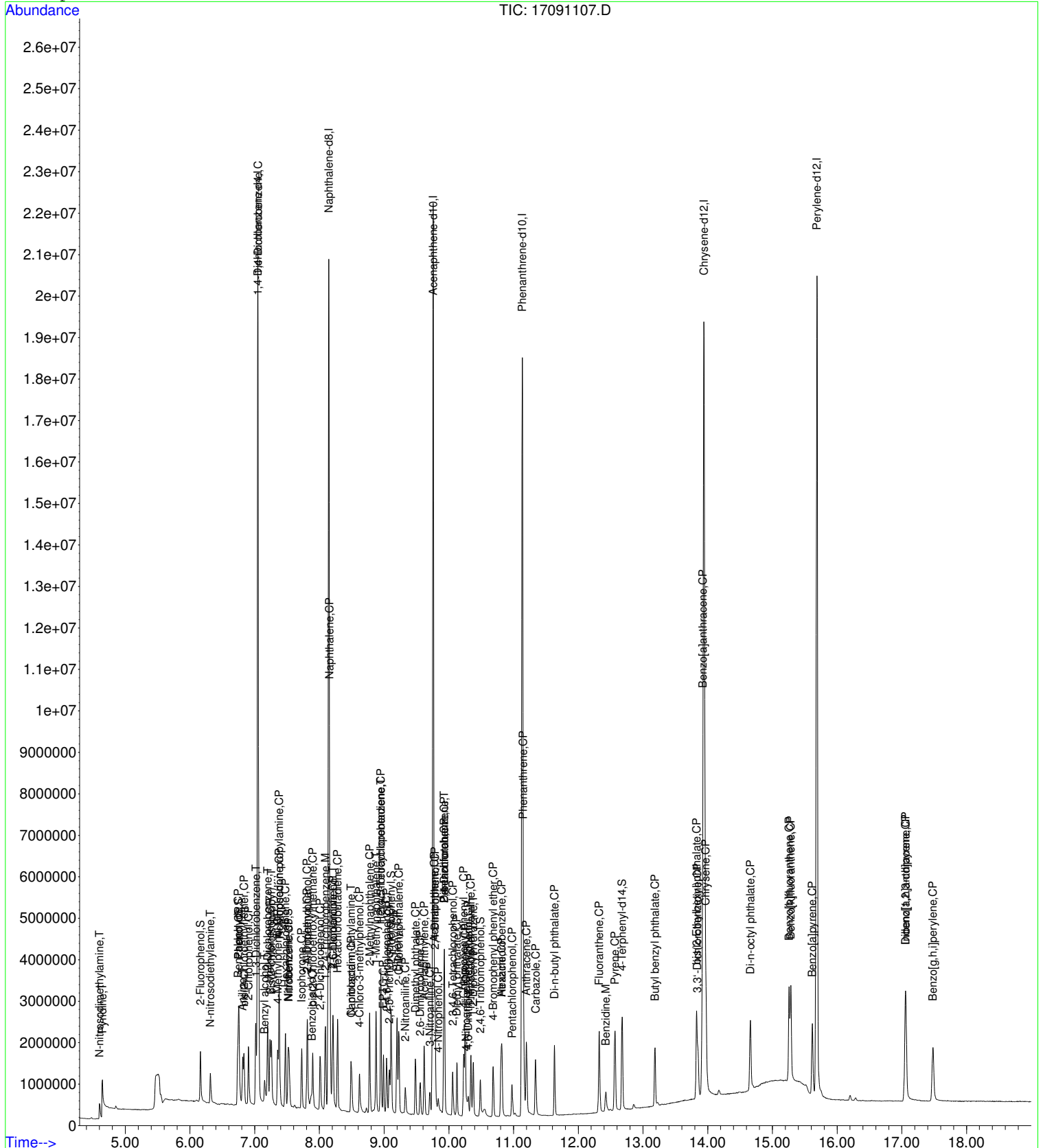
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	309494	0.456	mg/kg	98
44) EPTC	8.99	128	246422	0.496	mg/kg	97
45) 2,4,6-Trichlorophenol	9.04	196	259204	0.496	mg/kg	97
46) 2,4,5-Trichlorophenol	9.08	196	272765	0.493	mg/kg	99
48) Biphenyl	9.20	154	1004738	0.496	mg/kg	97
49) 2-Chloronaphthalene	9.23	162	813950	0.502	mg/kg	97
50) 2-Nitroaniline	9.33	138	194471	0.507	mg/kg	99
51) Acenaphthylene	9.62	152	1053167	0.505	mg/kg	97
52) Dimethyl phthalate	9.48	163	731323	0.502	mg/kg	98
53) 2,6-Dinitrotoluene	9.56	165	163569	0.478	mg/kg	99
54) Acenaphthene	9.78	153	821919	0.484	mg/kg	99
55) 3-Nitroaniline	9.71	138	137376	0.469	mg/kg	99
56) 2,4-Dinitrophenol	9.79	184	63655	0.425	mg/kg	98
57) Dibenzofuran	9.93	168	1028017	0.467	mg/kg	99
58) 2,4-Dinitrotoluene	9.92	165	207971	0.488	mg/kg	99
59) 4-Nitrophenol	9.84	109	50896	0.471	mg/kg	99
60) 2,3,4,6-Tetrachlorophenol	10.06	232	216188	0.483	mg/kg	98
61) Fluorene	10.25	166	807371	0.479	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.23	204	413104	0.475	mg/kg	98
63) Diethyl phthalate	10.12	149	621768	0.493	mg/kg	97
64) 4-Nitroaniline	10.28	138	118420	0.471	mg/kg	95
66) 4,6-Dinitro-2-methylphenol	10.30	198	99581	0.427	mg/kg	95
67) 1,2-Diphenylhydrazine	10.37	77	609994	0.524	mg/kg	99
68) n-Nitrosodiphenylamine	10.34	169	508914	0.518	mg/kg	100
70) 4-Bromophenyl phenyl ether	10.69	248	266228	0.504	mg/kg	98
71) Atrazine	10.82	200	213820	0.533	mg/kg	98
72) Hexachlorobenzene	10.81	284	346040	0.493	mg/kg	95
73) Pentachlorophenol	10.98	266	172158	0.458	mg/kg	100
74) Phenanthrene	11.16	178	1103268	0.499	mg/kg	97
75) Anthracene	11.20	178	1004434	0.485	mg/kg	98
76) Pentachlorobenzene	9.93	250	496067	0.481	mg/kg	98
77) Carbazole	11.34	167	909830	0.502	mg/kg	100
78) Di-n-butyl phthalate	11.63	149	1094468	0.507	mg/kg	98
79) Fluoranthene	12.32	202	1287976	0.501	mg/kg	96
81) Benzidine	12.43	184	356701	0.463	mg/kg	99
82) Pyrene	12.57	202	1351236	0.526	mg/kg	97
84) Butyl benzyl phthalate	13.18	149	469160	0.492	mg/kg	99
85) 3,3'-Dichlorobenzidine	13.85	252	508071	0.502	mg/kg	98
86) Benzo[a]anthracene	13.92	228	1523150	0.492	mg/kg	98
87) Chrysene	13.97	228	1347209	0.493	mg/kg	96
88) bis(2-Ethylhexyl)phthalate	13.83	149	711153	0.505	mg/kg	98
90) Di-n-octyl phthalate	14.66	149	1154004	0.473	mg/kg	98
91) Benzo[b]fluoranthene	15.26	252	1282010	0.465	mg/kg	96
92) Benzo[k]fluoranthene	15.28	252	1429438	0.527	mg/kg	95
93) Benzo[a]pyrene	15.62	252	1152236	0.483	mg/kg	97
94) Indeno[1,2,3-cd]pyrene	17.05	276	1451262	0.479	mg/kg	95
95) Dibenz[a,h]anthracene	17.06	278	1253743	0.481	mg/kg	98
96) Benzo[g,h,i]perylene	17.48	276	1169847	0.497	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091107.D Vial: 7
Acq On : 11 Sep 2017 3:21 pm Operator:
Sample : 0.50 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:49 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091108.D Vial: 8
 Acq On : 11 Sep 2017 3:48 pm Operator:
 Sample : 1.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:49 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4335081	4.00	mg/kg	98
22) Naphthalene-d8	8.14	136	12230101	4.00	mg/kg	101
42) Acenaphthene-d10	9.76	164	6313071	4.00	mg/kg	106
65) Phenanthrene-d10	11.13	188	9714595	4.00	mg/kg	101
80) Chrysene-d12	13.95	240	13074075	4.00	mg/kg	101
89) Perylene-d12	15.68	264	11038670	4.00	mg/kg	101

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.13	112	1043402	1.09	mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	27.25%	
9) Phenol-d5		6.75	99	1244972	1.10	mg/kg	-0.01
Spiked Amount	4.000	Range	20 - 120	Recovery	=	27.50%	
23) Nitrobenzene-d5		7.51	82	1051013	1.10	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	27.50%#	
47) 2-Fluorobiphenyl		9.11	172	2240272	1.07	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	26.75%#	
69) 2,4,6-Tribromophenol		10.49	330	450370	1.06	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	26.50%#	
83) 4-Terphenyl-d14		12.68	244	2614727	1.08	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	27.00%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine		4.52	74	458412	1.058	mg/kg	98
3) Pyridine		4.56	79	924101	1.081	mg/kg	98
4) N-nitrosodiethylamine		6.29	102	452529	1.102	mg/kg	96
5) Benzaldehyde		6.73	106	645293	1.133	mg/kg	100
6) Aniline		6.81	93	1155872	1.126	mg/kg	96
8) bis(2-Chloroethyl)ether		6.83	63	688548	1.121	mg/kg	98
10) Phenol		6.76	94	1173302	1.122	mg/kg	99
11) 2-Chlorophenol		6.90	128	1154839	1.125	mg/kg	99
12) 1,3-Dichlorobenzene		7.01	146	1343851	1.063	mg/kg	99
13) 1,4-Dichlorobenzene		7.06	146	1188687	0.881	mg/kg	99
14) 1,2-Dichlorobenzene		7.20	146	1313378	1.073	mg/kg	98
15) Benzyl alcohol		7.15	108	459273	1.058	mg/kg	99
16) bis(2-chloroisopropyl)...		7.26	45	1266134	1.096	mg/kg	96
17) 2-Methylphenol		7.24	108	952500	1.124	mg/kg	98
18) Hexachloroethane		7.47	117	502591	1.083	mg/kg	95
19) N-Nitrosodi-n-propylamine		7.38	70	635066	1.129	mg/kg	98
20) 4-Methylphenol		7.36	108	904467	1.167	mg/kg	99
21) Acetophenone		7.38	105	1328862	1.112	mg/kg	98
24) Nitrobenzene		7.53	77	949888	1.097	mg/kg	96
25) Isophorone		7.72	82	1504866	1.125	mg/kg	98
26) 2-Nitrophenol		7.81	139	578773	1.028	mg/kg	95
27) 2,4-Dimethylphenol		7.81	107	848505	1.099	mg/kg	99
28) bis(2-Chloroethoxy)methane		7.90	93	987733	1.073	mg/kg	99
29) Benzoic acid		7.89	105	527897	1.011	mg/kg	98
30) 2,4-Dichlorophenol		8.01	162	865451	1.101	mg/kg	99
31) 1,2,4-Trichlorobenzene		8.09	180	1136835	1.052	mg/kg	99
32) Naphthalene		8.16	128	3086009	1.074	mg/kg	96
33) 4-Chloroaniline		8.20	127	981180	1.077	mg/kg	99
34) 2,6-Dichlorophenol		8.21	162	852175	1.084	mg/kg	99
35) Hexachlorobutadiene		8.28	225	675505	1.036	mg/kg	98
36) N-nitrosodi-n-butylamine		8.49	116	118043	1.049	mg/kg	100
37) Caprolactam		8.51	113	209182	1.028	mg/kg	96
38) 4-Chloro-3-methylphenol		8.62	107	577426	1.108	mg/kg	99
39) 1,2,4,5-Tetrachlorobenzene		8.94	216	1110946	1.075	mg/kg	98
40) 2-Methylnaphthalene		8.78	142	1872588	1.062	mg/kg	99
41) 1-Methylnaphthalene		8.87	142	1808860	1.056	mg/kg	99

(#) = qualifier out of range (m) = manual integration
 17091108.D SV170911.M Tue Sep 12 10:50:00 2017

Data File : C:\HPCHEM\1\DATA\170911\17091108.D

Vial: 8

Acq On : 11 Sep 2017 3:48 pm

Operator:

Sample : 1.0 PPM-170911

Inst : GC/MS #4

Misc : CAL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:49 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

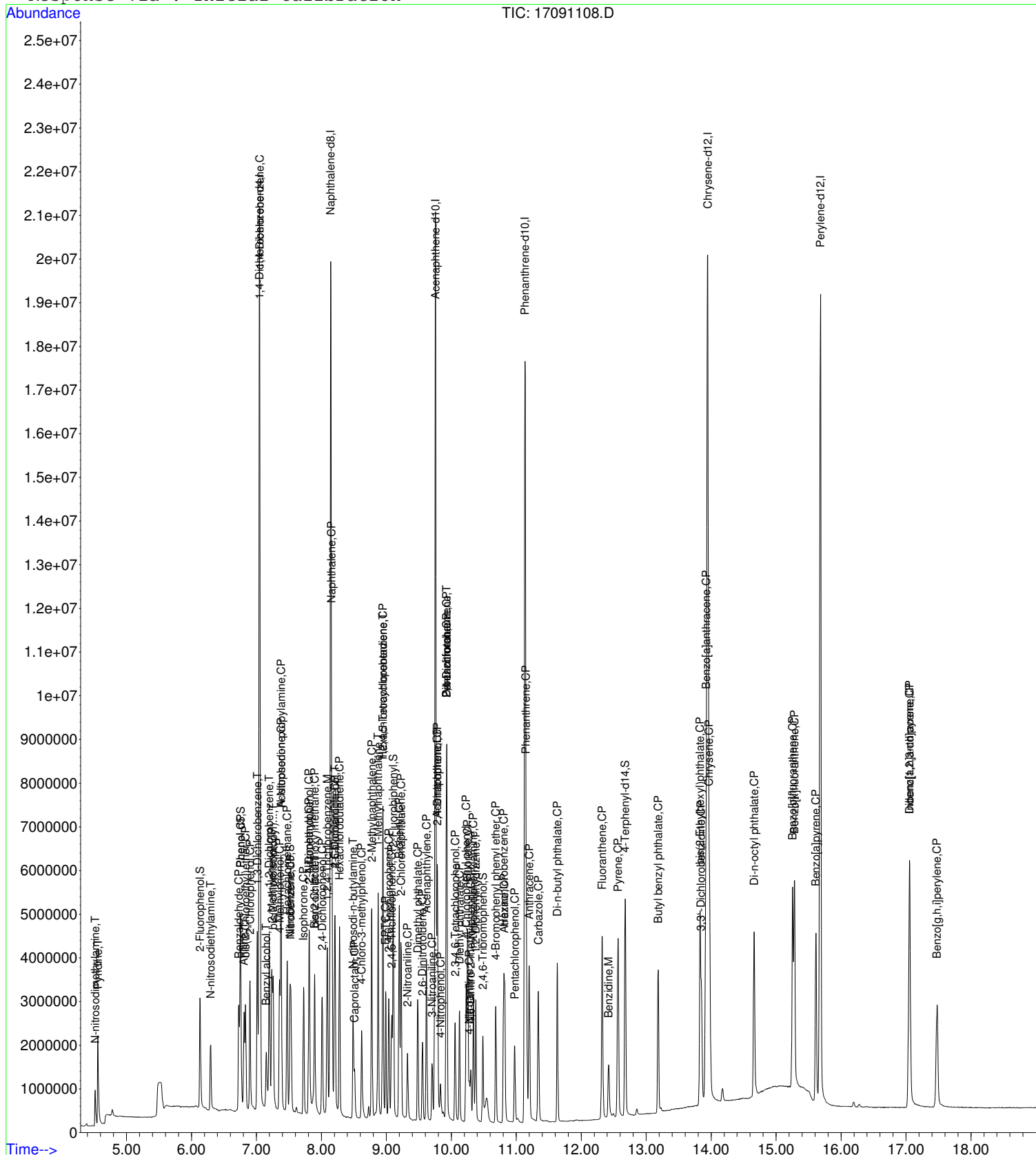
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	715001	1.012	mg/kg	98
44) EPTC	8.99	128	514798	1.067	mg/kg	98
45) 2,4,6-Trichlorophenol	9.04	196	548117	1.047	mg/kg	98
46) 2,4,5-Trichlorophenol	9.08	196	576838	1.036	mg/kg	98
48) Biphenyl	9.20	154	2088896	1.060	mg/kg	97
49) 2-Chloronaphthalene	9.23	162	1676054	1.063	mg/kg	97
50) 2-Nitroaniline	9.33	138	436464	1.106	mg/kg	99
51) Acenaphthylene	9.62	152	2210668	1.091	mg/kg	96
52) Dimethyl phthalate	9.48	163	1516594	1.070	mg/kg	99
53) 2,6-Dinitrotoluene	9.55	165	358218	1.038	mg/kg	98
54) Acenaphthene	9.78	153	1699574	1.030	mg/kg	100
55) 3-Nitroaniline	9.70	138	306976	1.020	mg/kg	97
56) 2,4-Dinitrophenol	9.79	184	186927	1.058	mg/kg	98
57) Dibenzofuran	9.93	168	2247188	1.050	mg/kg	98
58) 2,4-Dinitrotoluene	9.92	165	463324	1.038	mg/kg	98
59) 4-Nitrophenol	9.84	109	117870	1.004	mg/kg	97
60) 2,3,4,6-Tetrachlorophenol	10.06	232	468446	1.045	mg/kg	98
61) Fluorene	10.25	166	1711295	1.044	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.23	204	867609	1.026	mg/kg	99
63) Diethyl phthalate	10.13	149	1240667	1.012	mg/kg	97
64) 4-Nitroaniline	10.28	138	252008	0.979	mg/kg	99
66) 4,6-Dinitro-2-methylphenol	10.30	198	252691	1.010	mg/kg	96
67) 1,2-Diphenylhydrazine	10.38	77	1280746	1.142	mg/kg	98
68) n-Nitrosodiphenylamine	10.34	169	1013343	1.072	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.68	248	557938	1.097	mg/kg	97
71) Atrazine	10.82	200	464197	1.203	mg/kg	98
72) Hexachlorobenzene	10.81	284	733266	1.085	mg/kg	99
73) Pentachlorophenol	10.98	266	391214	1.022	mg/kg	100
74) Phenanthrene	11.16	178	2202725	1.035	mg/kg	98
75) Anthracene	11.20	178	2142201	1.074	mg/kg	98
76) Pentachlorobenzene	9.93	250	1072101	1.080	mg/kg	99
77) Carbazole	11.34	167	1962128	1.125	mg/kg	99
78) Di-n-butyl phthalate	11.63	149	2337888	1.126	mg/kg	98
79) Fluoranthene	12.32	202	2745890	1.110	mg/kg	96
81) Benzidine	12.42	184	866171	1.065	mg/kg	98
82) Pyrene	12.57	202	2852808	1.089	mg/kg	97
84) Butyl benzyl phthalate	13.18	149	1050933	1.046	mg/kg	99
85) 3,3'-Dichlorobenzidine	13.85	252	1073775	1.040	mg/kg	99
86) Benzo[a]anthracene	13.92	228	3254341	1.030	mg/kg	98
87) Chrysene	13.97	228	3003710	1.079	mg/kg	97
88) bis(2-Ethylhexyl)phthalate	13.83	149	1552706	1.081	mg/kg	97
90) Di-n-octyl phthalate	14.66	149	2483017	1.047	mg/kg	97
91) Benzo[b]fluoranthene	15.25	252	2804615	1.082	mg/kg	97
92) Benzo[k]fluoranthene	15.28	252	2710454	1.065	mg/kg	96
93) Benzo[a]pyrene	15.61	252	2376354	1.060	mg/kg	98
94) Indeno[1,2,3-cd]pyrene	17.05	276	2800565	0.985	mg/kg	96
95) Dibenz[a,h]anthracene	17.06	278	2457550	1.004	mg/kg	98
96) Benzo[g,h,i]perylene	17.48	276	2126956	0.962	mg/kg	97

Data File : C:\HPCHEM\1\DATA\170911\17091108.D Vial: 8
Acq On : 11 Sep 2017 3:48 pm Operator:
Sample : 1.0 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:49 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091109.D Vial: 9
 Acq On : 11 Sep 2017 4:15 pm Operator:
 Sample : 2.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4413556	4.00	mg/kg	100
22) Naphthalene-d8	8.15	136	12060141	4.00	mg/kg	100
42) Acenaphthene-d10	9.76	164	5873560	4.00	mg/kg	98
65) Phenanthrene-d10	11.14	188	9454214	4.00	mg/kg	98
80) Chrysene-d12	13.95	240	13108141	4.00	mg/kg	101
89) Perylene-d12	15.67	264	11228404	4.00	mg/kg	103

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.14	112	2010229	2.06	mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	51.50%	
9) Phenol-d5		6.76	99	2362188	2.06	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	51.50%	
23) Nitrobenzene-d5		7.52	82	1983350	2.10	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	52.50%	
47) 2-Fluorobiphenyl		9.11	172	3961867	2.03	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	50.75%	
69) 2,4,6-Tribromophenol		10.49	330	825933	1.96	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	49.00%	
83) 4-Terphenyl-d14		12.68	244	4816712	1.99	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	49.75%#	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine		4.53	74	862725	1.956	mg/kg	99
3) Pyridine		4.56	79	1762489	2.025	mg/kg	99
4) N-nitrosodiethylamine		6.30	102	885981	2.119	mg/kg	98
5) Benzaldehyde		6.73	106	992636	1.777	mg/kg	99
6) Aniline		6.82	93	1937649	1.849	mg/kg	97
8) bis(2-Chloroethyl)ether		6.84	63	1286694	2.058	mg/kg	99
10) Phenol		6.77	94	2222186	2.087	mg/kg	100
11) 2-Chlorophenol		6.91	128	2202921	2.108	mg/kg	100
12) 1,3-Dichlorobenzene		7.02	146	2553954	1.985	mg/kg	100
13) 1,4-Dichlorobenzene		7.07	146	2207547	1.607	mg/kg	100
14) 1,2-Dichlorobenzene		7.20	146	2471088	1.982	mg/kg	98
15) Benzyl alcohol		7.16	108	903373	1.978	mg/kg	99
16) bis(2-chloroisopropyl)...		7.26	45	2335016	1.986	mg/kg	98
17) 2-Methylphenol		7.25	108	1775305	2.057	mg/kg	98
18) Hexachloroethane		7.48	117	959812	2.032	mg/kg	98
19) N-Nitrosodi-n-propylamine		7.39	70	1199262	2.094	mg/kg	99
20) 4-Methylphenol		7.37	108	1671941	2.119	mg/kg	98
21) Acetophenone		7.39	105	2525829	2.076	mg/kg	99
24) Nitrobenzene		7.54	77	1776723	2.081	mg/kg	98
25) Isophorone		7.74	82	2781993	2.109	mg/kg	99
26) 2-Nitrophenol		7.81	139	1113308	1.969	mg/kg	97
27) 2,4-Dimethylphenol		7.82	107	1561109	2.051	mg/kg	99
28) bis(2-Chloroethoxy)methane		7.90	93	1874807	2.065	mg/kg	100
29) Benzoic acid		7.92	105	1070136	1.940	mg/kg	98
30) 2,4-Dichlorophenol		8.02	162	1608317	2.075	mg/kg	100
31) 1,2,4-Trichlorobenzene		8.10	180	2127793	1.997	mg/kg	99
32) Naphthalene		8.17	128	5539071	1.954	mg/kg	98
33) 4-Chloroaniline		8.21	127	1755325	1.946	mg/kg	98
34) 2,6-Dichlorophenol		8.21	162	1588733	2.049	mg/kg	100
35) Hexachlorobutadiene		8.28	225	1295251	2.015	mg/kg	99
36) N-nitrosodi-n-butylamine		8.49	116	219384	1.921	mg/kg	99
37) Caprolactam		8.53	113	381650	1.960	mg/kg	97
38) 4-Chloro-3-methylphenol		8.63	107	1060273	2.063	mg/kg	99
39) 1,2,4,5-Tetrachlorobenzene		8.95	216	2057239	2.019	mg/kg	100
40) 2-Methylnaphthalene		8.78	142	3486366	2.005	mg/kg	99
41) 1-Methylnaphthalene		8.88	142	3435123	2.033	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091109.D

Vial: 9

Acq On : 11 Sep 2017 4:15 pm

Operator:

Sample : 2.0 PPM-170911

Inst : GC/MS #4

Misc : CAL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:50 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

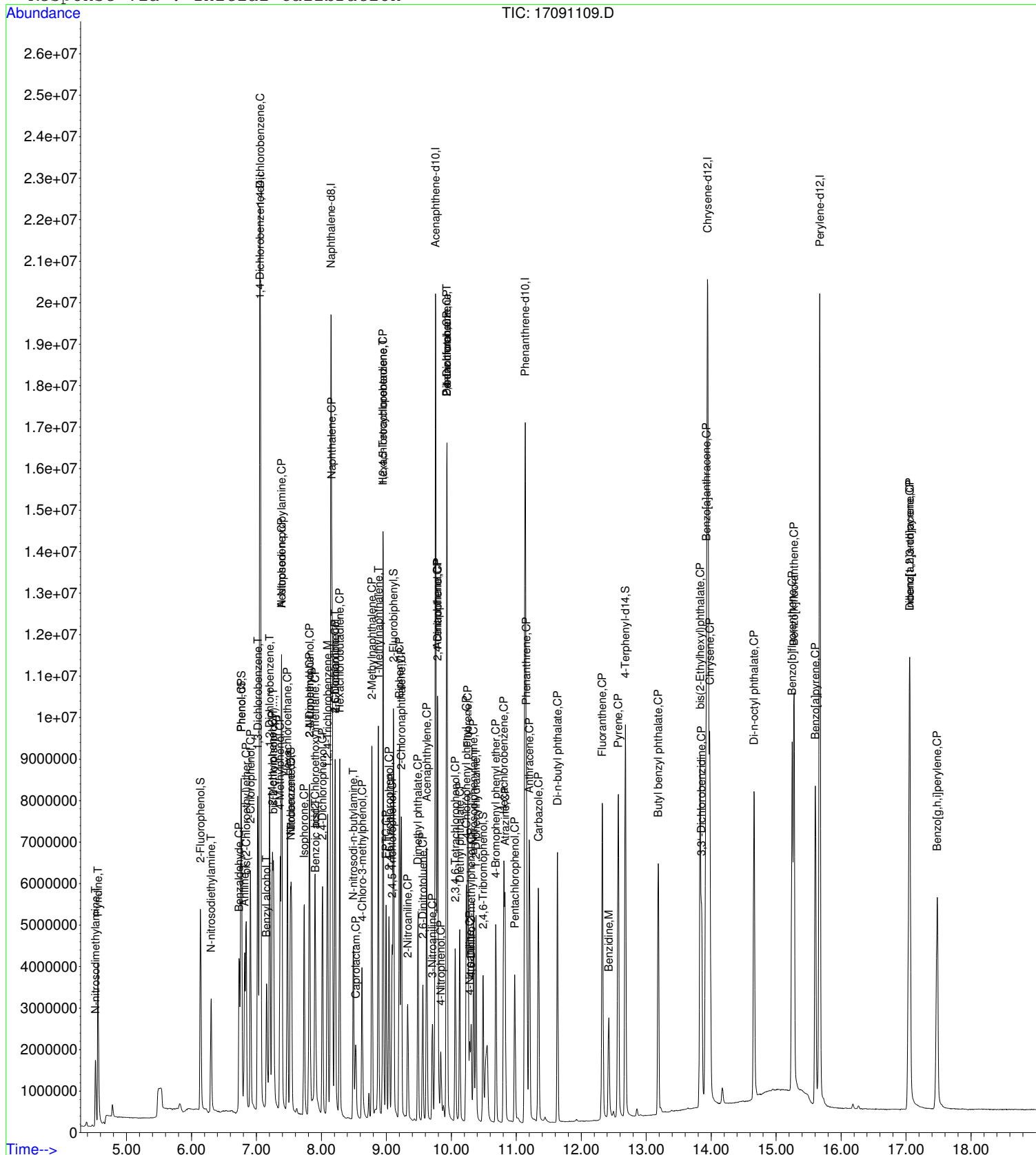
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	1413051	2.018	mg/kg	98
44) EPTC	9.00	128	919941	2.049	mg/kg	99
45) 2,4,6-Trichlorophenol	9.04	196	977921	1.959	mg/kg	99
46) 2,4,5-Trichlorophenol	9.09	196	1058736	1.971	mg/kg	99
48) Biphenyl	9.20	154	3759642	2.050	mg/kg	99
49) 2-Chloronaphthalene	9.23	162	2967335	2.022	mg/kg	99
50) 2-Nitroaniline	9.33	138	805937	2.073	mg/kg	99
51) Acenaphthylene	9.62	152	3915860	2.076	mg/kg	98
52) Dimethyl phthalate	9.49	163	2742037	2.080	mg/kg	100
53) 2,6-Dinitrotoluene	9.56	165	651684	1.981	mg/kg	100
54) Acenaphthene	9.79	153	3023179	1.968	mg/kg	99
55) 3-Nitroaniline	9.71	138	583286	2.015	mg/kg	97
56) 2,4-Dinitrophenol	9.80	184	385642	2.011	mg/kg	99
57) Dibenzofuran	9.94	168	4102930	2.060	mg/kg	99
58) 2,4-Dinitrotoluene	9.93	165	881445	1.959	mg/kg	98
59) 4-Nitrophenol	9.84	109	240633	1.983	mg/kg	98
60) 2,3,4,6-Tetrachlorophenol	10.06	232	838669	1.970	mg/kg	97
61) Fluorene	10.25	166	3103650	2.036	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.23	204	1606802	2.042	mg/kg	99
63) Diethyl phthalate	10.13	149	2250717	1.974	mg/kg	99
64) 4-Nitroaniline	10.28	138	512539	2.070	mg/kg	100
66) 4,6-Dinitro-2-methylphenol	10.31	198	538406	2.015	mg/kg	99
67) 1,2-Diphenylhydrazine	10.38	77	2331496	2.137	mg/kg	99
68) n-Nitrosodiphenylamine	10.34	169	1820463	1.979	mg/kg	100
70) 4-Bromophenyl phenyl ether	10.68	248	1026458	2.073	mg/kg	98
71) Atrazine	10.83	200	860354	2.291	mg/kg	97
72) Hexachlorobenzene	10.81	284	1360279	2.068	mg/kg	100
73) Pentachlorophenol	10.98	266	775952	1.981	mg/kg	98
74) Phenanthrene	11.16	178	3972228	1.917	mg/kg	99
75) Anthracene	11.20	178	3860559	1.988	mg/kg	98
76) Pentachlorobenzene	9.93	250	1977244	2.046	mg/kg	99
77) Carbazole	11.34	167	3580351	2.109	mg/kg	100
78) Di-n-butyl phthalate	11.64	149	4175449	2.066	mg/kg	98
79) Fluoranthene	12.33	202	5103890	2.120	mg/kg	96
81) Benzidine	12.42	184	1601516	1.961	mg/kg	99
82) Pyrene	12.57	202	5248087	1.998	mg/kg	98
84) Butyl benzyl phthalate	13.18	149	2007189	1.934	mg/kg	98
85) 3,3'-Dichlorobenzidine	13.85	252	2118864	2.047	mg/kg	100
86) Benzo[a]anthracene	13.92	228	5900203	1.863	mg/kg	99
87) Chrysene	13.98	228	5521214	1.978	mg/kg	99
88) bis(2-Ethylhexyl)phthalate	13.83	149	2997010	2.081	mg/kg	97
90) Di-n-octyl phthalate	14.66	149	4807174	1.942	mg/kg	99
91) Benzo[b]fluoranthene	15.25	252	5336639	2.024	mg/kg	99
92) Benzo[k]fluoranthene	15.28	252	5370085	2.074	mg/kg	98
93) Benzo[a]pyrene	15.61	252	4881821	2.140	mg/kg	99
94) Indeno[1,2,3-cd]pyrene	17.05	276	5955227	2.059	mg/kg	98
95) Dibenz[a,h]anthracene	17.06	278	5143159	2.065	mg/kg	98
96) Benzo[g,h,i]perylene	17.48	276	4467396	1.987	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091109.D Vial: 9
Acq On : 11 Sep 2017 4:15 pm Operator:
Sample : 2.0 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091110.D Vial: 10
 Acq On : 11 Sep 2017 4:42 pm Operator:
 Sample : 3.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4402967	4.00	mg/kg	100
22) Naphthalene-d8	8.15	136	12059586	4.00	mg/kg	100
42) Acenaphthene-d10	9.76	164	5971055	4.00	mg/kg	100
65) Phenanthrene-d10	11.14	188	9614047	4.00	mg/kg	100
80) Chrysene-d12	13.95	240	12979592	4.00	mg/kg	100
89) Perylene-d12	15.69	264	10933383	4.00	mg/kg	100

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.12	112	3162065	3.26	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	81.50%	
9) Phenol-d5		6.76	99	3720254	3.25	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	81.25%	
23) Nitrobenzene-d5		7.52	82	3039154	3.22	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	80.50%	
47) 2-Fluorobiphenyl		9.11	172	6420271	3.24	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	81.00%	
69) 2,4,6-Tribromophenol		10.49	330	1328026	3.05	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	76.25%	
83) 4-Terphenyl-d14		12.68	244	7464476	3.11	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	77.75%	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine		4.47	74	1347227	3.061	mg/kg	99
3) Pyridine		4.50	79	2668628	3.074	mg/kg	100
4) N-nitrosodiethylamine		6.28	102	1414684	3.392	mg/kg	100
5) Benzaldehyde		6.72	106	1553271	3.021	mg/kg	100
6) Aniline		6.81	93	3181696	3.039	mg/kg	100
8) bis(2-Chloroethyl)ether		6.83	63	1975603	3.168	mg/kg	100
10) Phenol		6.77	94	3453560	3.252	mg/kg	100
11) 2-Chlorophenol		6.90	128	3379425	3.241	mg/kg	100
12) 1,3-Dichlorobenzene		7.01	146	3999213	3.116	mg/kg	100
13) 1,4-Dichlorobenzene		7.06	146	3705499	2.705	mg/kg	100
14) 1,2-Dichlorobenzene		7.20	146	3937029	3.166	mg/kg	100
15) Benzyl alcohol		7.16	108	1436591	3.083	mg/kg	100
16) bis(2-chloroisopropyl)...		7.26	45	3473056	2.961	mg/kg	100
17) 2-Methylphenol		7.25	108	2754164	3.199	mg/kg	100
18) Hexachloroethane		7.47	117	1482334	3.146	mg/kg	100
19) N-Nitrosodi-n-propylamine		7.39	70	1853159	3.243	mg/kg	100
20) 4-Methylphenol		7.37	108	2584775	3.283	mg/kg	100
21) Acetophenone		7.39	105	4015211	3.308	mg/kg	100
24) Nitrobenzene		7.54	77	2720563	3.187	mg/kg	100
25) Isophorone		7.74	82	4297819	3.258	mg/kg	100
26) 2-Nitrophenol		7.81	139	1743529	3.044	mg/kg	100
27) 2,4-Dimethylphenol		7.82	107	2390961	3.141	mg/kg	100
28) bis(2-Chloroethoxy)methane		7.90	93	2935213	3.233	mg/kg	100
29) Benzoic acid		7.94	105	1809105	3.107	mg/kg	99
30) 2,4-Dichlorophenol		8.02	162	2515773	3.246	mg/kg	100
31) 1,2,4-Trichlorobenzene		8.09	180	3263169	3.063	mg/kg	100
32) Naphthalene		8.17	128	8276556	2.920	mg/kg	100
33) 4-Chloroaniline		8.21	127	2749464	3.044	mg/kg	100
34) 2,6-Dichlorophenol		8.21	162	2469231	3.184	mg/kg	100
35) Hexachlorobutadiene		8.28	225	2017337	3.138	mg/kg	100
36) N-nitrosodi-n-butylamine		8.50	116	359787	3.063	mg/kg	100
37) Caprolactam		8.54	113	594282	3.240	mg/kg	100
38) 4-Chloro-3-methylphenol		8.63	107	1721924	3.351	mg/kg	100
39) 1,2,4,5-Tetrachlorobenzene		8.95	216	3289822	3.229	mg/kg	100
40) 2-Methylnaphthalene		8.78	142	5490656	3.158	mg/kg	100
41) 1-Methylnaphthalene		8.88	142	5210088	3.084	mg/kg	100

Data File : C:\HPCHEM\1\DATA\170911\17091110.D

Vial: 10

Acq On : 11 Sep 2017 4:42 pm

Operator:

Sample : 3.0 PPM-170911

Inst : GC/MS #4

Misc : CAL

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:50 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

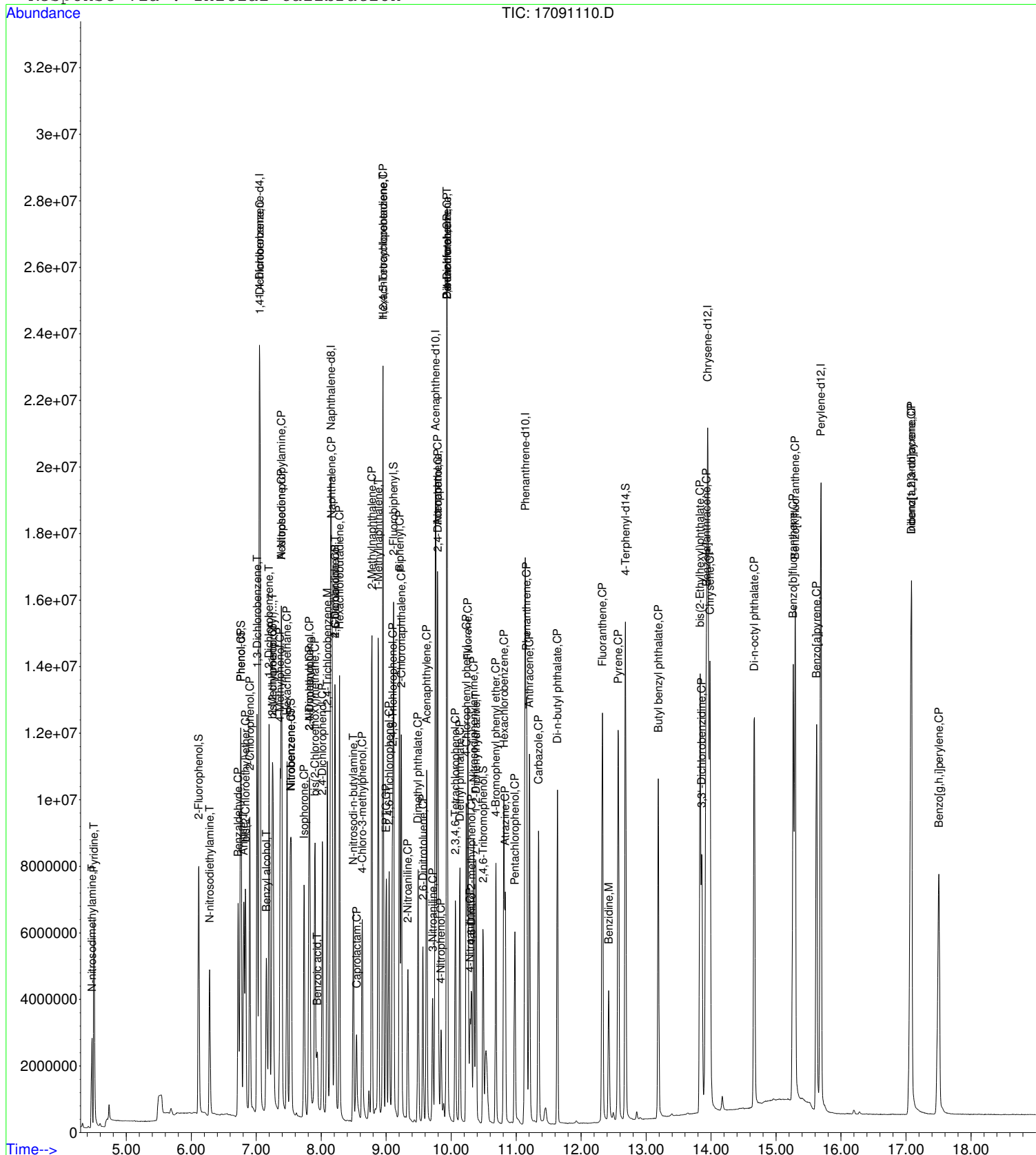
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	2315655	3.085	mg/kg	100
44) EPTC	9.00	128	1508380	3.305	mg/kg	100
45) 2,4,6-Trichlorophenol	9.05	196	1586658	3.057	mg/kg	100
46) 2,4,5-Trichlorophenol	9.09	196	1707222	3.020	mg/kg	100
48) Biphenyl	9.21	154	5999846	3.219	mg/kg	100
49) 2-Chloronaphthalene	9.23	162	4796903	3.216	mg/kg	100
50) 2-Nitroaniline	9.33	138	1288287	3.098	mg/kg	100
51) Acenaphthylene	9.62	152	6193725	3.230	mg/kg	100
52) Dimethyl phthalate	9.49	163	4333294	3.233	mg/kg	100
53) 2,6-Dinitrotoluene	9.57	165	1043945	3.061	mg/kg	100
54) Acenaphthene	9.79	153	4896178	3.136	mg/kg	100
55) 3-Nitroaniline	9.72	138	903319	3.011	mg/kg	100
56) 2,4-Dinitrophenol	9.80	184	677405	3.051	mg/kg	100
57) Dibenzofuran	9.94	168	6725208	3.322	mg/kg	100
58) 2,4-Dinitrotoluene	9.93	165	1507140	3.045	mg/kg	100
59) 4-Nitrophenol	9.85	109	416503	3.082	mg/kg	100
60) 2,3,4,6-Tetrachlorophenol	10.06	232	1355825	3.076	mg/kg	100
61) Fluorene	10.26	166	4979075	3.213	mg/kg	100
62) 4-Chlorophenyl phenyl ...	10.23	204	2620988	3.276	mg/kg	100
63) Diethyl phthalate	10.13	149	3629393	3.131	mg/kg	100
64) 4-Nitroaniline	10.29	138	757578	2.965	mg/kg	100
66) 4,6-Dinitro-2-methylphenol	10.31	198	920058	3.126	mg/kg	100
67) 1,2-Diphenylhydrazine	10.38	77	3633502	3.275	mg/kg	100
68) n-Nitrosodiphenylamine	10.35	169	2860894	3.059	mg/kg	100
70) 4-Bromophenyl phenyl ether	10.69	248	1644634	3.267	mg/kg	100
71) Atrazine	10.83	200	1162873	3.045	mg/kg	100
72) Hexachlorobenzene	10.81	284	2195051	3.281	mg/kg	100
73) Pentachlorophenol	10.98	266	1300553	3.115	mg/kg	100
74) Phenanthrene	11.16	178	6409833	3.042	mg/kg	100
75) Anthracene	11.20	178	6363305	3.223	mg/kg	100
76) Pentachlorobenzene	9.94	250	3310807	3.369	mg/kg	100
77) Carbazole	11.34	167	5617358	3.254	mg/kg	100
78) Di-n-butyl phthalate	11.63	149	6360196	3.094	mg/kg	100
79) Fluoranthene	12.33	202	7757285	3.169	mg/kg	100
81) Benzidine	12.42	184	2506374	3.134	mg/kg	100
82) Pyrene	12.57	202	7965512	3.063	mg/kg	100
84) Butyl benzyl phthalate	13.19	149	3277712	3.088	mg/kg	100
85) 3,3'-Dichlorobenzidine	13.86	252	3415092	3.332	mg/kg	100
86) Benzo[a]anthracene	13.92	228	9222462	2.941	mg/kg	100
87) Chrysene	13.98	228	8432528	3.051	mg/kg	100
88) bis(2-Ethylhexyl)phthalate	13.83	149	4807519	3.371	mg/kg	100
90) Di-n-octyl phthalate	14.67	149	7631627	3.089	mg/kg	100
91) Benzo[b]fluoranthene	15.26	252	8601186	3.350	mg/kg	100
92) Benzo[k]fluoranthene	15.29	252	8101099	3.213	mg/kg	100
93) Benzo[a]pyrene	15.62	252	7488060	3.371	mg/kg	100
94) Indeno[1,2,3-cd]pyrene	17.08	276	9125949	3.241	mg/kg	100
95) Dibenz[a,h]anthracene	17.09	278	7854004	3.239	mg/kg	100
96) Benzo[g,h,i]perylene	17.51	276	6792052	3.102	mg/kg	100

Data File : C:\HPCHEM\1\DATA\170911\17091110.D Vial: 10
Acq On : 11 Sep 2017 4:42 pm Operator:
Sample : 3.0 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091111.D Vial: 11
 Acq On : 11 Sep 2017 5:08 pm Operator:
 Sample : 4.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4435436	4.00	mg/kg	101
22) Naphthalene-d8	8.15	136	11749537	4.00	mg/kg	97
42) Acenaphthene-d10	9.76	164	5787458	4.00	mg/kg	97
65) Phenanthrene-d10	11.14	188	9771748	4.00	mg/kg	102
80) Chrysene-d12	13.95	240	13092817	4.00	mg/kg	101
89) Perylene-d12	15.69	264	10871745	4.00	mg/kg	99

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol	6.15	112	4150939	4.24	mg/kg	0.03
Spiked Amount	4.000	Range 20 - 120	Recovery	=	106.00%	
9) Phenol-d5	6.77	99	4827498	4.18	mg/kg	0.00
Spiked Amount	4.000	Range 20 - 120	Recovery	=	104.50%	
23) Nitrobenzene-d5	7.53	82	3902491	4.25	mg/kg	0.00
Spiked Amount	4.000	Range 41 - 120	Recovery	=	106.25%	
47) 2-Fluorobiphenyl	9.11	172	8091133	4.21	mg/kg	0.00
Spiked Amount	4.000	Range 48 - 120	Recovery	=	105.25%	
69) 2,4,6-Tribromophenol	10.49	330	1779009	3.96	mg/kg	0.00
Spiked Amount	4.000	Range 42 - 124	Recovery	=	99.00%	
83) 4-Terphenyl-d14	12.68	244	9776161	4.04	mg/kg	0.00
Spiked Amount	4.000	Range 51 - 135	Recovery	=	101.00%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.57	74	1811832	4.087	mg/kg	99
3) Pyridine	4.60	79	3584835	4.099	mg/kg	100
4) N-nitrosodiethylamine	6.31	102	1837903	4.375	mg/kg	98
5) Benzaldehyde	6.73	106	1833327	3.717	mg/kg	99
6) Aniline	6.82	93	4071240	3.857	mg/kg	99
8) bis(2-Chloroethyl)ether	6.84	63	2600737	4.139	mg/kg	99
10) Phenol	6.78	94	4448104	4.158	mg/kg	99
11) 2-Chlorophenol	6.91	128	4468413	4.254	mg/kg	99
12) 1,3-Dichlorobenzene	7.02	146	5191435	4.015	mg/kg	100
13) 1,4-Dichlorobenzene	7.07	146	4955927	3.591	mg/kg	99
14) 1,2-Dichlorobenzene	7.20	146	5096868	4.068	mg/kg	100
15) Benzyl alcohol	7.16	108	1870965	3.931	mg/kg	99
16) bis(2-chloroisopropyl)...	7.26	45	4404336	3.728	mg/kg	98
17) 2-Methylphenol	7.25	108	3537366	4.079	mg/kg	99
18) Hexachloroethane	7.48	117	1937593	4.082	mg/kg	97
19) N-Nitrosodi-n-propylamine	7.40	70	2369263	4.116	mg/kg	98
20) 4-Methylphenol	7.37	108	3304994	4.167	mg/kg	99
21) Acetophenone	7.39	105	5167937	4.227	mg/kg	98
24) Nitrobenzene	7.55	77	3480925	4.185	mg/kg	98
25) Isophorone	7.74	82	5429934	4.224	mg/kg	98
26) 2-Nitrophenol	7.81	139	2268776	4.025	mg/kg	99
27) 2,4-Dimethylphenol	7.83	107	3063700	4.131	mg/kg	99
28) bis(2-Chloroethoxy)methane	7.91	93	3758367	4.249	mg/kg	100
29) Benzoic acid	7.95	105	2351619	4.004	mg/kg	99
30) 2,4-Dichlorophenol	8.02	162	3225134	4.271	mg/kg	99
31) 1,2,4-Trichlorobenzene	8.10	180	4215699	4.062	mg/kg	99
32) Naphthalene	8.17	128	10174216	3.685	mg/kg	98
33) 4-Chloroaniline	8.21	127	3490763	3.963	mg/kg	100
34) 2,6-Dichlorophenol	8.22	162	3192081	4.225	mg/kg	99
35) Hexachlorobutadiene	8.28	225	2627106	4.194	mg/kg	99
36) N-nitrosodi-n-butylamine	8.50	116	465873	3.987	mg/kg	99
37) Caprolactam	8.56	113	672522	3.893	mg/kg	98
38) 4-Chloro-3-methylphenol	8.63	107	2196273	4.387	mg/kg	100
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	4216924	4.248	mg/kg	99
40) 2-Methylnaphthalene	8.78	142	7062659	4.169	mg/kg	100
41) 1-Methylnaphthalene	8.88	142	6817373	4.142	mg/kg	100

Data File : C:\HPCHEM\1\DATA\170911\17091111.D Vial: 11
 Acq On : 11 Sep 2017 5:08 pm Operator:
 Sample : 4.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:50 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

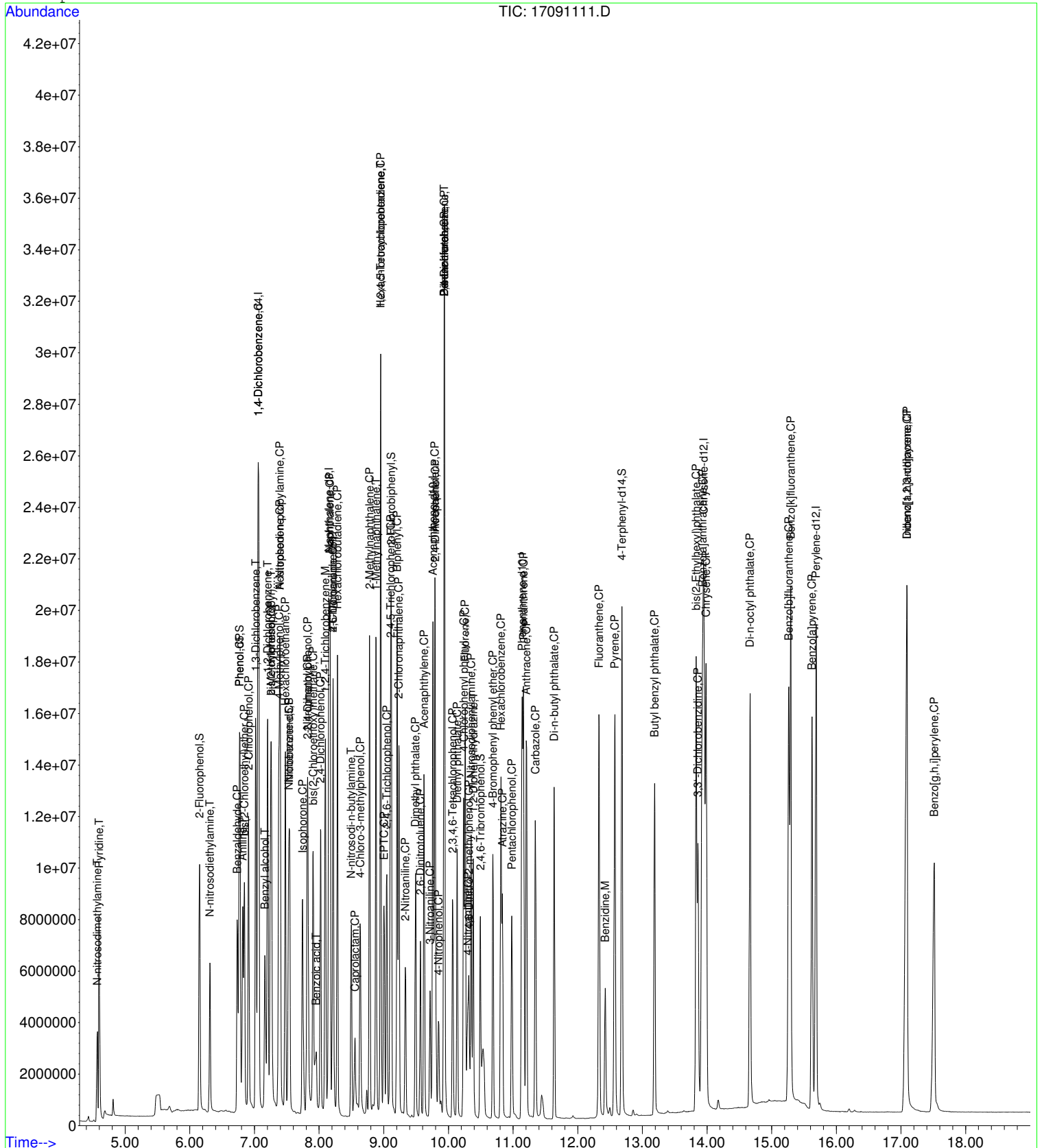
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	3040329	4.008	mg/kg	99
44) EPTC	9.00	128	1934851	4.373	mg/kg	99
45) 2,4,6-Trichlorophenol	9.05	196	2003913	3.921	mg/kg	99
46) 2,4,5-Trichlorophenol	9.10	196	2251861	3.991	mg/kg	99
48) Biphenyl	9.21	154	7642499	4.230	mg/kg	98
49) 2-Chloronaphthalene	9.24	162	6096666	4.217	mg/kg	99
50) 2-Nitroaniline	9.33	138	1657046	3.953	mg/kg	99
51) Acenaphthylene	9.62	152	7791087	4.192	mg/kg	99
52) Dimethyl phthalate	9.49	163	5492424	4.228	mg/kg	99
53) 2,6-Dinitrotoluene	9.57	165	1335269	3.980	mg/kg	98
54) Acenaphthene	9.79	153	6250029	4.130	mg/kg	98
55) 3-Nitroaniline	9.72	138	1193557	4.038	mg/kg	98
56) 2,4-Dinitrophenol	9.80	184	970275	4.049	mg/kg	97
57) Dibenzofuran	9.94	168	8569254	4.367	mg/kg	98
58) 2,4-Dinitrotoluene	9.93	165	2048589	4.009	mg/kg	97
59) 4-Nitrophenol	9.85	109	570311	4.055	mg/kg	98
60) 2,3,4,6-Tetrachlorophenol	10.07	232	1687979	3.904	mg/kg	98
61) Fluorene	10.26	166	6409743	4.267	mg/kg	100
62) 4-Chlorophenyl phenyl ...	10.24	204	3386737	4.368	mg/kg	97
63) Diethyl phthalate	10.13	149	4830469	4.299	mg/kg	99
64) 4-Nitroaniline	10.30	138	1027886	4.088	mg/kg	98
66) 4,6-Dinitro-2-methylphenol	10.32	198	1275761	4.026	mg/kg	98
67) 1,2-Diphenylhydrazine	10.38	77	4611942	4.090	mg/kg	100
68) n-Nitrosodiphenylamine	10.35	169	3795120	3.992	mg/kg	100
70) 4-Bromophenyl phenyl ether	10.69	248	2145135	4.192	mg/kg	100
71) Atrazine	10.83	200	1528359	3.938	mg/kg	98
72) Hexachlorobenzene	10.81	284	2884848	4.243	mg/kg	99
73) Pentachlorophenol	10.98	266	1749291	3.989	mg/kg	99
74) Phenanthrene	11.16	178	8407201	3.926	mg/kg	98
75) Anthracene	11.21	178	8335033	4.153	mg/kg	98
76) Pentachlorobenzene	9.94	250	4284255	4.289	mg/kg	100
77) Carbazole	11.34	167	7041685	4.013	mg/kg	99
78) Di-n-butyl phthalate	11.64	149	8175935	3.914	mg/kg	99
79) Fluoranthene	12.33	202	9973398	4.009	mg/kg	98
81) Benzidine	12.43	184	3155906	3.952	mg/kg	99
82) Pyrene	12.57	202	10283499	3.920	mg/kg	99
84) Butyl benzyl phthalate	13.19	149	4346479	3.968	mg/kg	98
85) 3,3'-Dichlorobenzidine	13.86	252	4533184	4.385	mg/kg	100
86) Benzo[a]anthracene	13.93	228	11904363	3.763	mg/kg	98
87) Chrysene	13.99	228	10833288	3.885	mg/kg	98
88) bis(2-Ethylhexyl)phthalate	13.83	149	6395944	4.446	mg/kg	100
90) Di-n-octyl phthalate	14.67	149	10038788	4.013	mg/kg	98
91) Benzo[b]fluoranthene	15.27	252	11387240	4.460	mg/kg	99
92) Benzo[k]fluoranthene	15.30	252	10242818	4.085	mg/kg	97
93) Benzo[a]pyrene	15.62	252	9709998	4.396	mg/kg	99
94) Indeno[1,2,3-cd]pyrene	17.09	276	12225734	4.366	mg/kg	97
95) Dibenz[a,h]anthracene	17.10	278	10463378	4.339	mg/kg	99
96) Benzo[g,h,i]perylene	17.51	276	9008814	4.137	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091111.D Vial: 11
Acq On : 11 Sep 2017 5:08 pm Operator:
Sample : 4.0 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091112.D Vial: 12
 Acq On : 11 Sep 2017 5:35 pm Operator:
 Sample : 5.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:43 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 09:58:25 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4284774	4.00	mg/kg	97
22) Naphthalene-d8	8.15	136	11393404	4.00	mg/kg	94
42) Acenaphthene-d10	9.76	164	5601359	4.00	mg/kg	94
65) Phenanthrene-d10	11.14	188	9617429	4.00	mg/kg	100
80) Chrysene-d12	13.95	240	12868476	4.00	mg/kg	99
89) Perylene-d12	15.69	264	10596898	4.00	mg/kg	97

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol		6.13	112	5098454	5.39	mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	134.75%#	
9) Phenol-d5		6.77	99	5923268	5.31	mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	132.75%#	
23) Nitrobenzene-d5		7.53	82	4739236	5.32	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	133.00%#	
47) 2-Fluorobiphenyl		9.11	172	9975681	5.37	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	134.25%#	
69) 2,4,6-Tribromophenol		10.49	330	2242762	5.00	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	125.00%#	
83) 4-Terphenyl-d14		12.69	244	11951104	5.03	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	125.75%	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine		4.52	74	2175988	5.081	mg/kg	99
3) Pyridine		4.54	79	4272040	5.057	mg/kg	100
4) N-nitrosodiethylamine		6.30	102	2265437	5.582	mg/kg	100
5) Benzaldehyde		6.73	106	2257136	5.395	mg/kg	99
6) Aniline		6.82	93	5247585	5.144	mg/kg	98
8) bis(2-Chloroethyl)ether		6.84	63	3134877	5.165	mg/kg	97
10) Phenol		6.78	94	5461804	5.285	mg/kg	100
11) 2-Chlorophenol		6.91	128	5447355	5.368	mg/kg	98
12) 1,3-Dichlorobenzene		7.02	146	6263048	5.014	mg/kg	99
13) 1,4-Dichlorobenzene		7.07	146	5700507	4.276	mg/kg	98
14) 1,2-Dichlorobenzene		7.21	146	6134332	5.068	mg/kg	99
15) Benzyl alcohol		7.16	108	2338789	5.007	mg/kg	99
16) bis(2-chloroisopropyl)...		7.27	45	5214078	4.568	mg/kg	95
17) 2-Methylphenol		7.25	108	4294367	5.126	mg/kg	99
18) Hexachloroethane		7.47	117	2345211	5.115	mg/kg	99
19) N-Nitrosodi-n-propylamine		7.40	70	2890208	5.197	mg/kg	98
20) 4-Methylphenol		7.38	108	4068054	5.310	mg/kg	99
21) Acetophenone		7.40	105	6245576	5.288	mg/kg	99
24) Nitrobenzene		7.55	77	4180473	5.183	mg/kg	99
25) Isophorone		7.75	82	6693871	5.371	mg/kg	97
26) 2-Nitrophenol		7.82	139	2737185	4.963	mg/kg	98
27) 2,4-Dimethylphenol		7.83	107	3726619	5.182	mg/kg	99
28) bis(2-Chloroethoxy)methane		7.91	93	4611607	5.377	mg/kg	99
29) Benzoic acid		7.97	105	2904596	4.935	mg/kg	99
30) 2,4-Dichlorophenol		8.03	162	3972114	5.425	mg/kg	99
31) 1,2,4-Trichlorobenzene		8.10	180	5121595	5.089	mg/kg	99
32) Naphthalene		8.17	128	11710515	4.373	mg/kg	93
33) 4-Chloroaniline		8.21	127	4243404	4.966	mg/kg	100
34) 2,6-Dichlorophenol		8.22	162	3962277	5.409	mg/kg	100
35) Hexachlorobutadiene		8.28	225	3225825	5.311	mg/kg	98
36) N-nitrosodi-n-butylamine		8.50	116	578354	4.995	mg/kg	98
37) Caprolactam		8.57	113	780252	4.934	mg/kg	99
38) 4-Chloro-3-methylphenol		8.64	107	2736932	5.638	mg/kg	100
39) 1,2,4,5-Tetrachlorobenzene		8.95	216	5241087	5.445	mg/kg	100
40) 2-Methylnaphthalene		8.78	142	8579159	5.223	mg/kg	99
41) 1-Methylnaphthalene		8.88	142	8289990	5.194	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091112.D Vial: 12
 Acq On : 11 Sep 2017 5:35 pm Operator:
 Sample : 5.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00

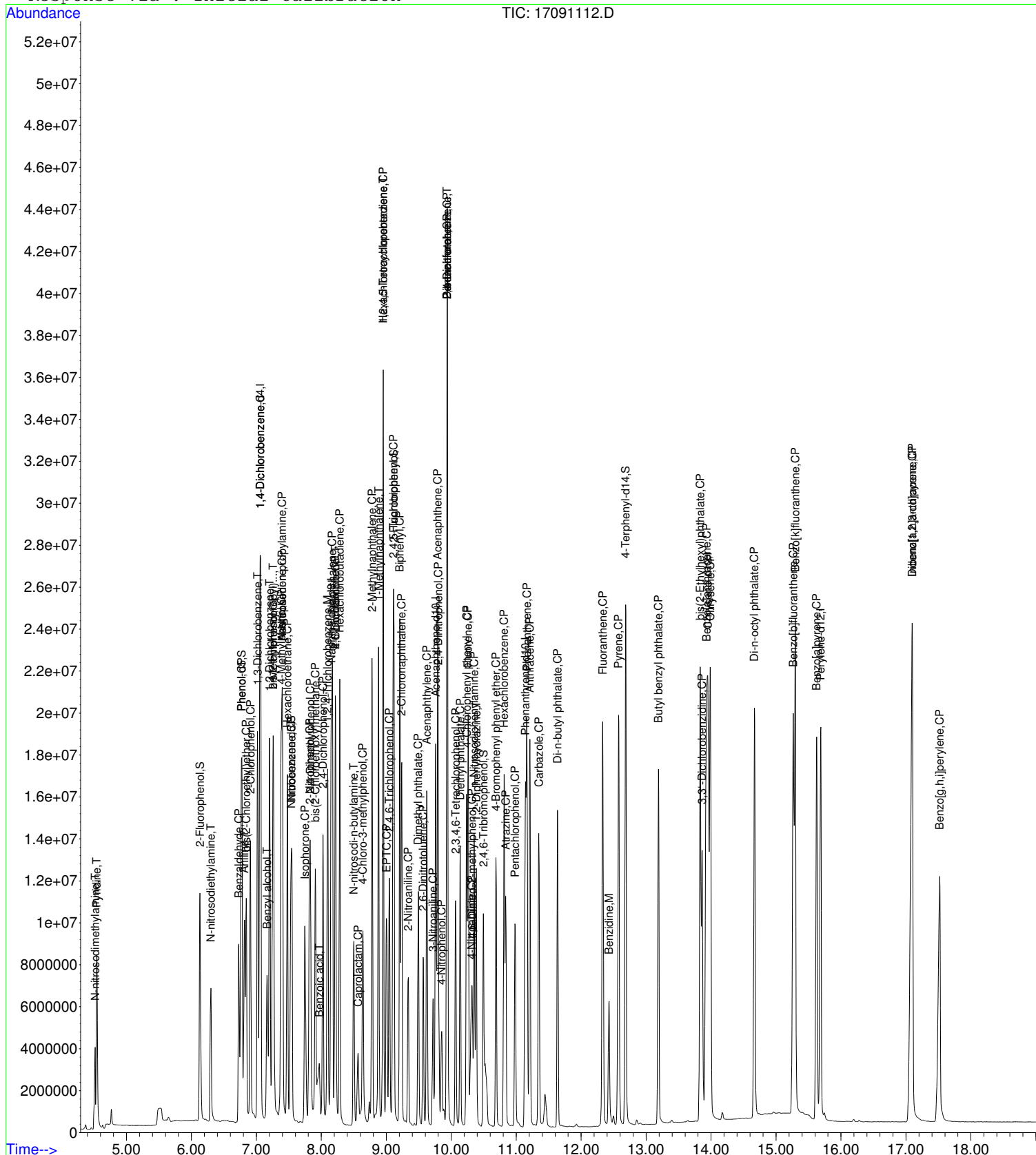
MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:43 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 09:58:25 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	3778843	4.946	mg/kg	98
44) EPTC	9.01	128	2424573	5.663	mg/kg	99
45) 2,4,6-Trichlorophenol	9.05	196	2539741	5.036	mg/kg	99
46) 2,4,5-Trichlorophenol	9.10	196	2812915	5.001	mg/kg	99
48) Biphenyl	9.21	154	9356286	5.350	mg/kg	95
49) 2-Chloronaphthalene	9.24	162	7433127	5.312	mg/kg	99
50) 2-Nitroaniline	9.34	138	2038493	4.835	mg/kg	99
51) Acenaphthylene	9.63	152	9553876	5.312	mg/kg	97
52) Dimethyl phthalate	9.50	163	6715380	5.341	mg/kg	99
53) 2,6-Dinitrotoluene	9.57	165	1642716	4.983	mg/kg	99
54) Acenaphthene	9.79	153	7770550	5.305	mg/kg	98
55) 3-Nitroaniline	9.72	138	1437109	4.958	mg/kg	97
56) 2,4-Dinitrophenol	9.81	184	1248283	4.938	mg/kg	98
57) Dibenzofuran	9.94	168	10414821	5.484	mg/kg	95
58) 2,4-Dinitrotoluene	9.94	165	2613123	4.980	mg/kg	98
59) 4-Nitrophenol	9.85	109	711214	4.926	mg/kg	99
60) 2,3,4,6-Tetrachlorophenol	10.07	232	2140653	5.036	mg/kg	98
61) Fluorene	10.26	166	7895547	5.431	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.24	204	4220763	5.624	mg/kg	98
63) Diethyl phthalate	10.14	149	6025312	5.541	mg/kg	97
64) 4-Nitroaniline	10.30	138	1212423	4.932	mg/kg	98
66) 4,6-Dinitro-2-methylphenol	10.32	198	1617866	4.918	mg/kg	97
67) 1,2-Diphenylhydrazine	10.39	77	5642832	5.084	mg/kg	99
68) n-Nitrosodiphenylamine	10.35	169	4793861	5.124	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.69	248	2693187	5.348	mg/kg	100
71) Atrazine	10.84	200	1907467	4.994	mg/kg	97
72) Hexachlorobenzene	10.81	284	3623953	5.416	mg/kg	99
73) Pentachlorophenol	10.99	266	2213590	4.954	mg/kg	99
74) Phenanthrene	11.16	178	10472011	4.969	mg/kg	97
75) Anthracene	11.21	178	9977411	5.051	mg/kg	96
76) Pentachlorobenzene	9.94	250	5301861	5.393	mg/kg	99
77) Carbazole	11.35	167	8639615	5.003	mg/kg	99
78) Di-n-butyl phthalate	11.64	149	9978934	4.853	mg/kg	98
79) Fluoranthene	12.33	202	12345740	5.042	mg/kg	97
81) Benzidine	12.43	184	3842953	4.963	mg/kg	99
82) Pyrene	12.58	202	12647603	4.906	mg/kg	97
84) Butyl benzyl phthalate	13.19	149	5515074	4.993	mg/kg	99
85) 3,3'-Dichlorobenzidine	13.86	252	5673366	5.584	mg/kg	99
86) Benzo[a]anthracene	13.93	228	14699031	4.728	mg/kg	97
87) Chrysene	13.99	228	13295109	4.852	mg/kg	95
88) bis(2-Ethylhexyl)phthalate	13.83	149	7987424	5.649	mg/kg	97
90) Di-n-octyl phthalate	14.67	149	12301631	4.956	mg/kg	96
91) Benzo[b]fluoranthene	15.27	252	13967926	5.613	mg/kg	97
92) Benzo[k]fluoranthene	15.30	252	12110102	4.955	mg/kg	89
93) Benzo[a]pyrene	15.63	252	11935482	5.544	mg/kg	97
94) Indeno[1,2,3-cd]pyrene	17.10	276	15456845	5.663	mg/kg	98
95) Dibenz[a,h]anthracene	17.10	278	13146999	5.593	mg/kg	97
96) Benzo[g,h,i]perylene	17.52	276	11431970	5.386	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091112.D Vial: 12
Acq On : 11 Sep 2017 5:35 pm Operator:
Sample : 5.0 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:43 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 09:58:25 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091112.D Vial: 12
 Acq On : 11 Sep 2017 5:35 pm Operator:
 Sample : 5.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4284774	4.00	mg/kg	97
22) Naphthalene-d8	8.15	136	11393404	4.00	mg/kg	94
42) Acenaphthene-d10	9.76	164	5601359	4.00	mg/kg	94
65) Phenanthrene-d10	11.14	188	9617429	4.00	mg/kg	100
80) Chrysene-d12	13.95	240	12868476	4.00	mg/kg	99
89) Perylene-d12	15.69	264	10596898	4.00	mg/kg	97

System Monitoring Compounds						
7) 2-Fluorophenol		6.13	112	5098454	5.39 mg/kg	0.02
Spiked Amount	4.000	Range	20 - 120	Recovery	=	134.75%#
9) Phenol-d5		6.77	99	5923268	5.31 mg/kg	0.00
Spiked Amount	4.000	Range	20 - 120	Recovery	=	132.75%#
23) Nitrobenzene-d5		7.53	82	4739236	5.32 mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	133.00%#
47) 2-Fluorobiphenyl		9.11	172	9975681	5.37 mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	134.25%#
69) 2,4,6-Tribromophenol		10.49	330	2242762	5.00 mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	125.00%#
83) 4-Terphenyl-d14		12.69	244	11951104	5.03 mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	125.75%

Target Compounds						Qvalue
2) N-nitrosodimethylamine		4.52	74	2175988	5.081 mg/kg	99
3) Pyridine		4.54	79	4272040	5.057 mg/kg	100
4) N-nitrosodiethylamine		6.30	102	2265437	5.582 mg/kg	100
5) Benzaldehyde		6.73	106	2257136	5.395 mg/kg	99
6) Aniline		6.82	93	5247585	5.144 mg/kg	98
8) bis(2-Chloroethyl)ether		6.84	63	3134877	5.165 mg/kg	97
10) Phenol		6.78	94	5461804	5.285 mg/kg	100
11) 2-Chlorophenol		6.91	128	5447355	5.368 mg/kg	98
12) 1,3-Dichlorobenzene		7.02	146	6263048	5.014 mg/kg	99
13) 1,4-Dichlorobenzene		7.07	146	5700507	4.276 mg/kg	98
14) 1,2-Dichlorobenzene		7.21	146	6134332	5.068 mg/kg	99
15) Benzyl alcohol		7.16	108	2338789	5.007 mg/kg	99
16) bis(2-chloroisopropyl)...		7.27	45	5214078	4.568 mg/kg	95
17) 2-Methylphenol		7.25	108	4294367	5.126 mg/kg	99
18) Hexachloroethane		7.47	117	2345211	5.115 mg/kg	99
19) N-Nitrosodi-n-propylamine		7.40	70	2890208	5.197 mg/kg	98
20) 4-Methylphenol		7.38	108	4068054	5.310 mg/kg	99
21) Acetophenone		7.40	105	6245576	5.288 mg/kg	99
24) Nitrobenzene		7.55	77	4180473	5.183 mg/kg	99
25) Isophorone		7.75	82	6693871	5.371 mg/kg	97
26) 2-Nitrophenol		7.82	139	2737185	4.963 mg/kg	98
27) 2,4-Dimethylphenol		7.83	107	3726619	5.182 mg/kg	99
28) bis(2-Chloroethoxy)methane		7.91	93	4611607	5.377 mg/kg	99
29) Benzoic acid		7.97	105	2904596	4.935 mg/kg	99
30) 2,4-Dichlorophenol		8.03	162	3972114	5.425 mg/kg	99
31) 1,2,4-Trichlorobenzene		8.10	180	5121595	5.089 mg/kg	99
32) Naphthalene		8.17	128	11710515	4.373 mg/kg	93
33) 4-Chloroaniline		8.21	127	4243404	4.966 mg/kg	100
34) 2,6-Dichlorophenol		8.22	162	3962277	5.409 mg/kg	100
35) Hexachlorobutadiene		8.28	225	3225825	5.311 mg/kg	98
36) N-nitrosodi-n-butylamine		8.50	116	578354	4.995 mg/kg	98
37) Caprolactam		8.57	113	780252	4.934 mg/kg	99
38) 4-Chloro-3-methylphenol		8.64	107	2736932	5.638 mg/kg	100
39) 1,2,4,5-Tetrachlorobenzene		8.95	216	5241087	5.445 mg/kg	100
40) 2-Methylnaphthalene		8.78	142	8579159	5.223 mg/kg	99
41) 1-Methylnaphthalene		8.88	142	8289990	5.194 mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091112.D Vial: 12
 Acq On : 11 Sep 2017 5:35 pm Operator:
 Sample : 5.0 PPM-170911 Inst : GC/MS #4
 Misc : CAL Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 10:50 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

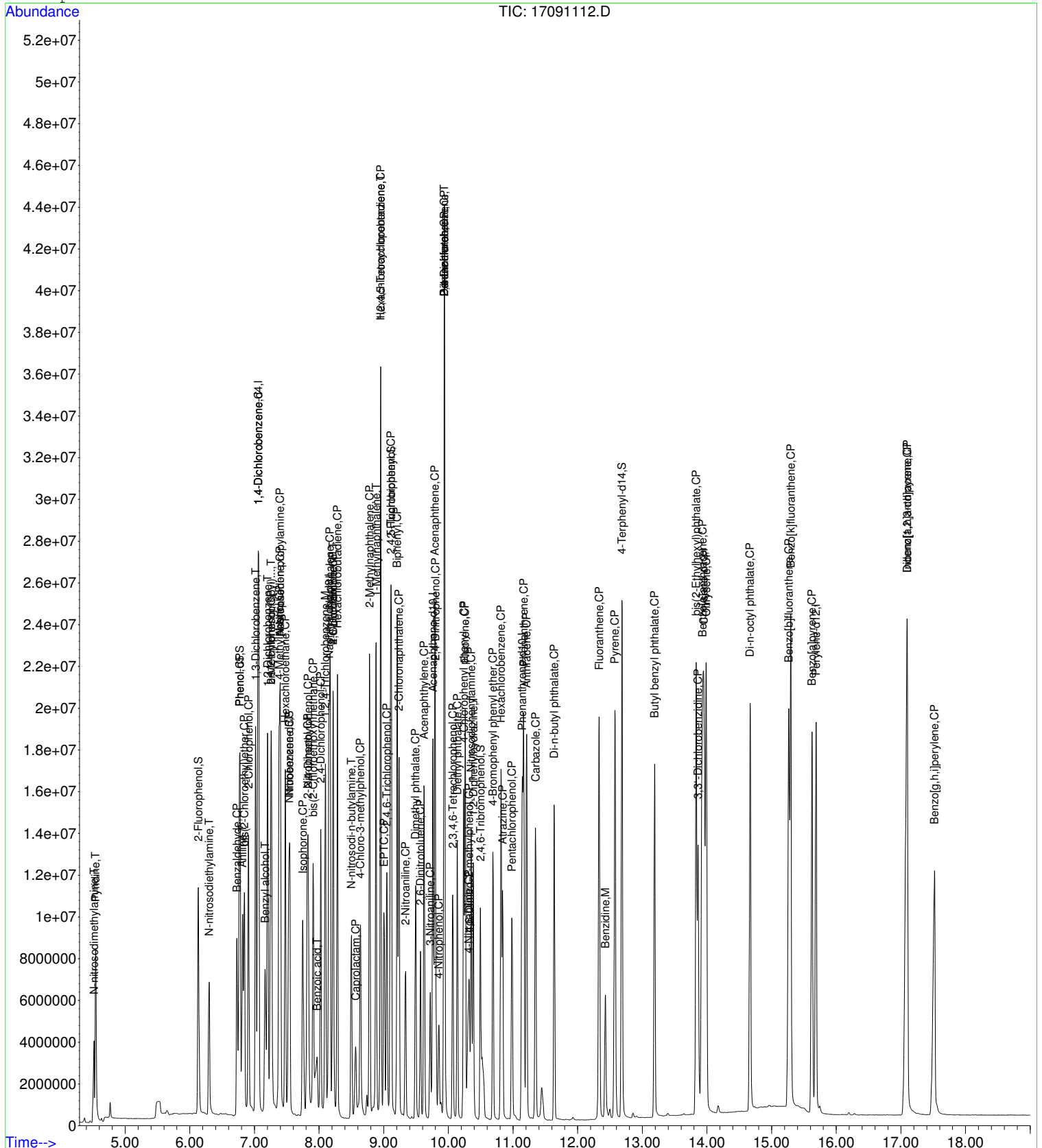
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	3778843	4.946	mg/kg	98
44) EPTC	9.01	128	2424573	5.663	mg/kg	99
45) 2,4,6-Trichlorophenol	9.05	196	2539741	5.036	mg/kg	99
46) 2,4,5-Trichlorophenol	9.10	196	2812915	5.001	mg/kg	99
48) Biphenyl	9.21	154	9356286	5.350	mg/kg	95
49) 2-Chloronaphthalene	9.24	162	7433127	5.312	mg/kg	99
50) 2-Nitroaniline	9.34	138	2038493	4.835	mg/kg	99
51) Acenaphthylene	9.63	152	9553876	5.312	mg/kg	97
52) Dimethyl phthalate	9.50	163	6715380	5.341	mg/kg	99
53) 2,6-Dinitrotoluene	9.57	165	1642716	4.983	mg/kg	99
54) Acenaphthene	9.79	153	7770550	5.305	mg/kg	98
55) 3-Nitroaniline	9.72	138	1437109	4.958	mg/kg	97
56) 2,4-Dinitrophenol	9.81	184	1248283	4.938	mg/kg	98
57) Dibenzofuran	9.94	168	10414821	5.484	mg/kg	95
58) 2,4-Dinitrotoluene	9.94	165	2613123	4.980	mg/kg	98
59) 4-Nitrophenol	9.85	109	711214	4.926	mg/kg	99
60) 2,3,4,6-Tetrachlorophenol	10.07	232	2140653	5.036	mg/kg	98
61) Fluorene	10.26	166	7895547	5.431	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.24	204	4220763	5.624	mg/kg	98
63) Diethyl phthalate	10.14	149	6025312	5.541	mg/kg	97
64) 4-Nitroaniline	10.30	138	1212423	4.932	mg/kg	98
66) 4,6-Dinitro-2-methylphenol	10.32	198	1617866	4.918	mg/kg	97
67) 1,2-Diphenylhydrazine	10.39	77	5642832	5.084	mg/kg	99
68) n-Nitrosodiphenylamine	10.35	169	4793861	5.124	mg/kg	99
70) 4-Bromophenyl phenyl ether	10.69	248	2693187	5.348	mg/kg	100
71) Atrazine	10.84	200	1907467	4.994	mg/kg	97
72) Hexachlorobenzene	10.81	284	3623953	5.416	mg/kg	99
73) Pentachlorophenol	10.99	266	2213590	4.954	mg/kg	99
74) Phenanthrene	11.16	178	10472011	4.969	mg/kg	97
75) Anthracene	11.21	178	9977411	5.051	mg/kg	96
76) Pentachlorobenzene	9.94	250	5301861	5.393	mg/kg	99
77) Carbazole	11.35	167	8639615	5.003	mg/kg	99
78) Di-n-butyl phthalate	11.64	149	9978934	4.853	mg/kg	98
79) Fluoranthene	12.33	202	12345740	5.042	mg/kg	97
81) Benzidine	12.43	184	3842953	4.963	mg/kg	99
82) Pyrene	12.58	202	12647603	4.906	mg/kg	97
84) Butyl benzyl phthalate	13.19	149	5515074	4.993	mg/kg	99
85) 3,3'-Dichlorobenzidine	13.86	252	5673366	5.584	mg/kg	99
86) Benzo[a]anthracene	13.93	228	14699031	4.728	mg/kg	97
87) Chrysene	13.99	228	13295109	4.852	mg/kg	95
88) bis(2-Ethylhexyl)phthalate	13.83	149	7987424	5.649	mg/kg	97
90) Di-n-octyl phthalate	14.67	149	12301631	4.956	mg/kg	96
91) Benzo[b]fluoranthene	15.27	252	13967926	5.613	mg/kg	97
92) Benzo[k]fluoranthene	15.30	252	12110102	4.955	mg/kg	89
93) Benzo[a]pyrene	15.63	252	11935482	5.544	mg/kg	97
94) Indeno[1,2,3-cd]pyrene	17.10	276	15456845	5.663	mg/kg	98
95) Dibenz[a,h]anthracene	17.10	278	13146999	5.593	mg/kg	97
96) Benzo[g,h,i]perylene	17.52	276	11431970	5.386	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091112.D Vial: 12
Acq On : 11 Sep 2017 5:35 pm Operator:
Sample : 5.0 PPM-170911 Inst : GC/MS #4
Misc : CAL Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 10:50 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



Data File : C:\HPCHEM\1\DATA\170911\17091113.D Vial: 13
 Acq On : 11 Sep 2017 6:02 pm Operator:
 Sample : SSCV 2.5 PPM Inst : GC/MS #4
 Misc : ICV Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Sep 12 11:08 2017 Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
 Title : CLP BNA Calibration - Large Volume Injection
 Last Update : Tue Sep 12 10:46:13 2017
 Response via : Initial Calibration
 DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.05	152	4274231	4.00	mg/kg	97
22) Naphthalene-d8	8.15	136	11809097	4.00	mg/kg	98
42) Acenaphthene-d10	9.76	164	5829365	4.00	mg/kg	98
65) Phenanthrene-d10	11.14	188	9156632	4.00	mg/kg	95
80) Chrysene-d12	13.95	240	12613397	4.00	mg/kg	97
89) Perylene-d12	15.68	264	10647086	4.00	mg/kg	97

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
7) 2-Fluorophenol	6.13	112	2543251	2.70	mg/kg	0.01
Spiked Amount	4.000	Range 20 - 120	Recovery	=	67.50%	
9) Phenol-d5	6.76	99	2955923	2.66	mg/kg	0.00
Spiked Amount	4.000	Range 20 - 120	Recovery	=	66.50%	
23) Nitrobenzene-d5	7.52	82	2449483	2.65	mg/kg	0.00
Spiked Amount	4.000	Range 41 - 120	Recovery	=	66.25%	
47) 2-Fluorobiphenyl	9.11	172	5057077	2.62	mg/kg	0.00
Spiked Amount	4.000	Range 48 - 120	Recovery	=	65.50%	
69) 2,4,6-Tribromophenol	10.49	330	1040213	2.53	mg/kg	0.00
Spiked Amount	4.000	Range 42 - 124	Recovery	=	63.25%	
83) 4-Terphenyl-d14	12.68	244	5837668	2.51	mg/kg	0.00
Spiked Amount	4.000	Range 51 - 135	Recovery	=	62.75%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) N-nitrosodimethylamine	4.50	74	1177936	2.757	mg/kg	100
3) Pyridine	4.54	79	2258907	2.680	mg/kg	100
4) N-nitrosodiethylamine	6.29	102	1166918	2.882	mg/kg	98
5) Benzaldehyde	6.73	106	1468288	2.922	mg/kg	99
6) Aniline	6.81	93	3053077	3.004	mg/kg	99
8) bis(2-Chloroethyl)ether	6.83	63	1494788	2.469	mg/kg	98
10) Phenol	6.76	94	2639134	2.560	mg/kg	100
11) 2-Chlorophenol	6.90	128	2668291	2.636	mg/kg	100
12) 1,3-Dichlorobenzene	7.01	146	3155693	2.533	mg/kg	100
13) 1,4-Dichlorobenzene	7.06	146	2758054	2.074	mg/kg	100
14) 1,2-Dichlorobenzene	7.20	146	2939738	2.435	mg/kg	100
15) Benzyl alcohol	7.16	108	913255	2.060	mg/kg	100
16) bis(2-chloroisopropyl)...	7.26	45	2427432	2.132	mg/kg	98
17) 2-Methylphenol	7.24	108	2177201	2.605	mg/kg	100
18) Hexachloroethane	7.47	117	1129323	2.469	mg/kg	100
19) N-Nitrosodi-n-propylamine	7.39	70	1467277	2.645	mg/kg	99
20) 4-Methylphenol	7.37	108	2073635	2.713	mg/kg	100
21) Acetophenone	7.38	105	3122548	2.650	mg/kg	99
24) Nitrobenzene	7.54	77	2144573	2.565	mg/kg	99
25) Isophorone	7.73	82	3226780	2.498	mg/kg	99
26) 2-Nitrophenol	7.81	139	1339064	2.405	mg/kg	98
27) 2,4-Dimethylphenol	7.82	107	1874837	2.515	mg/kg	98
28) bis(2-Chloroethoxy)methane	7.90	93	2295781	2.583	mg/kg	99
29) Benzoic acid	7.92	105	1397692	2.515	mg/kg	98
30) 2,4-Dichlorophenol	8.02	162	1961315	2.584	mg/kg	99
31) 1,2,4-Trichlorobenzene	8.09	180	2493348	2.390	mg/kg	99
32) Naphthalene	8.17	128	6656693	2.399	mg/kg	99
33) 4-Chloroaniline	8.21	127	2651612	2.998	mg/kg	100
34) 2,6-Dichlorophenol	8.21	162	1941532	2.557	mg/kg	99
35) Hexachlorobutadiene	8.28	225	1569104	2.493	mg/kg	99
36) N-nitrosodi-n-butylamine	8.50	116	296455	2.605	mg/kg	99
37) Caprolactam	8.54	113	485420	2.623	mg/kg	96
38) 4-Chloro-3-methylphenol	8.63	107	1339640	2.663	mg/kg	98
39) 1,2,4,5-Tetrachlorobenzene	8.95	216	2387361	2.393	mg/kg	99
40) 2-Methylnaphthalene	8.78	142	4464029	2.622	mg/kg	99
41) 1-Methylnaphthalene	8.88	142	4505103	2.723	mg/kg	100

Data File : C:\HPCHEM\1\DATA\170911\17091113.D

Vial: 13

Acq On : 11 Sep 2017 6:02 pm

Operator:

Sample : SSCV 2.5 PPM

Inst : GC/MS #4

Misc : ICV

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 11:08 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	8.95	237	1693891	2.391	mg/kg	98
44) EPTC	9.04	128	4267	0.010	mg/kg#	1
45) 2,4,6-Trichlorophenol	9.04	196	1225203	2.447	mg/kg	99
46) 2,4,5-Trichlorophenol	9.08	196	1273014	2.356	mg/kg	99
48) Biphenyl	9.20	154	4939355	2.714	mg/kg	99
49) 2-Chloronaphthalene	9.23	162	3670323	2.521	mg/kg	98
50) 2-Nitroaniline	9.33	138	1119870	2.799	mg/kg	98
51) Acenaphthylene	9.62	152	4957659	2.649	mg/kg	98
52) Dimethyl phthalate	9.49	163	3285455	2.511	mg/kg	100
53) 2,6-Dinitrotoluene	9.56	165	806874	2.449	mg/kg	99
54) Acenaphthene	9.79	153	3645007	2.391	mg/kg	98
55) 3-Nitroaniline	9.71	138	821063	2.813	mg/kg	96
56) 2,4-Dinitrophenol	9.80	184	544909	2.640	mg/kg	95
57) Dibenzofuran	9.94	168	5633769	2.850	mg/kg	100
58) 2,4-Dinitrotoluene	9.93	165	1130879	2.442	mg/kg	97
59) 4-Nitrophenol	9.84	109	309959	2.468	mg/kg	99
60) 2,3,4,6-Tetrachlorophenol	10.06	232	1007603	2.368	mg/kg	98
61) Fluorene	10.25	166	3779403	2.498	mg/kg	99
62) 4-Chlorophenyl phenyl ...	10.23	204	2004230	2.566	mg/kg	98
63) Diethyl phthalate	10.13	149	2761433	2.440	mg/kg	99
64) 4-Nitroaniline	10.29	138	691705	2.780	mg/kg	99
66) 4,6-Dinitro-2-methylphenol	10.31	198	680911	2.531	mg/kg	99
67) 1,2-Diphenylhydrazine	10.38	77	2737306	2.590	mg/kg	99
68) n-Nitrosodiphenylamine	10.35	169	2264754	2.542	mg/kg	100
70) 4-Bromophenyl phenyl ether	10.69	248	1228457	2.562	mg/kg	99
71) Atrazine	10.83	200	971716	2.672	mg/kg	98
72) Hexachlorobenzene	10.81	284	1644566	2.581	mg/kg	99
73) Pentachlorophenol	10.98	266	996761	2.563	mg/kg	98
74) Phenanthrene	11.16	178	4913900	2.449	mg/kg	98
75) Anthracene	11.20	178	4692091	2.495	mg/kg	99
76) Pentachlorobenzene	9.93	250	2181282	2.331	mg/kg	99
77) Carbazole	11.34	167	4866895	2.960	mg/kg	100
78) Di-n-butyl phthalate	11.63	149	4916162	2.511	mg/kg	99
79) Fluoranthene	12.33	202	5893073	2.528	mg/kg	98
81) Benzidine	12.42	184	2130439	2.729	mg/kg	99
82) Pyrene	12.57	202	6234175	2.467	mg/kg	99
84) Butyl benzyl phthalate	13.19	149	2478861	2.446	mg/kg	99
85) 3,3'-Dichlorobenzidine	13.85	252	2901314	2.913	mg/kg	98
86) Benzo[a]anthracene	13.92	228	7071812	2.321	mg/kg	99
87) Chrysene	13.98	228	6440700	2.398	mg/kg	99
88) bis(2-Ethylhexyl)phthalate	13.83	149	3619364	2.611	mg/kg	99
90) Di-n-octyl phthalate	14.66	149	5694589	2.401	mg/kg	99
91) Benzo[b]fluoranthene	15.26	252	6256654	2.502	mg/kg	99
92) Benzo[k]fluoranthene	15.28	252	6587480	2.683	mg/kg	99
93) Benzo[a]pyrene	15.61	252	5729970	2.649	mg/kg	100
94) Indeno[1,2,3-cd]pyrene	17.07	276	6602406	2.408	mg/kg	98
95) Dibenz[a,h]anthracene	17.07	278	5900951	2.499	mg/kg	99
96) Benzo[g,h,i]perylene	17.50	276	5319867	2.495	mg/kg	99

Data File : C:\HPCHEM\1\DATA\170911\17091114.D

Vial: 14

Acq On : 11 Sep 2017 6:28 pm

Operator:

Sample : SSCV 2.5 PPM EPTC

Inst : GC/MS #4

Misc : ICV

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 11:08 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

Response via : Initial Calibration

DataAcq Meth : SV1

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	7.04	152	4236754	4.00	mg/kg	96
22) Naphthalene-d8	8.14	136	11802458	4.00	mg/kg	98
42) Acenaphthene-d10	9.75	164	5985898	4.00	mg/kg	100
65) Phenanthrene-d10	11.13	188	9665466	4.00	mg/kg	101
80) Chrysene-d12	13.94	240	12202239	4.00	mg/kg	94
89) Perylene-d12	15.67	264	11361529	4.00	mg/kg	104

System Monitoring Compounds

7) 2-Fluorophenol		0.00	112	0	0.00	mg/kg	
Spiked Amount	4.000	Range	20 - 120	Recovery	=	0.00%#	
9) Phenol-d5		6.80	99	209	0.00	mg/kg	0.04
Spiked Amount	4.000	Range	20 - 120	Recovery	=	0.00%#	
23) Nitrobenzene-d5		7.51	82	125	0.00	mg/kg	0.00
Spiked Amount	4.000	Range	41 - 120	Recovery	=	0.00%#	
47) 2-Fluorobiphenyl		9.11	172	673	0.00	mg/kg	0.00
Spiked Amount	4.000	Range	48 - 120	Recovery	=	0.00%#	
69) 2,4,6-Tribromophenol		10.49	330	6536	0.03	mg/kg	0.00
Spiked Amount	4.000	Range	42 - 124	Recovery	=	0.75%#	
83) 4-Terphenyl-d14		12.69	244	6287	0.00	mg/kg	0.00
Spiked Amount	4.000	Range	51 - 135	Recovery	=	0.00%#	

Target Compounds

						Qvalue
2) N-nitrosodimethylamine	4.49	74	171	0.000	mg/kg#	13
3) Pyridine	4.48	79	47	0.000	mg/kg#	1
4) N-nitrosodiethylamine	0.00	102	0	N.D.		
5) Benzaldehyde	0.00	106	0	N.D.		
6) Aniline	6.77	93	47	0.008	mg/kg#	1
8) bis(2-Chloroethyl)ether	6.82	63	103	0.000	mg/kg#	1
10) Phenol	6.78	94	71	0.000	mg/kg#	44
11) 2-Chlorophenol	6.93	128	48	0.000	mg/kg#	3
12) 1,3-Dichlorobenzene	7.02	146	336	0.000	mg/kg	92
13) 1,4-Dichlorobenzene	0.00	146	0	N.D.		
14) 1,2-Dichlorobenzene	7.02	146	336	0.000	mg/kg	93
15) Benzyl alcohol	7.23	108	1441	0.050	mg/kg#	63
16) bis(2-chloroisopropyl)...	7.25	45	464	0.000	mg/kg#	50
17) 2-Methylphenol	7.23	108	1441	0.002	mg/kg#	72
18) Hexachloroethane	7.47	117	190	0.000	mg/kg#	3
19) N-Nitrosodi-n-propylamine	7.39	70	454	0.001	mg/kg#	30
20) 4-Methylphenol	7.39	108	337	0.000	mg/kg#	29
21) Acetophenone	7.38	105	106	0.000	mg/kg#	1
24) Nitrobenzene	7.56	77	526	0.001	mg/kg#	31
25) Isophorone	7.74	82	581	0.000	mg/kg#	51
26) 2-Nitrophenol	0.00	139	0	N.D.		
27) 2,4-Dimethylphenol	7.84	107	1015	0.001	mg/kg#	48
28) bis(2-Chloroethoxy)methane	7.91	93	486	0.001	mg/kg#	48
29) Benzoic acid	7.95	105	3271	0.078	mg/kg#	54
30) 2,4-Dichlorophenol	8.05	162	742	0.001	mg/kg#	74
31) 1,2,4-Trichlorobenzene	8.09	180	497	0.000	mg/kg#	40
32) Naphthalene	8.16	128	2946	0.001	mg/kg	72
33) 4-Chloroaniline	8.16	127	105	0.010	mg/kg#	7
34) 2,6-Dichlorophenol	8.23	162	521	0.001	mg/kg#	37
35) Hexachlorobutadiene	8.28	225	191	0.000	mg/kg#	78
36) N-nitrosodi-n-butylamine	0.00	116	0	N.D.		
37) Caprolactam	8.52	113	98	0.033	mg/kg#	1
38) 4-Chloro-3-methylphenol	8.65	107	2629	0.005	mg/kg#	68
39) 1,2,4,5-Tetrachlorobenzene	8.96	216	1045	0.001	mg/kg	96
40) 2-Methylnaphthalene	8.89	142	992	0.001	mg/kg	80
41) 1-Methylnaphthalene	8.89	142	992	0.001	mg/kg#	78

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

Data File : C:\HPCHEM\1\DATA\170911\17091114.D

Vial: 14

Acq On : 11 Sep 2017 6:28 pm

Operator:

Sample : SSCV 2.5 PPM EPTC

Inst : GC/MS #4

Misc : ICV

Multiplr: 1.00

MS Integration Params: RTEINT.P

Quant Time: Sep 12 11:08 2017

Quant Results File: SV170911.RES

Quant Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)

Title : CLP BNA Calibration - Large Volume Injection

Last Update : Tue Sep 12 10:46:13 2017

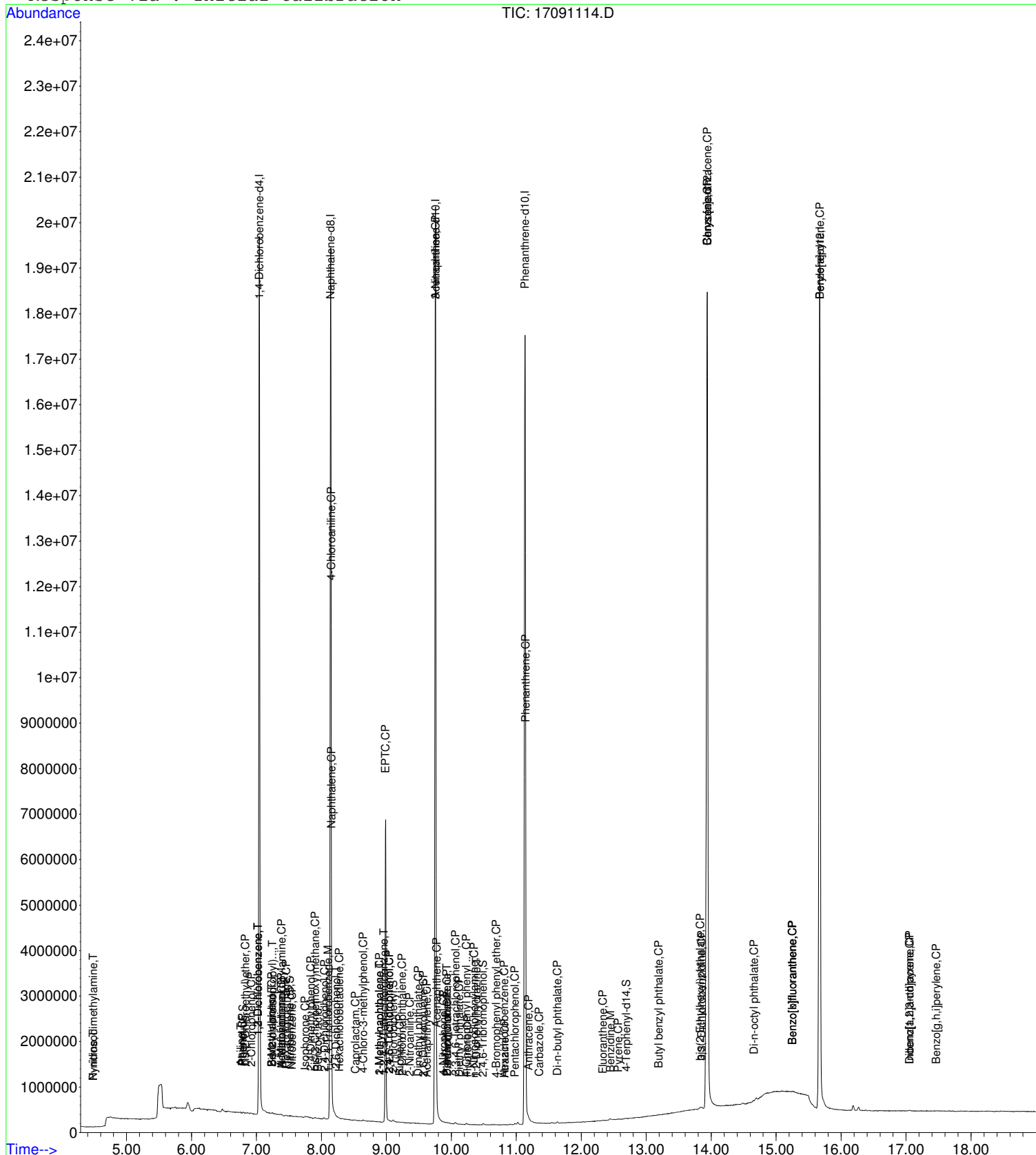
Response via : Initial Calibration

DataAcq Meth : SV1

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
43) Hexachlorocyclopentadiene	0.00	237	0	N.D.		
44) EPTC	8.99	128	1250881	2.734	mg/kg	99
45) 2,4,6-Trichlorophenol	9.05	196	1902	0.023	mg/kg	89
46) 2,4,5-Trichlorophenol	9.05	196	1902	0.019	mg/kg	88
48) Biphenyl	9.21	154	1066	0.001	mg/kg#	73
49) 2-Chloronaphthalene	9.24	162	1062	0.001	mg/kg	82
50) 2-Nitroaniline	9.37	138	54	0.024	mg/kg#	18
51) Acenaphthylene	9.63	152	2481	0.001	mg/kg	82
52) Dimethyl phthalate	9.49	163	1705	0.001	mg/kg	68
53) 2,6-Dinitrotoluene	9.57	165	253	0.024	mg/kg#	35
54) Acenaphthene	9.78	153	2179	0.001	mg/kg	91
55) 3-Nitroaniline	9.75	138	1203	0.044	mg/kg#	1
56) 2,4-Dinitrophenol	0.00	184	0	N.D.		
57) Dibenzofuran	9.94	168	2076	0.001	mg/kg	100
58) 2,4-Dinitrotoluene	9.94	165	270	0.030	mg/kg#	43
59) 4-Nitrophenol	9.88	109	133	0.053	mg/kg#	16
60) 2,3,4,6-Tetrachlorophenol	10.06	232	5025	0.031	mg/kg	95
61) Fluorene	10.26	166	2140	0.001	mg/kg#	74
62) 4-Chlorophenyl phenyl ...	10.24	204	1133	0.001	mg/kg	85
63) Diethyl phthalate	10.13	149	3155	0.003	mg/kg	94
64) 4-Nitroaniline	0.00	138	0	N.D.		
66) 4,6-Dinitro-2-methylphenol	0.00	198	0	N.D.		
67) 1,2-Diphenylhydrazine	10.38	77	2247	0.002	mg/kg#	60
68) n-Nitrosodiphenylamine	10.35	169	1545	0.002	mg/kg#	79
70) 4-Bromophenyl phenyl ether	10.69	248	482	0.001	mg/kg#	40
71) Atrazine	10.83	200	64	0.000	mg/kg#	33
72) Hexachlorobenzene	10.82	284	1490	0.002	mg/kg#	68
73) Pentachlorophenol	10.98	266	7172	0.047	mg/kg	89
74) Phenanthrene	11.15	178	9252	0.004	mg/kg	74
75) Anthracene	11.20	178	4006	0.002	mg/kg	96
76) Pentachlorobenzene	9.93	250	2967	0.003	mg/kg#	82
77) Carbazole	11.36	167	3948	0.002	mg/kg#	81
78) Di-n-butyl phthalate	11.63	149	20155	0.010	mg/kg	96
79) Fluoranthene	12.33	202	5895	0.002	mg/kg	88
81) Benzidine	12.44	184	32123	0.073	mg/kg	97
82) Pyrene	12.57	202	6694	0.003	mg/kg	92
84) Butyl benzyl phthalate	13.18	149	3161	0.020	mg/kg#	63
85) 3,3'-Dichlorobenzidine	13.85	252	16188	0.017	mg/kg	94
86) Benzo[a]anthracene	13.94	228	42927	0.015	mg/kg	80
87) Chrysene	13.94	228	42927	0.017	mg/kg	78
88) bis(2-Ethylhexyl)phthalate	13.82	149	10444	0.008	mg/kg	95
90) Di-n-octyl phthalate	14.65	149	4304	0.021	mg/kg	82
91) Benzo[b]fluoranthene	15.25	252	5817	0.002	mg/kg	96
92) Benzo[k]fluoranthene	15.25	252	5854	0.002	mg/kg	97
93) Benzo[a]pyrene	15.67	252	40008	0.017	mg/kg	90
94) Indeno[1,2,3-cd]pyrene	17.05	276	7294	0.002	mg/kg	87
95) Dibenz[a,h]anthracene	17.05	278	3834	0.002	mg/kg	93
96) Benzo[g,h,i]perylene	17.47	276	8496	0.004	mg/kg	94

Data File : C:\HPCHEM\1\DATA\170911\17091114.D Vial: 14
Acq On : 11 Sep 2017 6:28 pm Operator:
Sample : SSCV 2.5 PPM EPTC Inst : GC/MS #4
Misc : ICV Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Sep 12 11:08 2017 Quant Results File: SV170911.RES

Method : C:\HPCHEM\1\METHODS\SV170911.M (RTE Integrator)
Title : CLP BNA Calibration - Large Volume Injection
Last Update : Tue Sep 12 10:46:13 2017
Response via : Initial Calibration



GCMS5

For

DHL Work Order

1709099

GCMS5_170914A

For

DHL Work Order

1709099

Lab Data Review Check List
EPA Method 8260 / 624 - Volatile Organic Compounds by GC/MS

Project Number(s): SEE RUN LOG			Run ID: GCMS5_170914A			
Batch Number(s): SEE RUN LOG			SOP: ORGANICS-Volatiles-01			
Matrix:						
Review Item			Yes	No	N/A	2nd Level Review
Data Folder Contents						
1. Is the Prep Batch Report included? Check and record the following: Prep Start/End Dates, Sample Amounts, Bottle #s, pH (H₂O samples)			X			X
2. Are the reagents and spikes listed on the Prep Batch Report current with a valid expiration date? All standard/QC sample preparations shall be documented in LIMS			X			
3. Is the Run Log and instrument sequence included? Check the Test Code, Sample Type, Batch ID, and Analysis Date/Time			X			
4. Is the System Verification - Tune Report included? Date/Tme of Tune starts 12-hour analysis window			X			
5. Is the Evaluate Continuing Calibration Report included?			X			
Daily Demonstration of Performance						
QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in the Variance/Comment Section on page 2.						
Review Item	Frequency	Limits	Pass	Fail (List Batch/Sample) **See Run Log**		2nd Level Review
BFB Tune	Before ICAL Every 12 hours	See Tune Eval Report	X			X
Initial Calibration Curve (ICAL) (minimum: 5 Standards)	Prior to samples and when ICV fails	Avg. RF - %RSD ≤ 15% Curve (COD) - R ² ≥ 0.990	X			
SSCV - (Second Source)	After calibration (ICAL)	70-130% non-DoD 80-120% DoD	X			
ICV - (Daily Initial Cal Verification)	Every 12 hours	ISTDs Area% (50-200) Surrogates %R (See LIMS) 8260 %R (80-120) for >80% analytes reported Analytes %R (70-130) TCEQ Analytes %R (80-120) DoD	X			
Review Item	Frequency	Limits	Pass	Fail	N/A	Review
Method Blank (MB) System Blank (SYS Blank)	Every Batch (MB) Daily (SYS BL)	< MDL / <½ RL (DoD) or <1/10 the sample/reg limit	X			X
Lab Control Sample (LCS)	Every Batch/20 samples	See LIMS	X			
Lab Control Sample Dup (LCSD)	Insufficient sample Sample Matrix	See LIMS	X			
LCSD - RPD	Every LCS/LCSD	≤ 20 (Aq) / ≤ 30 (Soil&DoD)	X			
Field Samples	Up to 20 per prep batch	ISTDs Area% (50-200%) Surrogates %R (See LIMS) RRT ± 0.06 RRT Standard Q value > 70 - check for #	X			
Matrix Spike (MS)	Every Batch/20 samples	See LIMS			X	
Matrix Spike Duplicate (MSD) (MSD is N/A for Method 624)	Every Prep Batch except Method 624	See LIMS			X	
MSD - RPD (MSD is N/A for Method 624)	Every MS/MSD except Method 624	≤ 20 (Aq) / ≤ 30 (Soil&DoD)			X	

Lab Data Review Check List

EPA Method 8260 / 624 - Volatile Organic Compounds by GC/MS

Review Item	Criteria	Yes	No	N/A	2nd Level Review
Sample Analysis 1. Are all sample hold times met? *14 days for <2 (Aq) except for Vinyl Chloride, Styrene, 2-CEVE. **No BTEX	3 days (Aq)-Acrolein			X	X
	7 days (Aq)-pH>2-Full+BTEX	X			
	14 days (Soil)			X	
	14 days (Aq)-pH≤2*	X			
	14 days (Aq)-pH>2**			X	
2. Are all manual integrations signed (Before & After)?	Sign(Before & After)/LIMS Comment/MI Form(DoD)			X	
3. Are all samples with concentrations > the highest ICAL STD diluted and reanalyzed?				X	
Review Item #3 is N/A ONLY if all sample results are within Calibration range or NO if dilution is in different folder					
4. Is mass spectra reviewed/verified if Q value is <70 and/or # flag for results >MDL (<92 for Acetone)?	Q value <70 - All hits Q value <92 - Acetone			X	X
5. Are ALL reported analytes > MDL (+ J flags) highlighted by the analyst?		X	Return to analyst if NO		

VARIANCE REPORT

QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in this section.

NON-CONFORMANCES / VARIANCE	Criteria	Yes	No	N/A	2nd Level Review
1. Are all non-conformances included and noted?	All deviations from the method and SOP that affect data quality			X	X
2. Are all corrective actions included?				X	
3. Does the variance require approval by the Technical Director/General Manager/QA Manager?				X	

Approved by: _____

Date: _____

Description and Corrective Actions of QC items that do not meet method/SOP/project requirements:

****INCLUDE VARIANCE ITEM / REASON / CORRECTIVE ACTION / IMPACT ON DATA****

VARIANCE ITEM	REASON	CORRECTIVE ACTION
___ Hold Time exceeded (7D/14D/Meth 5035 ASAP)	___ Sample Received out of HT	___ Reanalyze QC to confirm
___ ICV out of control (± 20% DoD/30%)	___ Carryover from previous run	___ Recalibrate
___ LCS ___ LCSD out of control (See LIMS)	___ Cross contamination	___ Reprep/Reanalyze sample
___ MB/SYS BL out of control (> MDL / >½ RL)	___ Lab Artifact	___ Reprep/Reanalyze Batch
___ Internal Standard(s) out of control limits	___ Prep Spike error (describe)	___ Reanalyze Batch/Sample/QC
___ 2 or more Surrogates out of control limits	___ High Levels of target analytes	___ Verify H2O/reagents are clean
___ RPD out of control for LCS/LCSD (>20/30%)	___ High Levels of non-targets	___ Reanalyze sample to confirm
___ MS ___ MSD out of control (See LIMS)	___ Insufficient sample for QC	___ Sample results ND w/ dilution
___ RPD out of control for MS/MSD (>20/30%)	___ Prep Error	___ Client notified and approved
___ No MS/MSD prepared - LCS/LCSD used instead	___ Analytical Error	___ Flag data / Case narrative
___ Missing QC (other than MS/MSD)	___ Client Request	___ Instrument Maintenance
___ QC sample(s) was mis-spiked	___ Matrix Effect	___ Accept data
___ Headspace Present	___ Other (describe below)	___ Confirmed by reanalysis
___ Other (describe below)	___ Cannot reanalyze (HT out/Lack of Sample)	

General Comments and Impact on Data: _____

Analyst: Don Winston

Date of Completion: 09/15/17

Second-Level Review: Janice Whitt

Date: 9/15/2017



Run ID: **GCMS5_170914A**

Run No.: 94155

Analytical Run Date: 9/14/2017

InstrumentID: GCMS5

Analyst: Don Winston

Column: Rtx-VMS (30m x 0.25mm ID x 1.4µm df)

Calibration ID: 793

Column ID: 0.25mm

Column Length: 30m

Cal Comments: 170817X.M
 SSCV out: Acetone low (73.82%) for DoD. IPA and TBA high in SSCV. All other compounds within 20%. No MI

SampID	DF	TestCode	SampType	Batch ID	Analysis Date/Time	Q	Comments
ICV-170914	1	8260_W_AF2	ICV	R94155	9/14/2017 9:40:00 AM		
LCS-82366	1	8260_W_AF2	LCS	82366	9/14/2017 10:27:00 AM		
LCSD-82366	1	8260_W_AF2	LCSD	82366	9/14/2017 10:50:00 AM		Insufficient sample for MS/MSD.
MB-82366	1	8260_W_AF2	MBLK	82366	9/14/2017 11:38:00 AM		
1709097-02A	1	8260_W_AF2	SAMP	82366	9/14/2017 12:01:00 PM		
1709099-03A	1	8260_W_AF2	SAMP	82366	9/14/2017 12:25:00 PM		
1709100-02A	1	8260_W_AF2	SAMP	82366	9/14/2017 12:49:00 PM		
1709107-03A	1	8260_W_AF2	SAMP	82366	9/14/2017 1:12:00 PM		
1709108-03A	1	8260_W_AF2	SAMP	82366	9/14/2017 1:36:00 PM		
1709097-01A	1	8260_W_AF2	SAMP	82366	9/14/2017 1:59:00 PM		
1709099-01A	1	8260_W_AF2	SAMP	82366	9/14/2017 2:23:00 PM		
1709100-01A	1	8260_W_AF2	SAMP	82366	9/14/2017 2:46:00 PM		
1709107-02A	1	8260_W_AF2	SAMP	82366	9/14/2017 3:10:00 PM		
1709108-02A	1	8260_W_AF2	SAMP	82366	9/14/2017 3:34:00 PM		
1709091-01A	1	8260_W_AF2	SAMP	82366	9/14/2017 4:21:00 PM		

Std ID	Std Name	Type	Exp. Date
VAVP170913	5000 ppm ACROLEIN AND VINYL A	ICV	10/13/2017
VCDP170913	200 PPM CARBON DISULFIDE STA	ICV	10/13/2017
VCEP170913	200 PPM 2-CHLOROETHYLVINYLE	ICV	10/13/2017
VGP170913	200 PPM GAS STANDARD	ICV	10/13/2017
VIMP170913	200 PPM IODOMETHANE STANDA	ICV	10/13/2017
VKP170515B	2000 PPM KETONE STANDARD	ICV	02/16/2018
VLP170913	8260 Liquid Std. + Addds (200, 400,	ICV	10/13/2017
VMTP170913	200 PPM MIXED STANDARD	ICV	10/13/2017
VPNP170913	5000 PPM ISOPROPYL ALCOHOL	ICV	10/13/2017
VSI170912-1	25 PPM ISTD/SURROGATE 8260	ICV	12/12/2017

Sequence Name: C:\msdchem\1\sequence\170914.s

Comment:

Operator:

Data Path: c:\msdchem\1\DATA\170914\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run

(X) Full Method

() Reprocessing Only

Sequence Barcode Options

(X) On Mismatch, Inject Anyway

() On Mismatch, Don't Inject

() Barcode Disabled

Line		Sample Name/Misc Info
1)	Sample	1 17091401 170817X ICV-170914
2)	Sample	2 17091402 170817X LCS-82365
3)	Sample	3 17091403 170817X LCS-82366
4)	Sample	4 17091404 170817X LCSD-82366
5)	Sample	5 17091405 170817X MB-82365
6)	Sample	6 17091406 170817X MB-82366
7)	Sample	7 17091407 170817X 1709097-02A
8)	Sample	8 17091408 170817X 1709099-03A
9)	Sample	9 17091409 170817X 1709100-02A
10)	Sample	10 17091410 170817X 1709107-03A
11)	Sample	11 17091411 170817X 1709108-03A
12)	Sample	12 17091412 170817X 1709097-01A
13)	Sample	13 17091413 170817X 1709099-01A
14)	Sample	14 17091414 170817X 1709100-01A
15)	Sample	15 17091415 170817X 1709107-02A
16)	Sample	16 17091416 170817X 1709108-02A
17)	Sample	17 17091417 170817X 1709103-01A
18)	Sample	18 17091418 170817X 1709091-01A
19)	Sample	19 17091419 170817X 1709116-01B
20)	Sample	20 17091420 170817X 1709116-02B
21)	Sample	21 17091421 170817X 1709116-04B
22)	Sample	22 17091422 170817X 1709118-01A
23)	Sample	23 17091423 170817X 1709119-01A
24)	Sample	24 17091424 170817X 1709116-01BMS

DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: **9/14/2017 9:53:50 AM**

Digestion:

Prep End Date: **9/14/2017 4:21:00 PM**

Prep Batch **82366** Prep Code: **5030_W_MS**

Technician: **Don Winston**

Prep Factor Units:
mL/mL

Equipment List
Pipette # 27

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709091-01A	Aqueous	<2	5	5	1.000	1 of 2		
1709097-01A	Aqueous	>3	5	5	1.000	1 of 3		
1709097-02A	Aqueous	>3	5	5	1.000	1 of 3		
1709099-01A	Aqueous	>3	5	5	1.000	1 of 3		
1709099-03A	Field Blank	>3	5	5	1.000	1 of 3		
1709100-01A	Aqueous	>3	5	5	1.000	1 of 3		
1709100-02A	Field Blank	>3	5	5	1.000	1 of 3		
1709107-02A	Aqueous	>3	5	5	1.000	2 of 3		
1709107-03A	Field Blank	>3	5	5	1.000	1 of 3		
1709108-02A	Aqueous	>3	5	5	1.000	2 of 3		
1709108-03A	Field Blank	>3	5	5	1.000	1 of 3		
LCS-82366	Aqueous		5	5	1.000	of		
LCSD-82366	Aqueous		5	5	1.000	of		
MB-82366	Aqueous		5	5	1.000	of		

Number	Reagent Name	Amt	Units	Exp. Date
8086	pH paper 0-3	1	paper	12/15/2025
11586	VOA Vials	1	vial	07/17/2027

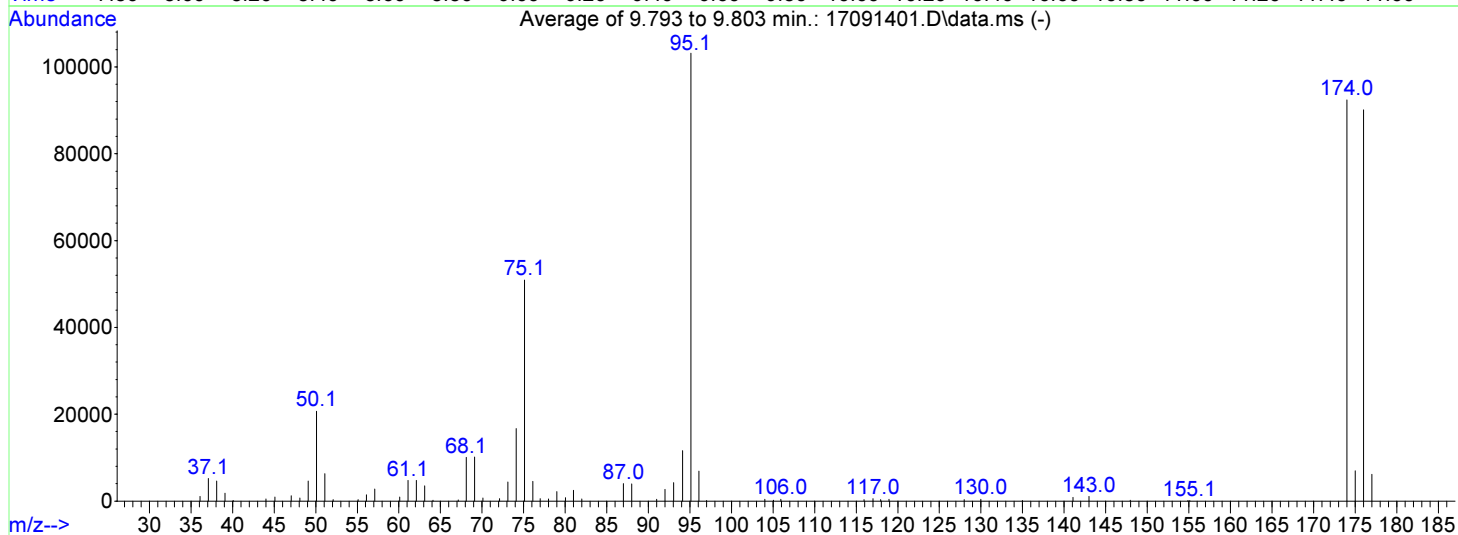
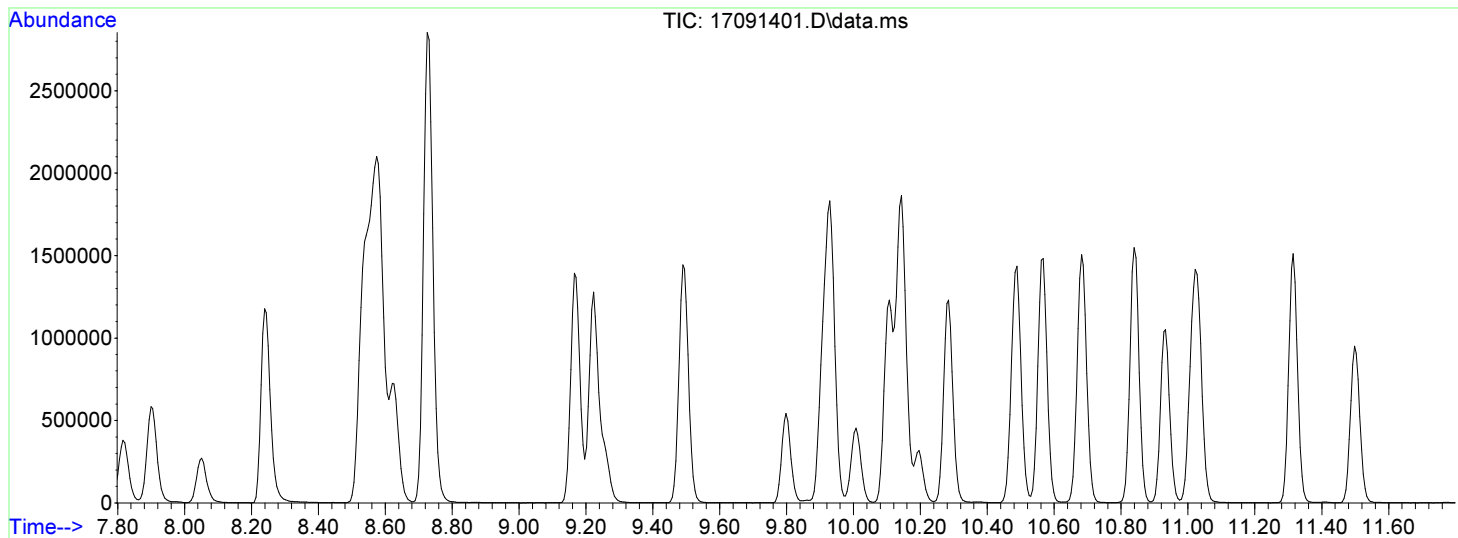
Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
VAVP170913	5000 ppm ACROLEIN AND VINYL ACET		0.0005	10/13/2017
VCDP170913	200 PPM CARBON DISULFIDE STANDA		0.005	10/13/2017
VCEP170913	200 PPM 2-CHLOROETHYLVINYLETHE		0.005	10/13/2017
VGP170913	200 PPM GAS STANDARD		0.005	10/13/2017
VIMP170913	200 PPM IODOMETHANE STANDARD		0.005	10/13/2017
VKP170515B	2000 PPM KETONE STANDARD		0.0025	02/16/2018
VLP170913	8260 Liquid Std. + Adds (200, 400, 1000,		0.005	10/13/2017
VMTP170913	200 PPM MIXED STANDARD		0.005	10/13/2017

REVIEWED BY
By Janice Whitt at 1:28:55 PM, 9/15/2017

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091401.D
 Acq On : 14 Sep 2017 9:40 am
 Operator :
 Sample : ICV-170914
 Misc : ICV
 ALS Vial : 1 Sample Multiplier: 1

Integration File: Rteint.p

Method : C:\msdchem\1\methods\170817X.M
 Title : M-8260S
 Last Update : Thu Aug 17 14:33:11 2017



AutoFind: Scans 1589, 1590, 1591; Background Corrected with Scan 1580

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	20661	PASS
75	95	30	60	49.3	50923	PASS
95	95	100	100	100.0	103200	PASS
96	95	5	9	6.7	6908	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	89.6	92435	PASS
175	174	5	9	7.5	6957	PASS
176	174	95	101	97.5	90088	PASS
177	176	5	9	6.8	6170	PASS

REVIEWED BY
 By Janice Whitt at 1:28:57 PM, 9/15/2017

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091401.D
 Acq On : 14 Sep 2017 9:40 am
 Operator :
 Sample : ICV-170914
 Misc : ICV
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 14 09:57:10 2017
 Quant Method : C:\MSDCHEM\1\METHODS\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 i	Fluorobenzene	1.000	1.000	0.0	80	0.00
2 CP	Dichlorodifluoromethane	2.541	2.467	2.9	81	0.00
3 CP	Chloromethane	2.660	2.730	-2.6	83	0.00
4 CP	Vinyl chloride	2.332	2.293	1.7	81	0.00
5 CP	Bromomethane	0.787	0.690	12.3	80	0.00
6 CP	Chloroethane	0.998	1.018	-2.0	89	0.00
7 CP	Trichlorofluoromethane	3.125	3.491	-11.7	91	0.00
8 CP	Trichlorotrifluoroethane	2.026	2.021	0.2	80	0.00
9	Acrolein	0.321	0.333	-3.7	77	0.00
10	Isopropyl Alcohol	0.025	0.017	32.0	43	0.02
11 CP	Acetone	0.499	0.422	15.4	67	0.00
12	Iodomethane	1.266	1.129	10.8	60	0.00
13 CP	1,1-Dichloroethene	1.710	1.717	-0.4	81	0.00
14 CP	Carbon disulfide	5.777	5.802	-0.4	82	0.00
15 CP	Methylene chloride	1.866	1.803	3.4	81	0.00
16 CP	Methyl Acetate	1.496	1.380	7.8	71	0.00
17 CP	trans-1,2-Dichloroethene	1.848	1.869	-1.1	82	0.00
18	Acrylonitrile	0.655	0.660	-0.8	71	0.00
19 CP	MTBE	5.000	5.296	-5.9	84	0.00
20	Tert-Butanol	0.098	0.075	23.5	55	0.00
21	Isopropyl Ether	6.674	6.634	0.6	79	0.00
22 CP	1,1-Dichloroethane	3.376	3.468	-2.7	83	0.00
23	Vinyl acetate	4.006	4.461	-11.4	86	0.00
24	Ethyl-Tert-butyl Ether	5.602	5.878	-4.9	84	0.00
25 CP	cis-1,2-Dichloroethene	2.025	2.017	0.4	81	0.00
26	2,2-Dichloropropane	2.484	2.899	-16.7	95	0.00
27	Bromochloromethane	0.860	0.886	-3.0	85	0.00
28 CP	Cyclohexane	3.262	3.029	7.1	77	0.00
29 CP	Chloroform	3.383	3.549	-4.9	85	0.00
30 s	Dibromofluoromethane	0.247	0.255	-3.2	82	0.00
31	1,1-Dichloropropene	2.724	2.801	-2.8	82	0.00
32 s	1,2-Dichloroethane-d4	0.311	0.337	-8.4	88	0.00
33 CP	1,1,1-Trichloroethane	2.865	3.205	-11.9	88	0.00
34 CP	1,2-Dichloroethane	2.422	2.641	-9.0	90	0.00
35 CP	Benzene	7.687	7.686	0.0	81	0.00
36 CP	2-Butanone	0.906	0.815	10.0	67	0.00
37 CP	Carbon tetrachloride	2.406	2.574	-7.0	86	0.00
38	Tert-amyl Methyl Ether	4.654	4.925	-5.8	84	0.00
39 CP	Trichloroethene	2.047	2.104	-2.8	83	0.00
40 CP	Methyl Cyclohexane	3.350	3.198	4.5	78	0.00
41 T	Dibromomethane	1.084	1.106	-2.0	83	0.00
42 CP	Bromodichloromethane	2.219	2.469	-11.3	87	0.00
43 CP	1,2-Dichloropropane	1.922	1.938	-0.8	80	0.00
44 T	2-Chloroethylvinylether	1.365	1.382	-1.2	80	0.00
45 CP	cis-1,3-Dichloropropene	2.746	2.941	-7.1	84	0.00
46 CP	trans-1,3-Dichloropropene	2.184	2.445	-12.0	86	0.00
47 CP	1,1,2-Trichloroethane	1.498	1.544	-3.1	82	0.00
48 CP	Toluene	4.803	4.787	0.3	80	0.00
49 i	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00
50 CP	4-Methyl-2-pentanone	2.955	2.738	7.3	72	0.00
51 s	Toluene-d8	1.330	1.318	0.9	80	0.00
52 CP	2-Hexanone	2.080	1.902	8.6	70	0.00
53 CP	Dibromochloromethane	2.230	2.451	-9.9	87	0.00

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091401.D
 Acq On : 14 Sep 2017 9:40 am
 Operator :
 Sample : ICV-170914
 Misc : ICV
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 14 09:57:10 2017
 Quant Method : C:\MSDCHEM\1\METHODS\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
54	1,3-Dichloropropane	3.826	3.846	-0.5	82	0.00
55 CP	Tetrachloroethene	2.463	2.473	-0.4	82	0.00
56 CP	1,2-Dibromoethane	2.243	2.288	-2.0	81	0.00
57 CP	Chlorobenzene	7.003	7.034	-0.4	82	0.00
58	1,1,1,2-Tetrachloroethane	2.196	2.395	-9.1	87	0.00
59 CP	Ethylbenzene	3.936	3.929	0.2	81	0.00
60 CP	Bromoform	1.435	1.594	-11.1	85	0.00
61 CP	Styrene	6.836	7.138	-4.4	82	0.00
62	1-Chlorohexane	3.173	3.099	2.3	82	0.00
63 CP	m,p-Xylene	4.747	4.803	-1.2	81	0.00
64 CP	o-Xylene	4.522	4.593	-1.6	81	0.00
65 CP	Isopropylbenzene	11.539	11.905	-3.2	82	0.00
66 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	82	0.00
67	Bromobenzene	5.948	5.830	2.0	83	0.00
68 CP	1,1,2,2-Tetrachloroethane	5.712	5.313	7.0	79	0.00
69 T	1,2,3-Trichloropropane	1.744	1.708	2.1	81	0.00
70 s	4-Bromofluorobenzene	0.991	0.981	1.0	82	0.00
71	1,4-Dichloro-2-butene	1.739	1.671	3.9	78	0.00
72 T	n-Propylbenzene	29.539	29.324	0.7	83	0.00
73	2-Chlorotoluene	18.515	18.525	-0.1	84	0.00
74	1,3,5-Trimethylbenzene	19.670	19.986	-1.6	84	0.00
75	4-Chlorotoluene	17.148	17.277	-0.8	85	0.00
76	tert-Butylbenzene	17.567	17.689	-0.7	85	0.00
77	1,2,4-Trimethylbenzene	19.762	20.149	-2.0	84	0.00
78	sec-Butylbenzene	26.231	25.931	1.1	83	0.00
79 CP	1,3-Dichlorobenzene	10.885	10.680	1.9	83	0.00
80	p-Isopropyltoluene	21.507	22.061	-2.6	84	0.00
81 CP	1,4-Dichlorobenzene	11.205	10.910	2.6	84	0.00
82 CP	1,2-Dichlorobenzene	9.827	9.691	1.4	83	0.00
83 CP	1,2-Dibromo-3-chloropr...	0.901	0.923	-2.4	78	0.00
84	n-Butylbenzene	19.489	19.988	-2.6	85	0.00
85 CP	1,2,4-Trichlorobenzene	6.542	6.793	-3.8	86	0.00
86	Hexachlorobutadiene	3.506	3.690	-5.2	91	0.00
87	Naphthalene	15.754	15.152	3.8	78	0.00
88	1,2,3-Trichlorobenzene	5.769	5.838	-1.2	84	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091401.D
 Acq On : 14 Sep 2017 9:40 am
 Operator :
 Sample : ICV-170914
 Misc : ICV
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 14 13:47:17 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	599582	200.00	ug/L	79
49) Chlorobenzene-d5	8.548	117	430405	200.00	ug/L	81
66) 1,4-Dichlorobenzene-d4	11.012	152	215469	200.00	ug/L	81
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	153072	206.42	ug/L	0.00
Spiked Amount	200.000		Recovery	=	103.21%	
32) 1,2-Dichloroethane-d4	5.410	65	202239	216.88	ug/L	0.00
Spiked Amount	200.000		Recovery	=	108.44%	
51) Toluene-d8	7.057	98	567307	198.15	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.08%	
70) 4-Bromofluorobenzene	9.798	95	211446	198.10	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.05%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	343117	45.049	ug/L	99
3) Chloromethane	1.770	50	379813	47.630	ug/L	99
4) Vinyl chloride	1.848	62	318901	45.617	ug/L	100
5) Bromomethane	2.162	94	95945	40.653	ug/L	97
6) Chloroethane	2.287	64	141598	47.331	ug/L	100
7) Trichlorofluoromethane	2.429	101	485625	51.835	ug/L	99
8) Trichlorotrifluoroethane	2.946	101	281176	46.301	ug/L	# 98
9) Acrolein	3.203	56	115895	112.593	ug/L	100
10) Isopropyl Alcohol	3.386	45	5870	92.906	ug/L	# 100
11) Acetone	3.459	43	293634	199.915	ug/L	96
12) Iodomethane	3.041	142	157063	35.451	ug/L	96
13) 1,1-Dichloroethene	2.910	96	238874	46.599	ug/L	95
14) Carbon disulfide	2.941	76	807129	46.605	ug/L	99
15) Methylene chloride	3.428	84	250870	46.956	ug/L	99
16) Methyl Acetate	3.574	43	191969	42.792	ug/L	97
17) trans-1,2-Dichloroethene	3.574	96	259948	46.925	ug/L	99
18) Acrylonitrile	4.139	53	183560	82.153	ug/L	99
19) MTBE	3.658	73	736632	49.146	ug/L	98
20) Tert-Butanol	3.731	59	52051	187.604	ug/L	# 100
21) Isopropyl Ether	3.987	45	922769	46.117	ug/L	99
22) 1,1-Dichloroethane	4.108	63	482448	47.664	ug/L	99
23) Vinyl acetate	4.306	43	1551325	122.900	ug/L	99
24) Ethyl-Tert-butyl Ether	4.296	59	817601	48.686	ug/L	99
25) cis-1,2-Dichloroethene	4.573	96	280587	46.226	ug/L	98
26) 2,2-Dichloropropane	4.662	77	403310	54.166	ug/L	98
27) Bromochloromethane	4.740	128	123283	47.828	ug/L	99
28) Cyclohexane	4.756	84	421386	43.087	ug/L	98
29) Chloroform	4.798	83	493632	48.667	ug/L	99
31) 1,1-Dichloropropene	5.091	75	389628	47.714	ug/L	99
33) 1,1,1-Trichloroethane	4.981	97	445854	51.905	ug/L	99
34) 1,2-Dichloroethane	5.467	62	367314	50.597	ug/L	100
35) Benzene	5.300	78	1069084	46.393	ug/L	99
36) 2-Butanone	5.044	43	566562	208.676	ug/L	100
37) Carbon tetrachloride	4.929	117	358006	47.869	ug/L	98
38) Tert-amyl Methyl Ether	5.384	73	685122	49.099	ug/L	99
39) Trichloroethene	5.807	130	292723	47.707	ug/L	97
40) Methyl Cyclohexane	5.807	55	444840	44.299	ug/L	98
41) Dibromomethane	6.179	93	153893	47.365	ug/L	99
42) Bromodichloromethane	6.315	83	343399	51.627	ug/L	99
43) 1,2-Dichloropropane	6.257	63	269556	46.790	ug/L	97
44) 2-Chloroethylvinylether	6.812	63	192295	46.977	ug/L	99
45) cis-1,3-Dichloropropene	6.880	75	409060	49.682	ug/L	98

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091401.D
 Acq On : 14 Sep 2017 9:40 am
 Operator :
 Sample : ICV-170914
 Misc : ICV
 ALS Vial : 1 Sample Multiplier: 1

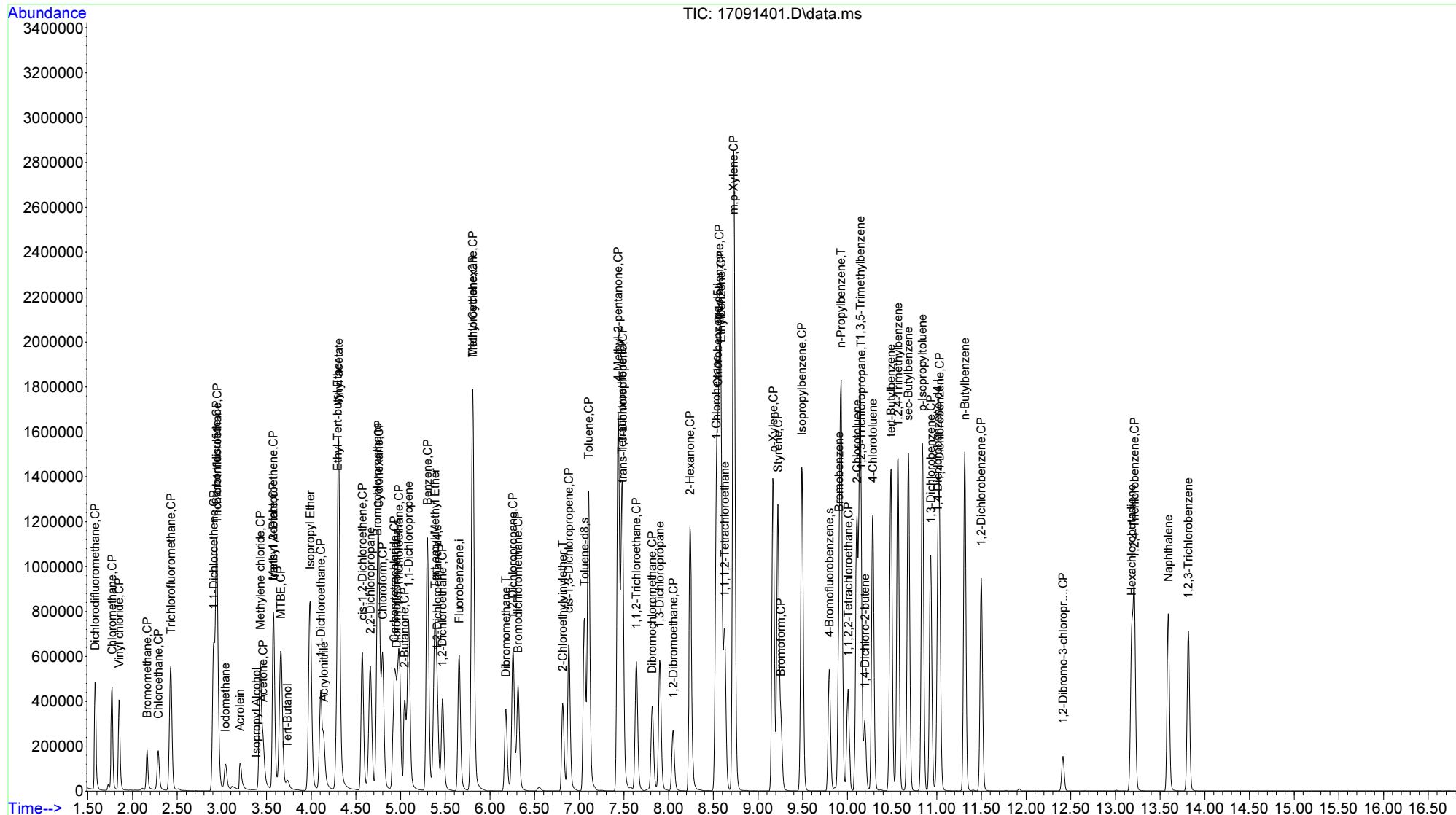
Quant Time: Sep 14 13:47:17 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	340141	51.955	ug/L	99
47) 1,1,2-Trichloroethane	7.638	97	214720	47.798	ug/L	99
48) Toluene	7.105	92	665880	46.248	ug/L	97
50) 4-Methyl-2-pentanone	7.434	43	1367027	214.991	ug/L	99
52) 2-Hexanone	8.239	43	949767	212.177	ug/L	98
53) Dibromochloromethane	7.816	129	244757	49.656	ug/L	100
54) 1,3-Dichloropropane	7.900	76	384007	46.633	ug/L	99
55) Tetrachloroethene	7.476	164	246981	46.597	ug/L	99
56) 1,2-Dibromoethane	8.051	107	228466	47.339	ug/L	100
57) Chlorobenzene	8.564	112	702396	46.608	ug/L	99
58) 1,1,1,2-Tetrachloroethane	8.627	131	239180	49.798	ug/L	98
59) Ethylbenzene	8.585	106	392343	46.317	ug/L	96
60) Bromoform	9.254	173	159151	49.285	ug/L	99
61) Styrene	9.223	104	712712	48.446	ug/L	99
62) 1-Chlorohexane	8.532	55	309462	45.315	ug/L	97
63) m,p-Xylene	8.726	106	959108	93.891	ug/L	96
64) o-Xylene	9.170	106	458678	47.129	ug/L	98
65) Isopropylbenzene	9.490	105	1188720	47.871	ug/L	98
67) Bromobenzene	9.908	156	291449	45.484	ug/L	98
68) 1,1,2,2-Tetrachloroethane	10.007	83	265598	43.159	ug/L	99
69) 1,2,3-Trichloropropane	10.154	110	85390	45.456	ug/L	98
71) 1,4-Dichloro-2-butene	10.196	53	83556	44.612	ug/L	95
72) n-Propylbenzene	9.929	91	1465870	46.062	ug/L	98
73) 2-Chlorotoluene	10.107	91	926062	46.427	ug/L	98
74) 1,3,5-Trimethylbenzene	10.143	105	999068	47.144	ug/L	99
75) 4-Chlorotoluene	10.285	91	863653	46.749	ug/L	100
76) tert-Butylbenzene	10.488	119	884265	46.724	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	1007229	47.308	ug/L	98
78) sec-Butylbenzene	10.682	105	1296254	45.869	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	533896	45.528	ug/L	99
80) p-Isopropyltoluene	10.839	119	1102824	47.596	ug/L	99
81) 1,4-Dichlorobenzene	11.032	146	545381	45.177	ug/L	99
82) 1,2-Dichlorobenzene	11.498	146	484418	45.756	ug/L	100
83) 1,2-Dibromo-3-chloropr...	12.413	75	46139	45.423	ug/L	94
84) n-Butylbenzene	11.315	91	999178	47.587	ug/L	100
85) 1,2,4-Trichlorobenzene	13.213	180	339563	48.181	ug/L	99
86) Hexachlorobutadiene	13.182	225	184446	48.834	ug/L	98
87) Naphthalene	13.590	128	757417	44.626	ug/L	99
88) 1,2,3-Trichlorobenzene	13.815	180	291843	46.960	ug/L	98

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

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091401.D
 Acq On : 14 Sep 2017 9:40 am
 Operator :
 Sample : ICV-170914
 Misc : ICV
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 14 13:47:17 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170914\
 Data File : 17091403.D
 Acq On : 14 Sep 2017 10:27 am
 Operator :
 Sample : LCS-82366
 Misc : LCS
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 14 13:47:24 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	614137	200.00	ug/L	81
49) Chlorobenzene-d5	8.548	117	447723	200.00	ug/L	84
66) 1,4-Dichlorobenzene-d4	11.011	152	217482	200.00	ug/L	82
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	156092	205.50	ug/L	0.00
Spiked Amount	200.000		Recovery	=	102.75%	
32) 1,2-Dichloroethane-d4	5.410	65	214652	224.74	ug/L	0.00
Spiked Amount	200.000		Recovery	=	112.37%	
51) Toluene-d8	7.057	98	584724	196.33	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.17%	
70) 4-Bromofluorobenzene	9.798	95	214201	198.83	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.42%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	167955	21.529	ug/L	99
3) Chloromethane	1.770	50	183009	22.406	ug/L	100
4) Vinyl chloride	1.848	62	159610	22.290	ug/L	100
5) Bromomethane	2.162	94	40860	16.902	ug/L	97
6) Chloroethane	2.282	64	68840	22.465	ug/L	98
7) Trichlorofluoromethane	2.423	101	238345	24.838	ug/L	100
8) Trichlorotrifluoroethane	2.946	101	162073	26.056	ug/L	98
9) Acrolein	3.208	56	51428	51.046	ug/L	98
10) Isopropyl Alcohol	3.386	45	6130	94.593	ug/L #	100
11) Acetone	3.464	43	176979	117.409	ug/L	98
12) Iodomethane	3.041	142	64400	17.182	ug/L	98
13) 1,1-Dichloroethene	2.910	96	132138	25.166	ug/L	98
14) Carbon disulfide	2.941	76	440263	24.819	ug/L	99
15) Methylene chloride	3.428	84	140406	25.432	ug/L	100
16) Methyl Acetate	3.579	43	115075	25.043	ug/L	98
17) trans-1,2-Dichloroethene	3.579	96	142062	25.037	ug/L	99
18) Acrylonitrile	4.144	53	104359	46.330	ug/L	98
19) MTBE	3.663	73	416245	27.113	ug/L	98
20) Tert-Butanol	3.741	59	41682	148.083	ug/L #	100
21) Isopropyl Ether	3.987	45	520459	25.394	ug/L	99
22) 1,1-Dichloroethane	4.108	63	265921	25.649	ug/L	100
23) Vinyl acetate	4.311	43	718746	56.194	ug/L	100
24) Ethyl-Tert-butyl Ether	4.301	59	461585	26.835	ug/L	99
25) cis-1,2-Dichloroethene	4.573	96	156173	25.119	ug/L	98
26) 2,2-Dichloropropane	4.662	77	214886	28.176	ug/L	97
27) Bromochloromethane	4.746	128	69649	26.380	ug/L	96
28) Cyclohexane	4.756	84	242544	24.212	ug/L	100
29) Chloroform	4.803	83	272695	26.247	ug/L	99
31) 1,1-Dichloropropene	5.091	75	214382	25.631	ug/L	99
33) 1,1,1-Trichloroethane	4.981	97	240825	27.372	ug/L	99
34) 1,2-Dichloroethane	5.473	62	204623	27.518	ug/L	99
35) Benzene	5.300	78	594871	25.202	ug/L	100
36) 2-Butanone	5.049	43	340079	122.289	ug/L	99
37) Carbon tetrachloride	4.934	117	188602	24.879	ug/L	99
38) Tert-amyl Methyl Ether	5.389	73	380724	26.638	ug/L	99
39) Trichloroethene	5.813	130	161655	25.722	ug/L	94
40) Methyl Cyclohexane	5.807	55	256700	24.957	ug/L	98
41) Dibromomethane	6.179	93	86986	26.138	ug/L	98
42) Bromodichloromethane	6.320	83	185116	27.171	ug/L	99
43) 1,2-Dichloropropane	6.262	63	150798	25.555	ug/L	98
44) 2-Chloroethylvinylether	6.817	63	113659	27.108	ug/L	97
45) cis-1,3-Dichloropropene	6.885	75	223213	26.468	ug/L	98

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091403.D
 Acq On : 14 Sep 2017 10:27 am
 Operator :
 Sample : LCS-82366
 Misc : LCS
 ALS Vial : 3 Sample Multiplier: 1

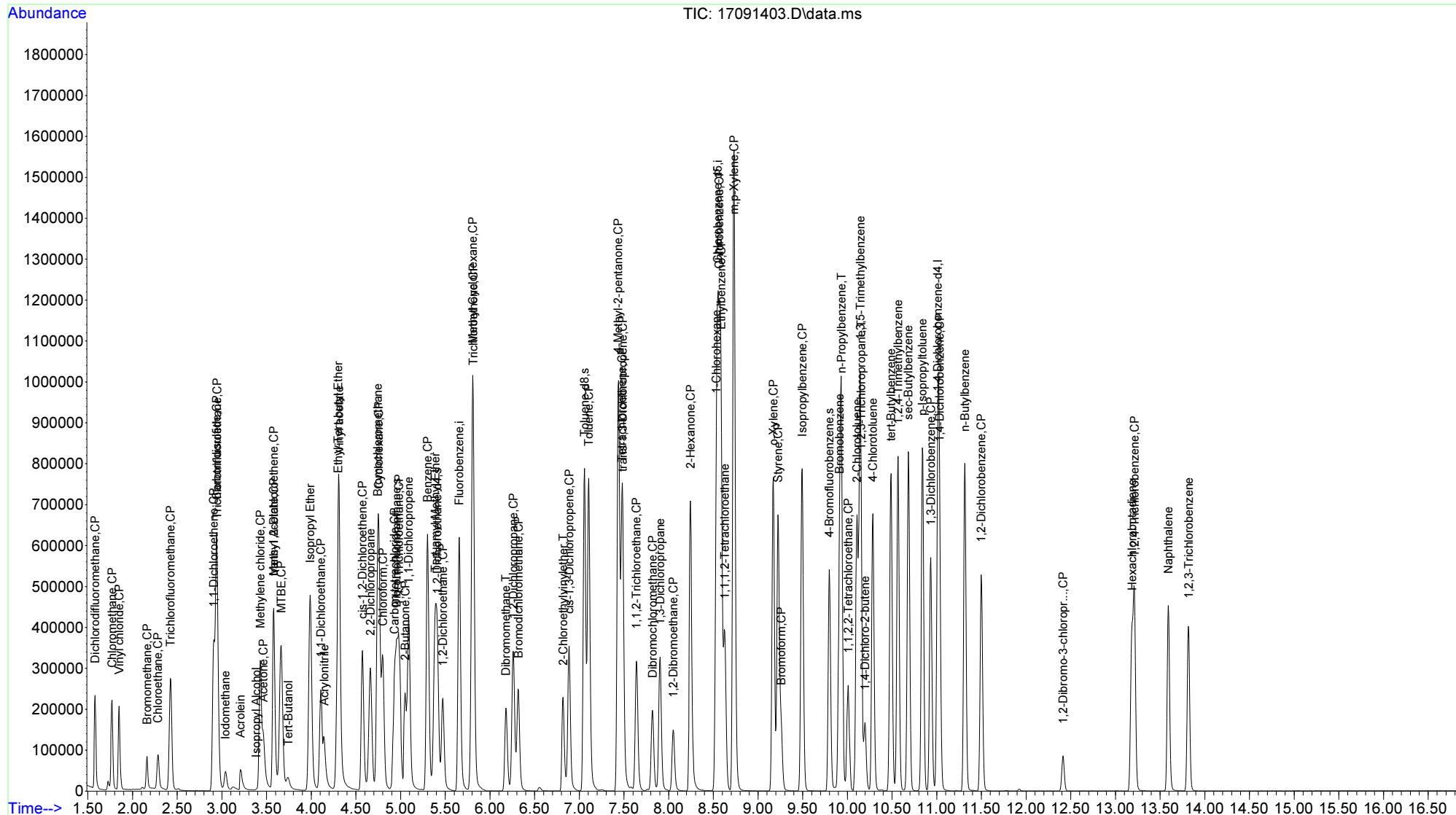
Quant Time: Sep 14 13:47:24 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	184121	27.457	ug/L	99
47) 1,1,2-Trichloroethane	7.638	97	122179	26.553	ug/L	97
48) Toluene	7.104	92	373162	25.303	ug/L	98
50) 4-Methyl-2-pentanone	7.434	43	822885	124.409	ug/L	98
52) 2-Hexanone	8.245	43	574309	123.338	ug/L	99
53) Dibromochloromethane	7.821	129	131095	26.141	ug/L	100
54) 1,3-Dichloropropane	7.905	76	218253	25.479	ug/L	100
55) Tetrachloroethene	7.476	164	135633	24.599	ug/L	97
56) 1,2-Dibromoethane	8.051	107	129478	25.790	ug/L	99
57) Chlorobenzene	8.564	112	389261	24.830	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.626	131	126691	25.810	ug/L	99
59) Ethylbenzene	8.585	106	217937	24.733	ug/L	98
60) Bromoform	9.259	173	83622	25.714	ug/L	100
61) Styrene	9.223	104	392012	25.616	ug/L	98
62) 1-Chlorohexane	8.532	55	170008	23.932	ug/L	95
63) m,p-Xylene	8.731	106	528467	49.733	ug/L	97
64) o-Xylene	9.170	106	254818	25.170	ug/L	98
65) Isopropylbenzene	9.495	105	656513	25.416	ug/L	99
67) Bromobenzene	9.913	156	163103	25.218	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.007	83	150597	24.245	ug/L	97
69) 1,2,3-Trichloropropane	10.154	110	48602	25.633	ug/L	96
71) 1,4-Dichloro-2-butene	10.196	53	45084	23.848	ug/L	92
72) n-Propylbenzene	9.934	91	800639	24.926	ug/L	99
73) 2-Chlorotoluene	10.107	91	505596	25.113	ug/L	98
74) 1,3,5-Trimethylbenzene	10.143	105	544042	25.435	ug/L	99
75) 4-Chlorotoluene	10.284	91	470761	25.246	ug/L	99
76) tert-Butylbenzene	10.488	119	477889	25.018	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	543801	25.305	ug/L	98
78) sec-Butylbenzene	10.682	105	705178	24.722	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	292769	24.735	ug/L	98
80) p-Isopropyltoluene	10.839	119	599202	25.621	ug/L	100
81) 1,4-Dichlorobenzene	11.032	146	303564	24.913	ug/L	99
82) 1,2-Dichlorobenzene	11.498	146	271249	25.384	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	26341	26.367	ug/L	87
84) n-Butylbenzene	11.315	91	537863	25.379	ug/L	100
85) 1,2,4-Trichlorobenzene	13.213	180	188172	26.453	ug/L	99
86) Hexachlorobutadiene	13.187	225	99683	26.148	ug/L	99
87) Naphthalene	13.590	128	439571	25.659	ug/L	99
88) 1,2,3-Trichlorobenzene	13.820	180	164841	26.279	ug/L	99

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

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091403.D
 Acq On : 14 Sep 2017 10:27 am
 Operator :
 Sample : LCS-82366
 Misc : LCS
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 14 13:47:24 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170914\
 Data File : 17091404.D
 Acq On : 14 Sep 2017 10:50 am
 Operator :
 Sample : LCSD-82366
 Misc : LCSD
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 14 13:47:27 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	623770	200.00	ug/L	82
49) Chlorobenzene-d5	8.548	117	449990	200.00	ug/L	84
66) 1,4-Dichlorobenzene-d4	11.012	152	220713	200.00	ug/L	83
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	157784	204.52	ug/L	0.00
Spiked Amount	200.000		Recovery	=	102.26%	
32) 1,2-Dichloroethane-d4	5.410	65	217169	223.86	ug/L	0.00
Spiked Amount	200.000		Recovery	=	111.93%	
51) Toluene-d8	7.058	98	593372	198.23	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.11%	
70) 4-Bromofluorobenzene	9.798	95	218218	199.59	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.80%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	164682	20.783	ug/L	100
3) Chloromethane	1.770	50	170924	20.603	ug/L	99
4) Vinyl chloride	1.848	62	155785	21.420	ug/L	100
5) Bromomethane	2.162	94	38439	15.655	ug/L	99
6) Chloroethane	2.282	64	67182	21.586	ug/L	100
7) Trichlorofluoromethane	2.424	101	232381	23.842	ug/L	99
8) Trichlorotrifluoroethane	2.947	101	152274	24.102	ug/L	# 99
9) Acrolein	3.208	56	60671	58.672	ug/L	99
10) Isopropyl Alcohol	3.391	45	5585	85.284	ug/L	# 100
11) Acetone	3.464	43	163928	106.971	ug/L	98
12) Iodomethane	3.041	142	61959	16.521	ug/L	97
13) 1,1-Dichloroethene	2.910	96	124923	23.425	ug/L	97
14) Carbon disulfide	2.941	76	415795	23.078	ug/L	99
15) Methylene chloride	3.428	84	133408	23.766	ug/L	99
16) Methyl Acetate	3.579	43	110547	23.686	ug/L	97
17) trans-1,2-Dichloroethene	3.579	96	135713	23.548	ug/L	97
18) Acrylonitrile	4.144	53	103347	45.211	ug/L	100
19) MTBE	3.663	73	392981	25.202	ug/L	98
20) Tert-Butanol	3.736	59	40689	142.442	ug/L	# 100
21) Isopropyl Ether	3.987	45	495228	23.790	ug/L	99
22) 1,1-Dichloroethane	4.108	63	254995	24.215	ug/L	98
23) Vinyl acetate	4.312	43	802265	61.578	ug/L	99
24) Ethyl-Tert-butyl Ether	4.301	59	437232	25.026	ug/L	99
25) cis-1,2-Dichloroethene	4.573	96	152922	24.217	ug/L	97
26) 2,2-Dichloropropane	4.662	77	201604	26.026	ug/L	97
27) Bromochloromethane	4.746	128	66046	24.629	ug/L	96
28) Cyclohexane	4.756	84	231890	22.791	ug/L	100
29) Chloroform	4.803	83	260235	24.661	ug/L	99
31) 1,1-Dichloropropene	5.091	75	203755	23.984	ug/L	100
33) 1,1,1-Trichloroethane	4.986	97	227136	25.417	ug/L	100
34) 1,2-Dichloroethane	5.473	62	193673	25.644	ug/L	99
35) Benzene	5.300	78	567435	23.669	ug/L	99
36) 2-Butanone	5.049	43	329620	116.698	ug/L	99
37) Carbon tetrachloride	4.934	117	198947	25.824	ug/L	99
38) Tert-amyl Methyl Ether	5.384	73	364749	25.126	ug/L	100
39) Trichloroethene	5.813	130	153410	24.033	ug/L	96
40) Methyl Cyclohexane	5.808	55	240935	23.063	ug/L	96
41) Dibromomethane	6.179	93	81958	24.247	ug/L	99
42) Bromodichloromethane	6.315	83	174198	25.174	ug/L	100
43) 1,2-Dichloropropane	6.263	63	143104	23.877	ug/L	98
44) 2-Chloroethylvinylether	6.817	63	98097	23.035	ug/L	98
45) cis-1,3-Dichloropropene	6.885	75	211589	24.702	ug/L	99

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091404.D
 Acq On : 14 Sep 2017 10:50 am
 Operator :
 Sample : LCSD-82366
 Misc : LCSD
 ALS Vial : 4 Sample Multiplier: 1

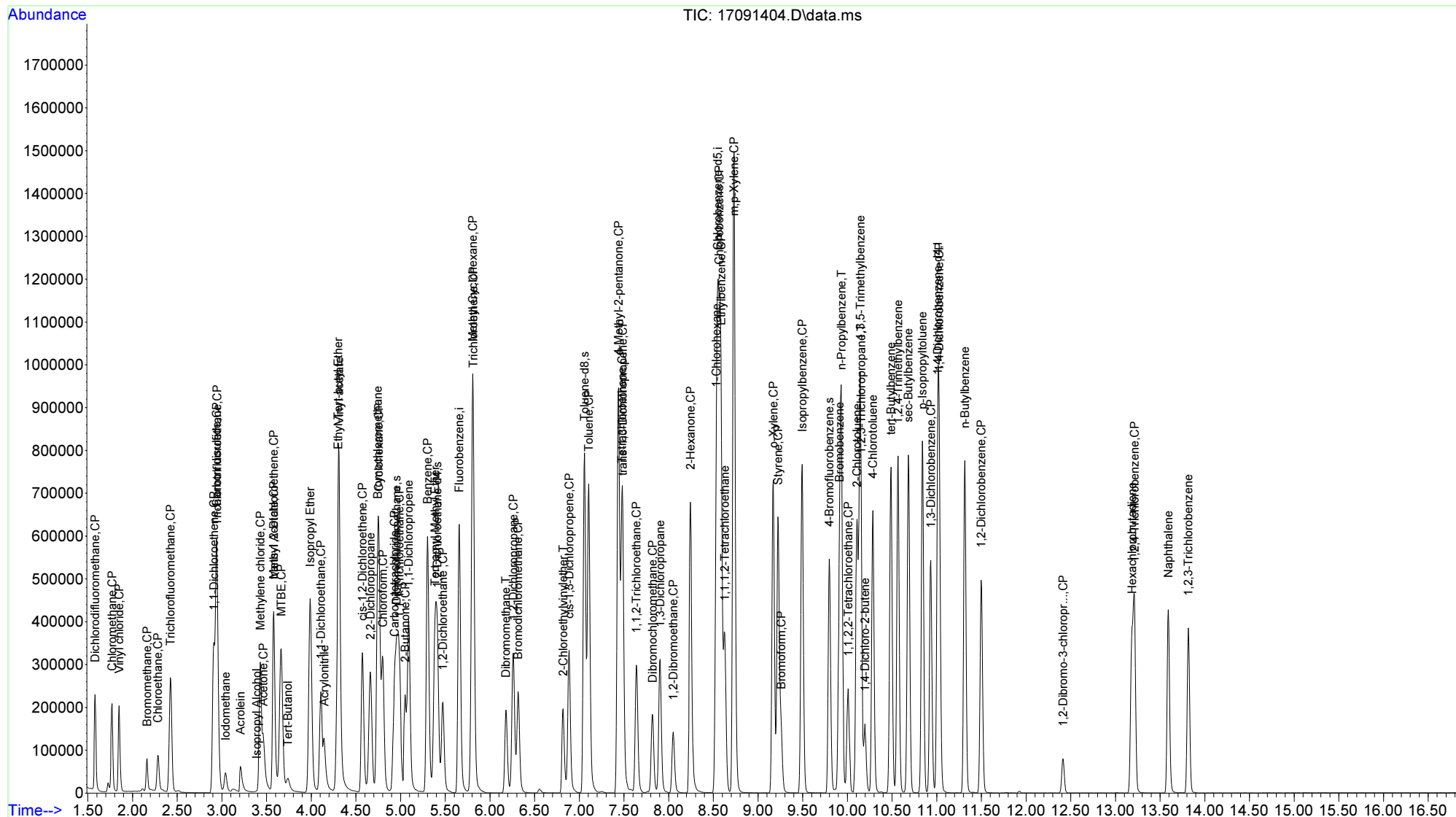
Quant Time: Sep 14 13:47:27 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	172102	25.268	ug/L	97
47) 1,1,2-Trichloroethane	7.638	97	114414	24.482	ug/L	99
48) Toluene	7.105	92	355600	23.740	ug/L	97
50) 4-Methyl-2-pentanone	7.439	43	773942	116.420	ug/L	99
52) 2-Hexanone	8.245	43	547014	116.884	ug/L	99
53) Dibromochloromethane	7.821	129	121943	24.243	ug/L	100
54) 1,3-Dichloropropane	7.905	76	205999	23.927	ug/L	100
55) Tetrachloroethene	7.476	164	131028	23.644	ug/L	99
56) 1,2-Dibromoethane	8.051	107	121989	24.176	ug/L	97
57) Chlorobenzene	8.564	112	371822	23.599	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.627	131	119102	24.174	ug/L	99
59) Ethylbenzene	8.585	106	208185	23.507	ug/L	93
60) Bromoform	9.259	173	77548	23.800	ug/L	99
61) Styrene	9.223	104	373098	24.257	ug/L	99
62) 1-Chlorohexane	8.532	55	162039	22.695	ug/L	96
63) m,p-Xylene	8.731	106	508046	47.570	ug/L	99
64) o-Xylene	9.171	106	242594	23.841	ug/L	98
65) Isopropylbenzene	9.495	105	624658	24.061	ug/L	99
67) Bromobenzene	9.913	156	154283	23.505	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.007	83	143342	22.739	ug/L	100
69) 1,2,3-Trichloropropane	10.154	110	46333	24.079	ug/L	98
71) 1,4-Dichloro-2-butene	10.196	53	41702	21.736	ug/L	87
72) n-Propylbenzene	9.934	91	763718	23.428	ug/L	98
73) 2-Chlorotoluene	10.107	91	482454	23.613	ug/L	99
74) 1,3,5-Trimethylbenzene	10.143	105	520675	23.986	ug/L	98
75) 4-Chlorotoluene	10.285	91	449568	23.757	ug/L	98
76) tert-Butylbenzene	10.489	119	460534	23.756	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	525677	24.104	ug/L	98
78) sec-Butylbenzene	10.682	105	681726	23.550	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	280050	23.314	ug/L	99
80) p-Isopropyltoluene	10.839	119	570721	24.046	ug/L	99
81) 1,4-Dichlorobenzene	11.027	146	287455	23.246	ug/L	98
82) 1,2-Dichlorobenzene	11.498	146	255816	23.589	ug/L	100
83) 1,2-Dibromo-3-chloropr...	12.413	75	24874	24.603	ug/L	91
84) n-Butylbenzene	11.315	91	520924	24.220	ug/L	99
85) 1,2,4-Trichlorobenzene	13.214	180	177805	24.629	ug/L	99
86) Hexachlorobutadiene	13.187	225	93548	24.180	ug/L	98
87) Naphthalene	13.590	128	418672	24.082	ug/L	99
88) 1,2,3-Trichlorobenzene	13.815	180	155692	24.457	ug/L	99

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

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091404.D
 Acq On : 14 Sep 2017 10:50 am
 Operator :
 Sample : LCSD-82366
 Misc : LCSD
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 14 13:47:27 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170914\
 Data File : 17091406.D
 Acq On : 14 Sep 2017 11:38 am
 Operator :
 Sample : MB-82366
 Misc : MBLK
 ALS Vial : 6 Sample Multiplier: 1

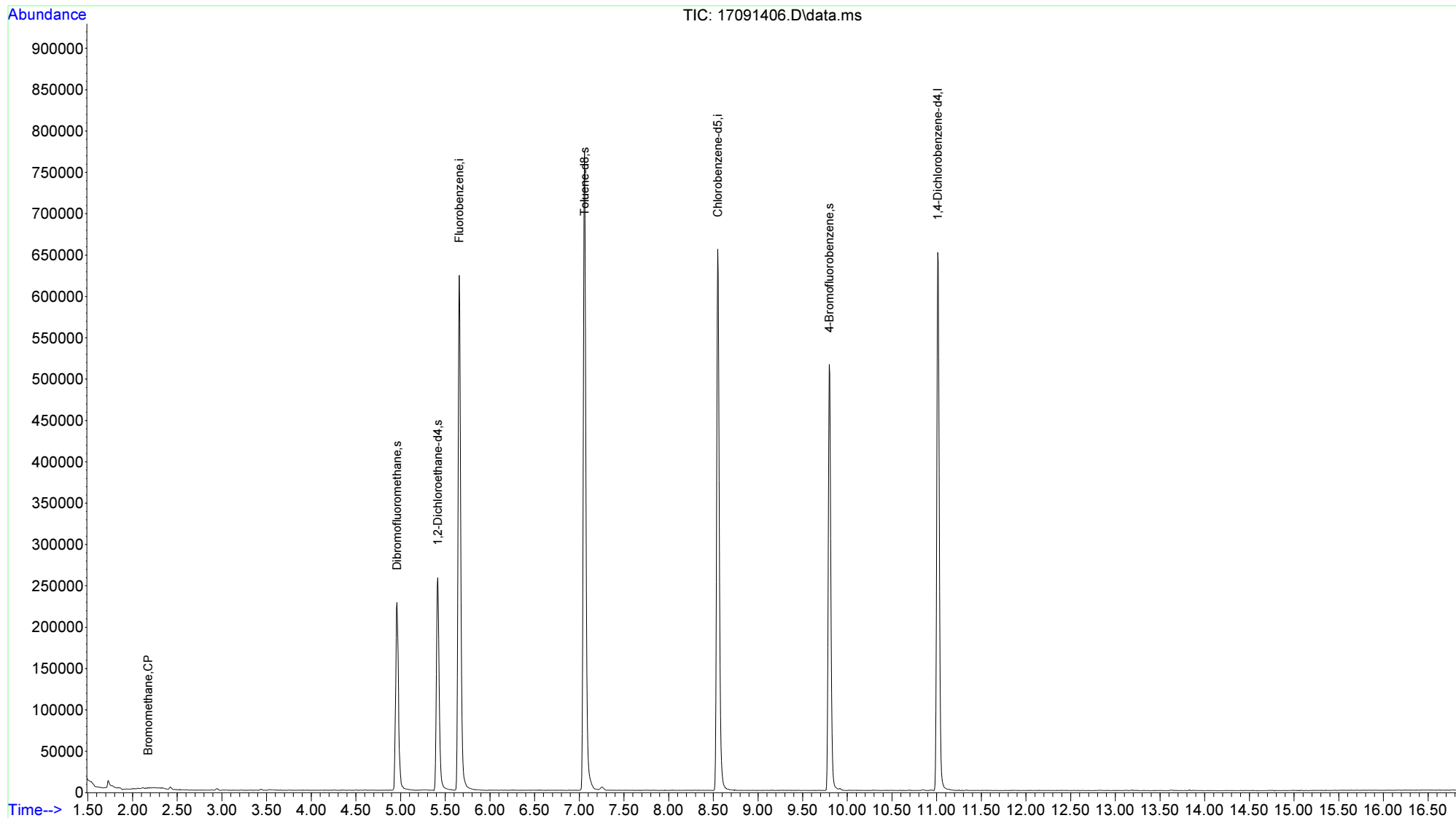
Quant Time: Sep 14 13:47:33 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	617991	200.00	ug/L	81
49) Chlorobenzene-d5	8.548	117	453348	200.00	ug/L	85
66) 1,4-Dichlorobenzene-d4	11.012	152	214745	200.00	ug/L	81
System Monitoring Compounds						
30) Dibromofluoromethane	4.960	113	157272	205.76	ug/L	0.00
Spiked Amount	200.000		Recovery	=	102.88%	
32) 1,2-Dichloroethane-d4	5.415	65	208641	217.08	ug/L	0.00
Spiked Amount	200.000		Recovery	=	108.54%	
51) Toluene-d8	7.058	98	588529	195.16	ug/L	0.00
Spiked Amount	200.000		Recovery	=	97.58%	
70) 4-Bromofluorobenzene	9.798	95	212248	199.52	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.76%	
Target Compounds						
5) Bromomethane	2.173	94	1097	0.451	ug/L #	11
11) Acetone	3.522	43	564	Below Cal	#	44
15) Methylene chloride	3.433	84	575	Below Cal	#	63

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

Data Path : C:\msdchem\1\data\170914\
Data File : 17091406.D
Acq On : 14 Sep 2017 11:38 am
Operator :
Sample : MB-82366
Misc : MBLK
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 14 13:47:33 2017
Quant Method : C:\msdchem\1\methods\170817X.M
Quant Title : M-8260S
QLast Update : Thu Aug 17 14:33:11 2017
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170914\
 Data File : 17091408.D
 Acq On : 14 Sep 2017 12:25 pm
 Operator :
 Sample : 1709099-03A
 Misc : SAMP
 ALS Vial : 8 Sample Multiplier: 1

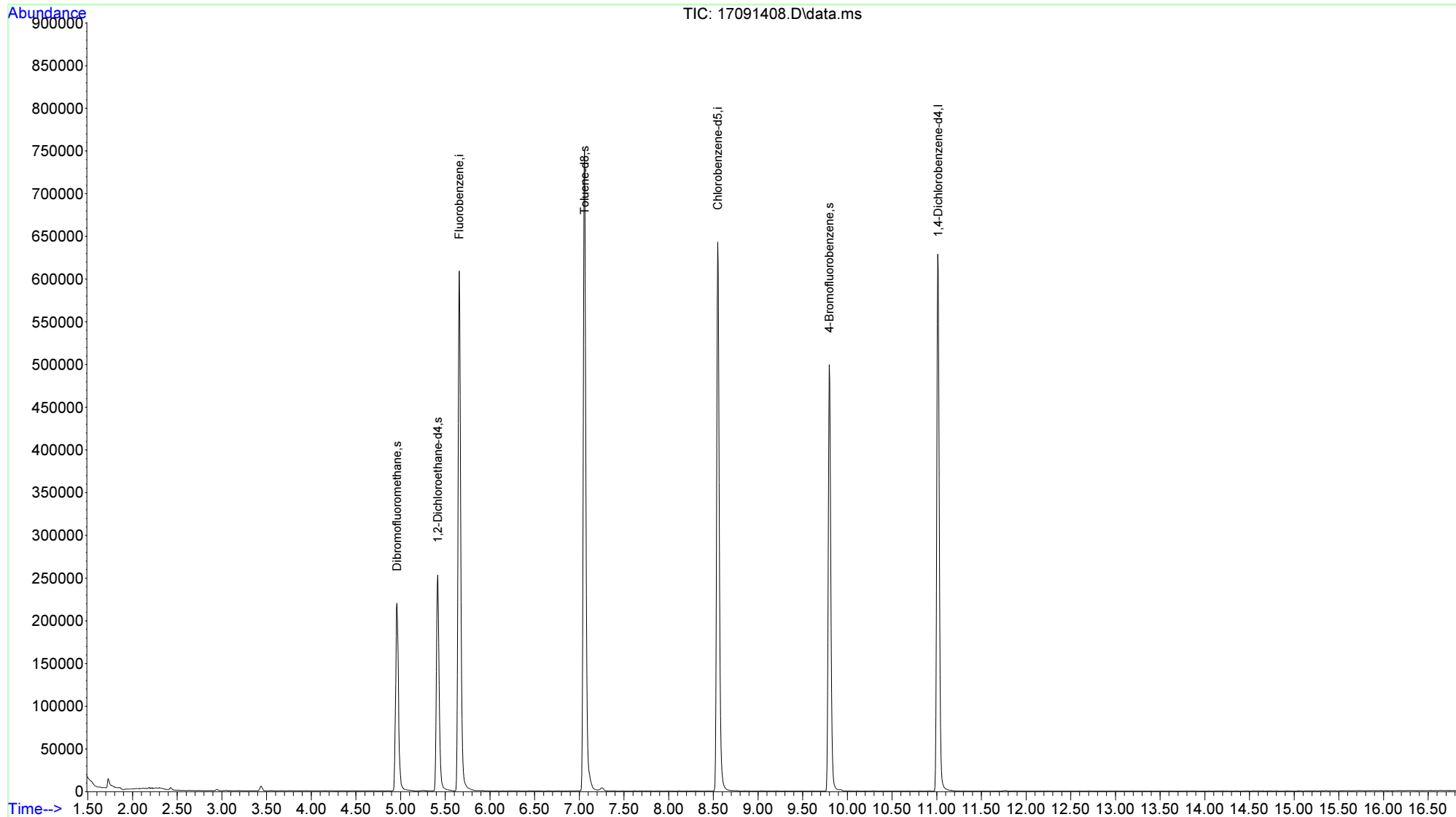
Quant Time: Sep 14 13:48:02 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	606499	200.00	ug/L	80
49) Chlorobenzene-d5	8.548	117	440165	200.00	ug/L	83
66) 1,4-Dichlorobenzene-d4	11.017	152	208548	200.00	ug/L	79
System Monitoring Compounds						
30) Dibromofluoromethane	4.960	113	153139	204.15	ug/L	0.00
Spiked Amount	200.000		Recovery	=	102.08%	
32) 1,2-Dichloroethane-d4	5.415	65	203128	215.35	ug/L	0.00
Spiked Amount	200.000		Recovery	=	107.67%	
51) Toluene-d8	7.057	98	571668	195.25	ug/L	0.00
Spiked Amount	200.000		Recovery	=	97.63%	
70) 4-Bromofluorobenzene	9.798	95	204300	197.76	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.88%	
Target Compounds						
						Qvalue

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

Data Path : C:\msdchem\1\data\170914\
 Data File : 17091408.D
 Acq On : 14 Sep 2017 12:25 pm
 Operator :
 Sample : 1709099-03A
 Misc : SAMP
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 14 13:48:02 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170914\
 Data File : 17091413.D
 Acq On : 14 Sep 2017 2:23 pm
 Operator :
 Sample : 1709099-01A
 Misc : SAMP
 ALS Vial : 13 Sample Multiplier: 1

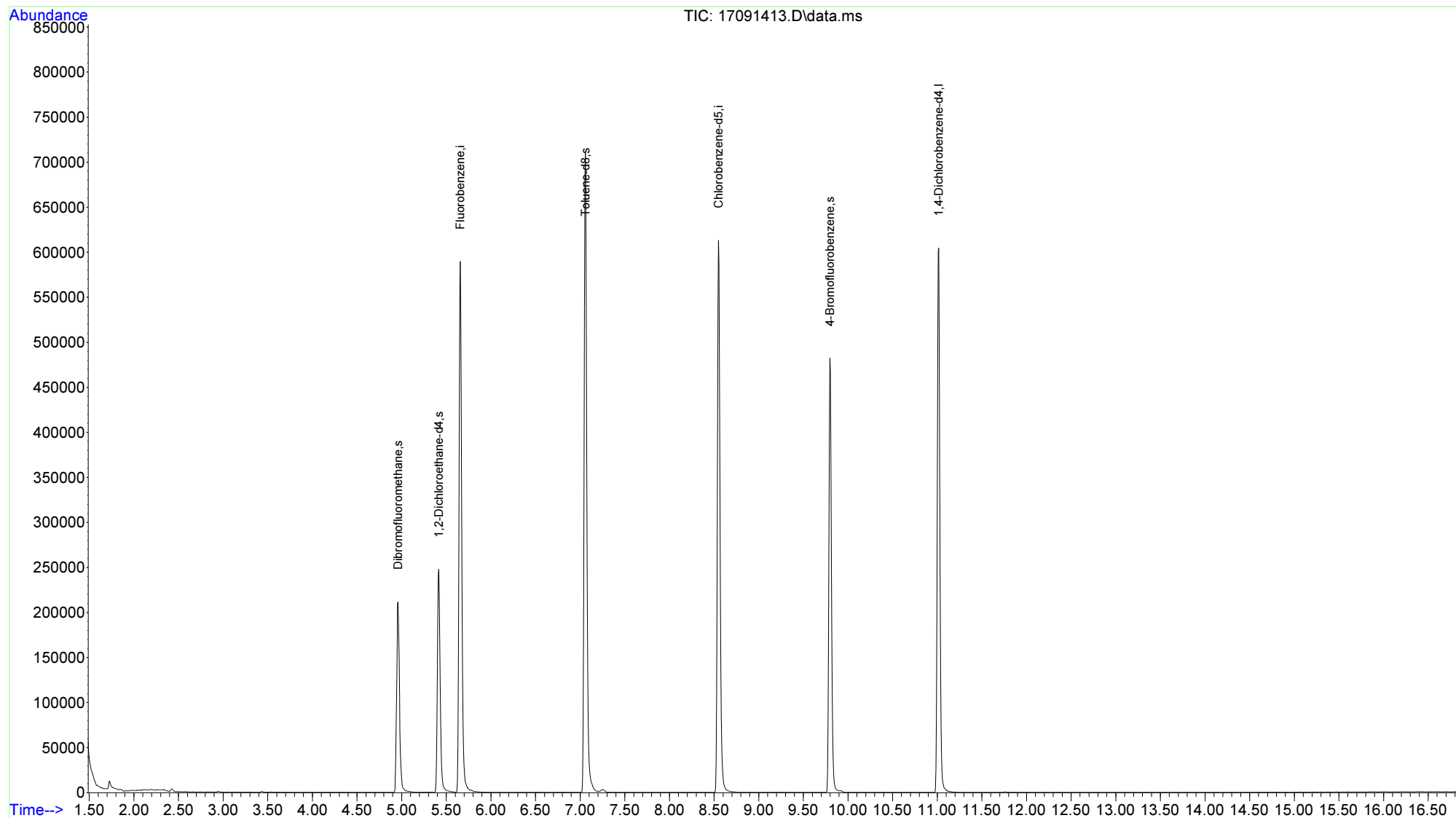
Quant Time: Sep 14 14:46:57 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	586075	200.00	ug/L	77
49) Chlorobenzene-d5	8.548	117	424578	200.00	ug/L	80
66) 1,4-Dichlorobenzene-d4	11.017	152	203139	200.00	ug/L	77
System Monitoring Compounds						
30) Dibromofluoromethane	4.960	113	145788	201.12	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.56%	
32) 1,2-Dichloroethane-d4	5.415	65	201649	221.23	ug/L	0.00
Spiked Amount	200.000		Recovery	=	110.61%	
51) Toluene-d8	7.058	98	548631	194.26	ug/L	0.00
Spiked Amount	200.000		Recovery	=	97.13%	
70) 4-Bromofluorobenzene	9.798	95	198907	197.67	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.83%	
Target Compounds						
15) Methylene chloride	3.433	84	482	Below Cal		Qvalue # 84

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

Data Path : C:\msdchem\1\data\170914\
Data File : 17091413.D
Acq On : 14 Sep 2017 2:23 pm
Operator :
Sample : 1709099-01A
Misc : SAMP
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 14 14:46:57 2017
Quant Method : C:\msdchem\1\methods\170817X.M
Quant Title : M-8260S
QLast Update : Thu Aug 17 14:33:11 2017
Response via : Initial Calibration



**GCMS5
Calibration Curve
For
DHL Work Order
1709099**

Method 8260C Calibration Curve Sheet

Instrument ID: GCMS #5

Calibration File Name: GCMS5_170817X.CAL

Review Item	Acceptance Criteria	Yes	No	N/A	2nd Level Review
1. Are all standards within expiration dates?	Primary Stocks = 1 year Intermediate Standards = 6 months	X			X
2. Are all manual integrations listed on MI tracking form? (DoD Projects only)	Manual Integration Tracking Form			X	X
3. Has the BFB tune been performed prior to ICAL?	BFB Tune Eval Report MUST PASS – No Variance allowed	X			X
4. Does the ICAL curve meet criteria? Use average RF only if %RSD < 15%	Response Factor Report Minimum RFs - Table 4 %RSD 15% COD R ² 0.990	X			X
5. Does the low calibration point have all analytes printed out? Cross-check RF report - some analytes have elevated MDLS (ketones, Iodomethane, alcohols, late eluters)	All analytes that are used in the low point must be printed out	X			X
6. Has the low point been reprocessed under the new ICAL curve and meets criteria?	70-130% recovery 0.928 ppb (0.6496-1.2064) 4.64 ppb (3.248-6.032)	X			X
7. Has the SSCV been analyzed and meets criteria?	80-120% recovery - DOD 46.4 ppb (37.12-55.68) 116 ppb (92.8-139.2) 70-130% - TCEQ QAPP 46.4 ppb (32.48-60.32) 116 ppb (81.2-150.8)		X		X

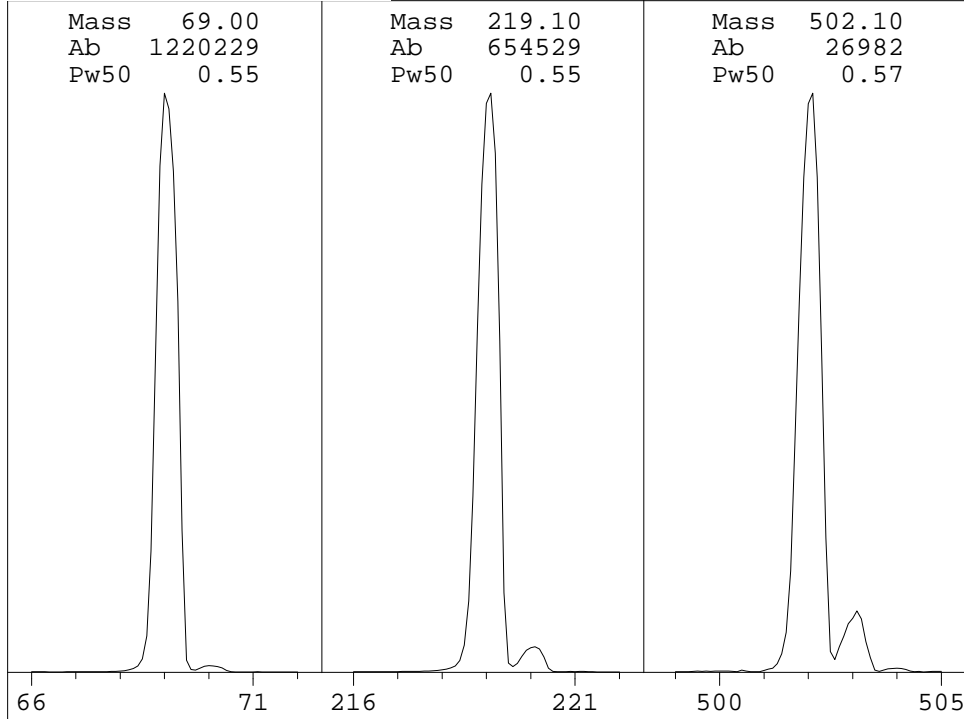
Second-Level Review: *Shelley M. Hensel*

Date: **08/23/2017**

Table 4 - Minimum RF for ICAL and ICV

Volatile Compounds	Min RF	Volatile Compounds	Min RF
Dichlorodifluoromethane	0.100	1,2-Dichloropropane	0.100
Chloromethane	0.100	Bromodichloromethane	0.200
Vinyl chloride	0.100	cis-1,3-Dichloropropene	0.200
Bromomethane	0.100	Trans-1,3-Dichloropropene	0.100
Chloroethane	0.100	4-Methyl-2-pentanone	0.100
Trichlorofluoromethane	0.100	Toluene	0.400
1,1-Dichloroethene	0.100	1,1,2-Trichloroethane	0.100
1,1,2-Trichloro-1,2,2-trifluoroethane	0.100	Tetrachloroethene	0.200
Acetone	0.100	2-Hexanone	0.100
Carbon disulfide	0.100	Dibromochloromethane	0.100
Methyl Acetate	0.100	1,2-Dibromoethane	0.100
Methylene chloride	0.100	Chlorobenzene	0.500
trans-1,2-Dichloroethene	0.100	Ethylbenzene	0.100
cis-1,2-Dichloroethene	0.100	meta-/para-Xylene	0.100
Methyl tert-Butyl Ether	0.100	ortho-Xylene	0.300
1,1-Dichloroethane	0.200	Styrene	0.300
2-Butanone	0.100	Bromoform	0.100
Chloroform	0.200	Isopropylbenzene	0.100
1,1,1-Trichloroethane	0.100	1,1,2,2-Tetrachloroethane	0.300
Cyclohexane	0.100	1,3-Dichlorobenzene	0.600
Carbon tetrachloride	0.100	1,4-Dichlorobenzene	0.500
Benzene	0.500	1,2-Dichlorobenzene	0.400
1,2-Dichloroethane	0.100	1,2-Dibromo-3-chloropropane	0.050
Trichloroethene	0.200	1,2,4-Trichlorobenzene	0.200
Methylcyclohexane	0.100		

ICAL Comments: **SSCV out: Acetone low for DOD in SSCV (73.82%). IPA and TBA high in SSCV. All other compounds within 20%. No Manual Integrations.**

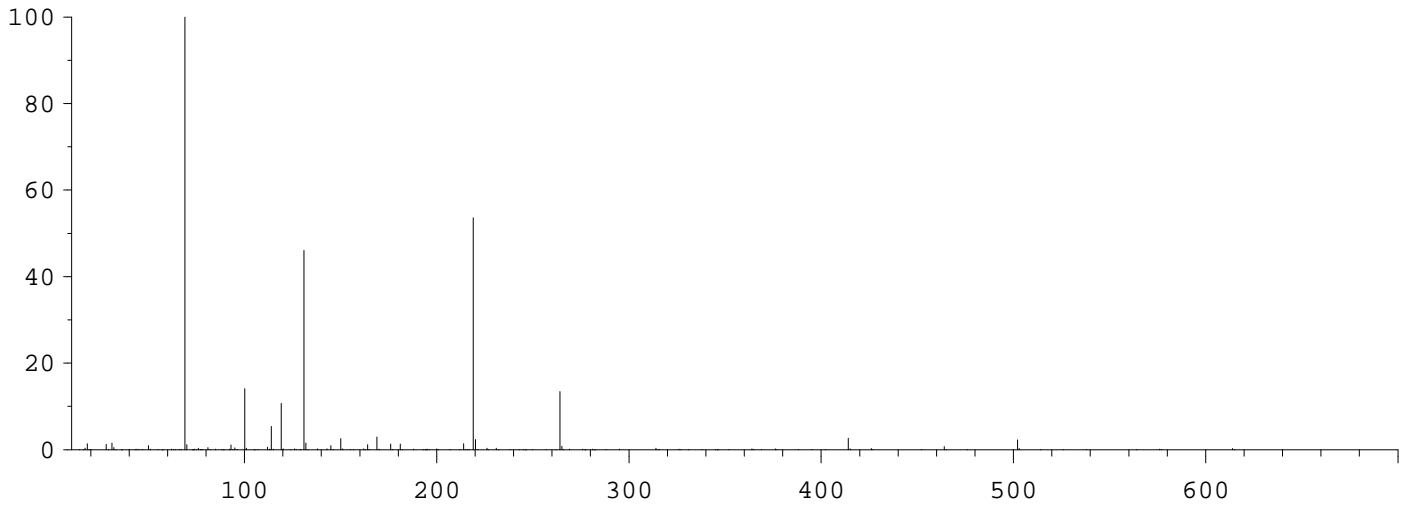


Ion Pol Pos MassGain 126
 MassOffs -10
 Emission 34.6 AmuGain 2220
 EIEnrgy 69.9 AmuOffs 130
 Filament 2 Wid219 -0.035
 DC Pol Pos
 Repeller 31.63
 IonFcus 97.7 HEDEnab On
 EntLens 0.0 EMVolts 1541
 EntOffs Var

Samples 8
 PFTBA Open Averages 3
 Stepsize 0.10

Temperatures and Pressures:
 MS Source 230 Foreline 50
 MS Quad 150

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
 154 peaks Base: 69.10 Abundance: 1073152



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	1073152	100.00	70.10	12385	1.15
219.10	575360	53.61	220.10	25416	4.42
502.10	24200	2.26	503.10	2604	10.76

Air/Water Check: H2O~1.41% N2~1.24% O2~0.49% CO2~0.15% N2/H2O~87.64%

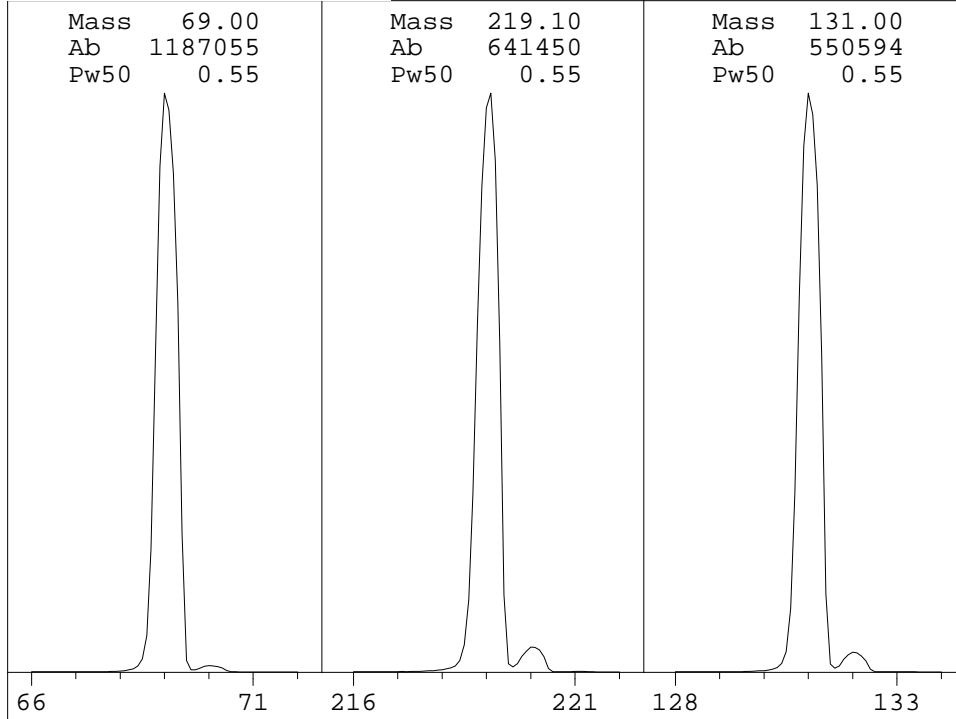
Column(1) Flow: 0.8 Column(2): 0 ml/min. Interface Temp: 230

Ramp Criteria:

Ion Focus Maximum 128 volts using ion 69; EM Gain 93572
 Repeller Maximum 40 volts using ion 69; Gain Factor 0.94

MassGain Values(Samples): 130(3) 124(2) 128(1) 127(0) 126(FS)

TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	130.0	130.0	130.0	130.0	130.0	130.0	130.0
Entrance Lens Offset:	17.8	16.6	16.3	17.1	16.8	17.3	17.3
Target Abund(%):	1.0	100.0	45.0	55.0	2.4	2.0	
Actual Tune Abund(%):	1.0	100.0	46.1	53.6	2.6	2.3	

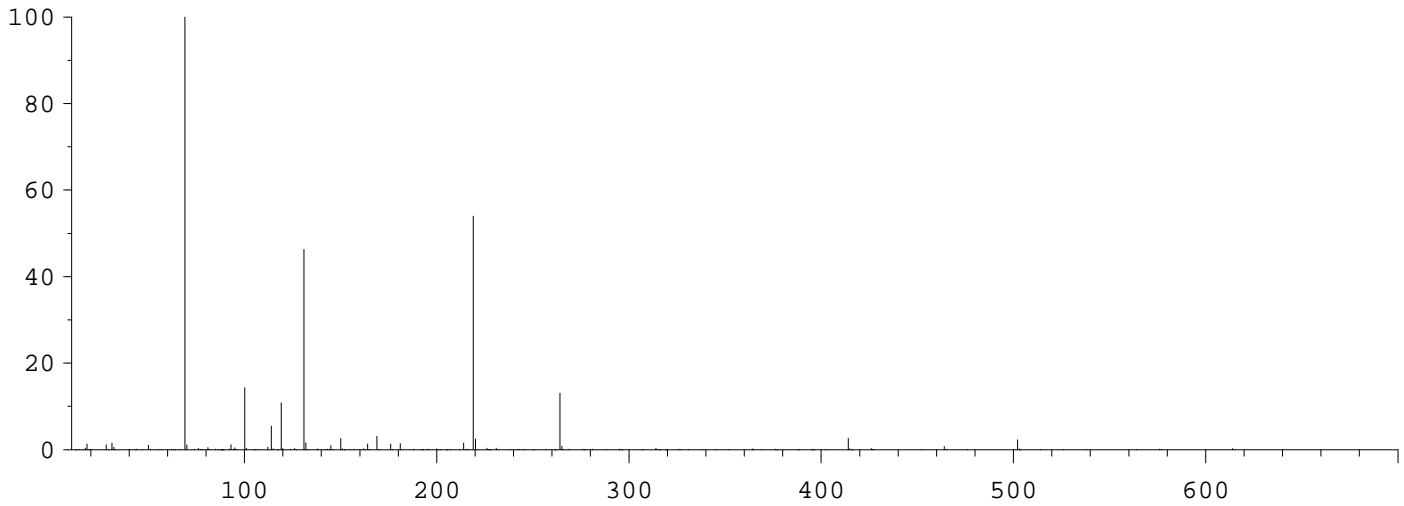


Ion Pol Pos MassGain 126
 MassOffs -10
 Emission 34.6 AmuGain 2220
 EIEnrgy 69.9 AmuOffs 130
 Filament 2 Wid219 -0.035
 DC Pol Pos
 Repeller 31.63
 IonFcus 97.7 HEDenab On
 EntLens 0.0 EMVolts 1541
 EntOffs Var

Samples 8
 PFTBA Open Averages 3
 Stepsize 0.10

Temperatures and Pressures:
 MS Source 230 Foreline 50
 MS Quad 150

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
 163 peaks Base: 69.10 Abundance: 1050624



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	1050624	100.00	70.10	11057	1.05
219.10	567360	54.00	220.10	26064	4.59
131.00	486080	46.27	132.00	16576	3.41

Air/Water Check: H2O~1.34% N2~1.14% O2~0.55% CO2~0.15% N2/H2O~85.33%

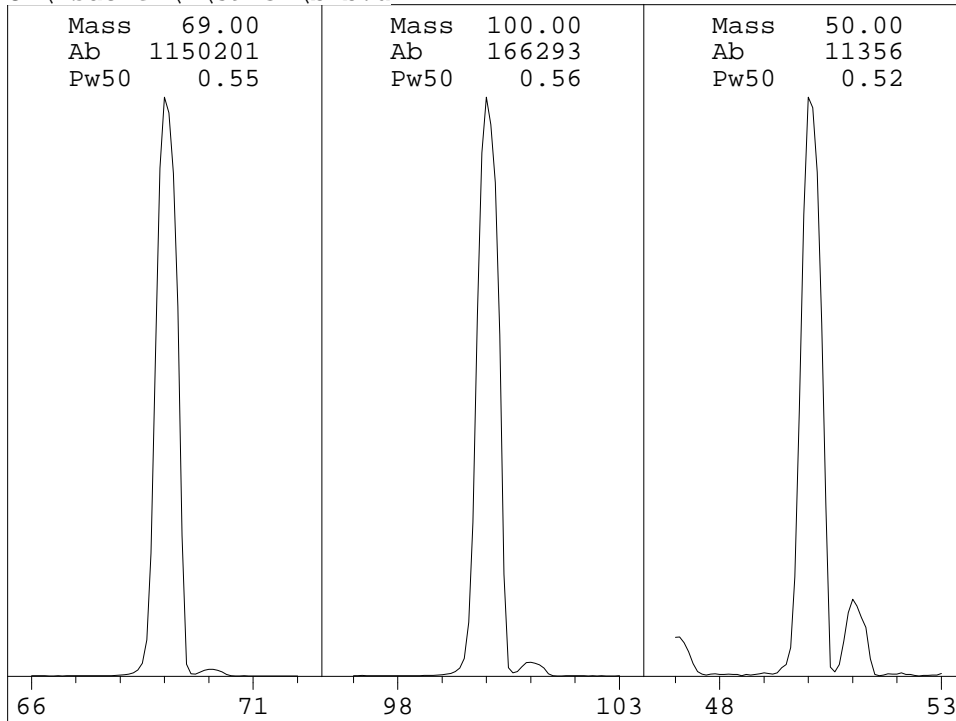
Column(1) Flow: 0.8 Column(2): 0 ml/min. Interface Temp: 230

Ramp Criteria:

Ion Focus Maximum 128 volts using ion 69; EM Gain 99771
 Repeller Maximum 40 volts using ion 69; Gain Factor 1.00

MassGain Values(Samples): 130(3) 124(2) 128(1) 127(0) 126(FS)

TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	130.0	130.0	130.0	130.0	130.0	130.0	130.0
Entrance Lens Offset:	17.8	16.6	16.3	17.1	16.8	17.3	17.3
Target Abund(%):	1.0	100.0	45.0	55.0	2.4	2.0	
Actual Tune Abund(%):	1.0	100.0	46.3	54.0	2.6	2.3	

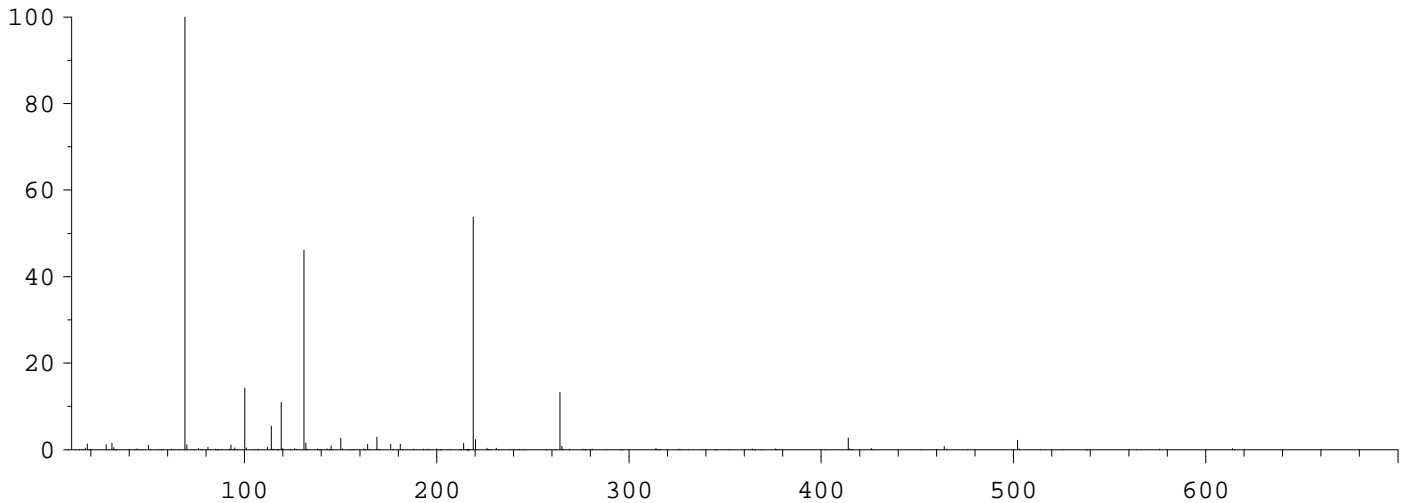


Ion Pol Pos MassGain 126
 MassOffs -10
 Emission 34.6 AmuGain 2220
 EIEnrgy 69.9 AmuOffs 130
 Filament 2 Wid219 -0.035
 DC Pol Pos
 Repeller 31.63
 IonFcus 97.7 HEDenab On
 EntLens 0.0 EMVolts 1541
 EntOffs Var

Samples 8
 PFTBA Open Averages 3
 Stepsize 0.10

Temperatures and Pressures:
 MS Source 230 Foreline 50
 MS Quad 150

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
 152 peaks Base: 69.10 Abundance: 1018048



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	1018048	100.00	70.10	11762	1.16
100.10	145088	14.25	101.10	3864	2.66
50.10	10281	1.01	51.10	1266	12.31

Air/Water Check: H2O~1.27% N2~1.16% O2~0.49% CO2~0.16% N2/H2O~91.10%

Column(1) Flow: 0.8 Column(2): 0 ml/min. Interface Temp: 230

Ramp Criteria:

Ion Focus Maximum 128 volts using ion 69; EM Gain 89069
 Repeller Maximum 40 volts using ion 69; Gain Factor 0.89

MassGain Values(Samples): 130(3) 124(2) 128(1) 127(0) 126(FS)

TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	130.0	130.0	130.0	130.0	130.0	130.0	130.0
Entrance Lens Offset:	17.8	16.6	16.3	17.1	16.8	17.3	17.3
Target Abund(%):	1.0	100.0	45.0	55.0	2.4	2.0	
Actual Tune Abund(%):	1.0	100.0	46.1	54.8	2.7	2.2	

Method Path : C:\msdchem\1\methods\
 Method File : 170817X.M
 Title : M-8260S
 Last Update : Thu Aug 17 14:33:11 2017
 Response Via : Initial Calibration

Calibration Files

.928=17081701.D 4.64=17081702.D 9.28=17081703.D 18.6=17081704.D 27.8=17081705.D 46.4=17081706.D 92.8=17081707.D
 186 =17081708.D

Compound	.928	4.64	9.28	18.6	27.8	46.4	92.8	186	Avg	%RSD	Fit	RSD/CF	Constant	Linear	Quad
1) i Fluorobenzene	-----ISTD-----														
2) CP Dichlorodifluo...	2.580	2.585	2.515	2.503	2.502	2.424	2.700	2.517	2.541	3.22	A	0.032	0.0000	2.5406	0.0000
3) CP Chloromethane	3.057	2.579	2.725	2.585	2.641	2.609	2.685	2.398	2.660	7.05	A	0.070	0.0000	2.6599	0.0000
4) CP Vinyl chloride	2.445	2.373	2.287	2.330	2.352	2.248	2.398	2.222	2.332	3.26	A	0.033	0.0000	2.3319	0.0000
5) CP Bromomethane	0.968	0.753	0.697	0.731	0.771	0.687	0.837	0.854	0.787	11.97	A	0.120	0.0000	0.7873	0.0000
6) CP Chloroethane	1.146	0.989	1.052	0.977	1.004	0.912	0.997	0.908	0.998	7.65	A	0.076	0.0000	0.9979	0.0000
7) CP Trichlorofluor...	3.158	3.215	3.134	3.135	3.164	3.053	3.194	2.948	3.125	2.77	A	0.028	0.0000	3.1251	0.0000
8) CP Trichlorotrifl...	1.936	2.105	2.066	2.160	2.071	2.009	1.988	1.871	2.026	4.64	A	0.046	0.0000	2.0257	0.0000
9) Acrolein	0.204	0.307	0.348	0.318	0.329	0.346	0.357	0.360	0.321	15.85	*Q	0.999	-0.0064	0.3520	0.0049
10) Isopropyl Alcohol		0.011	0.017	0.025	0.024	0.031	0.025	0.046	0.025	44.07	*Q	0.993	0.0027	0.0078	0.0159
11) CP Acetone		0.498	0.522	0.486	0.491	0.505	0.483	0.508	0.499	2.70	*Q	1.000	0.0045	0.4802	0.0053
12) Iodomethane		0.467	0.673	1.035	1.343	1.488	1.890	1.966	1.266	45.36	*Q	0.996	-0.0357	1.5952	0.4730
13) CP 1,1-Dichloroet...	1.718	1.739	1.725	1.688	1.725	1.687	1.708	1.690	1.710	1.16	A	0.012	0.0000	1.7099	0.0000
14) CP Carbon disulfide		5.834	5.902	5.784	5.838	5.611	5.861	5.608	5.777	2.07	A	0.021	0.0000	5.7768	0.0000
15) CP Methylene chlo...	2.341	1.875	1.859	1.775	1.798	1.775	1.776	1.727	1.866	10.63	*Q	1.000	0.0025	1.7867	-0.0643
16) CP Methyl Acetate		1.165	1.419	1.539	1.499	1.544	1.652	1.656	1.496	11.25	A	0.113	0.0000	1.4964	0.0000
17) CP trans-1,2-Dich...	1.899	1.928	1.850	1.811	1.838	1.821	1.834	1.802	1.848	2.38	A	0.024	0.0000	1.8479	0.0000
18) Acrylonitrile	0.137	0.666	0.740	0.704	0.717	0.736	0.775	0.764	0.655	32.37	*Q	1.000	-0.0055	0.7553	0.0081
19) CP MTBE	4.741	4.961	4.973	4.943	4.966	5.014	5.344	5.055	5.000	3.34	A	0.033	0.0000	4.9997	0.0000
20) Tert-Butanol	0.080	0.093	0.096	0.091	0.091	0.109	0.099	0.127	0.098	14.23	*Q	0.998	0.0038	0.0791	0.0100
21) Isopropyl Ether	6.317	6.759	6.722	6.679	6.770	6.699	7.001	6.448	6.674	3.13	A	0.031	0.0000	6.6744	0.0000
22) CP 1,1-Dichloroet...	3.376	3.470	3.432	3.338	3.377	3.326	3.367	3.325	3.376	1.53	A	0.015	0.0000	3.3763	0.0000
23) Vinyl acetate	3.271	4.067	4.136	4.051	4.147	4.124	4.303	3.952	4.006	7.83	*Q	0.999	-0.0533	4.4039	-0.1736
24) Ethyl-Tert-but...	5.501	5.698	5.596	5.542	5.636	5.592	5.864	5.384	5.602	2.53	A	0.025	0.0000	5.6017	0.0000
25) CP cis-1,2-Dichlo...	2.103	2.112	2.035	2.021	2.015	1.980	1.975	1.955	2.025	2.85	A	0.028	0.0000	2.0247	0.0000
26) 2,2-Dichloropr...	2.412	2.478	2.410	2.349	2.410	2.418	2.661	2.730	2.484	5.50	A	0.055	0.0000	2.4836	0.0000
27) Bromochloromet...	0.945	0.885	0.886	0.880	0.872	0.827	0.817	0.767	0.860	6.34	A	0.063	0.0000	0.8598	0.0000
28) CP Cyclohexane			3.243	3.402	3.259	3.150	3.352	3.167	3.262	3.06	A	0.031	0.0000	3.2623	0.0000
29) CP Chloroform	3.439	3.489	3.450	3.334	3.370	3.337	3.368	3.280	3.383	2.07	A	0.021	0.0000	3.3834	0.0000
30) s Dibromofluorom...	0.246	0.247	0.250	0.249	0.247	0.247	0.248	0.245	0.247	0.62	A	0.006	0.0000	0.2474	0.0000
31) 1,1-Dichloropr...	2.665	2.776	2.771	2.680	2.747	2.709	2.740	2.702	2.724	1.51	A	0.015	0.0000	2.7238	0.0000
32) s 1,2-Dichloroet...	0.309	0.314	0.318	0.321	0.307	0.306	0.306	0.307	0.311	1.93	A	0.019	0.0000	0.3110	0.0000
33) CP 1,1,1-Trichlor...	2.662	2.906	2.865	2.795	2.899	2.903	2.943	2.949	2.865	3.32	A	0.033	0.0000	2.8652	0.0000
34) CP 1,2-Dichloroet...	2.626	2.518	2.416	2.370	2.388	2.346	2.379	2.330	2.422	4.15	A	0.042	0.0000	2.4216	0.0000
35) CP Benzene	7.882	7.954	7.891	7.634	7.674	7.585	7.538	7.335	7.687	2.74	A	0.027	0.0000	7.6868	0.0000
36) CP 2-Butanone	0.643	0.880	0.976	0.932	0.935	0.975	0.933	0.971	0.906	12.23	A	0.122	0.0000	0.9056	0.0000
37) CP Carbon tetrach...	2.378	2.326	2.234	2.280	2.310	2.372	2.798	2.545	2.406	7.63	*Q	0.996	-0.0026	2.4728	0.1375
38) Tert-amyl Meth...	4.296	4.653	4.607	4.503	4.662	4.678	5.062	4.776	4.654	4.70	A	0.047	0.0000	4.6545	0.0000
39) CP Trichloroethene	2.054	2.112	2.114	2.021	2.086	2.025	2.018	1.944	2.047	2.79	A	0.028	0.0000	2.0467	0.0000
40) CP Methyl Cyclohe...			3.357	3.436	3.367	3.266	3.538	3.133	3.350	4.16	A	0.042	0.0000	3.3496	0.0000
41) T Dibromomethane	1.142	1.096	1.086	1.065	1.078	1.056	1.077	1.070	1.084	2.46	A	0.025	0.0000	1.0838	0.0000
42) CP Bromodichlorom...	2.011	2.188	2.190	2.196	2.249	2.251	2.340	2.325	2.219	4.62	A	0.046	0.0000	2.2187	0.0000
43) CP 1,2-Dichloropr...	1.866	1.950	1.929	1.916	1.949	1.924	1.940	1.900	1.922	1.47	A	0.015	0.0000	1.9217	0.0000

Method Path : C:\msdchem\1\methods\
 Method File : 170817X.M
 Title : M-8260S

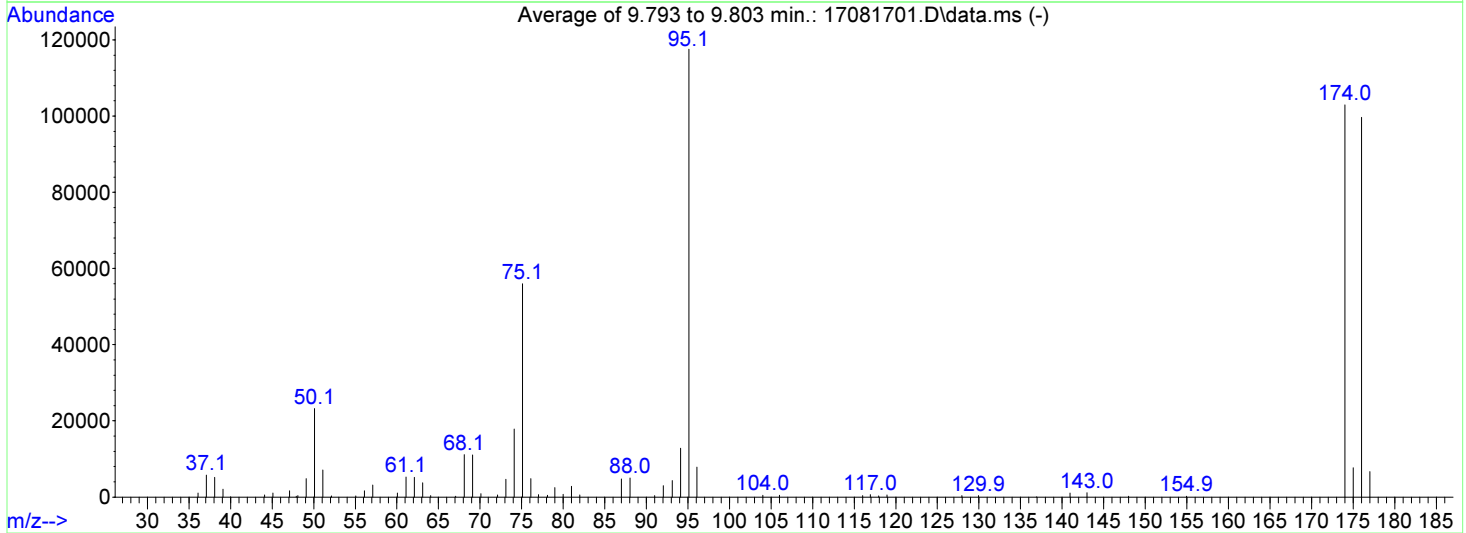
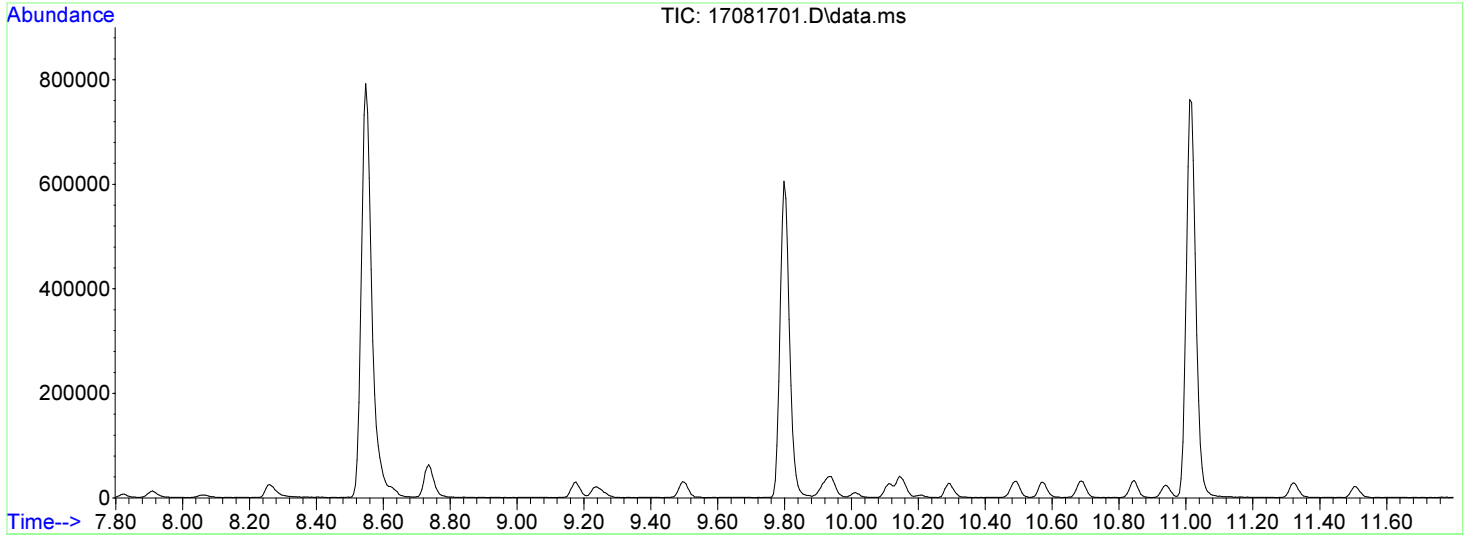
44)	T	2-Chloroethylv...	1.308	1.370	1.362	1.379	1.412	1.361	1.365	2.46	A	0.025	0.0000	1.3654	0.0000		
45)	CP	cis-1,3-Dichlo...	2.621	2.631	2.638	2.704	2.781	2.797	2.909	2.889	2.746	4.20	A	0.042	0.0000	2.7464	0.0000
46)	CP	trans-1,3-Dich...	2.074	2.057	2.092	2.105	2.189	2.254	2.355	2.343	2.184	5.54	A	0.055	0.0000	2.1838	0.0000
47)	CP	1,1,2-Trichlor...	1.396	1.540	1.540	1.499	1.510	1.494	1.519	1.490	1.498	3.06	A	0.031	0.0000	1.4985	0.0000
48)	CP	Toluene	4.891	5.028	4.883	4.751	4.816	4.746	4.732	4.574	4.803	2.82	A	0.028	0.0000	4.8027	0.0000
49)	i	Chlorobenzene-d5	-----ISTD-----														
50)	CP	4-Methyl-2-pen...	2.450	3.062	3.105	3.104	3.062	3.026	2.942	2.886	2.955	7.37	A	0.074	0.0000	2.9547	0.0000
51)	s	Toluene-d8	1.301	1.318	1.306	1.321	1.335	1.313	1.347	1.402	1.330	2.46	A	0.025	0.0000	1.3304	0.0000
52)	CP	2-Hexanone	1.635	2.036	2.184	2.186	2.150	2.175	2.117	2.158	2.080	8.96	A	0.090	0.0000	2.0800	0.0000
53)	CP	Dibromochlorom...	2.032	2.091	2.074	2.162	2.251	2.260	2.432	2.539	2.230	8.05	*Q	1.000	-0.0017	2.2041	0.3752
54)		1,3-Dichloropr...	3.830	3.834	3.770	3.775	3.821	3.758	3.878	3.946	3.826	1.64	A	0.016	0.0000	3.8264	0.0000
55)	CP	Tetrachloroethene	2.551	2.572	2.496	2.387	2.470	2.404	2.428	2.395	2.463	2.91	A	0.029	0.0000	2.4630	0.0000
56)	CP	1,2-Dibromoethane	2.091	2.196	2.209	2.224	2.255	2.241	2.325	2.399	2.243	4.06	A	0.041	0.0000	2.2426	0.0000
57)	CP	Chlorobenzene	7.368	7.237	7.012	6.875	6.972	6.830	6.929	6.799	7.003	2.87	A	0.029	0.0000	7.0029	0.0000
58)		1,1,1,2-Tetrac...	2.120	2.103	2.039	2.116	2.207	2.202	2.354	2.424	2.196	6.02	*Q	1.000	-0.0010	2.1623	0.2954
59)	CP	Ethylbenzene	4.025	4.029	3.927	3.845	3.959	3.857	3.962	3.886	3.936	1.79	A	0.018	0.0000	3.9362	0.0000
60)	CP	Bromoform	1.239	1.254	1.311	1.368	1.448	1.493	1.631	1.732	1.435	12.39	*Q	0.999	-0.0019	1.4227	0.3468
61)	CP	Styrene	6.001	6.760	6.828	6.776	7.000	6.970	7.180	7.174	6.836	5.49	A	0.055	0.0000	6.8361	0.0000
62)		1-Chlorohexane		3.479	3.204	3.015	3.061	3.007	3.203	3.243	3.173	5.23	A	0.052	0.0000	3.1734	0.0000
63)	CP	m,p-Xylene	4.748	4.987	4.796	4.701	4.778	4.704	4.718	4.542	4.747	2.61	A	0.026	0.0000	4.7468	0.0000
64)	CP	o-Xylene	4.371	4.579	4.485	4.411	4.582	4.512	4.623	4.617	4.522	2.09	A	0.021	0.0000	4.5225	0.0000
65)	CP	Isopropylbenzene	1.113	1.170	1.155	1.133	1.164	1.152	1.174	1.170	1.154	E1 1.85	A	0.019	0.0000	11.5387	0.0000
66)	I	1,4-Dichlorobenzen...	-----ISTD-----														
67)		Bromobenzene	6.633	6.073	5.844	5.856	5.908	5.772	5.794	5.702	5.948	5.01	A	0.050	0.0000	5.9477	0.0000
68)	CP	1,1,2,2-Tetrac...	6.006	5.854	5.762	5.592	5.561	5.555	5.586	5.780	5.712	2.90	A	0.029	0.0000	5.7121	0.0000
69)	T	1,2,3-Trichlor...	1.675	1.864	1.826	1.734	1.738	1.727	1.690	1.695	1.744	3.86	A	0.039	0.0000	1.7436	0.0000
70)	s	4-Bromofluorob...	0.999	0.989	0.973	0.992	0.995	0.984	0.981	1.014	0.991	1.26	A	0.013	0.0000	0.9907	0.0000
71)		1,4-Dichloro-2...	1.580	1.575	1.689	1.671	1.733	1.759	1.870	2.031	1.739	8.75	A	0.087	0.0000	1.7385	0.0000
72)	T	n-Propylbenzene	3.050	3.072	3.010	2.926	2.981	2.918	2.874	2.801	2.954	E1 3.11	A	0.031	0.0000	29.5391	0.0000
73)		2-Chlorotoluene	1.948	1.910	1.847	1.814	1.844	1.817	1.824	1.808	1.851	E1 2.75	A	0.028	0.0000	18.5146	0.0000
74)		1,3,5-Trimethy...		2.046	1.999	1.953	1.993	1.964	1.934	1.881	1.967	E1 2.68	A	0.027	0.0000	19.6704	0.0000
75)		4-Chlorotoluene	1.804	1.739	1.729	1.676	1.711	1.679	1.701	1.680	1.715	E1 2.50	A	0.025	0.0000	17.1479	0.0000
76)		tert-Butylbenzene	1.793	1.841	1.777	1.727	1.762	1.714	1.732	1.708	1.757	E1 2.60	A	0.026	0.0000	17.5665	0.0000
77)		1,2,4-Trimethy...		2.031	1.986	1.974	1.999	1.967	1.958	1.919	1.976	E1 1.76	A	0.018	0.0000	19.7624	0.0000
78)		sec-Butylbenzene	2.679	2.728	2.686	2.598	2.636	2.585	2.568	2.504	2.623	E1 2.78	A	0.028	0.0000	26.2310	0.0000
79)	CP	1,3-Dichlorobe...	1.232	1.114	1.072	1.049	1.068	1.055	1.064	1.053	1.088	E1 5.66	A	0.057	0.0000	10.8848	0.0000
80)		p-Isopropyltol...	2.109	2.225	2.175	2.141	2.174	2.152	2.142	2.089	2.151	E1 1.95	A	0.020	0.0000	21.5071	0.0000
81)	CP	1,4-Dichlorobe...	1.331	1.153	1.110	1.083	1.082	1.067	1.080	1.058	1.121	E1 8.04	A	0.080	0.0000	11.2054	0.0000
82)	CP	1,2-Dichlorobe...	1.067	1.013	0.965	0.962	0.973	0.958	0.964	0.960	0.983	E1 3.90	A	0.039	0.0000	9.8270	0.0000
83)	CP	1,2-Dibromo-3-...	0.604	0.845	0.928	0.852	0.930	0.974	0.979	1.097	0.901	15.97	*Q	1.000	-0.0013	0.9011	0.2094
84)		n-Butylbenzene	1.920	1.986	1.966	1.930	1.963	1.942	1.966	1.919	1.949	E1 1.27	A	0.013	0.0000	19.4894	0.0000
85)	CP	1,2,4-Trichlor...		6.384	6.468	6.473	6.553	6.534	6.621	6.759	6.542	1.86	A	0.019	0.0000	6.5417	0.0000
86)		Hexachlorobuta...	4.458	3.404	3.316	3.286	3.345	3.358	3.396	3.483	3.506	11.11	A	0.111	0.0000	3.5058	0.0000
87)		Naphthalene	1.463	1.583	1.538	1.616	1.606	1.577	1.645	1.575	1.575	E1 3.80	A	0.038	0.0000	15.7539	0.0000
88)		1,2,3-Trichlor...		5.725	5.785	5.702	5.755	5.759	5.741	5.913	5.769	1.20	A	0.012	0.0000	5.7685	0.0000

(#) = Out of Range

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081701.D
 Acq On : 17 Aug 2017 11:13 am
 Operator :
 Sample : CAL1 0.928 ppb
 Misc : CAL1
 ALS Vial : 1 Sample Multiplier: 1

Integration File: Rteint.p

Method : C:\msdchem\1\methods\170817X.M
 Title : M-8260S
 Last Update : Thu Aug 17 14:33:11 2017



AutoFind: Scans 1589, 1590, 1591; Background Corrected with Scan 1581

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.7	23211	PASS
75	95	30	60	47.6	55981	PASS
95	95	100	100	100.0	117605	PASS
96	95	5	9	6.7	7826	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	87.5	102936	PASS
175	174	5	9	7.4	7660	PASS
176	174	95	101	96.8	99661	PASS
177	176	5	9	6.7	6640	PASS

REVIEWED/APPROVED

By Sherri Herschmann at 9:35:05 AM, 9/23/2017

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081701.D
 Acq On : 17 Aug 2017 11:13 am
 Operator :
 Sample : CAL1 0.928 ppb
 Misc : CAL1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 18 13:40:02 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	745921	200.00	ug/L	98
49) Chlorobenzene-d5	8.548	117	532981	200.00	ug/L	100
66) 1,4-Dichlorobenzene-d4	11.017	152	247595	200.00	ug/L	93
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	183615	199.03	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.52%	
32) 1,2-Dichloroethane-d4	5.410	65	230121	198.37	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.19%	
51) Toluene-d8	7.058	98	693214	195.53	ug/L	0.00
Spiked Amount	200.000		Recovery	=	97.77%	
70) 4-Bromofluorobenzene	9.798	95	247286	201.62	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.81%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	8928	0.942	ug/L	97
3) Chloromethane	1.770	50	10580	1.066	ug/L	95
4) Vinyl chloride	1.848	62	8464	0.973	ug/L	98
5) Bromomethane	2.162	94	3349	1.141	ug/L	95
6) Chloroethane	2.288	64	3965	1.065	ug/L	89
7) Trichlorofluoromethane	2.424	101	10929	0.938	ug/L	90
8) Trichlorotrifluoroethane	2.947	101	6700	0.887	ug/L	# 94
9) Acrolein	3.234	56	7061	9.021	ug/L	94
10) Isopropyl Alcohol	0.000		0	N.D.		
11) Acetone	3.501	43	8634	2.965	ug/L	95
12) Iodomethane	3.041	142	745	4.567	ug/L	# 44
13) 1,1-Dichloroethene	2.910	96	5947	0.933	ug/L	98
14) Carbon disulfide	2.941	76	21496	0.998	ug/L	98
15) Methylene chloride	3.433	84	8104	0.940	ug/L	97
16) Methyl Acetate	3.663	43	6496	1.164	ug/L	81
17) trans-1,2-Dichloroethene	3.590	96	6571	0.953	ug/L	86
18) Acrylonitrile	4.202	53	949	1.785	ug/L	91
19) MTBE	3.663	73	16409	0.880	ug/L	96
20) Tert-Butanol	3.757	59	1386	Below Cal	#	100
21) Isopropyl Ether	3.993	45	21865	0.878	ug/L	99
22) 1,1-Dichloroethane	4.113	63	11684	0.928	ug/L	98
23) Vinyl acetate	4.322	43	113200	9.331	ug/L	99
24) Ethyl-Tert-butyl Ether	4.312	59	19039	0.911	ug/L	100
25) cis-1,2-Dichloroethene	4.578	96	7277	0.964	ug/L	96
26) 2,2-Dichloropropane	4.667	77	8349	0.901	ug/L	99
27) Bromochloromethane	4.746	128	3272	1.020	ug/L	98
28) Cyclohexane	4.751	84	10107	0.831	ug/L	98
29) Chloroform	4.803	83	11904	0.943	ug/L	97
31) 1,1-Dichloropropene	5.091	75	9224	0.908	ug/L	93
33) 1,1,1-Trichloroethane	4.981	97	9215	0.862	ug/L	98
34) 1,2-Dichloroethane	5.478	62	9088	1.006	ug/L	98
35) Benzene	5.305	78	27279	0.952	ug/L	99
36) 2-Butanone	5.086	43	11130	3.295	ug/L	88
37) Carbon tetrachloride	4.934	117	8231	1.105	ug/L	87
38) Tert-amyl Methyl Ether	5.389	73	14869	0.857	ug/L	# 88
39) Trichloroethene	5.813	130	7110	0.931	ug/L	97
40) Methyl Cyclohexane	5.802	55	10434	0.835	ug/L	93
41) Dibromomethane	6.184	93	3954	0.978	ug/L	96
42) Bromodichloromethane	6.320	83	6959	0.841	ug/L	99
43) 1,2-Dichloropropane	6.263	63	6458	0.901	ug/L	95
44) 2-Chloroethylvinylether	6.838	63	3100	0.609	ug/L	93
45) cis-1,3-Dichloropropene	6.890	75	9071	0.886	ug/L	92

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081701.D
 Acq On : 17 Aug 2017 11:13 am
 Operator :
 Sample : CAL1 0.928 ppb
 Misc : CAL1
 ALS Vial : 1 Sample Multiplier: 1

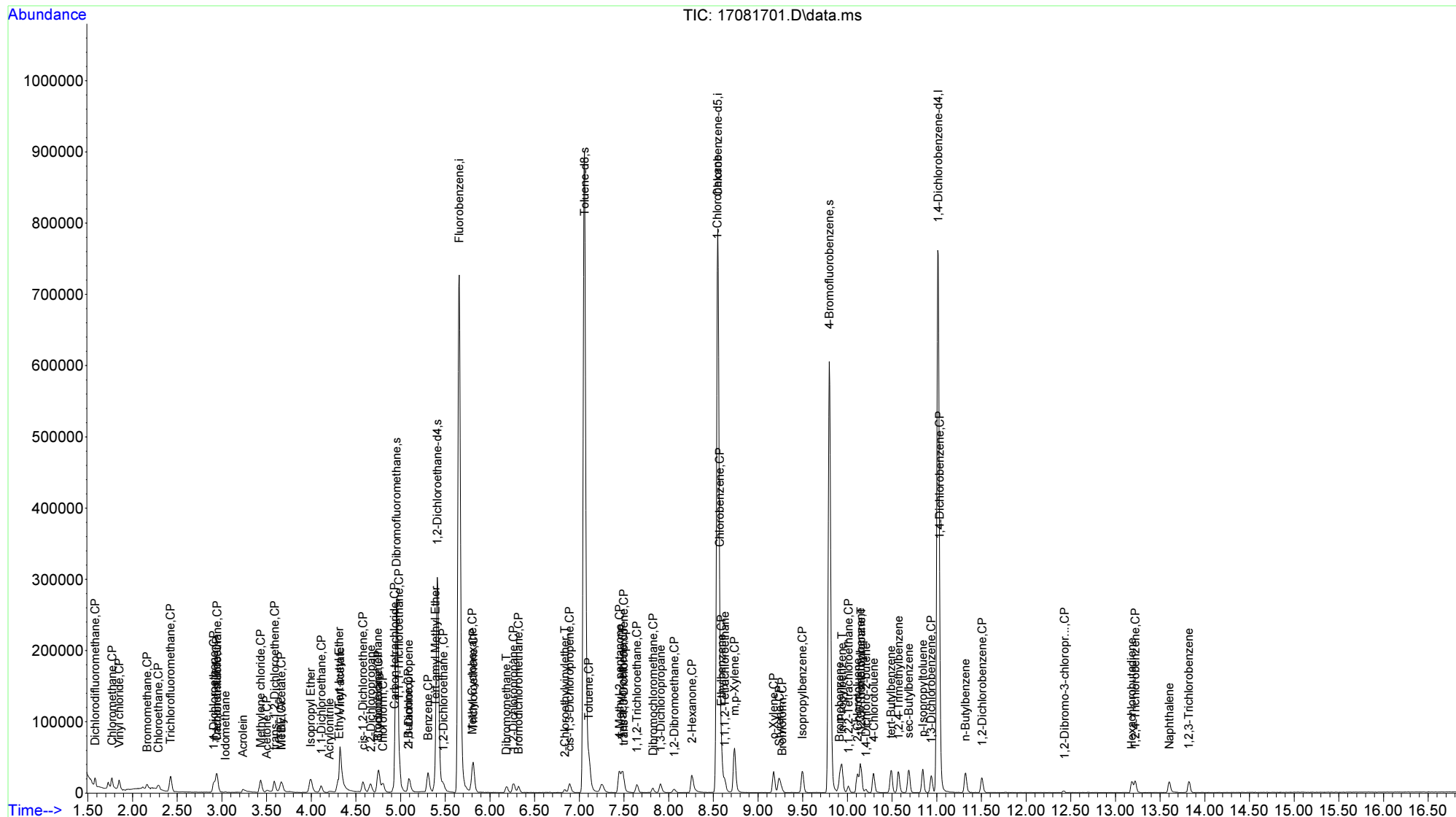
Quant Time: Aug 18 13:40:02 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.497	75	7179	0.881	ug/L	96
47) 1,1,2-Trichloroethane	7.643	97	4830	0.864	ug/L	91
48) Toluene	7.105	92	16928	0.945	ug/L	100
50) 4-Methyl-2-pentanone	7.450	43	30298	3.848	ug/L	93
52) 2-Hexanone	8.260	43	20223	3.648	ug/L	90
53) Dibromochloromethane	7.826	129	5024	1.008	ug/L	83
54) 1,3-Dichloropropane	7.910	76	9471	0.929	ug/L	96
55) Tetrachloroethene	7.486	164	6308	0.961	ug/L	95
56) 1,2-Dibromoethane	8.062	107	5172	0.865	ug/L	98
57) Chlorobenzene	8.569	112	18221	0.976	ug/L	93
58) 1,1,1,2-Tetrachloroethane	8.627	131	5243	1.001	ug/L	82
59) Ethylbenzene	8.590	106	9954	0.949	ug/L	86
60) Bromoform	9.270	173	3063	1.071	ug/L	88
61) Styrene	9.239	104	14840	0.815	ug/L	98
62) 1-Chlorohexane	8.543	55	12721	1.504	ug/L #	62
63) m,p-Xylene	8.736	106	23535	1.861	ug/L	98
64) o-Xylene	9.176	106	10810	0.897	ug/L	88
65) Isopropylbenzene	9.495	105	27515	0.895	ug/L	99
67) Bromobenzene	9.913	156	7620	1.035	ug/L	93
68) 1,1,2,2-Tetrachloroethane	10.013	83	6900	0.976	ug/L	94
69) 1,2,3-Trichloropropane	10.154	110	1924	0.891	ug/L	99
71) 1,4-Dichloro-2-butene	10.206	53	1815	0.843	ug/L #	46
72) n-Propylbenzene	9.939	91	35035	0.958	ug/L	97
73) 2-Chlorotoluene	10.112	91	22382	0.977	ug/L	97
74) 1,3,5-Trimethylbenzene	10.143	105	22066	0.906	ug/L	99
75) 4-Chlorotoluene	10.295	91	20723	0.976	ug/L	97
76) tert-Butylbenzene	10.489	119	20594	0.947	ug/L	96
77) 1,2,4-Trimethylbenzene	10.572	105	22386	0.915	ug/L	96
78) sec-Butylbenzene	10.687	105	30778	0.948	ug/L	99
79) 1,3-Dichlorobenzene	10.938	146	14158	1.051	ug/L	99
80) p-Isopropyltoluene	10.844	119	24230	0.910	ug/L	93
81) 1,4-Dichlorobenzene	11.032	146	15293	1.102	ug/L	89
82) 1,2-Dichlorobenzene	11.508	146	12255	1.007	ug/L	96
83) 1,2-Dibromo-3-chloropr...	12.429	75	694	0.914	ug/L #	82
84) n-Butylbenzene	11.320	91	22054	0.914	ug/L	97
85) 1,2,4-Trichlorobenzene	13.224	180	9099	1.124	ug/L	90
86) Hexachlorobutadiene	13.182	225	5122	1.180	ug/L	98
87) Naphthalene	13.601	128	20042	1.028	ug/L	96
88) 1,2,3-Trichlorobenzene	13.820	180	8184	1.146	ug/L	91

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081701.D
 Acq On : 17 Aug 2017 11:13 am
 Operator :
 Sample : CAL1 0.928 ppb
 Misc : CAL1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 18 13:40:02 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081702.D
 Acq On : 17 Aug 2017 11:37 am
 Operator :
 Sample : CAL2 4.64 ppb
 Misc : CAL2
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 18 13:40:06 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	741400	200.00	ug/L	98
49) Chlorobenzene-d5	8.548	117	527040	200.00	ug/L	99
66) 1,4-Dichlorobenzene-d4	11.017	152	247565	200.00	ug/L	93
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	183273	199.87	ug/L	98.00
Spiked Amount	200.000		Recovery	=	99.94%	
32) 1,2-Dichloroethane-d4	5.415	65	232674	201.79	ug/L	98.00
Spiked Amount	200.000		Recovery	=	100.90%	
51) Toluene-d8	7.058	98	694616	198.13	ug/L	98.00
Spiked Amount	200.000		Recovery	=	99.06%	
70) 4-Bromofluorobenzene	9.798	95	244814	199.63	ug/L	98.00
Spiked Amount	200.000		Recovery	=	99.81%	
Target Compounds						
2) Dichlorodifluoromethane	1.582	85	44457	4.720	ug/L	98
3) Chloromethane	1.770	50	44368	4.500	ug/L	99
4) Vinyl chloride	1.848	62	40809	4.721	ug/L	99
5) Bromomethane	2.162	94	12947	4.436	ug/L	92
6) Chloroethane	2.288	64	17005	4.597	ug/L	92
7) Trichlorofluoromethane	2.429	101	55298	4.773	ug/L	98
8) Trichlorotrifluoroethane	2.947	101	36208	4.822	ug/L #	97
9) Acrolein	3.224	56	26397	23.838	ug/L	96
10) Isopropyl Alcohol	3.423	45	938	Below Cal	#	100
11) Acetone	3.480	43	42866	22.198	ug/L	97
12) Iodomethane	3.041	142	8033	5.781	ug/L	93
13) 1,1-Dichloroethene	2.910	96	29906	4.718	ug/L	96
14) Carbon disulfide	2.941	76	100356	4.686	ug/L	99
15) Methylene chloride	3.433	84	32251	4.596	ug/L	98
16) Methyl Acetate	3.600	43	20032	3.611	ug/L	91
17) trans-1,2-Dichloroethene	3.585	96	33163	4.841	ug/L	96
18) Acrylonitrile	4.170	53	22921	9.630	ug/L	97
19) MTBE	3.663	73	85334	4.604	ug/L	94
20) Tert-Butanol	3.752	59	8038	17.566	ug/L #	100
21) Isopropyl Ether	3.993	45	116265	4.699	ug/L	99
22) 1,1-Dichloroethane	4.113	63	59688	4.769	ug/L	99
23) Vinyl acetate	4.317	43	349729	23.957	ug/L	99
24) Ethyl-Tert-butyl Ether	4.306	59	98003	4.719	ug/L	99
25) cis-1,2-Dichloroethene	4.578	96	36336	4.841	ug/L	98
26) 2,2-Dichloropropane	4.667	77	42624	4.630	ug/L	100
27) Bromochloromethane	4.746	128	15220	4.775	ug/L	99
28) Cyclohexane	4.761	84	56096	4.639	ug/L	96
29) Chloroform	4.803	83	60008	4.784	ug/L	98
31) 1,1-Dichloropropene	5.091	75	47756	4.730	ug/L	98
33) 1,1,1-Trichloroethane	4.986	97	49984	4.706	ug/L	98
34) 1,2-Dichloroethane	5.473	62	43314	4.825	ug/L	96
35) Benzene	5.305	78	136818	4.801	ug/L	100
36) 2-Butanone	5.065	43	75682	22.543	ug/L	99
37) Carbon tetrachloride	4.934	117	40009	4.572	ug/L	99
38) Tert-amyl Methyl Ether	5.389	73	80026	4.638	ug/L	94
39) Trichloroethene	5.813	130	36332	4.789	ug/L	97
40) Methyl Cyclohexane	5.808	55	58813	4.737	ug/L	97
41) Dibromomethane	6.184	93	18844	4.690	ug/L	99
42) Bromodichloromethane	6.320	83	37643	4.577	ug/L	99
43) 1,2-Dichloropropane	6.263	63	33547	4.709	ug/L	97
44) 2-Chloroethylvinylether	6.827	63	21088	4.166	ug/L	97
45) cis-1,3-Dichloropropene	6.890	75	45263	4.446	ug/L	97

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081702.D
 Acq On : 17 Aug 2017 11:37 am
 Operator :
 Sample : CAL2 4.64 ppb
 Misc : CAL2
 ALS Vial : 2 Sample Multiplier: 1

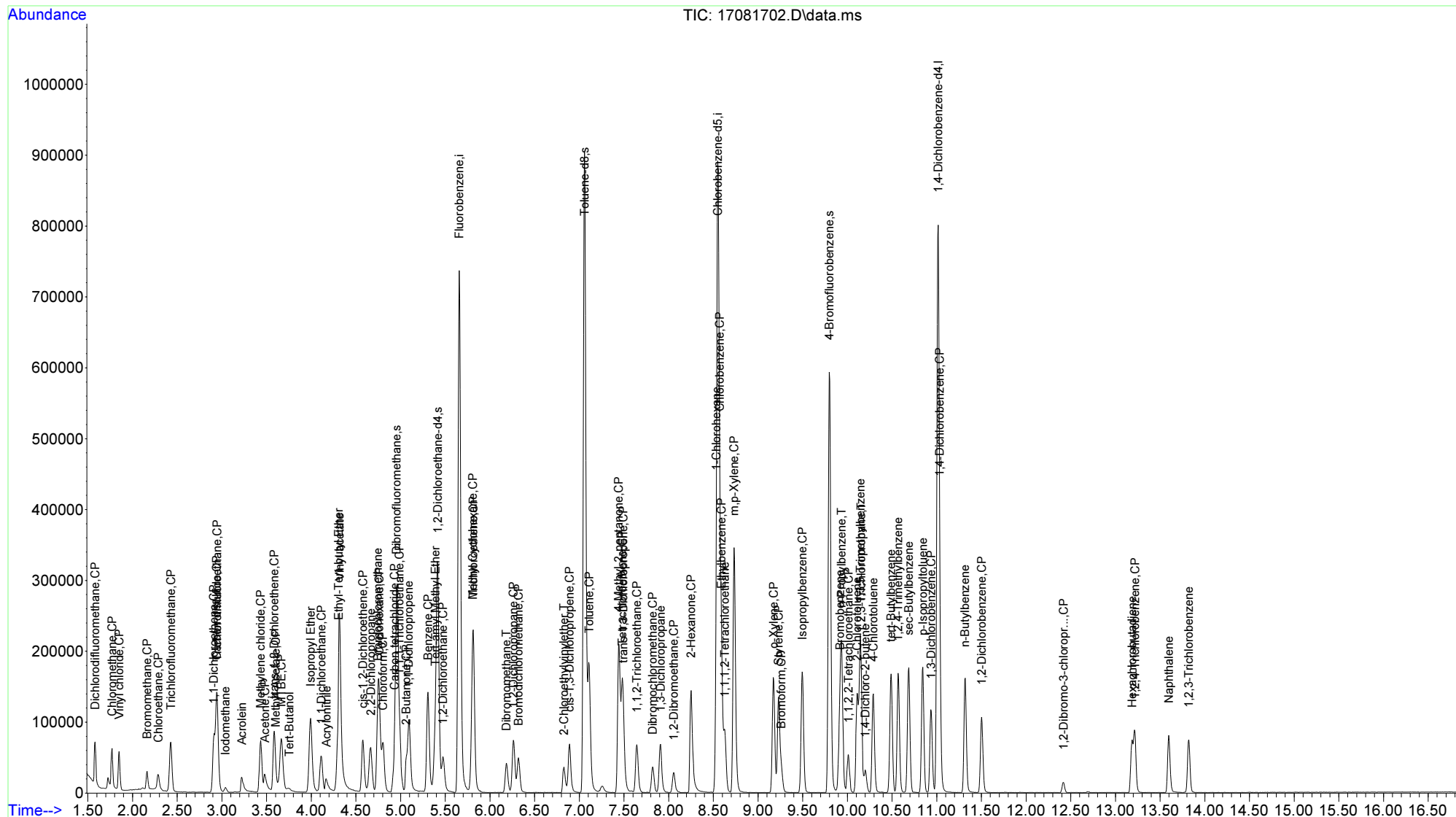
Quant Time: Aug 18 13:40:06 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.492	75	35384	4.371	ug/L	94
47) 1,1,2-Trichloroethane	7.643	97	26489	4.769	ug/L	98
48) Toluene	7.110	92	86485	4.858	ug/L	98
50) 4-Methyl-2-pentanone	7.439	43	187213	24.044	ug/L	97
52) 2-Hexanone	8.250	43	124444	22.703	ug/L	99
53) Dibromochloromethane	7.821	129	25568	4.538	ug/L	100
54) 1,3-Dichloropropane	7.910	76	46875	4.649	ug/L	95
55) Tetrachloroethene	7.481	164	31453	4.846	ug/L	98
56) 1,2-Dibromoethane	8.057	107	26852	4.544	ug/L	99
57) Chlorobenzene	8.569	112	88495	4.795	ug/L	97
58) 1,1,1,2-Tetrachloroethane	8.627	131	25713	4.590	ug/L	97
59) Ethylbenzene	8.590	106	49261	4.749	ug/L	99
60) Bromoform	9.260	173	15339	4.333	ug/L	95
61) Styrene	9.228	104	82653	4.588	ug/L	96
62) 1-Chlorohexane	8.533	55	42538	5.087	ug/L	85
63) m,p-Xylene	8.731	106	121950	9.749	ug/L	99
64) o-Xylene	9.176	106	55984	4.698	ug/L	98
65) Isopropylbenzene	9.495	105	143053	4.705	ug/L	97
67) Bromobenzene	9.919	156	34879	4.738	ug/L	97
68) 1,1,2,2-Tetrachloroethane	10.013	83	33623	4.755	ug/L	97
69) 1,2,3-Trichloropropane	10.154	110	10707	4.961	ug/L	90
71) 1,4-Dichloro-2-butene	10.201	53	9047	4.204	ug/L	87
72) n-Propylbenzene	9.934	91	176442	4.826	ug/L	100
73) 2-Chlorotoluene	10.107	91	109713	4.787	ug/L	97
74) 1,3,5-Trimethylbenzene	10.143	105	117497	4.826	ug/L	99
75) 4-Chlorotoluene	10.290	91	99880	4.706	ug/L	100
76) tert-Butylbenzene	10.489	119	105745	4.863	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	116636	4.768	ug/L	96
78) sec-Butylbenzene	10.687	105	156658	4.825	ug/L	100
79) 1,3-Dichlorobenzene	10.938	146	63974	4.748	ug/L	99
80) p-Isopropyltoluene	10.844	119	127769	4.799	ug/L	98
81) 1,4-Dichlorobenzene	11.033	146	66222	4.774	ug/L	98
82) 1,2-Dichlorobenzene	11.503	146	58172	4.782	ug/L	96
83) 1,2-Dibromo-3-chloropr...	12.419	75	4855	4.621	ug/L	93
84) n-Butylbenzene	11.315	91	114089	4.729	ug/L	98
85) 1,2,4-Trichlorobenzene	13.219	180	36669	4.528	ug/L	98
86) Hexachlorobutadiene	13.187	225	19552	4.505	ug/L	97
87) Naphthalene	13.595	128	84030	4.309	ug/L	95
88) 1,2,3-Trichlorobenzene	13.820	180	32881	4.605	ug/L	99

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081702.D
 Acq On : 17 Aug 2017 11:37 am
 Operator :
 Sample : CAL2 4.64 ppb
 Misc : CAL2
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 18 13:40:06 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081703.D
 Acq On : 17 Aug 2017 12:00 pm
 Operator :
 Sample : CAL3 9.28 ppb
 Misc : CAL3
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 18 13:40:10 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	735801	200.00	ug/L	97
49) Chlorobenzene-d5	8.548	117	532403	200.00	ug/L	100
66) 1,4-Dichlorobenzene-d4	11.012	152	253155	200.00	ug/L	95
System Monitoring Compounds						
30) Dibromofluoromethane	4.960	113	183885	202.06	ug/L	0.00
Spiked Amount	200.000		Recovery	=	101.03%	
32) 1,2-Dichloroethane-d4	5.415	65	234261	204.71	ug/L	0.00
Spiked Amount	200.000		Recovery	=	102.35%	
51) Toluene-d8	7.058	98	695300	196.33	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.17%	
70) 4-Bromofluorobenzene	9.798	95	246288	196.40	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.20%	
Target Compounds						
2) Dichlorodifluoromethane	1.582	85	85864	9.186	ug/L	100
3) Chloromethane	1.770	50	93025	9.506	ug/L	99
4) Vinyl chloride	1.848	62	78097	9.103	ug/L	99
5) Bromomethane	2.162	94	23812	8.221	ug/L	95
6) Chloroethane	2.288	64	35913	9.782	ug/L	95
7) Trichlorofluoromethane	2.429	101	106997	9.306	ug/L	99
8) Trichlorotrifluoroethane	2.947	101	70534	9.464	ug/L	99
9) Acrolein	3.213	56	59338	49.299	ug/L	99
10) Isopropyl Alcohol	3.407	45	2837	23.109	ug/L #	100
11) Acetone	3.470	43	89041	48.417	ug/L	99
12) Iodomethane	3.041	142	22982	8.287	ug/L	98
13) 1,1-Dichloroethene	2.910	96	58883	9.360	ug/L	98
14) Carbon disulfide	2.941	76	201492	9.481	ug/L	100
15) Methylene chloride	3.433	84	63453	9.392	ug/L	98
16) Methyl Acetate	3.590	43	48452	8.801	ug/L	99
17) trans-1,2-Dichloroethene	3.580	96	63171	9.292	ug/L	98
18) Acrylonitrile	4.155	53	50604	19.639	ug/L	99
19) MTBE	3.663	73	169801	9.231	ug/L	98
20) Tert-Butanol	3.742	59	16358	45.255	ug/L #	100
21) Isopropyl Ether	3.993	45	229484	9.346	ug/L	99
22) 1,1-Dichloroethane	4.108	63	117177	9.433	ug/L	99
23) Vinyl acetate	4.312	43	705955	46.418	ug/L	100
24) Ethyl-Tert-butyl Ether	4.301	59	191064	9.271	ug/L	99
25) cis-1,2-Dichloroethene	4.579	96	69490	9.329	ug/L	98
26) 2,2-Dichloropropane	4.667	77	82282	9.005	ug/L	99
27) Bromochloromethane	4.751	128	30260	9.566	ug/L	93
28) Cyclohexane	4.762	84	110709	9.224	ug/L	97
29) Chloroform	4.803	83	117778	9.462	ug/L	98
31) 1,1-Dichloropropene	5.091	75	94608	9.441	ug/L	98
33) 1,1,1-Trichloroethane	4.986	97	97802	9.278	ug/L	99
34) 1,2-Dichloroethane	5.473	62	82482	9.258	ug/L	98
35) Benzene	5.306	78	269423	9.527	ug/L	97
36) 2-Butanone	5.054	43	166574	49.994	ug/L	99
37) Carbon tetrachloride	4.934	117	76281	8.577	ug/L	100
38) Tert-amyl Methyl Ether	5.389	73	157283	9.185	ug/L	98
39) Trichloroethene	5.813	130	72173	9.585	ug/L	95
40) Methyl Cyclohexane	5.808	55	114621	9.301	ug/L	99
41) Dibromomethane	6.184	93	37091	9.302	ug/L	97
42) Bromodichloromethane	6.320	83	74753	9.158	ug/L	98
43) 1,2-Dichloropropane	6.263	63	65866	9.316	ug/L	96
44) 2-Chloroethylvinylether	6.822	63	44663	8.891	ug/L	98
45) cis-1,3-Dichloropropene	6.885	75	90074	8.915	ug/L	100

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081703.D
 Acq On : 17 Aug 2017 12:00 pm
 Operator :
 Sample : CAL3 9.28 ppb
 Misc : CAL3
 ALS Vial : 3 Sample Multiplier: 1

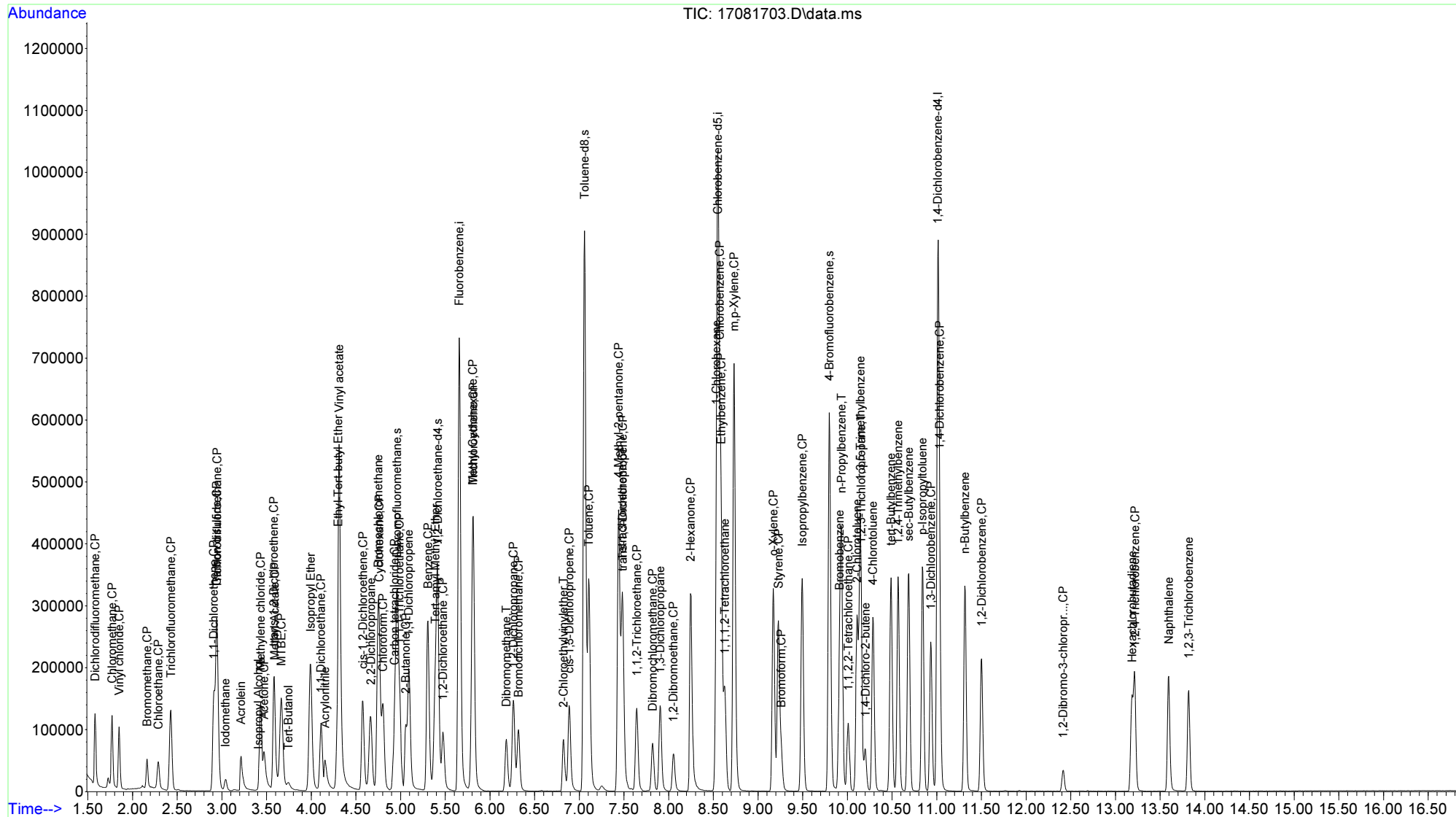
Quant Time: Aug 18 13:40:10 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.487	75	71418	8.889	ug/L	97
47) 1,1,2-Trichloroethane	7.643	97	52594	9.540	ug/L	99
48) Toluene	7.105	92	166726	9.436	ug/L	98
50) 4-Methyl-2-pentanone	7.439	43	383494	48.757	ug/L	98
52) 2-Hexanone	8.245	43	269758	48.718	ug/L	99
53) Dibromochloromethane	7.821	129	51233	8.819	ug/L	99
54) 1,3-Dichloropropane	7.905	76	93124	9.142	ug/L	99
55) Tetrachloroethene	7.481	164	61665	9.405	ug/L	94
56) 1,2-Dibromoethane	8.051	107	54574	9.141	ug/L	96
57) Chlorobenzene	8.569	112	173213	9.292	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.627	131	50381	8.792	ug/L	96
59) Ethylbenzene	8.585	106	97011	9.258	ug/L	99
60) Bromoform	9.260	173	32389	8.724	ug/L	95
61) Styrene	9.228	104	168677	9.269	ug/L	99
62) 1-Chlorohexane	8.533	55	79162	9.371	ug/L	90
63) m,p-Xylene	8.731	106	237466	18.793	ug/L	98
64) o-Xylene	9.171	106	110788	9.203	ug/L	99
65) Isopropylbenzene	9.495	105	285437	9.293	ug/L	100
67) Bromobenzene	9.913	156	68647	9.118	ug/L	97
68) 1,1,2,2-Tetrachloroethane	10.008	83	67686	9.361	ug/L	98
69) 1,2,3-Trichloropropane	10.154	110	21448	9.718	ug/L	98
71) 1,4-Dichloro-2-butene	10.201	53	19840	9.016	ug/L	82
72) n-Propylbenzene	9.934	91	353614	9.457	ug/L	98
73) 2-Chlorotoluene	10.107	91	216913	9.256	ug/L	98
74) 1,3,5-Trimethylbenzene	10.144	105	234791	9.430	ug/L	99
75) 4-Chlorotoluene	10.285	91	203038	9.354	ug/L	98
76) tert-Butylbenzene	10.489	119	208689	9.385	ug/L	100
77) 1,2,4-Trimethylbenzene	10.567	105	233271	9.325	ug/L	100
78) sec-Butylbenzene	10.687	105	315493	9.502	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	125961	9.142	ug/L	100
80) p-Isopropyltoluene	10.839	119	255430	9.383	ug/L	99
81) 1,4-Dichlorobenzene	11.033	146	130439	9.196	ug/L	99
82) 1,2-Dichlorobenzene	11.503	146	113338	9.112	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	10904	9.742	ug/L	93
84) n-Butylbenzene	11.315	91	230965	9.362	ug/L	100
85) 1,2,4-Trichlorobenzene	13.219	180	75979	9.176	ug/L	96
86) Hexachlorobutadiene	13.188	225	38946	8.776	ug/L	98
87) Naphthalene	13.595	128	185891	9.322	ug/L	100
88) 1,2,3-Trichlorobenzene	13.820	180	67955	9.307	ug/L	98

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081703.D
 Acq On : 17 Aug 2017 12:00 pm
 Operator :
 Sample : CAL3 9.28 ppb
 Misc : CAL3
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 18 13:40:10 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081704.D
 Acq On : 17 Aug 2017 12:24 pm
 Operator :
 Sample : CAL4 18.6 ppb
 Misc : CAL
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 18 13:40:14 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	740562	200.00	ug/L	97
49) Chlorobenzene-d5	8.548	117	527258	200.00	ug/L	99
66) 1,4-Dichlorobenzene-d4	11.017	152	250995	200.00	ug/L	95
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	184350	201.27	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.64%	
32) 1,2-Dichloroethane-d4	5.415	65	237888	206.55	ug/L	0.00
Spiked Amount	200.000		Recovery	=	103.28%	
51) Toluene-d8	7.058	98	696628	198.62	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.31%	
70) 4-Bromofluorobenzene	9.798	95	248997	200.26	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.13%	
Target Compounds						
2) Dichlorodifluoromethane	1.582	85	172385	18.324	ug/L	99
3) Chloromethane	1.770	50	178051	18.078	ug/L	100
4) Vinyl chloride	1.848	62	160497	18.588	ug/L	100
5) Bromomethane	2.162	94	50380	17.283	ug/L	99
6) Chloroethane	2.288	64	67268	18.205	ug/L	98
7) Trichlorofluoromethane	2.429	101	215923	18.660	ug/L	100
8) Trichlorotrifluoroethane	2.947	101	148754	19.832	ug/L	# 99
9) Acrolein	3.208	56	81841	66.134	ug/L	97
10) Isopropyl Alcohol	3.396	45	6324	81.345	ug/L	# 100
11) Acetone	3.464	43	166937	91.569	ug/L	100
12) Iodomethane	3.041	142	71274	16.152	ug/L	100
13) 1,1-Dichloroethene	2.910	96	116231	18.357	ug/L	99
14) Carbon disulfide	2.941	76	398344	18.622	ug/L	99
15) Methylene chloride	3.433	84	122230	18.259	ug/L	98
16) Methyl Acetate	3.585	43	105980	19.127	ug/L	99
17) trans-1,2-Dichloroethene	3.580	96	124722	18.228	ug/L	99
18) Acrylonitrile	4.150	53	96940	36.041	ug/L	99
19) MTBE	3.663	73	340433	18.389	ug/L	98
20) Tert-Butanol	3.742	59	31420	92.228	ug/L	# 100
21) Isopropyl Ether	3.987	45	459965	18.611	ug/L	99
22) 1,1-Dichloroethane	4.108	63	229865	18.386	ug/L	98
23) Vinyl acetate	4.312	43	1043902	67.331	ug/L	100
24) Ethyl-Tert-butyl Ether	4.301	59	381707	18.403	ug/L	100
25) cis-1,2-Dichloroethene	4.573	96	139218	18.570	ug/L	98
26) 2,2-Dichloropropane	4.662	77	161791	17.593	ug/L	98
27) Bromochloromethane	4.746	128	60610	19.037	ug/L	94
28) Cyclohexane	4.762	84	234329	19.399	ug/L	98
29) Chloroform	4.803	83	229642	18.330	ug/L	99
31) 1,1-Dichloropropene	5.091	75	184608	18.304	ug/L	99
33) 1,1,1-Trichloroethane	4.986	97	192466	18.141	ug/L	99
34) 1,2-Dichloroethane	5.473	62	163213	18.202	ug/L	99
35) Benzene	5.300	78	525797	18.473	ug/L	99
36) 2-Butanone	5.054	43	320327	95.522	ug/L	98
37) Carbon tetrachloride	4.934	117	157059	17.283	ug/L	97
38) Tert-amyl Methyl Ether	5.389	73	310136	17.995	ug/L	98
39) Trichloroethene	5.813	130	139196	18.367	ug/L	97
40) Methyl Cyclohexane	5.808	55	236648	19.080	ug/L	99
41) Dibromomethane	6.179	93	73320	18.270	ug/L	96
42) Bromodichloromethane	6.320	83	151233	18.408	ug/L	100
43) 1,2-Dichloropropane	6.263	63	131925	18.540	ug/L	99
44) 2-Chloroethylvinylether	6.817	63	94389	18.669	ug/L	98
45) cis-1,3-Dichloropropene	6.885	75	186229	18.312	ug/L	99

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081704.D
 Acq On : 17 Aug 2017 12:24 pm
 Operator :
 Sample : CAL4 18.6 ppb
 Misc : CAL
 ALS Vial : 4 Sample Multiplier: 1

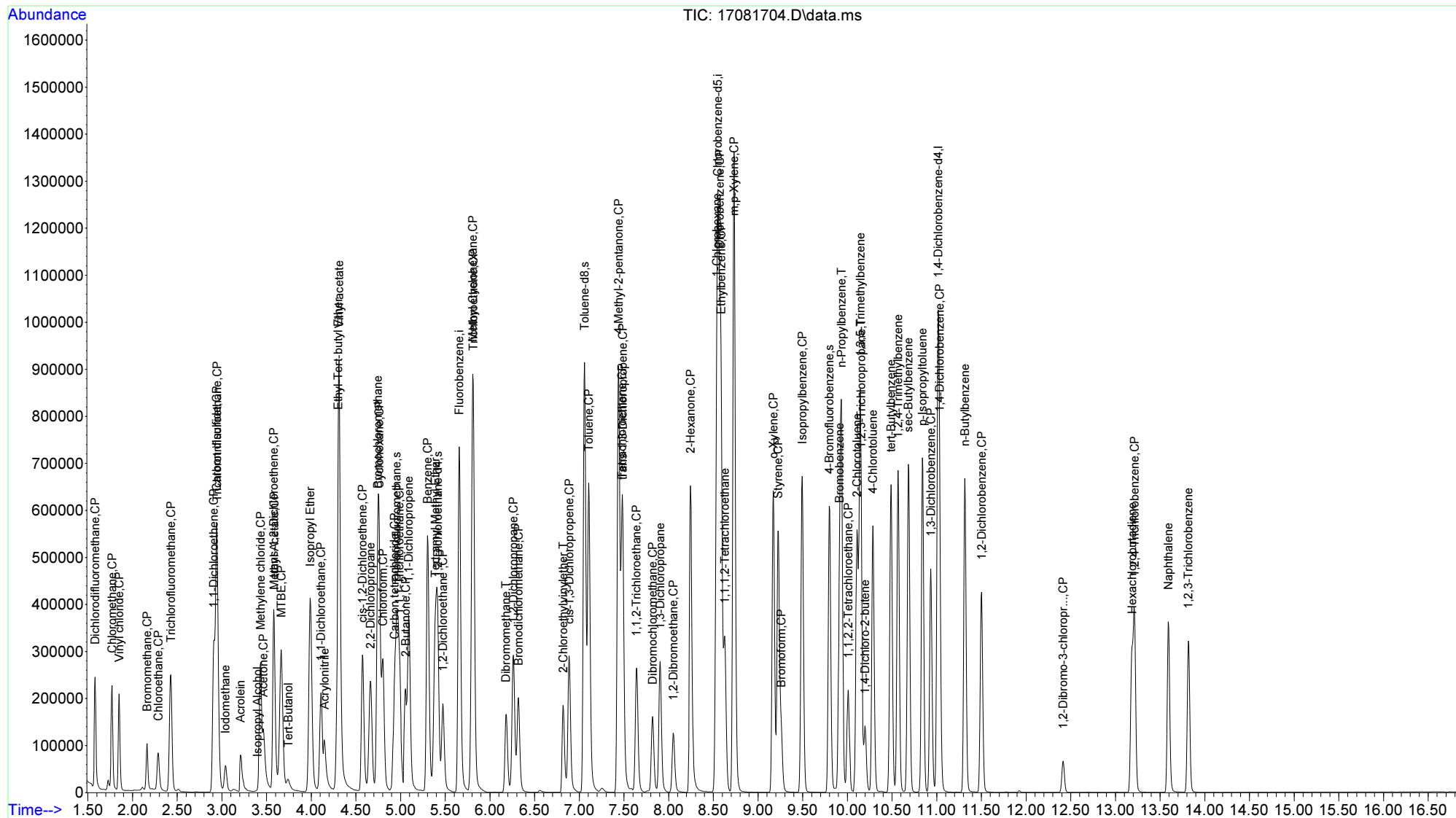
Quant Time: Aug 18 13:40:14 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.487	75	144997	17.931	ug/L	98
47) 1,1,2-Trichloroethane	7.638	97	103221	18.603	ug/L	99
48) Toluene	7.105	92	327222	18.400	ug/L	98
50) 4-Methyl-2-pentanone	7.439	43	759364	97.487	ug/L	98
52) 2-Hexanone	8.245	43	534740	97.517	ug/L	99
53) Dibromochloromethane	7.821	129	105996	18.116	ug/L	99
54) 1,3-Dichloropropane	7.905	76	185108	18.350	ug/L	100
55) Tetrachloroethene	7.476	164	117044	18.026	ug/L	99
56) 1,2-Dibromoethane	8.051	107	109040	18.443	ug/L	100
57) Chlorobenzene	8.569	112	337129	18.261	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.627	131	103745	18.068	ug/L	97
59) Ethylbenzene	8.585	106	188552	18.170	ug/L	96
60) Bromoform	9.260	173	67080	17.765	ug/L	98
61) Styrene	9.223	104	332252	18.436	ug/L	99
62) 1-Chlorohexane	8.538	55	147832	17.671	ug/L	93
63) m,p-Xylene	8.731	106	461042	36.843	ug/L	99
64) o-Xylene	9.171	106	216284	18.141	ug/L	100
65) Isopropylbenzene	9.495	105	555327	18.256	ug/L	100
67) Bromobenzene	9.913	156	136703	18.314	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.008	83	130529	18.209	ug/L	100
69) 1,2,3-Trichloropropane	10.154	110	40479	18.499	ug/L	99
71) 1,4-Dichloro-2-butene	10.196	53	39015	17.882	ug/L	89
72) n-Propylbenzene	9.934	91	682897	18.421	ug/L	98
73) 2-Chlorotoluene	10.107	91	423493	18.226	ug/L	98
74) 1,3,5-Trimethylbenzene	10.143	105	455770	18.463	ug/L	98
75) 4-Chlorotoluene	10.285	91	391123	18.175	ug/L	100
76) tert-Butylbenzene	10.489	119	403136	18.286	ug/L	98
77) 1,2,4-Trimethylbenzene	10.567	105	460723	18.577	ug/L	98
78) sec-Butylbenzene	10.682	105	606433	18.422	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	244975	17.934	ug/L	99
80) p-Isopropyltoluene	10.839	119	499863	18.520	ug/L	100
81) 1,4-Dichlorobenzene	11.033	146	252815	17.978	ug/L	98
82) 1,2-Dichlorobenzene	11.503	146	224472	18.202	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	19889	17.524	ug/L	100
84) n-Butylbenzene	11.315	91	450487	18.418	ug/L	100
85) 1,2,4-Trichlorobenzene	13.214	180	151087	18.404	ug/L	100
86) Hexachlorobutadiene	13.187	225	76709	17.435	ug/L	99
87) Naphthalene	13.590	128	359081	18.162	ug/L	100
88) 1,2,3-Trichlorobenzene	13.815	180	133091	18.384	ug/L	98

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081704.D
 Acq On : 17 Aug 2017 12:24 pm
 Operator :
 Sample : CAL4 18.6 ppb
 Misc : CAL
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 18 13:40:14 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081705.D
 Acq On : 17 Aug 2017 12:47 pm
 Operator :
 Sample : CAL5 27.8 ppb
 Misc : CAL
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 18 13:40:18 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	744812	200.00	ug/L	98
49) Chlorobenzene-d5	8.548	117	528835	200.00	ug/L	99
66) 1,4-Dichlorobenzene-d4	11.012	152	252728	200.00	ug/L	95
System Monitoring Compounds						
30) Dibromofluoromethane	4.960	113	183890	199.62	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.81%	
32) 1,2-Dichloroethane-d4	5.415	65	228402	197.18	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.59%	
51) Toluene-d8	7.058	98	705968	200.69	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.35%	
70) 4-Bromofluorobenzene	9.798	95	251523	200.91	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.46%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	259028	27.377	ug/L	99
3) Chloromethane	1.770	50	273465	27.607	ug/L	100
4) Vinyl chloride	1.848	62	243485	28.038	ug/L	99
5) Bromomethane	2.162	94	79838	27.232	ug/L	95
6) Chloroethane	2.288	64	103899	27.958	ug/L	99
7) Trichlorofluoromethane	2.429	101	327514	28.142	ug/L	99
8) Trichlorotrifluoroethane	2.947	101	214408	28.422	ug/L	# 97
9) Acrolein	3.208	56	113804	89.902	ug/L	99
10) Isopropyl Alcohol	3.396	45	8269	104.098	ug/L	# 100
11) Acetone	3.464	43	254264	139.260	ug/L	99
12) Iodomethane	3.041	142	139014	26.807	ug/L	100
13) 1,1-Dichloroethene	2.910	96	178558	28.040	ug/L	99
14) Carbon disulfide	2.941	76	604446	28.096	ug/L	99
15) Methylene chloride	3.433	84	186106	27.833	ug/L	99
16) Methyl Acetate	3.579	43	155215	27.852	ug/L	99
17) trans-1,2-Dichloroethene	3.579	96	190271	27.650	ug/L	99
18) Acrylonitrile	4.144	53	148384	54.046	ug/L	99
19) MTBE	3.663	73	514124	27.613	ug/L	99
20) Tert-Butanol	3.736	59	47325	138.810	ug/L	# 100
21) Isopropyl Ether	3.987	45	700874	28.197	ug/L	99
22) 1,1-Dichloroethane	4.108	63	349617	27.806	ug/L	99
23) Vinyl acetate	4.312	43	1433196	91.458	ug/L	100
24) Ethyl-Tert-butyl Ether	4.301	59	583494	27.970	ug/L	100
25) cis-1,2-Dichloroethene	4.573	96	208633	27.670	ug/L	99
26) 2,2-Dichloropropane	4.667	77	249487	26.974	ug/L	100
27) Bromochloromethane	4.746	128	90231	28.180	ug/L	96
28) Cyclohexane	4.756	84	337408	27.773	ug/L	99
29) Chloroform	4.803	83	348902	27.691	ug/L	96
31) 1,1-Dichloropropene	5.091	75	284405	28.037	ug/L	99
33) 1,1,1-Trichloroethane	4.986	97	300138	28.128	ug/L	99
34) 1,2-Dichloroethane	5.473	62	247263	27.419	ug/L	99
35) Benzene	5.300	78	794474	27.754	ug/L	100
36) 2-Butanone	5.049	43	484243	143.579	ug/L	100
37) Carbon tetrachloride	4.934	117	239202	26.000	ug/L	99
38) Tert-amyl Methyl Ether	5.389	73	482616	27.843	ug/L	99
39) Trichloroethene	5.813	130	215917	28.328	ug/L	97
40) Methyl Cyclohexane	5.808	55	348609	27.947	ug/L	100
41) Dibromomethane	6.179	93	111602	27.651	ug/L	98
42) Bromodichloromethane	6.320	83	232839	28.180	ug/L	99
43) 1,2-Dichloropropane	6.263	63	201792	28.197	ug/L	100
44) 2-Chloroethylvinylether	6.817	63	140999	27.729	ug/L	98
45) cis-1,3-Dichloropropene	6.885	75	287955	28.154	ug/L	99

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081705.D
 Acq On : 17 Aug 2017 12:47 pm
 Operator :
 Sample : CAL5 27.8 ppb
 Misc : CAL
 ALS Vial : 5 Sample Multiplier: 1

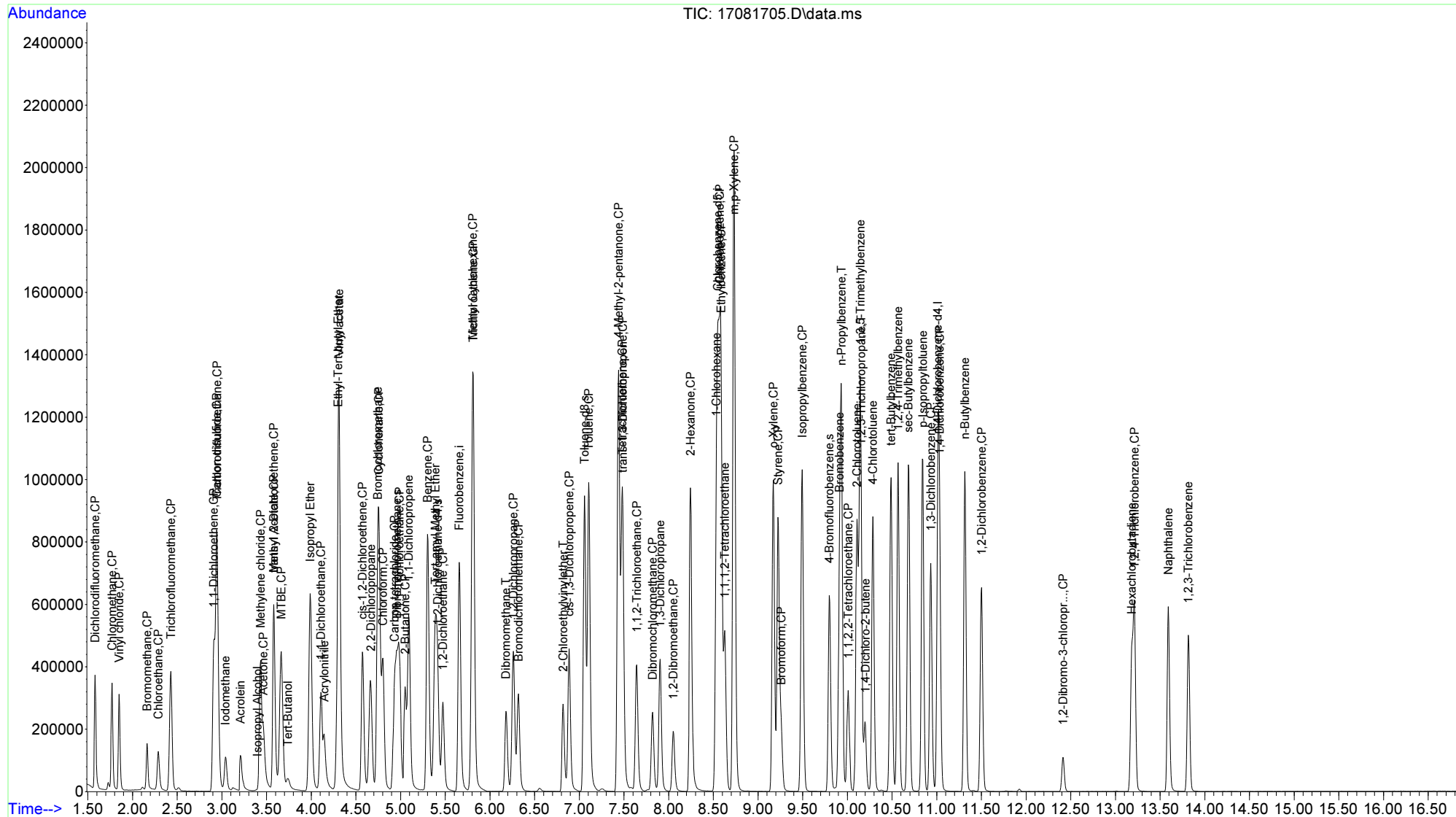
Quant Time: Aug 18 13:40:18 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	226671	27.872	ug/L	99
47) 1,1,2-Trichloroethane	7.643	97	156371	28.022	ug/L	99
48) Toluene	7.105	92	498547	27.874	ug/L	99
50) 4-Methyl-2-pentanone	7.439	43	1125406	144.049	ug/L	99
52) 2-Hexanone	8.245	43	790095	143.654	ug/L	99
53) Dibromochloromethane	7.821	129	165460	27.882	ug/L	100
54) 1,3-Dichloropropane	7.905	76	280869	27.760	ug/L	99
55) Tetrachloroethene	7.481	164	181577	27.881	ug/L	99
56) 1,2-Dibromoethane	8.051	107	165778	27.956	ug/L	99
57) Chlorobenzene	8.569	112	512515	27.678	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.627	131	162247	27.936	ug/L	98
59) Ethylbenzene	8.585	106	291020	27.961	ug/L	98
60) Bromoform	9.259	173	106466	27.635	ug/L	96
61) Styrene	9.223	104	514581	28.468	ug/L	99
62) 1-Chlorohexane	8.532	55	225039	26.819	ug/L	96
63) m,p-Xylene	8.731	106	702477	55.969	ug/L	98
64) o-Xylene	9.171	106	336804	28.165	ug/L	97
65) Isopropylbenzene	9.495	105	855636	28.044	ug/L	100
67) Bromobenzene	9.913	156	207542	27.614	ug/L	98
68) 1,1,2,2-Tetrachloroethane	10.007	83	195357	27.065	ug/L	98
69) 1,2,3-Trichloropropane	10.154	110	61050	27.708	ug/L	97
71) 1,4-Dichloro-2-butene	10.201	53	60874	27.710	ug/L	89
72) n-Propylbenzene	9.934	91	1047065	28.051	ug/L	97
73) 2-Chlorotoluene	10.107	91	647721	27.685	ug/L	100
74) 1,3,5-Trimethylbenzene	10.143	105	700262	28.172	ug/L	100
75) 4-Chlorotoluene	10.285	91	601002	27.736	ug/L	99
76) tert-Butylbenzene	10.489	119	619024	27.887	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	702303	28.123	ug/L	98
78) sec-Butylbenzene	10.682	105	926138	27.941	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	375104	27.271	ug/L	99
80) p-Isopropyltoluene	10.844	119	763682	28.100	ug/L	99
81) 1,4-Dichlorobenzene	11.033	146	380156	26.848	ug/L	98
82) 1,2-Dichlorobenzene	11.503	146	341919	27.535	ug/L	98
83) 1,2-Dibromo-3-chloropr...	12.413	75	32680	28.077	ug/L	99
84) n-Butylbenzene	11.315	91	689411	27.993	ug/L	99
85) 1,2,4-Trichlorobenzene	13.214	180	230200	27.848	ug/L	99
86) Hexachlorobutadiene	13.182	225	117516	26.527	ug/L	98
87) Naphthalene	13.590	128	567547	28.510	ug/L	100
88) 1,2,3-Trichlorobenzene	13.815	180	202168	27.735	ug/L	98

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081705.D
 Acq On : 17 Aug 2017 12:47 pm
 Operator :
 Sample : CAL5 27.8 ppb
 Misc : CAL
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 18 13:40:18 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081706.D
 Acq On : 17 Aug 2017 1:11 pm
 Operator :
 Sample : CAL6 46.4 ppb
 Misc : CAL
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 18 13:40:22 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	753410	200.00	ug/L	99
49) Chlorobenzene-d5	8.548	117	539247	200.00	ug/L	101
66) 1,4-Dichlorobenzene-d4	11.012	152	261527	200.00	ug/L	99
System Monitoring Compounds						
30) Dibromofluoromethane	4.960	113	186259	199.89	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.94%	
32) 1,2-Dichloroethane-d4	5.410	65	230573	196.78	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.39%	
51) Toluene-d8	7.057	98	707889	197.35	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.67%	
70) 4-Bromofluorobenzene	9.798	95	257228	198.55	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.28%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	423648	44.265	ug/L	99
3) Chloromethane	1.770	50	456110	45.520	ug/L	98
4) Vinyl chloride	1.848	62	392969	44.735	ug/L	100
5) Bromomethane	2.162	94	120036	40.476	ug/L	100
6) Chloroethane	2.288	64	159356	42.391	ug/L	99
7) Trichlorofluoromethane	2.429	101	533667	45.333	ug/L	99
8) Trichlorotrifluoroethane	2.946	101	351217	46.026	ug/L	99
9) Acrolein	3.208	56	151250	116.766	ug/L	98
10) Isopropyl Alcohol	3.381	45	13533	152.745	ug/L	# 100
11) Acetone	3.459	43	440971	238.781	ug/L	99
12) Iodomethane	3.041	142	260110	44.784	ug/L	99
13) 1,1-Dichloroethene	2.910	96	294952	45.790	ug/L	99
14) Carbon disulfide	2.941	76	980697	45.065	ug/L	99
15) Methylene chloride	3.433	84	310228	46.200	ug/L	98
16) Methyl Acetate	3.579	43	269960	47.890	ug/L	98
17) trans-1,2-Dichloroethene	3.579	96	318298	45.726	ug/L	99
18) Acrylonitrile	4.144	53	257276	91.424	ug/L	98
19) MTBE	3.663	73	876482	46.537	ug/L	99
20) Tert-Butanol	3.736	59	95198	265.378	ug/L	# 100
21) Isopropyl Ether	3.987	45	1170912	46.570	ug/L	99
22) 1,1-Dichloroethane	4.108	63	581396	45.712	ug/L	100
23) Vinyl acetate	4.312	43	1801988	113.584	ug/L	100
24) Ethyl-Tert-butyl Ether	4.301	59	977463	46.321	ug/L	100
25) cis-1,2-Dichloroethene	4.573	96	346137	45.382	ug/L	99
26) 2,2-Dichloropropane	4.662	77	422681	45.177	ug/L	100
27) Bromochloromethane	4.746	128	144558	44.631	ug/L	96
28) Cyclohexane	4.761	84	550660	44.809	ug/L	98
29) Chloroform	4.803	83	583199	45.757	ug/L	99
31) 1,1-Dichloropropene	5.091	75	473433	46.140	ug/L	99
33) 1,1,1-Trichloroethane	4.986	97	507500	47.019	ug/L	100
34) 1,2-Dichloroethane	5.473	62	409976	44.943	ug/L	99
35) Benzene	5.300	78	1325829	45.787	ug/L	100
36) 2-Butanone	5.049	43	851836	249.688	ug/L	99
37) Carbon tetrachloride	4.934	117	414572	44.176	ug/L	99
38) Tert-amyl Methyl Ether	5.389	73	817717	46.637	ug/L	99
39) Trichloroethene	5.813	130	353900	45.901	ug/L	99
40) Methyl Cyclohexane	5.807	55	570874	45.242	ug/L	99
41) Dibromomethane	6.179	93	184614	45.219	ug/L	99
42) Bromodichloromethane	6.320	83	393490	47.079	ug/L	100
43) 1,2-Dichloropropane	6.262	63	336311	46.458	ug/L	100
44) 2-Chloroethylvinylether	6.817	63	241109	46.876	ug/L	100
45) cis-1,3-Dichloropropene	6.885	75	488887	47.254	ug/L	99

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081706.D
 Acq On : 17 Aug 2017 1:11 pm
 Operator :
 Sample : CAL6 46.4 ppb
 Misc : CAL
 ALS Vial : 6 Sample Multiplier: 1

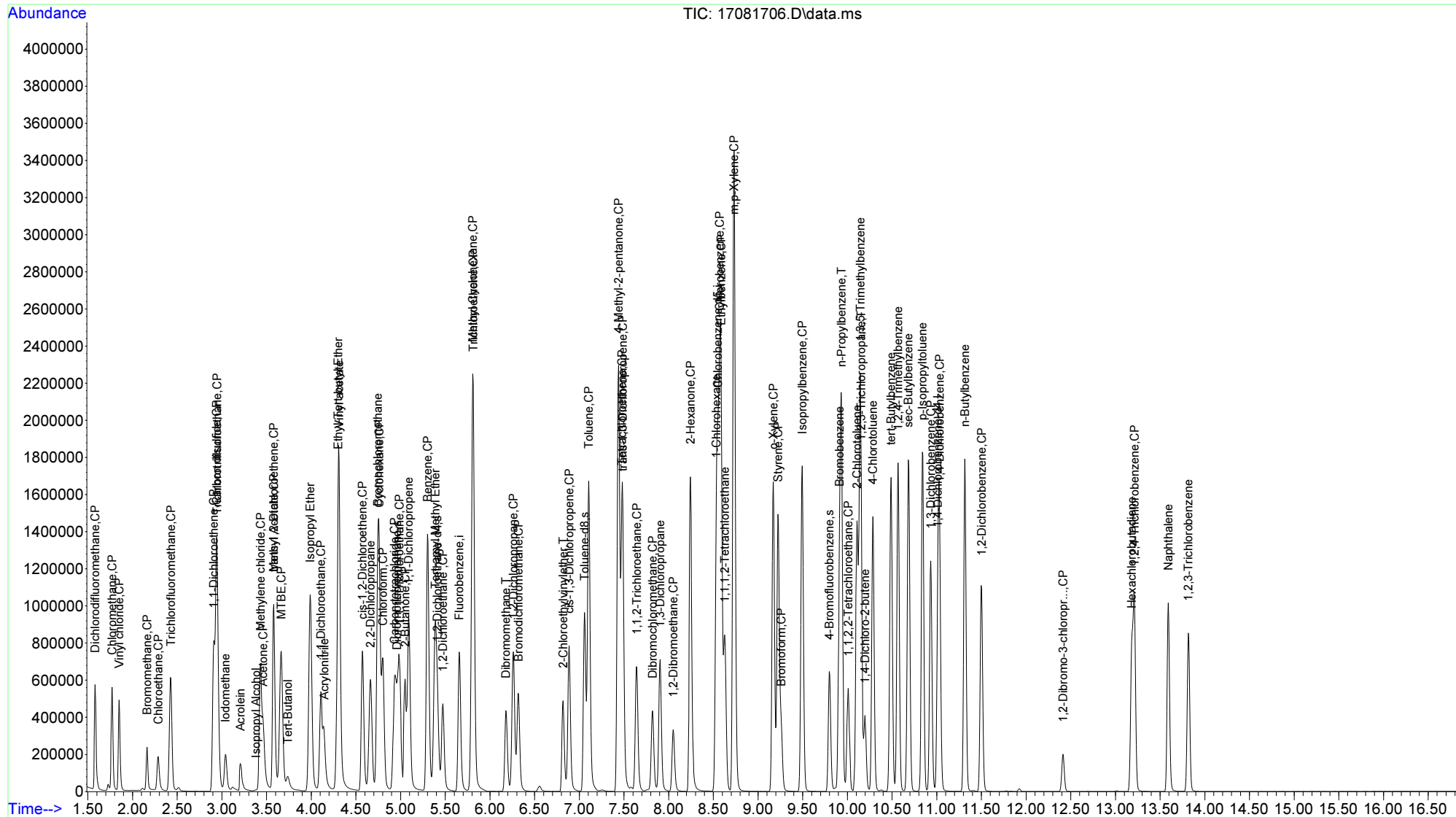
Quant Time: Aug 18 13:40:22 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	394061	47.901	ug/L	98
47) 1,1,2-Trichloroethane	7.643	97	261108	46.257	ug/L	99
48) Toluene	7.105	92	829517	45.850	ug/L	99
50) 4-Methyl-2-pentanone	7.439	43	1892629	237.574	ug/L	99
52) 2-Hexanone	8.245	43	1360423	242.575	ug/L	98
53) Dibromochloromethane	7.821	129	282780	45.941	ug/L	100
54) 1,3-Dichloropropane	7.905	76	470198	45.575	ug/L	100
55) Tetrachloroethene	7.476	164	300806	45.297	ug/L	99
56) 1,2-Dibromoethane	8.051	107	280384	46.370	ug/L	98
57) Chlorobenzene	8.569	112	854520	45.257	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.627	131	275465	45.902	ug/L	99
59) Ethylbenzene	8.585	106	482533	45.466	ug/L	98
60) Bromoform	9.259	173	186787	46.341	ug/L	98
61) Styrene	9.223	104	872020	47.311	ug/L	100
62) 1-Chlorohexane	8.532	55	376210	43.970	ug/L	97
63) m,p-Xylene	8.731	106	1176970	91.962	ug/L	100
64) o-Xylene	9.171	106	564496	46.294	ug/L	99
65) Isopropylbenzene	9.495	105	1441759	46.342	ug/L	99
67) Bromobenzene	9.913	156	350182	45.025	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.007	83	337075	45.128	ug/L	98
69) 1,2,3-Trichloropropane	10.154	110	104797	45.963	ug/L	99
71) 1,4-Dichloro-2-butene	10.196	53	106740	46.953	ug/L	91
72) n-Propylbenzene	9.934	91	1770745	45.843	ug/L	99
73) 2-Chlorotoluene	10.107	91	1102158	45.524	ug/L	99
74) 1,3,5-Trimethylbenzene	10.143	105	1191749	46.333	ug/L	99
75) 4-Chlorotoluene	10.285	91	1018981	45.443	ug/L	100
76) tert-Butylbenzene	10.489	119	1040153	45.282	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	1193311	46.177	ug/L	98
78) sec-Butylbenzene	10.682	105	1568699	45.734	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	640284	44.985	ug/L	100
80) p-Isopropyltoluene	10.839	119	1305609	46.424	ug/L	100
81) 1,4-Dichlorobenzene	11.032	146	647255	44.173	ug/L	99
82) 1,2-Dichlorobenzene	11.503	146	580997	45.213	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	59112	47.805	ug/L	97
84) n-Butylbenzene	11.315	91	1178055	46.225	ug/L	99
85) 1,2,4-Trichlorobenzene	13.213	180	396454	46.346	ug/L	99
86) Hexachlorobutadiene	13.182	225	203759	44.447	ug/L	99
87) Naphthalene	13.590	128	974540	47.307	ug/L	100
88) 1,2,3-Trichlorobenzene	13.815	180	349418	46.323	ug/L	99

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081706.D
 Acq On : 17 Aug 2017 1:11 pm
 Operator :
 Sample : CAL6 46.4 ppb
 Misc : CAL
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 18 13:40:22 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081707.D
 Acq On : 17 Aug 2017 1:37 pm
 Operator :
 Sample : CAL7 92.8 ppb
 Misc : CAL
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 18 13:40:26 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	759768	200.00	ug/L	100
49) Chlorobenzene-d5	8.548	117	532717	200.00	ug/L	100
66) 1,4-Dichlorobenzene-d4	11.012	152	265339	200.00	ug/L	100
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	188148	200.22	ug/L	0.00
Spiked Amount	200.000		Recovery	=	100.11%	
32) 1,2-Dichloroethane-d4	5.415	65	232738	196.97	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.48%	
51) Toluene-d8	7.058	98	717692	202.53	ug/L	0.00
Spiked Amount	200.000		Recovery	=	101.27%	
70) 4-Bromofluorobenzene	9.798	95	260207	197.97	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.98%	
Target Compounds						
2) Dichlorodifluoromethane	1.582	85	951918	98.630	ug/L	100
3) Chloromethane	1.770	50	946446	93.664	ug/L	100
4) Vinyl chloride	1.848	62	845274	95.419	ug/L	100
5) Bromomethane	2.162	94	294949	98.623	ug/L	100
6) Chloroethane	2.288	64	351446	92.708	ug/L	100
7) Trichlorofluoromethane	2.429	101	1126162	94.862	ug/L	100
8) Trichlorotrifluoroethane	2.947	101	700811	91.071	ug/L	100
9) Acrolein	3.203	56	315041	235.406	ug/L	100
10) Isopropyl Alcohol	3.370	45	21854	211.533	ug/L	# 100
11) Acetone	3.459	43	852203	453.967	ug/L	100
12) Iodomethane	3.041	142	666397	99.702	ug/L	100
13) 1,1-Dichloroethene	2.910	96	602081	92.689	ug/L	100
14) Carbon disulfide	2.941	76	2066266	94.155	ug/L	100
15) Methylene chloride	3.428	84	625951	93.521	ug/L	100
16) Methyl Acetate	3.574	43	582476	102.464	ug/L	100
17) trans-1,2-Dichloroethene	3.574	96	646683	92.124	ug/L	100
18) Acrylonitrile	4.139	53	547259	190.236	ug/L	100
19) MTBE	3.658	73	1883836	99.186	ug/L	100
20) Tert-Butanol	3.731	59	173628	443.926	ug/L	# 100
21) Isopropyl Ether	3.987	45	2468227	97.346	ug/L	100
22) 1,1-Dichloroethane	4.108	63	1186878	92.536	ug/L	100
23) Vinyl acetate	4.306	43	3792617	240.520	ug/L	100
24) Ethyl-Tert-butyl Ether	4.296	59	2067272	97.146	ug/L	100
25) cis-1,2-Dichloroethene	4.573	96	696386	90.539	ug/L	100
26) 2,2-Dichloropropane	4.662	77	938226	99.441	ug/L	100
27) Bromochloromethane	4.741	128	287888	88.139	ug/L	100
28) Cyclohexane	4.756	84	1181717	95.355	ug/L	100
29) Chloroform	4.798	83	1187391	92.382	ug/L	100
31) 1,1-Dichloropropene	5.091	75	965926	93.349	ug/L	100
33) 1,1,1-Trichloroethane	4.986	97	1037422	95.311	ug/L	100
34) 1,2-Dichloroethane	5.468	62	838695	91.171	ug/L	100
35) Benzene	5.300	78	2657373	91.003	ug/L	100
36) 2-Butanone	5.044	43	1645024	478.150	ug/L	100
37) Carbon tetrachloride	4.934	117	986412	102.311	ug/L	100
38) Tert-amyl Methyl Ether	5.384	73	1784485	100.923	ug/L	100
39) Trichloroethene	5.808	130	711332	91.488	ug/L	100
40) Methyl Cyclohexane	5.808	55	1247172	98.013	ug/L	100
41) Dibromomethane	6.179	93	379784	92.245	ug/L	100
42) Bromodichloromethane	6.315	83	824959	97.877	ug/L	100
43) 1,2-Dichloropropane	6.257	63	683770	93.665	ug/L	100
44) 2-Chloroethylvinylether	6.812	63	497602	95.933	ug/L	100
45) cis-1,3-Dichloropropene	6.880	75	1025671	98.307	ug/L	100

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081707.D
 Acq On : 17 Aug 2017 1:37 pm
 Operator :
 Sample : CAL7 92.8 ppb
 Misc : CAL
 ALS Vial : 7 Sample Multiplier: 1

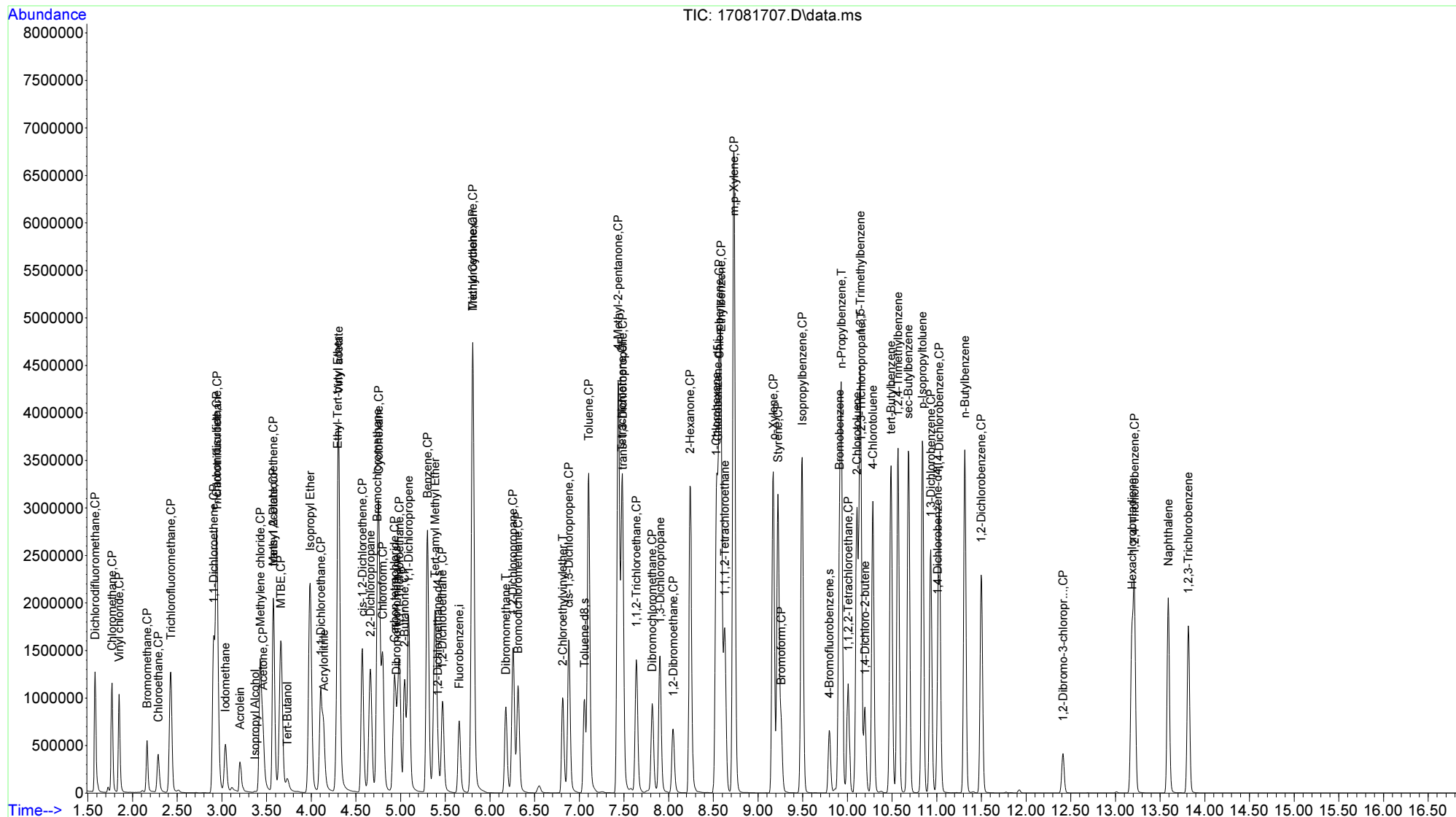
Quant Time: Aug 18 13:40:26 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	830235	100.077	ug/L	100
47) 1,1,2-Trichloroethane	7.638	97	535444	94.063	ug/L	100
48) Toluene	7.105	92	1668270	91.439	ug/L	100
50) 4-Methyl-2-pentanone	7.434	43	3636281	462.043	ug/L	100
52) 2-Hexanone	8.240	43	2616395	472.244	ug/L	100
53) Dibromochloromethane	7.816	129	601141	94.886	ug/L	100
54) 1,3-Dichloropropane	7.905	76	958666	94.060	ug/L	100
55) Tetrachloroethene	7.476	164	600083	91.471	ug/L	100
56) 1,2-Dibromoethane	8.051	107	574809	96.227	ug/L	100
57) Chlorobenzene	8.564	112	1712704	91.820	ug/L	100
58) 1,1,1,2-Tetrachloroethane	8.627	131	581777	94.946	ug/L	100
59) Ethylbenzene	8.585	106	979372	93.412	ug/L	100
60) Bromoform	9.260	173	403180	95.534	ug/L	100
61) Styrene	9.223	104	1774751	97.468	ug/L	100
62) 1-Chlorohexane	8.533	55	791834	93.680	ug/L	100
63) m,p-Xylene	8.731	106	2337475	184.877	ug/L	100
64) o-Xylene	9.171	106	1142720	94.863	ug/L	100
65) Isopropylbenzene	9.495	105	2902224	94.429	ug/L	100
67) Bromobenzene	9.913	156	713364	90.404	ug/L	100
68) 1,1,2,2-Tetrachloroethane	10.007	83	687718	90.749	ug/L	100
69) 1,2,3-Trichloropropane	10.154	110	208028	89.928	ug/L	100
71) 1,4-Dichloro-2-butene	10.196	53	230180	99.798	ug/L	100
72) n-Propylbenzene	9.934	91	3538123	90.283	ug/L	100
73) 2-Chlorotoluene	10.107	91	2246132	91.443	ug/L	100
74) 1,3,5-Trimethylbenzene	10.143	105	2380538	91.220	ug/L	100
75) 4-Chlorotoluene	10.285	91	2093978	92.043	ug/L	100
76) tert-Butylbenzene	10.489	119	2132133	91.487	ug/L	100
77) 1,2,4-Trimethylbenzene	10.567	105	2411073	91.960	ug/L	100
78) sec-Butylbenzene	10.682	105	3161843	90.856	ug/L	100
79) 1,3-Dichlorobenzene	10.933	146	1310068	90.720	ug/L	100
80) p-Isopropyltoluene	10.839	119	2636800	92.411	ug/L	100
81) 1,4-Dichlorobenzene	11.027	146	1329243	89.414	ug/L	100
82) 1,2-Dichlorobenzene	11.498	146	1187307	91.069	ug/L	100
83) 1,2-Dibromo-3-chloropr...	12.413	75	120578	91.440	ug/L	100
84) n-Butylbenzene	11.315	91	2420223	93.602	ug/L	100
85) 1,2,4-Trichlorobenzene	13.214	180	815116	93.920	ug/L	100
86) Hexachlorobutadiene	13.187	225	418098	89.891	ug/L	100
87) Naphthalene	13.590	128	1941076	92.872	ug/L	100
88) 1,2,3-Trichlorobenzene	13.815	180	706812	92.357	ug/L	100

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081707.D
 Acq On : 17 Aug 2017 1:37 pm
 Operator :
 Sample : CAL7 92.8 ppb
 Misc : CAL
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 18 13:40:26 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081708.D
 Acq On : 17 Aug 2017 2:00 pm
 Operator :
 Sample : CAL8 186 ppb
 Misc : CAL
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 18 13:40:30 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	773632	200.00	ug/L	102
49) Chlorobenzene-d5	8.548	117	520945	200.00	ug/L	98
66) 1,4-Dichlorobenzene-d4	11.012	152	261033	200.00	ug/L	98
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	189494	198.04	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.02%	
32) 1,2-Dichloroethane-d4	5.415	65	237799	197.64	ug/L	0.00
Spiked Amount	200.000		Recovery	=	98.82%	
51) Toluene-d8	7.058	98	730575	210.83	ug/L	0.00
Spiked Amount	200.000		Recovery	=	105.42%	
70) 4-Bromofluorobenzene	9.798	95	264644	204.66	ug/L	0.00
Spiked Amount	200.000		Recovery	=	102.33%	
Target Compounds						
2) Dichlorodifluoromethane	1.582	85	1810824	184.261	ug/L	99
3) Chloromethane	1.770	50	1725015	167.655	ug/L	100
4) Vinyl chloride	1.848	62	1598392	177.202	ug/L	100
5) Bromomethane	2.162	94	614576	201.816	ug/L	99
6) Chloroethane	2.282	64	653447	169.284	ug/L	99
7) Trichlorofluoromethane	2.429	101	2120718	175.437	ug/L	100
8) Trichlorotrifluoroethane	2.942	101	1345802	171.753	ug/L	# 99
9) Acrolein	3.203	56	645524	462.910	ug/L	99
10) Isopropyl Alcohol	3.360	45	82861	465.737	ug/L	# 100
11) Acetone	3.459	43	1821815	931.211	ug/L	99
12) Iodomethane	3.041	142	1414830	183.721	ug/L	98
13) 1,1-Dichloroethene	2.905	96	1215997	183.845	ug/L	98
14) Carbon disulfide	2.942	76	4034542	180.551	ug/L	99
15) Methylene chloride	3.428	84	1242480	185.706	ug/L	99
16) Methyl Acetate	3.569	43	1191754	205.886	ug/L	99
17) trans-1,2-Dichloroethene	3.574	96	1296330	181.361	ug/L	99
18) Acrylonitrile	4.139	53	1099911	370.534	ug/L	100
19) MTBE	3.658	73	3636613	188.041	ug/L	99
20) Tert-Butanol	3.731	59	454427	930.381	ug/L	# 100
21) Isopropyl Ether	3.988	45	4639481	179.701	ug/L	100
22) 1,1-Dichloroethane	4.108	63	2392287	183.174	ug/L	100
23) Vinyl acetate	4.307	43	7093682	460.653	ug/L	99
24) Ethyl-Tert-butyl Ether	4.296	59	3873901	178.782	ug/L	99
25) cis-1,2-Dichloroethene	4.573	96	1406603	179.599	ug/L	99
26) 2,2-Dichloropropane	4.662	77	1964336	204.466	ug/L	100
27) Bromochloromethane	4.741	128	551616	165.855	ug/L	96
28) Cyclohexane	4.756	84	2278558	180.566	ug/L	99
29) Chloroform	4.803	83	2360072	180.329	ug/L	99
31) 1,1-Dichloropropene	5.091	75	1944126	184.517	ug/L	100
33) 1,1,1-Trichloroethane	4.987	97	2121793	191.442	ug/L	99
34) 1,2-Dichloroethane	5.473	62	1676279	178.956	ug/L	99
35) Benzene	5.300	78	5277655	177.497	ug/L	99
36) 2-Butanone	5.044	43	3483980	994.521	ug/L	98
37) Carbon tetrachloride	4.934	117	1830892	182.379	ug/L	100
38) Tert-amyl Methyl Ether	5.384	73	3435989	190.842	ug/L	99
39) Trichloroethene	5.808	130	1398701	176.671	ug/L	100
40) Methyl Cyclohexane	5.808	55	2254298	173.986	ug/L	99
41) Dibromomethane	6.179	93	769728	183.607	ug/L	98
42) Bromodichloromethane	6.315	83	1672726	194.903	ug/L	99
43) 1,2-Dichloropropane	6.263	63	1366733	183.865	ug/L	99
44) 2-Chloroethylvinylether	6.812	63	979184	185.394	ug/L	99
45) cis-1,3-Dichloropropene	6.885	75	2078657	195.663	ug/L	99

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081708.D
 Acq On : 17 Aug 2017 2:00 pm
 Operator :
 Sample : CAL8 186 ppb
 Misc : CAL
 ALS Vial : 8 Sample Multiplier: 1

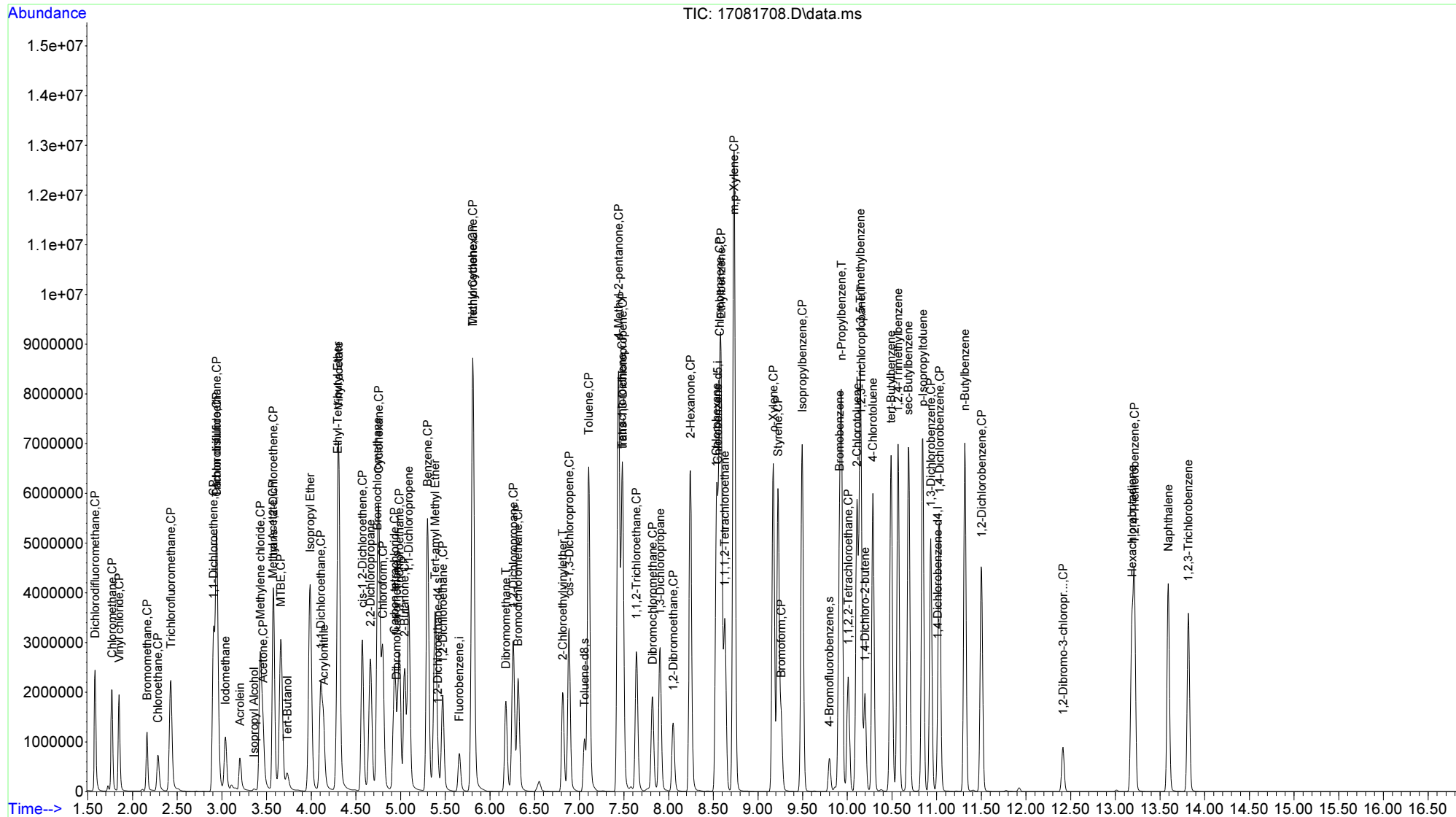
Quant Time: Aug 18 13:40:30 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.487	75	1685751	199.560	ug/L	100
47) 1,1,2-Trichloroethane	7.638	97	1071889	184.927	ug/L	100
48) Toluene	7.105	92	3291153	177.157	ug/L	100
50) 4-Methyl-2-pentanone	7.440	43	6976778	906.535	ug/L	98
52) 2-Hexanone	8.245	43	5216415	962.808	ug/L	98
53) Dibromochloromethane	7.821	129	1230157	185.224	ug/L	99
54) 1,3-Dichloropropane	7.905	76	1911657	191.802	ug/L	100
55) Tetrachloroethene	7.476	164	1160493	180.892	ug/L	96
56) 1,2-Dibromoethane	8.051	107	1162216	198.960	ug/L	100
57) Chlorobenzene	8.569	112	3294026	180.588	ug/L	98
58) 1,1,1,2-Tetrachloroethane	8.627	131	1174451	185.189	ug/L	98
59) Ethylbenzene	8.585	106	1882481	183.607	ug/L	100
60) Bromoform	9.260	173	838949	184.959	ug/L	99
61) Styrene	9.223	104	3475504	195.186	ug/L	99
62) 1-Chlorohexane	8.533	55	1571269	190.095	ug/L	95
63) m,p-Xylene	8.731	106	4400849	355.940	ug/L	99
64) o-Xylene	9.171	106	2237034	189.905	ug/L	98
65) Isopropylbenzene	9.495	105	5667995	188.586	ug/L	99
67) Bromobenzene	9.913	156	1384298	178.325	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.008	83	1403190	188.215	ug/L	99
69) 1,2,3-Trichloropropane	10.154	110	411579	180.855	ug/L	99
71) 1,4-Dichloro-2-butene	10.196	53	493010	217.278	ug/L	98
72) n-Propylbenzene	9.934	91	6799457	176.364	ug/L	100
73) 2-Chlorotoluene	10.107	91	4388213	181.597	ug/L	99
74) 1,3,5-Trimethylbenzene	10.144	105	4566396	177.867	ug/L	99
75) 4-Chlorotoluene	10.285	91	4079134	182.260	ug/L	99
76) tert-Butylbenzene	10.489	119	4145373	180.806	ug/L	98
77) 1,2,4-Trimethylbenzene	10.567	105	4658517	180.610	ug/L	100
78) sec-Butylbenzene	10.682	105	6079645	177.581	ug/L	99
79) 1,3-Dichlorobenzene	10.933	146	2555454	179.880	ug/L	99
80) p-Isopropyltoluene	10.844	119	5070304	180.629	ug/L	98
81) 1,4-Dichlorobenzene	11.033	146	2568578	175.630	ug/L	100
82) 1,2-Dichlorobenzene	11.503	146	2331100	181.751	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	266241	186.335	ug/L	99
84) n-Butylbenzene	11.315	91	4659494	183.179	ug/L	98
85) 1,2,4-Trichlorobenzene	13.214	180	1640805	192.176	ug/L	100
86) Hexachlorobutadiene	13.188	225	845463	184.774	ug/L	99
87) Naphthalene	13.590	128	3994475	194.270	ug/L	99
88) 1,2,3-Trichlorobenzene	13.815	180	1435454	190.660	ug/L	99

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081708.D
 Acq On : 17 Aug 2017 2:00 pm
 Operator :
 Sample : CAL8 186 ppb
 Misc : CAL
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 18 13:40:30 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\170817\
 Data File : 17081710.D
 Acq On : 17 Aug 2017 3:43 pm
 Operator :
 Sample : SSCV 46.4 ppb
 Misc : ICV
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 18 13:26:10 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	770028	200.00	ug/L	101
49) Chlorobenzene-d5	8.548	117	541896	200.00	ug/L	102
66) 1,4-Dichlorobenzene-d4	11.012	152	266556	200.00	ug/L	100
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	188767	198.21	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.11%	
32) 1,2-Dichloroethane-d4	5.415	65	234628	195.92	ug/L	0.00
Spiked Amount	200.000		Recovery	=	97.96%	
51) Toluene-d8	7.057	98	729146	202.28	ug/L	0.00
Spiked Amount	200.000		Recovery	=	101.14%	
70) 4-Bromofluorobenzene	9.798	95	263423	199.50	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.75%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	473529	48.410	ug/L	100
3) Chloromethane	1.770	50	477113	46.588	ug/L	99
4) Vinyl chloride	1.848	62	423351	47.153	ug/L	99
5) Bromomethane	2.162	94	144183	47.569	ug/L	99
6) Chloroethane	2.287	64	160350	41.735	ug/L	99
7) Trichlorofluoromethane	2.429	101	573627	47.676	ug/L	99
8) Trichlorotrifluoroethane	2.946	101	337643	43.292	ug/L #	99
9) Acrolein	3.208	56	163810	123.460	ug/L	99
10) Isopropyl Alcohol	3.381	45	20544	201.267	ug/L #	100
11) Acetone	3.464	43	162503	85.636	ug/L	98 73.82%
12) Iodomethane	3.041	142	333586	54.399	ug/L	99
13) 1,1-Dichloroethene	2.910	96	347275	52.750	ug/L	99
14) Carbon disulfide	2.941	76	2792802	125.566	ug/L	100
15) Methylene chloride	3.433	84	328252	47.854	ug/L	97
16) Methyl Acetate	3.574	43	308159	53.486	ug/L	100
17) trans-1,2-Dichloroethene	3.579	96	348764	49.022	ug/L	98
18) Acrylonitrile	4.139	53	265460	92.278	ug/L	99
19) MTBE	3.658	73	1001431	52.024	ug/L	99
20) Tert-Butanol	3.736	59	116575	311.793	ug/L #	100
21) Isopropyl Ether	3.987	45	1344043	52.302	ug/L	100
22) 1,1-Dichloroethane	4.108	63	657052	50.545	ug/L	99
23) Vinyl acetate	4.306	43	1998050	123.255	ug/L	100
24) Ethyl-Tert-butyl Ether	4.301	59	1140078	52.861	ug/L	100
25) cis-1,2-Dichloroethene	4.573	96	361772	46.408	ug/L	99
26) 2,2-Dichloropropane	4.662	77	496190	51.890	ug/L	98
27) Bromochloromethane	4.740	128	154820	46.768	ug/L	98
28) Cyclohexane	4.756	84	650820	51.816	ug/L	99
29) Chloroform	4.803	83	618744	47.499	ug/L	99
31) 1,1-Dichloropropene	5.091	75	503988	48.057	ug/L	99
33) 1,1,1-Trichloroethane	4.986	97	537427	48.717	ug/L	99
34) 1,2-Dichloroethane	5.467	62	430384	46.162	ug/L	99
35) Benzene	5.300	78	1410696	47.666	ug/L	99
36) 2-Butanone	5.049	43	372860	106.933	ug/L	98
37) Carbon tetrachloride	4.934	117	508402	52.837	ug/L	100
38) Tert-amyl Methyl Ether	5.389	73	972854	54.287	ug/L	100
39) Trichloroethene	5.807	130	380953	48.344	ug/L	97
40) Methyl Cyclohexane	5.807	55	485669	37.659	ug/L	98
41) Dibromomethane	6.179	93	198486	47.568	ug/L	98
42) Bromodichloromethane	6.315	83	421055	49.290	ug/L	100
43) 1,2-Dichloropropane	6.257	63	360327	48.701	ug/L	100
44) 2-Chloroethylvinylether	6.817	63	254150	48.345	ug/L	99
45) cis-1,3-Dichloropropene	6.885	75	503620	47.627	ug/L	99

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081710.D
 Acq On : 17 Aug 2017 3:43 pm
 Operator :
 Sample : SSCV 46.4 ppb
 Misc : ICV
 ALS Vial : 10 Sample Multiplier: 1

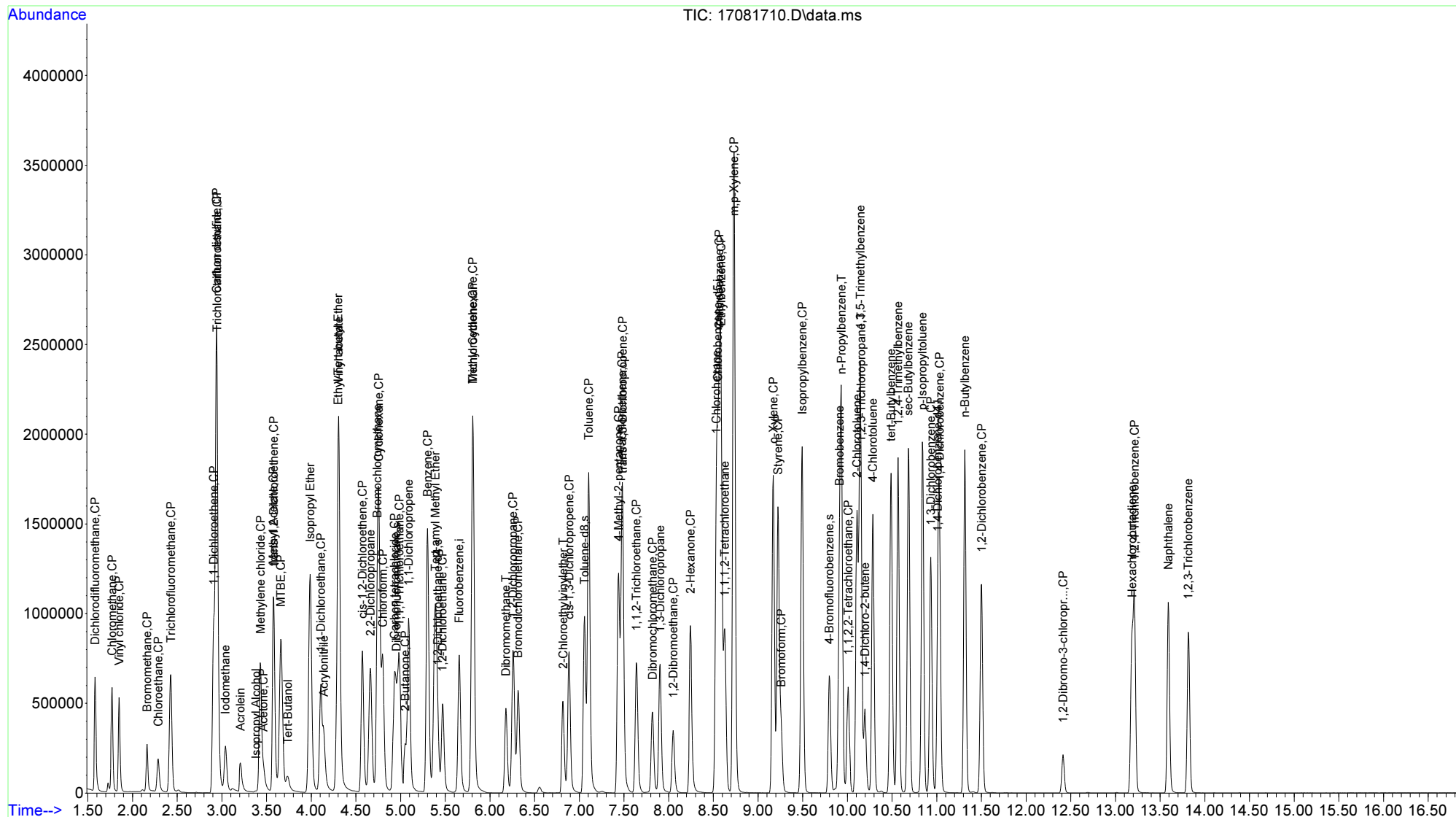
Quant Time: Aug 18 13:26:10 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	431671	51.341	ug/L	99
47) 1,1,2-Trichloroethane	7.638	97	280433	48.608	ug/L	100
48) Toluene	7.105	92	886165	47.924	ug/L	99
50) 4-Methyl-2-pentanone	7.439	43	1024479	127.970	ug/L	100
52) 2-Hexanone	8.245	43	755885	134.122	ug/L	98
53) Dibromochloromethane	7.821	129	296480	47.850	ug/L	99
54) 1,3-Dichloropropane	7.905	76	474975	45.813	ug/L	100
55) Tetrachloroethene	7.476	164	320415	48.014	ug/L	100
56) 1,2-Dibromoethane	8.051	107	294649	48.491	ug/L	99
57) Chlorobenzene	8.564	112	900595	47.464	ug/L	100
58) 1,1,1,2-Tetrachloroethane	8.627	131	301814	49.906	ug/L	99
59) Ethylbenzene	8.585	106	515006	48.289	ug/L	98
60) Bromoform	9.259	173	197297	48.571	ug/L	98
61) Styrene	9.223	104	929755	50.197	ug/L	99
62) 1-Chlorohexane	8.532	55	416929	48.491	ug/L	99
63) m,p-Xylene	8.731	106	1235934	96.097	ug/L	99
64) o-Xylene	9.170	106	594340	48.504	ug/L	99
65) Isopropylbenzene	9.495	105	1579317	50.516	ug/L	100
67) Bromobenzene	9.913	156	368009	46.425	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.007	83	357933	47.016	ug/L	98
69) 1,2,3-Trichloropropane	10.154	110	108959	46.886	ug/L	99
71) 1,4-Dichloro-2-butene	10.196	53	121106	52.268	ug/L	95
72) n-Propylbenzene	9.934	91	1834746	46.604	ug/L	99
73) 2-Chlorotoluene	10.107	91	1173638	47.562	ug/L	99
74) 1,3,5-Trimethylbenzene	10.143	105	1265059	48.255	ug/L	99
75) 4-Chlorotoluene	10.285	91	1076361	47.097	ug/L	100
76) tert-Butylbenzene	10.489	119	1089991	46.556	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	1232011	46.775	ug/L	100
78) sec-Butylbenzene	10.682	105	1674266	47.891	ug/L	99
79) 1,3-Dichlorobenzene	10.933	146	672800	46.377	ug/L	99
80) p-Isopropyltoluene	10.839	119	1394034	48.633	ug/L	100
81) 1,4-Dichlorobenzene	11.032	146	682033	45.669	ug/L	99
82) 1,2-Dichlorobenzene	11.503	146	609665	46.549	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	61845	49.000	ug/L	98
84) n-Butylbenzene	11.315	91	1258186	48.438	ug/L	99
85) 1,2,4-Trichlorobenzene	13.213	180	417881	47.929	ug/L	99
86) Hexachlorobutadiene	13.187	225	218022	46.661	ug/L	99
87) Naphthalene	13.590	128	1018454	48.506	ug/L	100
88) 1,2,3-Trichlorobenzene	13.815	180	365558	47.548	ug/L	99

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

Data Path : C:\msdchem\1\data\170817\
 Data File : 17081710.D
 Acq On : 17 Aug 2017 3:43 pm
 Operator :
 Sample : SSCV 46.4 ppb
 Misc : ICV
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 18 13:26:10 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



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 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	%Rec
Internal Standards						
1) Fluorobenzene	5.656	96	770028	200.00	ug/L	101
49) Chlorobenzene-d5	8.548	117	541896	200.00	ug/L	102
66) 1,4-Dichlorobenzene-d4	11.012	152	266556	200.00	ug/L	100
System Monitoring Compounds						
30) Dibromofluoromethane	4.955	113	188767	198.21	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.11%	
32) 1,2-Dichloroethane-d4	5.415	65	234628	195.92	ug/L	0.00
Spiked Amount	200.000		Recovery	=	97.96%	
51) Toluene-d8	7.057	98	729146	202.28	ug/L	0.00
Spiked Amount	200.000		Recovery	=	101.14%	
70) 4-Bromofluorobenzene	9.798	95	263423	199.50	ug/L	0.00
Spiked Amount	200.000		Recovery	=	99.75%	
Target Compounds						
2) Dichlorodifluoromethane	1.581	85	473529	48.410	ug/L	100
3) Chloromethane	1.770	50	477113	46.588	ug/L	99
4) Vinyl chloride	1.848	62	423351	47.153	ug/L	99
5) Bromomethane	2.162	94	144183	47.569	ug/L	99
6) Chloroethane	2.287	64	160350	41.735	ug/L	99
7) Trichlorofluoromethane	2.429	101	573627	47.676	ug/L	99
8) Trichlorotrifluoroethane	2.946	101	337643	43.292	ug/L #	99
9) Acrolein	3.208	56	163810	123.460	ug/L	99
10) Isopropyl Alcohol	3.381	45	20544	201.267	ug/L #	100
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13) 1,1-Dichloroethene	2.910	96	347275	52.750	ug/L	99
14) Carbon disulfide	2.941	76	2792802	125.566	ug/L	100
15) Methylene chloride	3.433	84	328252	47.854	ug/L	97
16) Methyl Acetate	3.574	43	308159	53.486	ug/L	100
17) trans-1,2-Dichloroethene	3.579	96	348764	49.022	ug/L	98
18) Acrylonitrile	4.139	53	265460	92.278	ug/L	99
19) MTBE	3.658	73	1001431	52.024	ug/L	99
20) Tert-Butanol	3.736	59	116575	311.793	ug/L #	100
21) Isopropyl Ether	3.987	45	1344043	52.302	ug/L	100
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23) Vinyl acetate	4.306	43	1998050	123.255	ug/L	100
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26) 2,2-Dichloropropane	4.662	77	496190	51.890	ug/L	98
27) Bromochloromethane	4.740	128	154820	46.768	ug/L	98
28) Cyclohexane	4.756	84	650820	51.816	ug/L	99
29) Chloroform	4.803	83	618744	47.499	ug/L	99
31) 1,1-Dichloropropene	5.091	75	503988	48.057	ug/L	99
33) 1,1,1-Trichloroethane	4.986	97	537427	48.717	ug/L	99
34) 1,2-Dichloroethane	5.467	62	430384	46.162	ug/L	99
35) Benzene	5.300	78	1410696	47.666	ug/L	99
36) 2-Butanone	5.049	43	372860	106.933	ug/L	98
37) Carbon tetrachloride	4.934	117	508402	52.837	ug/L	100
38) Tert-amyl Methyl Ether	5.389	73	972854	54.287	ug/L	100
39) Trichloroethene	5.807	130	380953	48.344	ug/L	97
40) Methyl Cyclohexane	5.807	55	485669	37.659	ug/L	98
41) Dibromomethane	6.179	93	198486	47.568	ug/L	98
42) Bromodichloromethane	6.315	83	421055	49.290	ug/L	100
43) 1,2-Dichloropropane	6.257	63	360327	48.701	ug/L	100
44) 2-Chloroethylvinylether	6.817	63	254150	48.345	ug/L	99
45) cis-1,3-Dichloropropene	6.885	75	503620	47.627	ug/L	99

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 Data File : 17081710.D
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 ALS Vial : 10 Sample Multiplier: 1

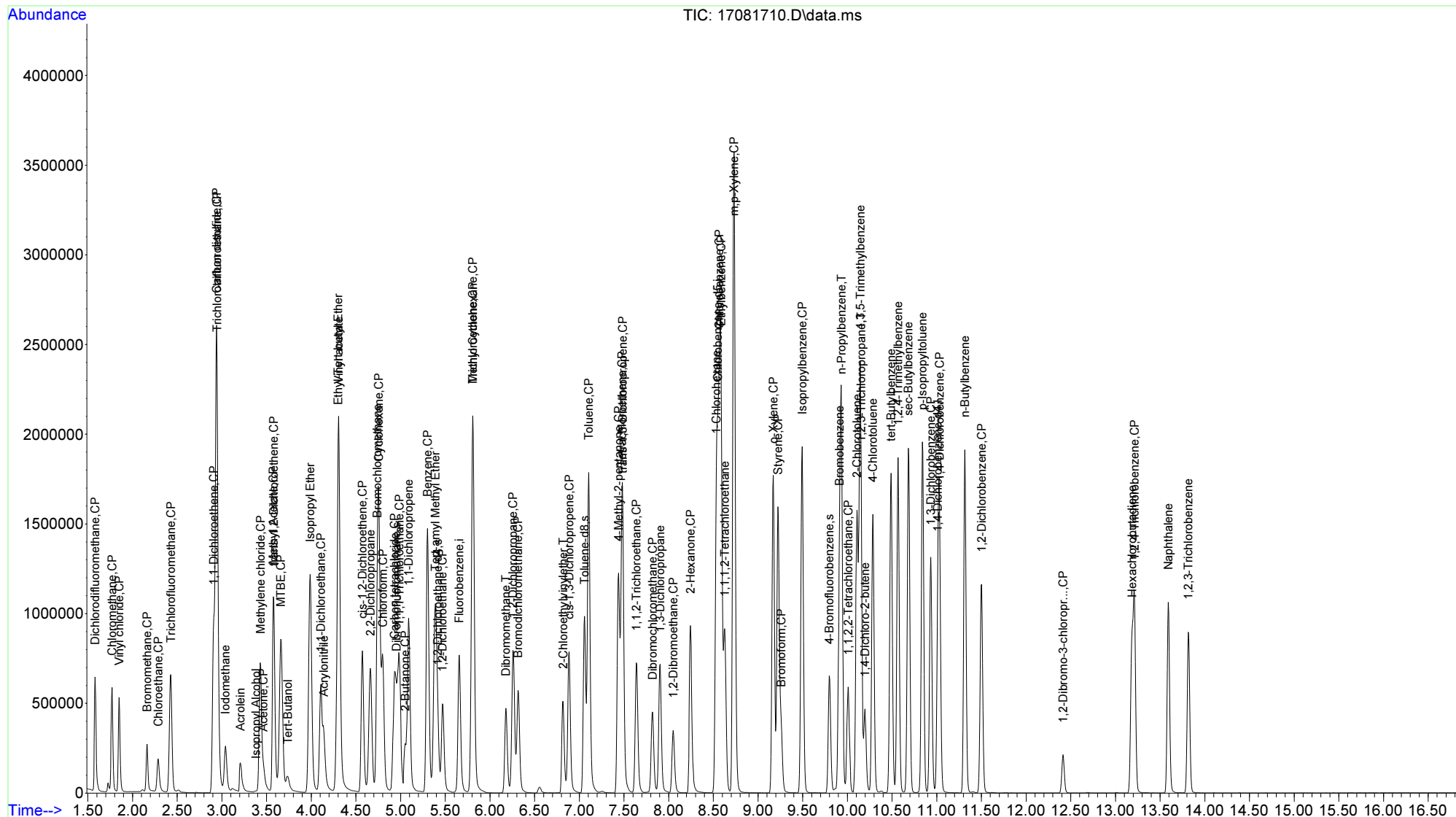
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Compound	R.T.	QIon	Response	Conc	Units	%Rec
46) trans-1,3-Dichloropropene	7.486	75	431671	51.341	ug/L	99
47) 1,1,2-Trichloroethane	7.638	97	280433	48.608	ug/L	100
48) Toluene	7.105	92	886165	47.924	ug/L	99
50) 4-Methyl-2-pentanone	7.439	43	1024479	127.970	ug/L	100
52) 2-Hexanone	8.245	43	755885	134.122	ug/L	98
53) Dibromochloromethane	7.821	129	296480	47.850	ug/L	99
54) 1,3-Dichloropropane	7.905	76	474975	45.813	ug/L	100
55) Tetrachloroethene	7.476	164	320415	48.014	ug/L	100
56) 1,2-Dibromoethane	8.051	107	294649	48.491	ug/L	99
57) Chlorobenzene	8.564	112	900595	47.464	ug/L	100
58) 1,1,1,2-Tetrachloroethane	8.627	131	301814	49.906	ug/L	99
59) Ethylbenzene	8.585	106	515006	48.289	ug/L	98
60) Bromoform	9.259	173	197297	48.571	ug/L	98
61) Styrene	9.223	104	929755	50.197	ug/L	99
62) 1-Chlorohexane	8.532	55	416929	48.491	ug/L	99
63) m,p-Xylene	8.731	106	1235934	96.097	ug/L	99
64) o-Xylene	9.170	106	594340	48.504	ug/L	99
65) Isopropylbenzene	9.495	105	1579317	50.516	ug/L	100
67) Bromobenzene	9.913	156	368009	46.425	ug/L	99
68) 1,1,2,2-Tetrachloroethane	10.007	83	357933	47.016	ug/L	98
69) 1,2,3-Trichloropropane	10.154	110	108959	46.886	ug/L	99
71) 1,4-Dichloro-2-butene	10.196	53	121106	52.268	ug/L	95
72) n-Propylbenzene	9.934	91	1834746	46.604	ug/L	99
73) 2-Chlorotoluene	10.107	91	1173638	47.562	ug/L	99
74) 1,3,5-Trimethylbenzene	10.143	105	1265059	48.255	ug/L	99
75) 4-Chlorotoluene	10.285	91	1076361	47.097	ug/L	100
76) tert-Butylbenzene	10.489	119	1089991	46.556	ug/L	99
77) 1,2,4-Trimethylbenzene	10.567	105	1232011	46.775	ug/L	100
78) sec-Butylbenzene	10.682	105	1674266	47.891	ug/L	99
79) 1,3-Dichlorobenzene	10.933	146	672800	46.377	ug/L	99
80) p-Isopropyltoluene	10.839	119	1394034	48.633	ug/L	100
81) 1,4-Dichlorobenzene	11.032	146	682033	45.669	ug/L	99
82) 1,2-Dichlorobenzene	11.503	146	609665	46.549	ug/L	99
83) 1,2-Dibromo-3-chloropr...	12.413	75	61845	49.000	ug/L	98
84) n-Butylbenzene	11.315	91	1258186	48.438	ug/L	99
85) 1,2,4-Trichlorobenzene	13.213	180	417881	47.929	ug/L	99
86) Hexachlorobutadiene	13.187	225	218022	46.661	ug/L	99
87) Naphthalene	13.590	128	1018454	48.506	ug/L	100
88) 1,2,3-Trichlorobenzene	13.815	180	365558	47.548	ug/L	99

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

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 Acq On : 17 Aug 2017 3:43 pm
 Operator :
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 Misc : ICV
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 18 13:40:34 2017
 Quant Method : C:\msdchem\1\methods\170817X.M
 Quant Title : M-8260S
 QLast Update : Thu Aug 17 14:33:11 2017
 Response via : Initial Calibration



ICP-MS4

For

DHL Work Order

1709099

ICP-MS4_170915A

For

DHL Work Order

1709099

Lab Data Review Check List
EPA Method 6020A / 200.8 - Trace Metals by ICP-MS

PROJECT AND BATCH NUMBERS ARE LISTED ON THE RUN LOG		Run ID:	ICP-MS4_170915A			
		SOP:	MET-ICP-MS-02			
Review Item	Yes	No	N/A	2nd Level Review		
Data Folder Contents						
1. Is the Prep Batch Report included? <i>Check the Prep Start/End Dates, Sample Amounts, Bottle #s</i>	X					
2. Are the reagents and spikes listed on the Prep Batch Report current with a valid expiration date? <i>All standard/QC sample preparations shall be documented in LIMS</i>	X				X	
3. Is the Run Log and instrument sequence included? <i>Check the Test Code, Sample Type, Batch ID, and Analysis Date/Time</i>	X					
Daily Demonstration of Performance						
QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in the Variance/Comment Section on page 2.						
Review Item	Frequency	Limits	Pass	Fail (List Batch/Sample) **See Run Log**	2nd Level Review	
Tune	Before ICAL	RSD ≤ 5% / Peak Width@10% <0.9amu	X			
Initial Calibration Curve (ICAL) (Blank + Multi-Level CAL STDS)	Prior to samples and when ICV fails	R ² ≥ 0.99 (DoD) R ≥ 0.998 (6020A)	X		X	
Note: LCVLs and ICSA/ICSAB are N/A for Method 200.8 or project-specific exceptions.						
Review Item	Frequency	Limits	Pass	Fail	N/A	Review
P/A Factor - Performed at least Monthly or After maintenance	After Instrument Maintenance or monthly	Increasing trend	X			
ICSA (N/A for Method 200.8+U)	After calibration & every 12 hours	< RL (except Mn & Zn)	X			
ICSAB (N/A for Method 200.8+U)	After calibration & every 12 hours	80-120% (correct for ICSA result)	X			
ICV (Second Source Verification)	After ICAL	90-110%	X			
ICB	After calibration	< MDL	X			
CCV	Every 10 samples	90-110%	X			
CCB	Every 10 samples	< MDL (ALL + DoD)	X			
Internal Standards	Every sample and QC sample	> 70% (6020A) 60-125% (200.8) 30-120% (DoD)	X			
LCVL (6020A test code)	After ICAL, every 10 samples and end of run	70-130%		X		X
LCVL (DoD)	DAILY	80-120%			X	
LCVL (All metals test codes except 200.8/6020A)	After ICAL and end of run	70-130%			X	
Method Blank (MB)	Every Batch	< MDL / <½ RL (DoD) or <1/10 the sample/reg limit	X			
Filter/TCLP/SPLP Blank	Filter-Dissolved only TCLP / SPLP	< MDL / <½ RL (DoD) or <1/10 the sample/reg limit			X	
Lab Control Sample (LCS)	Every Batch	80-120%	X			
Lab Control Sample Dup (LCSD)	Every Batch	80-120%	X			
LCSD - RPD	Every LCS/LCSD	15 (H2O) / 20 (Soil)	X			
Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	Every Batch	70-130 / 80-120 (6020A)		X		
MSD - RPD	Every MS/MSD	15 (H2O) / 20 (Soil)	X			
Dilution Test (SD) - RPD	Every Batch	10		X		
Post Digestion Spike (PDS)	Every Batch	75-125 / 80-120 (6020A)	X			

Lab Data Review Check List
EPA Method 6020 / 6020A / 200.8 - Trace Metals by ICP-MS

Review Item	Criteria	Yes	No	N/A	2nd Level Review
Sample Analysis 1. Are all sample hold times met?	6 months	X			X
2. Are all samples with concentrations > the highest standard used for calibration diluted and reanalyzed?	All results > high point of ICAL must be diluted	X			
3. Are ALL reported analytes and reported results > MDL highlighted by the analyst?		X		Confirm with analyst if LIMS result does not match Labcore	

VARIANCE REPORT

QC items that do not meet method/SOP/project requirements will be described on the run log. All variances that impact data quality will be described in this section.

NON-CONFORMANCES / VARIANCE	Criteria	Yes	No	N/A	2nd Level
1. Are all non-conformances and corrective actions included and noted?	All deviations from the method and SOP that affect data quality	X			X
2. Does the variance require approval by the Technical Director/General Manager/QA Manager?		X			

TECHNICAL DIRECTOR / QA MANAGER APPROVAL
SIGNATURE AND DATE STAMP:

Description and Corrective Actions of QC items that do not meet method/SOP/project requirements:

****INCLUDE VARIANCE ITEM / REASON / CORRECTIVE ACTION / IMPACT ON DATA****

VARIANCE ITEM	REASON	CORRECTIVE ACTION
<input type="checkbox"/> CCV out of control (± 10%)	<input type="checkbox"/> Carryover from previous run	<input type="checkbox"/> Reanalyze QC to confirm
<input type="checkbox"/> CCB out of control (> MDL / >½ RL)	<input type="checkbox"/> Cross contamination	<input type="checkbox"/> Recalibrate
<input type="checkbox"/> MB out of control (> RL / >½ RL)	<input type="checkbox"/> Lab Artifact	<input type="checkbox"/> Reprep/Reanalyze sample
<input type="checkbox"/> LCS <input type="checkbox"/> LCSD out of control (± 20%)	<input type="checkbox"/> Prep Spike error (describe)	<input type="checkbox"/> Reprep/Reanalyze Batch
<input type="checkbox"/> MS <input type="checkbox"/> MSD out of control (± 20%)	<input type="checkbox"/> Matrix Effect	<input type="checkbox"/> Reanalyze Batch/Sample/QC
<input type="checkbox"/> RPD out of control for LCS/LCSD/MS/MSD (15/25)	<input type="checkbox"/> High Levels of Target Metals	<input type="checkbox"/> Verify reagents are clean
<input type="checkbox"/> Post Digestion Spike out of control (See Method)	<input type="checkbox"/> Insufficient sample for QC	<input type="checkbox"/> Reanalyze sample to confirm
<input type="checkbox"/> Serial Dilution out of control (see Method)	<input type="checkbox"/> Digestion/Prep Error	<input type="checkbox"/> Sample results ND w/ dilution
<input type="checkbox"/> Internal Standard(s) out of control (see Method)	<input type="checkbox"/> Analytical Error	<input type="checkbox"/> Client notified and approved
<input type="checkbox"/> No MS/MSD prepared - LCS/LCSD used instead	<input type="checkbox"/> Client Request	<input type="checkbox"/> Flag data / Case narrative
<input type="checkbox"/> Missing QC (other than MS/MSD)		<input type="checkbox"/> Accept data
<input type="checkbox"/> QC sample(s) was mis-spiked		<input type="checkbox"/> Cal Std high and sample ND
<input type="checkbox"/> ICSA/ICSAB missing or out of control (± 20%)		
<input type="checkbox"/> LCVL out of control (± 30%)	<input type="checkbox"/> Other (describe below)	<input type="checkbox"/> Other (describe below)
<input type="checkbox"/> Sample(s) analyzed outside of HT		
<input type="checkbox"/> Other (describe below)		

General Comments and Impact on Data:

Analyst: *[Signature]* Date of Completion: 09/15/2017

Second-Level Review: *Janice Whitt* Date Stamp: 9/15/2017



Method 200.8/6020A Calibration Curve – ICP-MS

CAL LEVEL	RUN LOG ID	LIMS CAL STD ID	Prep Date	
MET CAL 1	BLANK STD 1	---	09/15/2017	
MET CAL 2	L2-170915	MET-L2CAL- 170802	09/15/2017	CAL2 - CAL6 MADE FRESH DAILY
MET CAL 3	L-170915	MET-LCAL- 170802	09/15/2017	
MET CAL 4	10X-170915	MET-LCAL10X- 170802	09/15/2017	
MET CAL 5	5X-170915	MET-LCAL5X- 170802	09/15/2017	
MET CAL 6	2X-170915	MET-MCAL- 170802	09/15/2017	
MET CAL 7	H-170915	MET-HCAL-170802	08/02/2017	
MET CAL 8	H2-170915	MET-H2CAL-170802	08/02/2017	

Metal	MET CAL 2	MET CAL 3	MET CAL 4	MET CAL 5	MET CAL 6	MET CAL 7	MET CAL 8
	MET-L2CAL (10X OF LCAL)	MET-LCAL (50X OF HCAL)	MET-LCAL10X (10X OF HCAL)	MET-LCAL5X (5X OF HCAL)	MET-MCAL (2X OF HCAL)	MET-HCAL (SEE BELOW)	MET-H2CAL (SEE BELOW)
Aluminum	20	200	1000	2000	5000	10,000	---
Antimony	1	10	50	100	250	500	---
Arsenic	1	10	50	100	250	500	2000
Barium	1	10	50	100	250	500	2000
Beryllium	1	10	50	100	250	500	2000
Boron	1	10	50	100	250	500	2000
Cadmium	1	10	50	100	250	500	2000
Calcium	20	200	1000	2000	5000	10,000	2000
Chromium	1	10	50	100	250	500	2000
Cobalt	1	10	50	100	250	500	2000
Copper	1	10	50	100	250	500	2000
Iron	20	200	1000	2000	5000	10,000	---
Lead	1	10	50	100	250	500	2000
Lithium	1	10	50	100	250	500	2000
Magnesium	20	200	1000	2000	5000	10,000	2000
Manganese	1	10	50	100	250	500	2000
Molybdenum	1	10	50	100	250	500	2000
Nickel	1	10	50	100	250	500	2000
Potassium	20	200	1000	2000	5000	10,000	25,000
Selenium	1	10	50	100	250	500	2000
Silver	1	10	50	100	250	500	---
Sodium	20	200	1000	2000	5000	10,000	25,000
Strontium	1	10	50	100	250	500	2000
Thallium	1	10	50	100	250	500	2000
Tin	1	10	50	100	250	500	2000
Titanium	1	10	50	100	250	500	2000
Uranium	1	10	50	100	250	500	2000
Vanadium	1	10	50	100	250	500	2000
Zinc	1	10	50	100	250	500	2000

MET CAL 7: MET-HCAL-170802

MET CAL 8: MET-H2CAL-170802

STOCK	Amount Used	Final Volume (mL)	Final Conc (µg/L)	STOCK	Amount Used	Final Volume (mL)	Final Conc (µg/L)
AL PRIMARY STD 1000 PPM	500 µL	50	10,000	1000 PPM STRONTIUM STD	100 µL	50	2000
FE PRIMARY STD 1000 PPM	500 µL	50	10,000	1000 PPM TIN STD	100 µL	50	2000
2500 PPM NATURALS SPIKE	200 µL	50	10,000	1000 PPM TITANIUM STD	100 µL	50	2000
50 PPM CUSTOM+Sr,Sn,Ti	500 µL	50	2000	1000 PPM URANIUM STD	100 µL	50	2000
Sb + Ag 50 PPM	500 µL	50	2000	1000 PPM BORON STD	100 µL	50	2000
				1000 PPM LITHIUM STD	100 µL	50	2000
				1000 PPM MOLYBDENUM	100 µL	50	2000
				500 PPM CUSTOM MIX STD	200 µL	50	2000
				2500 PPM NATURALS SPIKE	500 µL	50	25,000

Analyst/Date: *[Signature]* 09/15/2017

REVIEWED BY
By Janice Whitt at 3:59:29 PM, 9/15/2017

Second-Level Review/Date:

Run ID: ICP-MS4_170915A

Run No.: 94175

Analytical Run Date: 9/15/2017

InstrumentID: ICP-MS4

Analyst: Ryan Oliver

SampID	DF	TestCode	SampType	Batch ID	Analysis Date/Time	Q	Comments
BLANK STD 1	1	6020A_W	CAL	R94175	9/15/2017 10:13:00 AM		
L2-170915	1	6020A_W	CAL	R94175	9/15/2017 10:15:00 AM		
L-170915	1	6020A_W	CAL	R94175	9/15/2017 10:17:00 AM		
10X-170915	1	6020A_W	CAL	R94175	9/15/2017 10:19:00 AM		
5X-170915	1	6020A_W	CAL	R94175	9/15/2017 10:21:00 AM		
2X-170915	1	6020A_W	CAL	R94175	9/15/2017 10:23:00 AM		
H-170915	1	6020A_W	CAL	R94175	9/15/2017 10:24:00 AM		
H2-170915	1	6020A_W	CAL	R94175	9/15/2017 10:26:00 AM		
ICSA-170915	1	6020A_W	ICSA	R94175	9/15/2017 10:32:00 AM		
ICSAB-170915	1	6020A_W	ICSB	R94175	9/15/2017 10:34:00 AM		
ICV-170915	1	6020A_W	ICV	R94175	9/15/2017 10:40:00 AM		
LCVL-170915	1	6020A_W	LCVL	R94175	9/15/2017 10:50:00 AM		
ICB-170915	1	6020A_W	ICB	R94175	9/15/2017 10:54:00 AM		
MB-82353	5	6020A_S	MBLK	82353	9/15/2017 10:56:00 AM		
LCS-82353	5	6020A_S	LCS	82353	9/15/2017 10:58:00 AM		
LCSD-82353	5	6020A_S	LCSD	82353	9/15/2017 11:00:00 AM		
1709034-02C	5	6020A_S	SAMP	82353	9/15/2017 11:04:00 AM		
1709034-02C SD	25	6020A_S	SD	82353	9/15/2017 11:05:00 AM		R-flag Se, Zn; PDS passes
1709083-02A	5	6020A_S	SAMP	82353	9/15/2017 11:07:00 AM		
1709085-02A	5	6020A_S	SAMP	82353	9/15/2017 11:09:00 AM		
1709098-01A	5	6020A_S	SAMP	82353	9/15/2017 11:11:00 AM		
1709108-04B	5	6020A_S	SAMP	82353	9/15/2017 11:13:00 AM		
1709034-04C	5	6020A_S	SAMP	82353	9/15/2017 11:15:00 AM		
1709034-06C	5	6020A_S	SAMP	82353	9/15/2017 11:17:00 AM		
1709034-08C	5	6020A_S	SAMP	82353	9/15/2017 11:19:00 AM		
1709034-10C	5	6020A_S	SAMP	82353	9/15/2017 11:20:00 AM		
1709092-01A	5	6020A_S	SAMP	82353	9/15/2017 11:22:00 AM		
1709034-02C PDS	5	6020A_S	PDS	82353	9/15/2017 11:24:00 AM		
1709034-02C MS	5	6020A_S	MS	82353	9/15/2017 11:26:00 AM		
1709034-02C MSD	5	6020A_S	MSD	82353	9/15/2017 11:28:00 AM		

Std ID	Std Name	Type	Exp. Date
MET-CCV-170802	ICPMS CCV 200/5000 PPB	CCV	02/03/2018
MET-H2CAL-170802	ICPMS High Cal2 2000ppb std 8	CAL	02/03/2018
MET-HCAL-170802	ICPMS High Cal 500ppb/10ppm std	CAL	02/03/2018
MET-ICV-170802	ICPMS ICV 100 ppb	ICV	02/03/2018
MET-IS-170530	INTERNAL STANDARD 1 PPM	CAL	11/28/2017
MET-L2CAL-170802	ICPMS Low Cal2 1/20ppb std 2	CAL	02/03/2018
MET-LCAL-170802	ICPMS Low Cal 10/200ppb std 3	CAL	02/03/2018
MET-LCAL10X-1708	ICPMS Low Cal 50/1000ppb std 4	CAL	02/03/2018
MET-LCAL5X-17080	ICPMS Low Cal 100/2000ppb std 5	CAL	02/03/2018
MET-MCAL-170802	ICPMS Mid Cal 250/5000ppb std 6	CAL	02/03/2018
MET-PA-170417	ICPMS PA FACTOR SOLUTION	CAL	10/17/2017
MET-PDS-170814-1	10 PPM Ag+Sb PDS	CAL	02/14/2018
MET-PDS-170814-2	10 PPM CUSTOM PDS SOLUTION	PDS	02/14/2018
MET-PDS-170814-3	250 PPM Naturals+Al+Fe PDS	PDS	02/14/2018
MET-TUNECHK-170	100ppb TUNE CHECK SOLUTION	TUNE	09/18/2017

Run ID: ICP-MS4_170915A Run No.: 94175

CCV1-170915	1	6020A_W	CCV	R94175	9/15/2017 11:30:00 AM	
LCVL1-170915	1	6020A_W	LCVL	R94175	9/15/2017 11:35:00 AM	
CCB1-170915	1	6020A_W	CCB	R94175	9/15/2017 11:40:00 AM	
1709092-02A	5	6020A_S	SAMP	82353	9/15/2017 11:42:00 AM	
1709092-03A	5	6020A_S	SAMP	82353	9/15/2017 11:44:00 AM	
1709092-04A	5	6020A_S	SAMP	82353	9/15/2017 11:45:00 AM	
1709092-05A	5	6020A_S	SAMP	82353	9/15/2017 11:47:00 AM	
1709092-06A	5	6020A_S	SAMP	82353	9/15/2017 11:49:00 AM	
CCV2-170915	1	6020A_W	CCV	R94175	9/15/2017 11:51:00 AM	
LCVL2-170915	1	6020A_W	LCVL	R94175	9/15/2017 11:57:00 AM	
CCB2-170915	1	6020A_W	CCB	R94175	9/15/2017 12:03:00 PM	
CCV3-170915	1	6020A_W	CCV	R94175	9/15/2017 12:36:00 PM	
LCVL3-170915	1	6020A_W	LCVL	R94175	9/15/2017 12:42:00 PM	
CCB3-170915	1	6020A_W	CCB	R94175	9/15/2017 12:44:00 PM	
MB-82354	1	6020A_W	MBLK	82354	9/15/2017 12:46:00 PM	
LCS-82354	1	6020A_W	LCS	82354	9/15/2017 12:48:00 PM	
LCSD-82354	1	6020A_W	LCSD	82354	9/15/2017 12:50:00 PM	
1709087-01A	1	6020A_W	SAMP	82354	9/15/2017 12:54:00 PM	
1709087-01A SD	5	6020A_W	SD	82354	9/15/2017 12:56:00 PM	
1709083-01A	1	6020A_W	SAMP	82354	9/15/2017 12:58:00 PM	
1709084-01A	1	6020A_W	SAMP	82354	9/15/2017 1:00:00 PM	
1709085-01A	1	6020A_W	SAMP	82354	9/15/2017 1:02:00 PM	
1709099-01B	1	6020A_W	SAMP	82354	9/15/2017 1:04:00 PM	
1709100-01B	1	6020A_W	SAMP	82354	9/15/2017 1:05:00 PM	Int Std. Bi-low, does not effect reported compound. jw 9/15/2017
1709108-02B	1	6020A_W	SAMP	82354	9/15/2017 1:07:00 PM	
1709089-01B	1	6020A_W	SAMP	82354	9/15/2017 1:09:00 PM	DNR; Reran @ dilution
1709089-02B	1	6020A_W	SAMP	82354	9/15/2017 1:11:00 PM	DNR; Reran @ dilution
1709089-03B	1	6020A_W	SAMP	82354	9/15/2017 1:13:00 PM	DNR; Reran @ dilution
1709087-01A PDS	1	6020A_W	PDS	82354	9/15/2017 1:15:00 PM	
1709087-01A MS	1	6020A_W	MS	82354	9/15/2017 1:17:00 PM	S-flag Na- Low
1709087-01A MSD	1	6020A_W	MSD	82354	9/15/2017 1:19:00 PM	S-flag Na- Low
CCV4-170915	1	6020A_W	CCV	R94175	9/15/2017 1:24:00 PM	
LCVL4-170915	1	6020A_W	LCVL	R94175	9/15/2017 1:46:00 PM	S-flag Na; Associated samples are clsoer to CCV level; CCV/CCB pass
CCB4-170915	1	6020A_W	CCB	R94175	9/15/2017 1:48:00 PM	
1709087-01A	10	6020A_W	SAMP	82354	9/15/2017 1:50:00 PM	

Std ID	Std Name	Type	Exp. Date
MET-CCV-170802	ICPMS CCV 200/5000 PPB	CCV	02/03/2018
MET-H2CAL-170802	ICPMS High Cal2 2000ppb std 8	CAL	02/03/2018
MET-HCAL-170802	ICPMS High Cal 500ppb/10ppm std	CAL	02/03/2018
MET-ICV-170802	ICPMS ICV 100 ppb	ICV	02/03/2018
MET-IS-170530	INTERNAL STANDARD 1 PPM	CAL	11/28/2017
MET-L2CAL-170802	ICPMS Low Cal2 1/20ppb std 2	CAL	02/03/2018
MET-LCAL-170802	ICPMS Low Cal 10/200ppb std 3	CAL	02/03/2018
MET-LCAL10X-1708	ICPMS Low Cal 50/1000ppb std 4	CAL	02/03/2018
MET-LCAL5X-17080	ICPMS Low Cal 100/2000ppb std 5	CAL	02/03/2018
MET-MCAL-170802	ICPMS Mid Cal 250/5000ppb std 6	CAL	02/03/2018
MET-PA-170417	ICPMS PA FACTOR SOLUTION	CAL	10/17/2017
MET-PDS-170814-1	10 PPM Ag+Sb PDS	CAL	02/14/2018
MET-PDS-170814-2	10 PPM CUSTOM PDS SOLUTION	PDS	02/14/2018
MET-PDS-170814-3	250 PPM Naturals+Al+Fe PDS	PDS	02/14/2018
MET-TUNECHK-170	100ppb TUNE CHECK SOLUTION	TUNE	09/18/2017

Run ID:

ICP-MS4_170915A

Run No.: 94175

1709087-01A SD	50	6020A_W	SD	82354	9/15/2017 1:52:00 PM		
1709087-01A PDS	10	6020A_W	PDS	82354	9/15/2017 1:54:00 PM		
1709089-01B	50	6020A_W	SAMP	82354	9/15/2017 1:56:00 PM		
1709089-02B	50	6020A_W	SAMP	82354	9/15/2017 1:58:00 PM		
1709089-03B	50	6020A_W	SAMP	82354	9/15/2017 2:00:00 PM		
1709087-02A	10	6020A_W	SAMP	82354	9/15/2017 2:02:00 PM		
1709087-03A	10	6020A_W	SAMP	82354	9/15/2017 2:04:00 PM		
1709087-02A	1	6020A_W	SAMP	82354	9/15/2017 2:06:00 PM		
1709087-03A	1	6020A_W	SAMP	82354	9/15/2017 2:08:00 PM		
CCV5-170915	1	6020A_W	CCV	R94175	9/15/2017 2:13:00 PM		
LCVL5-170915	1	6020A_W	LCVL	R94175	9/15/2017 2:18:00 PM		
CCB5-170915	1	6020A_W	CCB	R94175	9/15/2017 2:28:00 PM		

Std ID	Std Name	Type	Exp. Date
MET-CCV-170802	ICPMS CCV 200/5000 PPB	CCV	02/03/2018
MET-H2CAL-170802	ICPMS High Cal2 2000ppb std 8	CAL	02/03/2018
MET-HCAL-170802	ICPMS High Cal 500ppb/10ppm std	CAL	02/03/2018
MET-ICV-170802	ICPMS ICV 100 ppb	ICV	02/03/2018
MET-IS-170530	INTERNAL STANDARD 1 PPM	CAL	11/28/2017
MET-L2CAL-170802	ICPMS Low Cal2 1/20ppb std 2	CAL	02/03/2018
MET-LCAL-170802	ICPMS Low Cal 10/200ppb std 3	CAL	02/03/2018
MET-LCAL10X-1708	ICPMS Low Cal 50/1000ppb std 4	CAL	02/03/2018
MET-LCAL5X-17080	ICPMS Low Cal 100/2000ppb std 5	CAL	02/03/2018
MET-MCAL-170802	ICPMS Mid Cal 250/5000ppb std 6	CAL	02/03/2018
MET-PA-170417	ICPMS PA FACTOR SOLUTION	CAL	10/17/2017
MET-PDS-170814-1	10 PPM Ag+Sb PDS	CAL	02/14/2018
MET-PDS-170814-2	10 PPM CUSTOM PDS SOLUTION	PDS	02/14/2018
MET-PDS-170814-3	250 PPM Naturals+Al+Fe PDS	PDS	02/14/2018
MET-TUNECHK-170	100ppb TUNE CHECK SOLUTION	TUNE	09/18/2017

Sample List

Batch Folder C:\Agilent\ICPMH\1\DATA\170915.b

Acquisition Order

- # Sequence Flow**
 1 Calibration Standards
 2 Unknown Samples
 3 Blank Samples

Calibration Standards:

#	Skip	Sample Type	Sample Name	Comment	Vial#	Level	Total Dil.
1		CCB		CAL 6020A_W	1101		
2		CCB		CAL 6020A_W	1101		
3		CCB		CAL 6020A_W	1102		
4		CCB		CAL 6020A_W	1102		
5		CCB		CAL 6020A_W	1102		
6		CCB		CAL 6020A_W	1103		
7		CCB		CAL 6020A_W	1103		
8		CCB		CAL 6020A_W	1103		
9		CalBlk	BLANK STD 1	CAL 6020A_W	2101	1	
10		CalStd	L2-170915	CAL 6020A_W	2102	2	
11		CalStd	L-170915	CAL 6020A_W	2103	3	
12		CalStd	10X-170915	CAL 6020A_W	2104	4	
13		CalStd	5X-170915	CAL 6020A_W	2105	5	
14		CalStd	2X-170915	CAL 6020A_W	2106	6	
15		CalStd	H-170915	CAL 6020A_W	2107	7	
16		CalStd	H2-170915	CAL 6020A_W	2108	8	
17		ICB	BLANK	CCB 6020A_W	1101		
18		ICB	BLANK	CCB 6020A_W	1102		
19		ICSA	ICSA-170915	ICSA6020A_W	2109		
20		ICSB	ICSA-170915	ICSB6020A_W	2110		
21		ICB	BLANK	CCB 6020A_W	1101		
22		ICB	BLANK	CCB 6020A_W	1102		
23		ICV	ICV-170915	ICV 6020A_W	2111		
24		ICB	ICB-170915	ICB 6020A_W	1101		
25		LLICV	LCVL-170915	LCVL6020A_W	2112		
26		ICB	ICB-170915	ICB 6020A_W	1102		
27		ICB	ICB-170915	ICB 6020A_W	1103		
28		PB	MB-82353	MBLK6020A_S	2201		5
29		LCS_S	LCS-82353	LCS 6020A_S	2202		5
30		LCS_S	LCSD-82353	LCSD6020A_S	2203		5
31		CCB	RINSE	CCB 6020A_W	1101		
32		AllRef	1709034-02C	SAMP6020A_S	2204		5
33		SD	1709034-02C SD	SD 6020A_S	2205		25
34		Sample	1709083-02A	SAMP6020A_S	2206		5
35		Sample	1709085-02A	SAMP6020A_S	2207		5
36		Sample	1709098-01A	SAMP6020A_S	2208		5
37		Sample	1709108-04B	SAMP6020A_S	2209		5
38		Sample	1709034-04C	SAMP6020A_S	2210		5
39		Sample	1709034-06C	SAMP6020A_S	2211		5
40		Sample	1709034-08C	SAMP6020A_S	2212		5
41		Sample	1709034-10C	SAMP6020A_S	2301		5
42		Sample	1709092-01A	SAMP6020A_S	2302		5
43		PDS	1709034-02C PDS	PDS 6020A_S	2303		5
44		MS_S	1709034-02C MS	MS 6020A_S	2304		5
45		MS_S	1709034-02C MSD	MSD 6020A_S	2305		5
46		CCV	CCV1-170915	CCV 6020A_W	1207		
47		CCB	CCB1-170915	CCB 6020A_W	1102		
48		LLCCV	LCVL1-170915	LCVL6020A_W	2112		

Sample List

49	CCB	CCB1-170915	CCB 6020A_W	1103	
50	Sample	1709092-02A	SAMP6020A_S	2306	5
51	Sample	1709092-03A	SAMP6020A_S	2307	5
52	Sample	1709092-04A	SAMP6020A_S	2308	5
53	Sample	1709092-05A	SAMP6020A_S	2309	5
54	Sample	1709092-06A	SAMP6020A_S	2310	5
55	CCV	CCV2-170915	CCV 6020A_W	1207	
56	CCB	CCB2-170915	CCB 6020A_W	1102	
57	LLCCV	LCVL2-170915	LCVL6020A_W	2112	
58	CCB	CCB2-170915	CCB 6020A_W	1103	
59	PB_W	MB-82355	MBLKTCLP_MET	3101	1
60	PB_W	MB-82348-TCLP	MBLKTCLP_MET	3102	1
61	LCS_W	LCS-82355	LCS TCLP_MET	3103	1
62	LCS_W	LCSD-82355	LCSDTCLP_MET	3104	1
63	CCB	RINSE	CCB 6020A_W	1101	
64	AllRef	1709077-02A	SAMPTCLP_MET	3105	1
65	SD	1709077-02A SD	SD TCLP_MET	3106	5
66	SAMP_W	1709093-01A	SAMPTCLP_MET	3107	1
67	SAMP_W	1709094-01A	SAMPTCLP_MET	3108	1
68	SAMP_W	1709077-01A	SAMPTCLP_MET	3109	1
69	SAMP_W	1709048-01A	SAMPTCLP_MET	3110	1
70	PDS	1709077-02A PDS	PDS TCLP_MET	3111	1
71	MS_W	1709077-02A MS	MS TCLP_MET	3112	1
72	MS_W	1709077-02A MSD	MSD TCLP_MET	3201	1
73	CCB	RINSE	CCB 6020A_W	1102	
74	CCB	RINSE	CCB 6020A_W	1103	
75	CCV	CCV3-170915	CCV 6020A_W	1207	
76	CCB	CCB3-170915	CCB 6020A_W	1102	
77	LLCCV	LCVL3-170915	LCVL6020A_W	2512	
78	CCB	CCB3-170915	CCB 6020A_W	1103	
79	PB_W	MB-82354	MBLK6020A_W	4101	1
80	LCS_W	LCS-82354	LCS 6020A_W	4102	1
81	LCS_W	LCSD-82354	LCSD6020A_W	4103	1
82	CCB	RINSE	CCB 6020A_W	1101	
83	AllRef	1709087-01A	SAMP6020A_W	4104	1
84	SD	1709087-01A SD	SD 6020A_W	4105	5
85	SAMP_W	1709083-01A	SAMP6020A_W	4106	1
86	SAMP_W	1709084-01A	SAMP6020A_W	4107	1
87	SAMP_W	1709085-01A	SAMP6020A_W	4108	1
88	SAMP_W	1709099-01B	SAMP6020A_W	4109	1
89	SAMP_W	1709100-01B	SAMP6020A_W	4110	1
90	SAMP_W	1709108-02B	SAMP6020A_W	4111	1
91	SAMP_W	1709089-01B	SAMP6020A_W	4112	1
92	SAMP_W	1709089-02B	SAMP6020A_W	4201	1
93	SAMP_W	1709089-03B	SAMP6020A_W	4202	1
94	PDS	1709087-01A PDS	PDS 6020A_W	4203	1
95	MS_W	1709087-01A MS	MS 6020A_W	4204	1
96	MS_W	1709087-01A MSD	MSD 6020A_W	4205	1
97	CCB	RINSE	CCB 6020A_W	1102	
98	CCB	RINSE	CCB 6020A_W	1103	
99	CCV	CCV4-170915	CCV 6020A_W	1207	
100	CCB	CCB4-170915	CCB 6020A_W	1102	
101	CCB	CCB4-170915	CCB 6020A_W	1102	
102	CCB	CCB4-170915	CCB 6020A_W	1103	
103	CCB	CCB4-170915	CCB 6020A_W	1103	
104	LLCCV	LCVL4-170915	LCVL6020A_W	2512	
105	CCB	CCB4-170915	CCB 6020A_W	1103	
106	AllRef	1709087-01A	SAMP6020A_W	4301	1
107	SD	1709087-01A SD	SD 6020A_W	4302	50

Sample List

108	PDS	1709087-01A PDS	PDS 6020A_W	4303	10
109	SAMP_W	1709089-01B	SAMP6020A_W	4304	50
110	SAMP_W	1709089-02B	SAMP6020A_W	4305	50
111	SAMP_W	1709089-03B	SAMP6020A_W	4306	50
112	SAMP_W	1709087-02A	SAMP6020A_W	4307	10
113	SAMP_W	1709087-03A	SAMP6020A_W	4308	10
114	SAMP_W	1709087-02A	SAMP6020A_W	4206	1
115	SAMP_W	1709087-03A	SAMP6020A_W	4207	1
116	CCB	RINSE	CCB 6020A_W	1102	
117	CCB	RINSE	CCB 6020A_W	1103	
118	CCV	CCV5-170915	CCV 6020A_W	1207	
119	CCB	CCB5-170915	CCB 6020A_W	1102	
120	LLCCV	LCVL5-170915	LCVL6020A_W	2511	
121	CCB	CCB5-170915	CCB 6020A_W	1102	
122	CCB	CCB5-170915	CCB 6020A_W	1102	
123	CCB	CCB5-170915	CCB 6020A_W	1102	
124	CCB	CCB5-170915	CCB 6020A_W	1103	
125	CCB	CCB5-170915	CCB 6020A_W	1103	

Unknown Samples:

#	Skip	Sample Type	Sample Name	Comment	Vial#	Level	Total Dil.
---	------	-------------	-------------	---------	-------	-------	------------

Blank Samples:

#	Skip	Sample Type	Sample Name	Comment	Vial#	Level	Total Dil.
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Periodic Block

#	Block Name	Period	Unit	Reset By
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Sublist

DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: 9/14/2017 8:20:55 AM

Digestion:

Prep End Date:

Prep Batch 82354 Prep Code: 3005A

Technician: Sydney Powers

Prep Factor Units:
mL/mL

Equipment List

Hot Block #3
Thermometer #60
Pipette #P-40-Spikes
Pipette #P-41 Samples

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709083-01A	Aqueous		50	50	1.000	1 of 1		
1709084-01A	Aqueous		50	50	1.000	1 of 1		
1709085-01A	Aqueous		50	50	1.000	1 of 1		
1709087-01A	MS/MSD		50	50	1.000	1 of 1		
1709087-02A	Aqueous		50	50	1.000	1 of 1		
1709087-03A	Aqueous		50	50	1.000	1 of 1		
1709089-01B	Aqueous		50	50	1.000	1 of 1		
1709089-02B	Aqueous		50	50	1.000	1 of 1		
1709089-03B	Aqueous		50	50	1.000	1 of 1		
1709099-01B	Aqueous		50	50	1.000	1 of 1		
1709100-01B	Aqueous		50	50	1.000	1 of 1		
LCS-82354	Aqueous		50	50	1.000	of		
LCSD-82354	Aqueous		50	50	1.000	of		
MB-82354	Aqueous		50	50	1.000	of		

1709108-02B 50 50 Sample added to batch 11:30-16:30

Number	Reagent Name	Amt	Units	Exp. Date	Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
11490	Hydrochloric Acid (trace metal grade)	1	ml	12/15/2019	MET-161107-1	AL PRIMARY STD 1000 PPM	LCS/MS/MSD	0.25	04/27/2018
11594	Digestion Vessels	1	ml	01/10/2018	MET-161107-4	FE PRIMARY STD 1000 PPM	LCS/MS/MSD	0.25	04/27/2018
11661	Nitric Acid (Trace Metal Grade)	1	ml	04/05/2019	MET-SPIKE-170803-3	2500 PPM Naturals Spike	LCS/MS/MSD	0.1	02/04/2018
					MET-SPIKE-170815-1	Sb+Ag 50 PPM	LCS/MS/MSD	0.2	02/16/2018
					MET-SPIKE-170815-2	50 PPM Custom+Sr,Sn,Ti,U,B,Li,Mo	LCS/MS/MSD	0.2	02/16/2018

8:45-13:45

REVIEWED BY
By Janice Whitt at 4:01:42 PM, 9/15/2017

Janice Whitt
9/14/17

DHL Analytical, Inc.

PREP BATCH REPORT

Prep Start Date: **9/14/2017 8:20:55 AM**
 Digestion: **Start: 9/14/2017 8:45:00 AM / Stop: 9/14/2017 4:30:00 PM**
 Prep End Date: **9/14/2017 4:40:01 PM**

Prep Batch **82354** Prep Code: **3005A**

Technician: **Sydney Powers**

Prep Factor Units:
mL/mL

Equipment List	
Hot Block #3	
Thermometer #60	
Pipette #P-40-Spikes	
Pipette #P-41 Samples	

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Vessel	Cleanup
1709083-01A	Aqueous		50	50	1.000	1 of 1		
1709084-01A	Aqueous		50	50	1.000	1 of 1		
1709085-01A	Aqueous		50	50	1.000	1 of 1		
1709087-01A	Aqueous		50	50	1.000	1 of 1		
1709087-01A MS	Aqueous		50	50	1.000	of		
1709087-01A MSD	Aqueous		50	50	1.000	of		
1709087-01A PDS	Aqueous		50	50	1.000	of		
1709087-01A SD	Aqueous		50	50	1.000	of		
1709087-02A	Aqueous		50	50	1.000	1 of 1		
1709087-03A	Aqueous		50	50	1.000	1 of 1		
1709089-01B	Aqueous		50	50	1.000	1 of 1		
1709089-02B	Aqueous		50	50	1.000	1 of 1		
1709089-03B	Aqueous		50	50	1.000	1 of 1		
1709099-01B	Aqueous		50	50	1.000	1 of 1		
1709100-01B	Aqueous		50	50	1.000	1 of 1		
1709108-02B	Aqueous		50	50	1.000	1 of 1		
LCS-82354	Aqueous		50	50	1.000	of		
LCSD-82354	Aqueous		50	50	1.000	of		
MB-82354	Aqueous		50	50	1.000	of		

Number	Reagent Name	Amt	Units	Exp. Date
11490	Hydrochloric Acid (trace metal grade)	1	ml	12/15/2019
11594	Digestion Vessels	1	ml	01/10/2018
11661	Nitric Acid (Trace Metal Grade)	1	ml	04/05/2019

Spk ID	Spike Name	SampType	Amt (mL or g)	Exp. Date
MET-161107-1	AL PRIMARY STD 1000 PPM	LCS/MS/MSD	0.25	04/27/2018
MET-161107-4	FE PRIMARY STD 1000 PPM	LCS/MS/MSD	0.25	04/27/2018
MET-SPIKE-170803-3	2500 PPM Naturals Spike	LCS/MS/MSD	0.1	02/04/2018
MET-SPIKE-170815-1	Sb+Ag 50 PPM	LCS/MS/MSD	0.2	02/16/2018
MET-SPIKE-170815-2	50 PPM Custom+Sr,Sn,Ti,U,B,Li,Mo	LCS/MS/MSD	0.2	02/16/2018

REVIEWED BY
By Janice Whitt at 4:01:45 PM, 9/15/2017

Calibration Summary Report

Date Acquired 9/15/2017 10:13

Data Batch 170915.b

Level	Calibration File Name
1	009CALB.d
2	010CALS.d
3	011CALS.d
4	012CALS.d
5	013CALS.d
6	014CALS.d
7	015CALS.d
8	016CALS.d

Calibration Table

Ele	Corr Coef	Curve Equation
As	1.0000	$y = 0.0010 * x + 7.3156E-005$
Be	1.0000	$y = 5.6311E-005 * x + 3.2017E-006$
B	1.0000	$y = 2.7014E-005 * x + 1.4393E-004$
Na	1.0000	$y = 8.8950E-004 * x + 0.0117$
Mg	1.0000	$y = 4.5827E-004 * x + 6.8230E-004$
Al	1.0000	$y = 1.6600E-004 * x + 0.0030$
K	1.0000	$y = 3.7298E-004 * x + 0.0219$
Ca	0.9999	$y = 2.2621E-005 * x + 2.1985E-004$
Ti	1.0000	$y = 1.5173E-004 * x + 5.3271E-006$
V	1.0000	$y = 0.0053 * x + 0.0015$
Cr	1.0000	$y = 0.0065 * x + 7.2060E-004$
Mn	1.0000	$y = 0.0036 * x + 2.4518E-004$
Fe	1.0000	$y = 0.0051 * x + 0.0122$
Co	1.0000	$y = 0.0157 * x + 3.1758E-004$
Ni	1.0000	$y = 0.0043 * x + 0.0092$
Cu	1.0000	$y = 0.0114 * x + 0.0011$
Zn	1.0000	$y = 0.0016 * x + 3.8393E-004$
Se	1.0000	$y = 7.8292E-005 * x + 2.3638E-005$
Sr	0.9999	$y = 6.4939E-004 * x + 4.4438E-005$
Mo	0.9999	$y = 6.6341E-004 * x + 1.1809E-005$
Ag	1.0000	$y = 0.0021 * x + 6.0912E-006$
Cd	1.0000	$y = 2.9286E-004 * x + 1.1432E-006$
Sn	1.0000	$y = 6.1354E-004 * x + 4.9535E-005$
Sb	1.0000	$y = 7.5183E-004 * x + 1.7406E-005$
Tl	1.0000	$y = 0.0018 * x + 1.4377E-005$
Ba	1.0000	$y = 2.7386E-004 * x + 7.7499E-006$
Pb	1.0000	$y = 0.0024 * x + 6.4623E-005$



Calibration Summary Report

Level 7 Cal

Ele	Conc	Calc	%Rec
As	500	494.78	99
Be	500	505.93	101
B	500	503.17	101
Na	10000	10036.69	100
Mg	10000	10012.74	100
Al	10000	9968.45	100
K	10000	9907.37	99
Ca	10000	9782.04	98
Ti	500	491.45	98
V	500	489.06	98
Cr	500	495.28	99
Mn	500	493.63	99
Fe	10000	9982.26	100
Co	500	506.19	101
Ni	500	499.77	100
Cu	500	502.58	101
Zn	500	507.70	102
Se	500	497.43	99
Sr	500	477.89	96
Mo	500	481.75	96
Ag	500	499.29	100
Cd	500	502.13	100
Sn	500	485.73	97
Sb	500	500.64	100
Tl	500	501.65	100
Ba	500	496.16	99
Pb	500	498.72	100

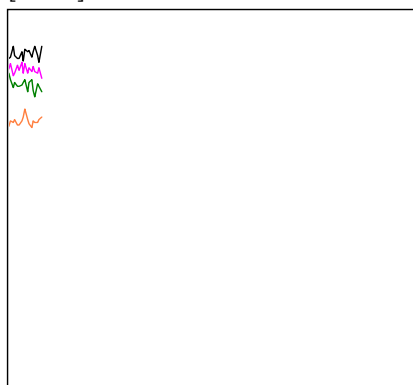
Level 8 Cal

Ele	Conc	Calc	%Rec
As	2000	2001.25	100
Be	2000	1997.97	100
B	2000	1999.11	100
Na	25000	24974.86	100
Mg	25000	24984.29	100
K	25000	25036.65	100
Ca	25000	25115.64	100
Ti	2000	2002.20	100
V	2000	2003.48	100
Cr	2000	2001.33	100
Mn	2000	2001.89	100
Co	2000	1997.69	100
Ni	2000	1999.24	100
Cu	2000	1998.16	100
Zn	2000	1996.61	100
Se	2000	1999.72	100
Sr	2000	2007.46	100
Mo	2000	2006.30	100
Cd	2000	1999.36	100
Sn	2000	2004.80	100
Tl	2000	1999.89	100
Ba	2000	2001.66	100
Pb	2000	2000.81	100

REVIEWED BY
By Janice Whitt at 4:01:53 PM, 9/15/2017

Current Signal

[Helium]



Mass	Range	Count	Avg. Count	RSD [%]
63	500	231	274.2	6.74
59	20000	15716	16054.3	1.85
89	20000	14380	14131.9	1.71
140	50000	40946	42132.3	1.44
205	50000	45304	44230.7	1.57
156/140	1	0.432 %	0.410 %	7.21
51	100	82	76.4	12.65
56	5000	2214	2292.1	2.90
75	20	3	1.8	103.19
78	20	3	2.9	66.36
Integration Time [sec]		0.10		

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.90	V	S/C Temp	2	°C
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.70	L/min	Makeup/Dilution Gas	0.40	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-180.0	V	Cell Exit	-58	V
Omega Bias	-80	V	Deflect	0.8	V
Omega Lens	8.1	V	Plate Bias	-60	V

Cell Parameters

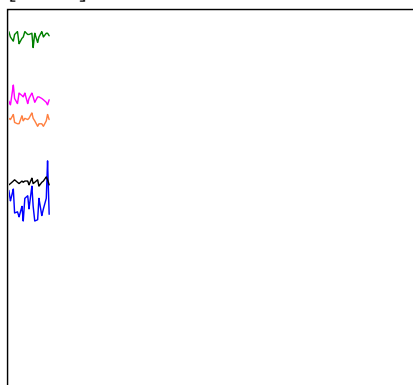
Use Gas	Yes		OctP RF	200	V
He Flow	5.0	mL/min	Energy Discrimination	3.0	V
OctP Bias	-19.0	V			

Meters

IF/BK Press	2.16E+2	Pa	Carrier Gas(BP)	3.06E+2	kPa	Forward Power	1549	W
Analyzer Press	1.57E-4	Pa	Reflected Power	6	W			

Current Signal

[No Gas]



Mass	Range	Count	Avg. Count	RSD [%]
63	500	229	243.4	7.83
59	20000	18686	18634.2	1.22
89	50000	35582	35446.6	1.42
140	50000	38148	38334.8	1.69
205	50000	26942	27267.5	1.19
156/140	2	1.694 %	1.684 %	7.11
51	20000	15615	15787.7	1.74
56	200000	187317	184571.7	1.09
75	2000	1344	1310.3	2.91
78	1000	766	747.7	5.12

Integration Time [sec] 0.10

Plasma Parameters

RF Power	1550	W	Nebulizer Pump	0.10	rps
RF Matching	1.90	V	S/C Temp	2	°C
Smpl Depth	8.0	mm	Gas Switch	Dilution Gas	
Carrier Gas	0.70	L/min	Makeup/Dilution Gas	0.40	L/min
Option Gas	0.0	%			

Lenses Parameters

Extract 1	0.0	V	Cell Entrance	-40	V
Extract 2	-180.0	V	Cell Exit	-58	V
Omega Bias	-80	V	Deflect	1.4	V
Omega Lens	8.1	V	Plate Bias	-60	V

Cell Parameters

Use Gas	No		OctP RF	200	V
He Flow	5.0	mL/min	Energy Discrimination	3.0	V
OctP Bias	-19.0	V			

Meters

IF/BK Press	2.14E+2	Pa	Carrier Gas(BP)	3.07E+2	kPa	Forward Power	1550	W
Analyzer Press	9.16E-5	Pa	Reflected Power	6	W			

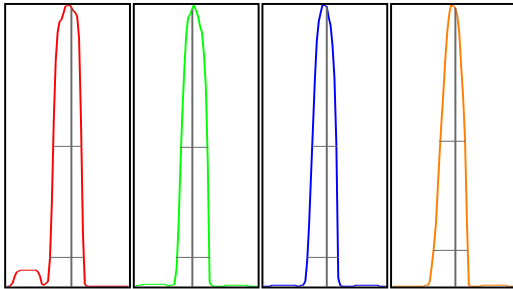
US EPA Tune Check Sample Report

Batch Folder C:\Agilent\ICPMH\1\DATA\DHL Li+U TEMPLATE.b
 Report Comment
 Instrument Name ICPMS4 JP12361998

[No Gas] Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
7	61408	1.08	5.00	
59	99129	1.45	5.00	
115	171779	0.69	5.00	
205	152674	1.73	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
7	60430	61091	61712	61654	62154
59	97394	98287	99038	99784	101144
115	170564	170724	171651	173266	172688
205	157175	152529	151506	151840	150320

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
7	92502	7.10	6.9 - 7.1		0.823	0.850	
59	164712	58.95	58.9 - 59.1		0.779	0.850	
115	310214	115.05	114.9 - 115.1		0.739	0.850	
205	268334	205.05	204.9 - 205.1		0.826	0.850	

X% = 10 Int Time [sec] = 0.1 Acq Time [sec] = 135.05 Y Axis = Linear

Tune Parameters

Plasma Parameters

ParameterName	Value Unit	ParameterName	Value Unit
RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.90 V	S/C Temp	2 °C
Smpl Depth	8.0 mm	Gas Switch	Dilution Gas
Carrier Gas	0.70 L/min	Makeup/Dilution Gas	0.40 L/min
Option Gas	0.0 %		

Lenses Parameters

ParameterName	Value Unit	ParameterName	Value Unit
Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-180.0 V	Cell Exit	-58 V
Omega Bias	-80 V	Deflect	1.4 V
Omega Lens	8.1 V	Plate Bias	-60 V

Cell Parameters

ParameterName	Value Unit	ParameterName	Value Unit
Use Gas	No	OctP RF	200 V
He Flow	0.0 mL/min	Energy Discrimination	3.0 V
OctP Bias	-19.0 V		

REVIEWED BY
By Janice Whitt at 4:01:59 PM, 9/15/2017

P/A Factor Tuning Report

===== Current Sample =====

Sample Name: CCB5-170915
 Data File: 125_CCB.d
 Acquired: 9/15/2017 2:28:33 PM

===== Detector Parameters and P/A Factors =====

Discriminator: 4.5 mV
 AnalogHV: 1749 V
 PulseHV: 1599 V

Acquired: 9/15/2017 9:45:42 AM

Mass[u]	Element	P/A Factor
9	Be	0.113003
23	Na	0.122552
24	Mg	0.126948
27	Al	0.129958
39	K	0.129614
45	Sc	0.131300
47	Ti	0.131591
51	V	0.133373
52	Cr	0.136613
55	Mn	0.137790
56	Fe	0.127408
59	Co	0.140729
60	Ni	0.143352
63	Cu	0.143655
66	Zn	0.144294
72	Ge	0.143603
75	As	0.142607
88	Sr	0.143128
95	Mo	0.142943
111	Cd	0.148672
115	In	0.147425
118	Sn	0.147647
121	Sb	0.147920
137	Ba	0.147565
205	Tl	0.153376
206	[Pb]	0.154559
207	[Pb]	0.154913
208	Pb	0.153893
209	Bi	0.155715
238	U	0.153388
7	Li	Signal too low
11	B	Signal too low
44	Ca	Signal too low
78	Se	Signal too low
107	Ag	Signal too low

Created: 9/15/2017 2:30:06 PM

REVIEWED BY

By Janice Whitt at 4:02:04 PM, 9/15/2017

Calibration Blank Report

Date Acquired 9/15/2017 10:13
Data Batch 170915.b
Data File Name 009CALB.d

Sample Name BLANK STD 1
Comment CAL 6020A_W
Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	4	66.14
11	B	45	180	16.04
23	Na	45	14654	2.14
24	Mg	45	853	0.78
27	Al	45	3716	4.31
39	K	45	27409	0.93
44	Ca	45	275	4.31
47	Ti	45	7	50.03
51	V	45	1868	5.16
52	Cr	45	901	7.35
55	Mn	45	307	9.96
56	Fe	45	15248	8.19
59	Co	72	277	6.26
60	Ni	72	7984	4.29
63	Cu	72	1000	3.33
66	Zn	72	334	14.52
75	As	72	64	36.17
78	Se	72	21	16.49
88	Sr	115	389	8.59
95	Mo	115	103	3.23
107	Ag	115	53	21.65
111	Cd	115	10	57.75
118	Sn	115	433	8.03
121	Sb	115	152	11.02
137	Ba	115	68	15.02
205	Tl	209	351	10.24
208	Pb	209	1578	3.58

QC ISTD Table

Mass	Name	CPS	%RSD
45	Sc	1250708	0.29
72	Ge	871265	0.22
115	In	8749493	0.75
209	Bi	24417425	0.76

Calibration Standard Report

Date Acquired 9/15/2017 10:15
 Data Batch 170915.b
 Data File Name 010CAL.S.d

Sample Name L2-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	73	22.37
11	B	45	186	8.49
23	Na	45	35864	0.58
24	Mg	45	11593	2.99
27	Al	45	7190	1.98
39	K	45	36290	0.08
44	Ca	45	884	5.49
47	Ti	45	199	17.92
51	V	45	7978	2.62
52	Cr	45	8607	2.81
55	Mn	45	4218	1.12
56	Fe	45	144403	0.98
59	Co	72	13213	1.39
60	Ni	72	8887	4.46
63	Cu	72	10558	1.66
66	Zn	72	1781	2.68
75	As	72	901	3.99
78	Se	72	83	19.75
88	Sr	115	5270	0.16
95	Mo	115	5268	1.56
107	Ag	115	16455	0.22
111	Cd	115	2502	3.32
118	Sn	115	5282	2.08
121	Sb	115	6297	3.32
137	Ba	115	2338	3.19
205	Tl	209	39434	0.26
208	Pb	209	54048	0.82

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1248235	0.18	1250708	99.80	70	120	
72	Ge	864404	0.44	871265	99.21	70	120	
115	In	8713584	0.55	8749493	99.59	70	120	
209	Bi	24339058	0.32	24417425	99.68	70	120	

Calibration Standard Report

Date Acquired 9/15/2017 10:17
 Data Batch 170915.b
 Data File Name 011CAL.S.d

Sample Name L-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	650	4.44
11	B	45	476	20.03
23	Na	45	226118	0.49
24	Mg	45	109996	0.32
27	Al	45	42337	0.72
39	K	45	114328	0.59
44	Ca	45	5395	1.98
47	Ti	45	1833	7.41
51	V	45	62521	0.91
52	Cr	45	77210	0.94
55	Mn	45	41887	0.14
56	Fe	45	1328508	0.09
59	Co	72	131584	0.07
60	Ni	72	40690	0.75
63	Cu	72	98119	0.31
66	Zn	72	14224	1.79
75	As	72	8516	0.55
78	Se	72	655	3.38
88	Sr	115	50639	0.86
95	Mo	115	50614	2.00
107	Ag	115	169828	0.71
111	Cd	115	24136	1.95
118	Sn	115	48390	0.81
121	Sb	115	60762	0.73
137	Ba	115	22381	1.23
205	Tl	209	393373	0.23
208	Pb	209	524931	0.61

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1237485	0.27	1250708	98.94	70	120	
72	Ge	860474	0.57	871265	98.76	70	120	
115	In	8627296	0.47	8749493	98.60	70	120	
209	Bi	24187184	0.80	24417425	99.06	70	120	

Calibration Standard Report

Date Acquired 9/15/2017 10:19
 Data Batch 170915.b
 Data File Name 012CALS.d

Sample Name 10X-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	3491	2.55
11	B	45	1841	5.77
23	Na	45	1118337	0.84
24	Mg	45	572829	0.41
27	Al	45	208673	0.50
39	K	45	485581	0.34
44	Ca	45	27584	2.72
47	Ti	45	9304	1.21
51	V	45	317374	0.39
52	Cr	45	400305	0.47
55	Mn	45	219702	0.47
56	Fe	45	6409706	0.69
59	Co	72	685961	0.62
60	Ni	72	191708	0.39
63	Cu	72	508461	0.22
66	Zn	72	72207	0.81
75	As	72	44447	0.26
78	Se	72	3421	1.86
88	Sr	115	263580	0.62
95	Mo	115	265182	0.51
107	Ag	115	880356	0.68
111	Cd	115	126267	0.34
118	Sn	115	252981	0.88
121	Sb	115	319158	0.46
137	Ba	115	114658	0.10
205	Tl	209	2084678	0.56
208	Pb	209	2756131	0.19

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1223741	0.68	1250708	97.84	70	120	
72	Ge	849091	0.50	871265	97.46	70	120	
115	In	8506204	1.22	8749493	97.22	70	120	
209	Bi	23946791	1.12	24417425	98.07	70	120	

Calibration Standard Report

Date Acquired 9/15/2017 10:21
 Data Batch 170915.b
 Data File Name 013CALS.d

Sample Name 5X-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	6918	0.75
11	B	45	3554	5.29
23	Na	45	2191793	0.11
24	Mg	45	1121032	0.33
27	Al	45	407182	0.21
39	K	45	923703	0.47
44	Ca	45	53060	2.78
47	Ti	45	18012	0.09
51	V	45	627690	0.69
52	Cr	45	786770	0.25
55	Mn	45	429678	0.61
56	Fe	45	12507167	0.95
59	Co	72	1344490	0.28
60	Ni	72	371789	0.72
63	Cu	72	992761	0.33
66	Zn	72	142038	0.48
75	As	72	87259	0.29
78	Se	72	6684	1.88
88	Sr	115	515705	0.31
95	Mo	115	526333	0.29
107	Ag	115	1737639	0.30
111	Cd	115	247000	0.39
118	Sn	115	499348	0.10
121	Sb	115	625371	0.50
137	Ba	115	225420	1.07
205	Tl	209	4085072	0.57
208	Pb	209	5448691	0.42

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1197123	0.47	1250708	95.72	70	120	
72	Ge	832821	0.38	871265	95.59	70	120	
115	In	8416150	0.74	8749493	96.19	70	120	
209	Bi	23429880	0.44	24417425	95.96	70	120	

Calibration Standard Report

Date Acquired 9/15/2017 10:23
 Data Batch 170915.b
 Data File Name 014CALS.d

Sample Name 2X-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	16952	0.53
11	B	45	8163	2.11
23	Na	45	5333260	0.55
24	Mg	45	2741822	0.30
27	Al	45	999732	0.25
39	K	45	2241310	0.48
44	Ca	45	131491	1.71
47	Ti	45	45057	1.70
51	V	45	1533676	0.62
52	Cr	45	1919519	0.74
55	Mn	45	1052050	0.69
56	Fe	45	30407258	0.48
59	Co	72	3266991	0.49
60	Ni	72	896477	0.62
63	Cu	72	2394772	0.60
66	Zn	72	344438	0.35
75	As	72	213423	0.42
78	Se	72	16444	0.47
88	Sr	115	1270621	0.46
95	Mo	115	1307427	0.61
107	Ag	115	4248217	0.45
111	Cd	115	605069	0.59
118	Sn	115	1223347	0.65
121	Sb	115	1544737	0.69
137	Ba	115	554290	0.23
205	Tl	209	10371279	1.18
208	Pb	209	13491778	0.68

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1188502	0.13	1250708	95.03	70	120	
72	Ge	818511	0.11	871265	93.95	70	120	
115	In	8243314	0.85	8749493	94.21	70	120	
209	Bi	23189830	0.80	24417425	94.97	70	120	

Calibration Standard Report

Date Acquired 9/15/2017 10:24
 Data Batch 170915.b
 Data File Name 015CALS.d

Sample Name H-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	33854	0.57
11	B	45	16321	1.10
23	Na	45	10621261	0.42
24	Mg	45	5452558	0.84
27	Al	45	1969665	0.29
39	K	45	4416485	0.41
44	Ca	45	263175	0.99
47	Ti	45	88605	1.21
51	V	45	3063489	0.33
52	Cr	45	3825343	0.11
55	Mn	45	2097540	0.09
56	Fe	45	60526866	0.55
59	Co	72	6536201	0.49
60	Ni	72	1759077	0.27
63	Cu	72	4709490	0.43
66	Zn	72	678440	0.21
75	As	72	424687	0.36
78	Se	72	32103	0.55
88	Sr	115	2535161	0.28
95	Mo	115	2610558	0.21
107	Ag	115	8369936	0.89
111	Cd	115	1201105	0.38
118	Sn	115	2434534	0.20
121	Sb	115	3074519	0.68
137	Ba	115	1109885	0.42
205	Tl	209	20580440	0.20
208	Pb	209	26849457	0.59

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1188147	0.32	1250708	95.00	70	120	
72	Ge	823834	0.54	871265	94.56	70	120	
115	In	8167907	0.35	8749493	93.35	70	120	
209	Bi	22846020	0.64	24417425	93.56	70	120	

Calibration Standard Report

Date Acquired 9/15/2017 10:26
 Data Batch 170915.b
 Data File Name 016CALS.d

Sample Name H2-170915
 Comment CAL 6020A_W
 Dilution 1

Mass	Name	IS	CPS	%RSD
9	Be	45	131794	0.31
11	B	45	63428	1.40
23	Na	45	26036036	0.85
24	Mg	45	13412482	0.40
27	Al	45	5202	9.51
39	K	45	10964266	0.58
44	Ca	45	665769	0.96
47	Ti	45	355863	0.48
51	V	45	12367398	0.44
52	Cr	45	15237028	0.24
55	Mn	45	8385521	0.25
56	Fe	45	75523	21.20
59	Co	72	25423776	1.07
60	Ni	72	6913209	1.04
63	Cu	72	18451454	1.46
66	Zn	72	2628807	0.23
75	As	72	1692852	0.22
78	Se	72	127141	0.27
88	Sr	115	10444814	0.77
95	Mo	115	10663561	1.04
107	Ag	115	5937	26.92
111	Cd	115	4690982	0.30
118	Sn	115	9855174	0.62
121	Sb	115	4676	9.49
137	Ba	115	4391835	0.15
205	Tl	209	80414012	0.82
208	Pb	209	105568657	0.46

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	Flag
45	Sc	1171386	0.23	1250708	93.66	70	120	
72	Ge	811979	0.52	871265	93.20	70	120	
115	In	8012001	0.93	8749493	91.57	70	120	
209	Bi	22391125	0.08	24417425	91.70	70	120	

Interference Check Solution A (ICS-A) Report

Date Acquired 9/15/2017 10:32
 Data Batch 170915.b
 Data File Name 019ICSA.d

Sample Name ICSA-170915
 Comment ICSA6020A_W
 Dilution 1

Mass	Name	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	0.103	11	51.6	1.2	0.8	
11	B	5.452	344	20.4	30	30	
51	V	0.057	2123	3.0	10	10	
52	Cr	0.346	3510	4.9	8	5	
55	Mn	1.709	7517	1.4	8	10	
59	Co	0.463	6027	3.8	8	10	
60	Ni	0.725	9737	3.7	8	10	
63	Cu	0.549	5872	3.0	8	10	
66	Zn	2.505	3534	9.7	10	5	
75	As	0.212	233	11.0	4	5	
78	Se	0.465	48	20.6	2	5	
88	Sr	3.489	18109	0.6	10	10	
107	Ag	0.212	3460	8.8	0.8	2	
111	Cd	0.676	1561	4.2	1.2	1	
118	Sn	0.330	1975	4.9	10	10	
121	Sb	0.632	3861	3.6	4	2.5	
137	Ba	0.344	799	14.4	8	10	
205	Tl	0.244	9330	5.8	4	1.5	
208	Pb	0.353	18486	4.1	1.2	1	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1182895	0.34	1250708	94.58	70	120	
72	Ge	794987	0.20	871265	91.25	70	120	
115	In	7837889	0.38	8749493	89.58	70	120	
209	Bi	20597515	1.03	24417425	84.36	70	120	

Interference Check Solution AB (ICS-AB) Report

Date Acquired 9/15/2017 10:34
 Data Batch 170915.b
 Data File Name 020ICSB.d

Sample Name ICSAB-170915
 Comment ICSB6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
51	V	45	39.487	249612	1.00	40	98.7	80	120	
52	Cr	45	20.651	160726	0.75	20	103.3	80	120	
55	Mn	45	19.338	82660	0.83	20	96.7	80	120	
59	Co	72	40.625	510612	0.29	40	101.6	80	120	
60	Ni	72	37.701	135898	1.20	40	94.3	80	120	
63	Cu	72	20.631	188971	0.56	20	103.2	80	120	
66	Zn	72	20.487	26931	1.00	20	102.4	80	120	
75	As	72	20.902	17511	0.64	20	104.5	80	120	
78	Se	72	20.296	1293	2.56	20	101.5	80	120	
107	Ag	115	19.068	309683	0.22	20	95.3	80	120	
111	Cd	115	10.256	23771	1.13	10	102.6	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1191154	0.21	1250708	95.24	70	120	
72	Ge	801518	0.31	871265	91.99	70	120	
115	In	7912095	0.63	8749493	90.43	70	120	
209	Bi	20724579	1.21	24417425	84.88	70	120	

Initial Calibration Verification (ICV) Report

Date Acquired 9/15/2017 10:40
 Data Batch 170915.b
 Data File Name 023_ICV.d

Sample Name ICV-170915
 Comment ICV 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	99.461	7045	0.97	100	99.5	90	110	
11	B	45	103.911	3709	5.90	100	103.9	90	110	
23	Na	45	2603.276	2925915	0.78	2500	104.1	90	110	
24	Mg	45	2587.464	1491541	0.73	2500	103.5	90	110	
27	Al	45	2457.935	516678	0.81	2500	98.3	90	110	
39	K	45	2563.114	1229390	0.42	2500	102.5	90	110	
44	Ca	45	2432.736	69460	0.99	2500	97.3	90	110	
47	Ti	45	100.611	19199	2.29	100	100.6	90	110	
51	V	45	100.390	666873	0.54	100	100.4	90	110	
52	Cr	45	103.457	846219	0.48	100	103.5	90	110	
55	Mn	45	99.882	449323	0.19	100	99.9	90	110	
56	Fe	45	2490.020	15987243	0.88	2500	99.6	90	110	
59	Co	72	104.153	1419082	0.30	100	104.2	90	110	
60	Ni	72	103.440	390428	0.86	100	103.4	90	110	
63	Cu	72	105.316	1041941	0.70	100	105.3	90	110	
66	Zn	72	105.420	148887	0.52	100	105.4	90	110	
75	As	72	101.811	92246	0.38	100	101.8	90	110	
78	Se	72	101.441	6923	2.00	100	101.4	90	110	
88	Sr	115	96.946	554931	0.27	100	96.9	90	110	
95	Mo	115	94.866	554463	0.59	100	94.9	90	110	
107	Ag	115	103.832	1877139	0.24	100	103.8	90	110	
111	Cd	115	101.056	260695	0.74	100	101.1	90	110	
118	Sn	115	99.307	537117	0.41	100	99.3	90	110	
121	Sb	115	102.973	682084	0.32	100	103.0	90	110	
137	Ba	115	99.526	240157	1.33	100	99.5	90	110	
205	Tl	209	96.720	4236581	0.20	100	96.7	90	110	
208	Pb	209	98.951	5688546	0.31	100	99.0	90	110	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1257207	0.74	1250708	100.52	70	120	
72	Ge	869141	0.23	871265	99.76	70	120	
115	In	8808371	0.34	8749493	100.67	70	120	
209	Bi	24390963	0.70	24417425	99.89	70	120	

Low Level Calibration Verification (LLCV) Report

Date Acquired 9/15/2017 10:50
 Data Batch 170915.b
 Data File Name 025LICV.d

Sample Name LCVL-170915
 Comment LCVL6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	1.005	74	3.58	1	100.5	70	130	
11	B	45	18.202	787	5.87	20	91.0	70	130	
23	Na	45	93.470	117418	0.49	100	93.5	70	130	
24	Mg	45	91.384	52683	0.80	100	91.4	70	130	
27	Al	45	88.139	21790	2.15	100	88.1	70	130	
39	K	45	90.476	68900	1.53	100	90.5	70	130	
44	Ca	45	90.660	2811	1.56	100	90.7	70	130	
47	Ti	45	4.776	903	10.97	5	95.5	70	130	
51	V	45	0.916	7826	1.08	1	91.6	70	130	
52	Cr	45	4.744	39054	0.85	5	94.9	70	130	
55	Mn	45	4.789	21500	0.10	5	95.8	70	130	
56	Fe	45	102.763	664099	1.10	100	102.8	70	130	
59	Co	72	4.796	65517	0.55	5	95.9	70	130	
60	Ni	72	3.801	21987	1.91	5	76.0	70	130	
63	Cu	72	4.931	49662	1.43	5	98.6	70	130	
66	Zn	72	5.094	7502	2.84	5	101.9	70	130	
75	As	72	4.720	4331	2.06	5	94.4	70	130	
78	Se	72	4.887	353	4.73	5	97.7	70	130	
88	Sr	115	4.544	25947	2.13	5	90.9	70	130	
95	Mo	115	4.398	25376	0.76	5	88.0	70	130	
107	Ag	115	1.945	34639	2.15	2	97.3	70	130	
111	Cd	115	0.977	2488	5.15	1	97.7	70	130	
118	Sn	115	4.643	25106	2.22	5	92.9	70	130	
121	Sb	115	1.857	12247	2.41	2	92.9	70	130	
137	Ba	115	4.697	11210	1.13	5	93.9	70	130	
205	Tl	209	0.933	40844	1.16	1	93.3	70	130	
208	Pb	209	0.924	54162	0.20	1	92.4	70	130	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1237840	0.62	1250708	98.97	70	120	
72	Ge	867935	0.61	871265	99.62	70	120	
115	In	8662802	0.28	8749493	99.01	70	120	
209	Bi	24171187	0.59	24417425	98.99	70	120	

Initial Calibration Blank (ICB) Report

Date Acquired 9/15/2017 10:54
 Data Batch 170915.b
 Data File Name 027_ICB.d

Sample Name ICB-170915
 Comment ICB 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	45	0.010	5	24.7	0.4	0.3	
11	B	45	1.206	218	3.2	10	10	
23	Na	45	1.741	16368	2.3	50	100	
24	Mg	45	-0.440	593	6.7	50	100	
27	Al	45	-4.780	2687	4.8	50	10	
39	K	45	-0.846	26653	1.6	50	100	
44	Ca	45	-1.225	237	11.9	50	100	
47	Ti	45	-0.005	6	124.9	4	3	
51	V	45	0.011	1911	2.2	4	3	
52	Cr	45	-0.043	542	6.1	2	2	
55	Mn	45	-0.023	200	12.0	2	3	
56	Fe	45	-0.666	10854	1.5	50	50	
59	Co	72	-0.008	160	8.3	2	3	
60	Ni	72	-0.719	5265	2.6	2	3	
63	Cu	72	-0.021	786	3.7	2	2	
66	Zn	72	0.258	691	4.3	4	2	
75	As	72	0.003	66	7.9	2	2	
78	Se	72	0.095	27	13.8	1	2	
88	Sr	115	0.001	392	14.5	4	3	
95	Mo	115	0.057	433	21.4	2	2	
107	Ag	115	0.003	108	48.1	0.4	1	
111	Cd	115	-0.002	6	34.7	0.4	0.3	
118	Sn	115	0.026	567	2.4	4	3	
121	Sb	115	-0.004	124	10.1	2	0.8	
137	Ba	115	0.009	89	24.1	2	3	
205	Tl	209	0.024	1399	7.2	2	0.5	
208	Pb	209	0.001	1602	5.4	0.4	0.3	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1233903	0.24	1250708	98.66	70	120	
72	Ge	862382	0.16	871265	98.98	70	120	
115	In	8674896	1.04	8749493	99.15	70	120	
209	Bi	24275692	0.93	24417425	99.42	70	120	

Method Blank Report

Date Acquired 9/15/17 10:56 AM
 Data Batch 170915.b
 Data File Name 028_PB.d

Sample Name MB-82353
 Comment MBLK6020A_S
 Dilution 5

Mass	Name	IS	Conc (ppb)	CPS	%RSD	High Limit	Flag
9	Be	45	-0.005	4	41.66		
11	B	45	-0.246	172	22.60		
23	Na	45	10.219	26094	2.31		
24	Mg	45	2.571	2334	3.98		
27	Al	45	-0.975	3524	6.16		
39	K	45	7.231	30867	2.35		
44	Ca	45	13.984	673	11.81		
47	Ti	45	0.035	13	25.01		
51	V	45	-0.012	1793	10.89		
52	Cr	45	0.048	1297	7.13		
55	Mn	45	0.029	439	10.99		
56	Fe	45	2.362	30405	1.66		
59	Co	72	-0.002	247	16.61		
60	Ni	72	-0.563	5878	1.67		
63	Cu	72	0.052	1513	11.66		
66	Zn	72	1.130	1925	3.52		
75	As	72	0.011	73	16.09		
78	Se	72	0.078	26	15.34		
88	Sr	115	0.031	573	10.29		
95	Mo	115	0.067	499	10.03		
107	Ag	115	0.002	82	10.20		
111	Cd	115	0.001	12	56.76		
118	Sn	115	4.709	26015	2.07		J
121	Sb	115	-0.002	139	43.62		
137	Ba	115	0.018	113	17.65		
205	Tl	209	0.030	1669	3.30		
208	Pb	209	0.017	2592	2.03		

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1254099	0.27	1250708	100.27	70	120	
72	Ge	868311	0.21	871265	99.66	70	120	
115	In	8853886	0.92	8749493	101.19	70	120	
209	Bi	24774282	0.19	24417425	101.46	70	120	

Laboratory Control Sample (LCS) Report

Date Acquired 9/15/2017 10:58
 Data Batch 170915.b
 Data File Name 029_LS.d

Sample Name LCS-82353
 Comment LCS 6020A_S
 Dilution 5

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	195.107	13795	0.82	200	97.6	80	120	
11	B	45	195.593	6814	3.35	200	97.8	80	120	
23	Na	45	4964.759	5557821	0.95	1000	496.5	80	120	Fail
24	Mg	45	4964.667	2856563	0.33	1000	496.5	80	120	Fail
27	Al	45	990.689	210162	0.53	1000	99.1	80	120	
39	K	45	5031.709	2383187	0.38	1000	503.2	80	120	Fail
44	Ca	45	4898.457	139364	0.79	1000	489.8	80	120	Fail
47	Ti	45	200.911	38268	1.22	200	100.5	80	120	
51	V	45	197.516	1308220	0.53	200	98.8	80	120	
52	Cr	45	201.396	1643782	0.62	200	100.7	80	120	
55	Mn	45	199.336	894972	0.57	200	99.7	80	120	
56	Fe	45	1012.338	6498315	0.31	1000	101.2	80	120	
59	Co	72	203.568	2758619	0.28	200	101.8	80	120	
60	Ni	72	204.485	759988	0.22	200	102.2	80	120	
63	Cu	72	205.995	2026267	0.15	200	103.0	80	120	
66	Zn	72	200.265	281052	0.66	200	100.1	80	120	
75	As	72	198.474	178816	0.28	200	99.2	80	120	
78	Se	72	195.728	13269	1.33	200	97.9	80	120	
88	Sr	115	196.344	1110387	0.58	200	98.2	80	120	
95	Mo	115	192.239	1110363	0.53	200	96.1	80	120	
107	Ag	115	205.885	3678665	0.28	200	102.9	80	120	
111	Cd	115	197.947	504669	0.62	200	99.0	80	120	
118	Sn	115	203.122	1085366	0.28	200	101.6	80	120	
121	Sb	115	203.201	1330133	0.02	200	101.6	80	120	
137	Ba	115	199.193	474966	0.47	200	99.6	80	120	
205	Tl	209	203.284	8786571	1.35	200	101.6	80	120	
208	Pb	209	199.995	11343287	0.49	200	100.0	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1255256	0.87	1250708	100.36	70	120	
72	Ge	864563	0.75	871265	99.23	70	120	
115	In	8705713	0.43	8749493	99.50	70	120	
209	Bi	24069973	1.29	24417425	98.58	70	120	

Laboratory Control Sample (LCS) Report

Date Acquired 9/15/2017 11:00
 Data Batch 170915.b
 Data File Name 030_LS.d

Sample Name LCSD-82353
 Comment LCSD6020A_S
 Dilution 5

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	194.752	13717	1.33	200	97.4	80	120	
11	B	45	205.179	7110	2.03	200	102.6	80	120	
23	Na	45	4979.729	5552998	0.66	1000	498.0	80	120	Fail
24	Mg	45	4968.420	2847681	0.07	1000	496.8	80	120	Fail
27	Al	45	982.942	207735	1.01	1000	98.3	80	120	
39	K	45	4986.069	2352612	0.08	1000	498.6	80	120	Fail
44	Ca	45	4876.066	138189	1.11	1000	487.6	80	120	Fail
47	Ti	45	198.582	37683	2.14	200	99.3	80	120	
51	V	45	195.493	1289781	0.23	200	97.7	80	120	
52	Cr	45	198.522	1614062	0.71	200	99.3	80	120	
55	Mn	45	197.453	883092	0.59	200	98.7	80	120	
56	Fe	45	1010.144	6459150	0.49	1000	101.0	80	120	
59	Co	72	204.364	2757055	0.28	200	102.2	80	120	
60	Ni	72	203.655	753557	0.19	200	101.8	80	120	
63	Cu	72	205.867	2015965	0.45	200	102.9	80	120	
66	Zn	72	200.429	280019	0.25	200	100.2	80	120	
75	As	72	198.070	177651	0.35	200	99.0	80	120	
78	Se	72	193.780	13078	0.48	200	96.9	80	120	
88	Sr	115	194.132	1097531	0.25	200	97.1	80	120	
95	Mo	115	189.549	1094454	0.15	200	94.8	80	120	
107	Ag	115	204.359	3650058	0.52	200	102.2	80	120	
111	Cd	115	196.210	500074	0.19	200	98.1	80	120	
118	Sn	115	200.304	1069958	0.21	200	100.2	80	120	
121	Sb	115	201.523	1318690	0.40	200	100.8	80	120	
137	Ba	115	196.328	467964	0.77	200	98.2	80	120	
205	Tl	209	201.957	8733914	0.73	200	101.0	80	120	
208	Pb	209	198.419	11261501	0.14	200	99.2	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1250354	0.61	1250708	99.97	70	120	
72	Ge	860685	0.51	871265	98.79	70	120	
115	In	8703210	0.92	8749493	99.47	70	120	
209	Bi	24083685	0.83	24417425	98.63	70	120	

Dilution Sample (Dil) Report

Date Acquired 9/15/2017 11:05
 Data Batch 170915.b
 Data File Name 033_SD.d

Sample Name 1709034-02C SD
 Comment SD 6020A_S
 Dilution 25

Mass	Name	IS	Conc	CPS	%RSD	Ref Value	%Rec	Low	High	Flag
9	Be	45	0.277	23	8.70	1.1	126.7	110	90	
11	B	45	19.207	811	8.71	68.5	140.2	110	90	
23	Na	45	256.372	293429	1.22	1183.5	108.3	110	90	Good
24	Mg	45	2950.645	1655687	0.55	13629.0	108.2	110	90	Good
27	Al	45	5850.394	1192195	0.26	27779.0	105.3	110	90	Good
39	K	45	1614.391	763734	0.83	7911.1	102.0	110	90	Good
44	Ca	45	251064.983	6950742	0.61	1212835.5	103.5	110	90	Good
47	Ti	45	68.357	12699	2.45	324.9	105.2	110	90	Good
51	V	45	16.516	108328	0.40	78.4	105.3	110	90	Good
52	Cr	45	6.944	56110	1.40	32.4	107.0	110	90	Good
55	Mn	45	385.299	1686436	0.08	1842.5	104.6	110	90	Good
56	Fe	45	4315.787	26963050	0.59	19552.3	110.4	110	90	
59	Co	72	3.034	39152	1.42	14.6	104.1	110	90	Good
60	Ni	72	6.579	30383	0.61	33.5	98.2	110	90	Good
63	Cu	72	2.853	27472	0.51	13.0	109.5	110	90	Good
66	Zn	72	21.386	28671	1.18	93.1	114.8	110	90	
75	As	72	1.827	1616	2.63	8.9	102.7	110	90	Good
78	Se	72	0.795	70	3.22	3.3	122.2	110	90	
88	Sr	115	425.096	2313683	0.84	2239.2	94.9	110	90	Good
95	Mo	115	0.237	1417	8.09	0.9	132.4	110	90	
107	Ag	115	0.022	427	13.69	0.0	234.1	110	90	
111	Cd	115	0.113	288	5.71	0.5	114.4	110	90	
118	Sn	115	1.521	8238	4.04	7.2	104.9	110	90	Good
121	Sb	115	0.078	638	4.86	0.4	108.4	110	90	Good
137	Ba	115	14.386	33075	1.04	70.0	102.8	110	90	Good
205	Tl	209	0.096	4186	3.72	0.4	132.1	110	90	
208	Pb	209	1.724	92415	0.58	8.4	102.1	110	90	Good

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1223827	0.30	1250708	97.85	70	120	
72	Ge	817835	0.22	871265	93.87	70	120	
115	In	8380211	1.21	8749493	95.78	70	120	
209	Bi	22399159	0.34	24417425	91.73	70	120	

Post Digestion Spike Sample (PDS) Report

Date Acquired 9/15/2017 11:24
 Data Batch 170915.b
 Data File Name 043_PDS.d

Sample Name 1709034-02C PDS
 Comment PDS 6020A_S
 Dilution 5

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	163.963	11422	1.87	1.1	200	81.4	75	125	
11	B	45	226.560	7746	4.45	68.5	200	79.0	75	125	
23	Na	45	6059.837	6680203	0.86	1183.5	5000	97.5	75	125	
24	Mg	45	17990.714	10196213	1.17	13629.0	5000	87.2	75	125	
27	Al	45	32808.248	6738601	1.28	27779.0	5000	100.6	75	125	
39	K	45	13144.823	6089870	0.62	7911.1	5000	104.7	75	125	
44	Ca	45	#####	34650367	0.19	1212835.5	5000	517.2	75	125	Fail
47	Ti	45	528.489	99167	0.65	324.9	200	101.8	75	125	
51	V	45	269.808	1759870	0.33	78.4	200	95.7	75	125	
52	Cr	45	220.564	1773592	1.18	32.4	200	94.1	75	125	
55	Mn	45	2049.338	9062302	0.11	1842.5	200	103.4	75	125	
56	Fe	45	24207.850	152751683	0.90	19552.3	5000	93.1	75	125	
59	Co	72	206.972	2539148	0.47	14.6	200	96.2	75	125	
60	Ni	72	218.215	733724	0.11	33.5	200	92.4	75	125	
63	Cu	72	190.099	1692882	0.21	13.0	200	88.5	75	125	
66	Zn	72	268.159	340581	0.68	93.1	200	87.5	75	125	
75	As	72	212.233	173096	0.18	8.9	200	101.7	75	125	
78	Se	72	192.969	11843	3.45	3.3	200	94.9	75	125	
88	Sr	115	2514.933	12749326	0.30	2239.2	200	137.9	75	125	Fail
95	Mo	115	188.146	974461	0.28	0.9	200	93.6	75	125	
107	Ag	115	173.559	2780708	0.57	0.0	200	86.8	75	125	
111	Cd	115	179.106	409467	0.41	0.5	200	89.3	75	125	
118	Sn	115	200.111	958814	0.11	7.2	200	96.4	75	125	
121	Sb	115	190.892	1120488	0.34	0.4	200	95.3	75	125	
137	Ba	115	264.735	566023	0.40	70.0	200	97.4	75	125	
205	Tl	209	203.089	6761329	0.89	0.4	200	101.4	75	125	
208	Pb	209	204.749	8945946	0.13	8.4	200	98.2	75	125	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1236622	0.31	1250708	98.87	70	120	
72	Ge	782651	0.30	871265	89.83	70	120	
115	In	7806276	0.08	8749493	89.22	70	120	
209	Bi	18540726	0.93	24417425	75.93	70	120	

Matrix Spike Sample (MS) Report

Date Acquired 9/15/2017 11:26
 Data Batch 170915.b
 Data File Name 044_MSS.d

Sample Name 1709034-02C MS
 Comment MS 6020A_S
 Dilution 5

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	166.249	11538	0.39	1.1	200	82.6	80	120	
11	B	45	237.189	8072	1.61	68.5	200	84.3	80	120	
23	Na	45	6135.882	6738996	0.82	1183.5	1000	495.2	80	120	Fail
24	Mg	45	18657.700	10535266	0.39	13629.0	1000	502.9	80	120	Fail
27	Al	45	31997.574	6548084	0.54	27779.0	1000	421.9	80	120	Fail
39	K	45	13959.478	6441868	0.32	7911.1	1000	604.8	80	120	Fail
44	Ca	45	#####	34131899	0.46	1212835.5	1000	1184.6	80	120	Fail
47	Ti	45	547.177	102293	1.15	324.9	200	111.1	80	120	
51	V	45	275.550	1790622	0.58	78.4	200	98.6	80	120	
52	Cr	45	220.388	1765581	0.53	32.4	200	94.0	80	120	
55	Mn	45	2043.888	9004945	0.44	1842.5	200	100.7	80	120	
56	Fe	45	22219.039	139685199	0.55	19552.3	1000	266.7	80	120	Fail
59	Co	72	208.275	2543270	0.41	14.6	200	96.8	80	120	
60	Ni	72	223.690	748460	0.34	33.5	200	95.1	80	120	
63	Cu	72	194.037	1719858	0.36	13.0	200	90.5	80	120	
66	Zn	72	274.978	347600	0.71	93.1	200	90.9	80	120	
75	As	72	214.910	174460	0.50	8.9	200	103.0	80	120	
78	Se	72	200.285	12234	1.26	3.3	200	98.5	80	120	
88	Sr	115	2450.323	12384473	0.12	2239.2	200	105.5	80	120	
95	Mo	115	190.072	981468	0.06	0.9	200	94.6	80	120	
107	Ag	115	177.700	2838494	0.47	0.0	200	88.8	80	120	
111	Cd	115	179.740	409669	0.75	0.5	200	89.6	80	120	
118	Sn	115	200.654	958524	0.15	7.2	200	96.7	80	120	
121	Sb	115	180.239	1054784	0.19	0.4	200	89.9	80	120	
137	Ba	115	269.743	574980	0.64	70.0	200	99.9	80	120	
205	Tl	209	210.471	6930874	0.53	0.4	200	105.1	80	120	
208	Pb	209	209.810	9067331	0.28	8.4	200	100.7	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1232081	0.53	1250708	98.51	70	120	
72	Ge	779033	0.73	871265	89.41	70	120	
115	In	7782930	0.53	8749493	88.95	70	120	
209	Bi	18338151	0.68	24417425	75.10	70	120	

Matrix Spike Sample (MS) Report

Date Acquired 9/15/2017 11:28
 Data Batch 170915.b
 Data File Name 045_MSS.d

Sample Name 1709034-02C MSD
 Comment MSD 6020A_S
 Dilution 5

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	164.842	11486	1.11	1.1	200	81.9	80	120	
11	B	45	236.262	8073	1.98	68.5	200	83.9	80	120	
23	Na	45	6134.995	6764831	1.17	1183.5	1000	495.2	80	120	Fail
24	Mg	45	18364.296	10411205	1.50	13629.0	1000	473.5	80	120	Fail
27	Al	45	28946.756	5947798	1.29	27779.0	1000	116.8	80	120	
39	K	45	13537.669	6272875	0.39	7911.1	1000	562.7	80	120	Fail
44	Ca	45	#####	34740910	0.42	1212835.5	1000	2873.9	80	120	Fail
47	Ti	45	533.659	100165	0.54	324.9	200	104.4	80	120	
51	V	45	270.891	1767425	0.42	78.4	200	96.2	80	120	
52	Cr	45	219.453	1765119	0.47	32.4	200	93.5	80	120	
55	Mn	45	2057.132	9099331	0.78	1842.5	200	107.3	80	120	
56	Fe	45	21109.801	133240581	0.32	19552.3	1000	155.7	80	120	Fail
59	Co	72	210.632	2563493	0.44	14.6	200	98.0	80	120	
60	Ni	72	224.027	747090	0.26	33.5	200	95.3	80	120	
63	Cu	72	195.748	1729289	0.46	13.0	200	91.4	80	120	
66	Zn	72	274.345	345661	0.55	93.1	200	90.6	80	120	
75	As	72	217.814	176234	0.69	8.9	200	104.5	80	120	
78	Se	72	200.579	12211	0.10	3.3	200	98.7	80	120	
88	Sr	115	2503.531	12753276	0.72	2239.2	200	132.2	80	120	Fail
95	Mo	115	190.987	993959	0.19	0.9	200	95.0	80	120	
107	Ag	115	178.651	2876116	0.63	0.0	200	89.3	80	120	
111	Cd	115	180.434	414496	0.40	0.5	200	90.0	80	120	
118	Sn	115	201.034	967895	0.25	7.2	200	96.9	80	120	
121	Sb	115	182.268	1075055	0.30	0.4	200	91.0	80	120	
137	Ba	115	267.576	574866	0.33	70.0	200	98.8	80	120	
205	Tl	209	213.494	7052622	0.45	0.4	200	106.6	80	120	
208	Pb	209	211.281	9159553	0.12	8.4	200	101.4	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1236977	0.36	1250708	98.90	70	120	
72	Ge	776439	0.43	871265	89.12	70	120	
115	In	7844200	0.44	8749493	89.65	70	120	
209	Bi	18396212	0.75	24417425	75.34	70	120	

Continuing Calibration Verification (CCV) Report

Date Acquired 9/15/2017 11:30
 Data Batch 170915.b
 Data File Name 046_CCV.d

Sample Name CCV1-170915
 Comment CCV 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	187.600	13092	1.01	200	93.8	90	110	
11	B	45	193.275	6647	1.86	200	96.6	90	110	
23	Na	45	4733.776	5231483	0.63	5000	94.7	90	110	
24	Mg	45	4707.853	2673896	0.33	5000	94.2	90	110	
27	Al	45	4969.232	1025722	0.35	5000	99.4	90	110	
39	K	45	4757.132	2225495	0.67	5000	95.1	90	110	
44	Ca	45	5266.015	147862	6.14	5000	105.3	90	110	
47	Ti	45	196.146	36879	0.86	200	98.1	90	110	
51	V	45	191.878	1254482	0.11	200	95.9	90	110	
52	Cr	45	195.076	1571710	0.24	200	97.5	90	110	
55	Mn	45	194.547	862215	0.56	200	97.3	90	110	
56	Fe	45	5008.406	31674118	0.97	5000	100.2	90	110	
59	Co	72	197.094	2643417	0.63	200	98.5	90	110	
60	Ni	72	198.056	728763	0.72	200	99.0	90	110	
63	Cu	72	200.484	1951768	0.20	200	100.2	90	110	
66	Zn	72	198.621	275867	0.63	200	99.3	90	110	
75	As	72	196.104	174858	0.53	200	98.1	90	110	
78	Se	72	196.336	13172	0.72	200	98.2	90	110	
88	Sr	115	190.649	1074051	0.27	200	95.3	90	110	
95	Mo	115	184.428	1061155	0.20	200	92.2	90	110	
107	Ag	115	199.599	3552639	0.39	200	99.8	90	110	
111	Cd	115	192.305	488406	0.40	200	96.2	90	110	
118	Sn	115	190.372	1013344	0.25	200	95.2	90	110	
121	Sb	115	198.083	1291666	0.67	200	99.0	90	110	
137	Ba	115	192.386	456986	0.69	200	96.2	90	110	
205	Tl	209	195.238	8381200	0.55	200	97.6	90	110	
208	Pb	209	191.741	10802279	0.09	200	95.9	90	110	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1238981	0.35	1250708	99.06	70	120	
72	Ge	855619	0.14	871265	98.20	70	120	
115	In	8672229	0.32	8749493	99.12	70	120	
209	Bi	23906243	0.84	24417425	97.91	70	120	

Low Level Calibration Verification (LLCV) Report

Date Acquired 9/15/2017 11:35
 Data Batch 170915.b
 Data File Name 048LCCV.d

Sample Name LCVL1-170915
 Comment LCVL6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	1.045	77	19.19	1	104.5	70	130	
11	B	45	21.687	910	3.26	20	108.4	70	130	
23	Na	45	96.188	121308	1.20	100	96.2	70	130	
24	Mg	45	91.142	52937	0.76	100	91.1	70	130	
27	Al	45	90.116	22361	0.37	100	90.1	70	130	
39	K	45	91.833	70043	0.41	100	91.8	70	130	
44	Ca	45	108.220	3327	5.39	100	108.2	70	130	
47	Ti	45	4.545	867	3.08	5	90.9	70	130	
51	V	45	0.928	7961	1.46	1	92.8	70	130	
52	Cr	45	4.739	39305	1.15	5	94.8	70	130	
55	Mn	45	4.750	21489	0.64	5	95.0	70	130	
56	Fe	45	102.820	669400	0.14	100	102.8	70	130	
59	Co	72	4.853	66316	0.39	5	97.1	70	130	
60	Ni	72	4.040	22879	1.68	5	80.8	70	130	
63	Cu	72	4.967	50045	0.92	5	99.3	70	130	
66	Zn	72	4.735	6999	2.22	5	94.7	70	130	
75	As	72	4.779	4386	1.49	5	95.6	70	130	
78	Se	72	4.931	356	6.47	5	98.6	70	130	
88	Sr	115	4.561	26363	1.48	5	91.2	70	130	
95	Mo	115	4.459	26044	0.48	5	89.2	70	130	
107	Ag	115	1.904	34312	0.59	2	95.2	70	130	
111	Cd	115	0.963	2482	2.41	1	96.3	70	130	
118	Sn	115	4.676	25589	0.68	5	93.5	70	130	
121	Sb	115	1.913	12764	1.14	2	95.7	70	130	
137	Ba	115	4.628	11182	1.93	5	92.6	70	130	
205	Tl	209	0.934	41134	1.65	1	93.4	70	130	
208	Pb	209	0.911	53775	0.76	1	91.1	70	130	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1247050	0.29	1250708	99.71	70	120	
72	Ge	868268	0.87	871265	99.66	70	120	
115	In	8768469	0.33	8749493	100.22	70	120	
209	Bi	24309971	0.85	24417425	99.56	70	120	

Continuing Calibration Blank (CCB) Report

Date Acquired 9/15/2017 11:40
 Data Batch 170915.b
 Data File Name 049_CCB.d

Sample Name CCB1-170915
 Comment CCB 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	45	0.023	6	36.7	0.4	0.3	
11	B	45	1.189	221	13.9	10	10	
23	Na	45	4.755	20018	2.2	50	100	
24	Mg	45	-0.765	417	2.9	50	100	
27	Al	45	-3.144	3075	4.7	50	10	
39	K	45	0.314	27658	1.1	50	100	
44	Ca	45	4.599	407	4.8	50	100	
47	Ti	45	0.006	8	24.7	4	3	
51	V	45	0.023	2025	5.3	4	3	
52	Cr	45	-0.056	449	3.5	2	2	
55	Mn	45	-0.013	248	10.3	2	3	
56	Fe	45	-0.828	10003	2.7	50	50	
59	Co	72	-0.008	167	7.2	2	3	
60	Ni	72	-0.815	4917	2.3	2	3	
63	Cu	72	-0.020	797	5.5	2	2	
66	Zn	72	0.063	420	18.7	4	2	
75	As	72	0.009	71	4.8	2	2	
78	Se	72	0.128	29	25.8	1	2	
88	Sr	115	0.007	430	10.1	4	3	
95	Mo	115	0.026	256	6.4	2	2	
107	Ag	115	0.009	216	24.2	0.4	1	
111	Cd	115	-0.003	3	173.2	0.4	0.3	
118	Sn	115	0.022	557	5.8	4	3	
121	Sb	115	0.039	408	8.7	2	0.8	
137	Ba	115	0.005	81	17.1	2	3	
205	Tl	209	0.035	1885	6.1	2	0.5	
208	Pb	209	-0.002	1478	2.5	0.4	0.3	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1255377	0.46	1250708	100.37	70	120	
72	Ge	863247	0.08	871265	99.08	70	120	
115	In	8796854	1.21	8749493	100.54	70	120	
209	Bi	24298126	0.31	24417425	99.51	70	120	

Continuing Calibration Verification (CCV) Report

Date Acquired 9/15/2017 11:51
 Data Batch 170915.b
 Data File Name 055_CCV.d

Sample Name CCV2-170915
 Comment CCV 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	181.438	12584	0.48	200	90.7	90	110	
11	B	45	187.902	6428	1.72	200	94.0	90	110	
23	Na	45	4636.826	5092901	0.18	5000	92.7	90	110	
24	Mg	45	4636.922	2617364	0.18	5000	92.7	90	110	
27	Al	45	4923.584	1010005	0.99	5000	98.5	90	110	
39	K	45	4740.362	2204007	0.42	5000	94.8	90	110	
44	Ca	45	5101.077	142319	5.05	5000	102.0	90	110	
47	Ti	45	196.959	36804	0.67	200	98.5	90	110	
51	V	45	190.271	1236344	0.92	200	95.1	90	110	
52	Cr	45	192.395	1540557	0.37	200	96.2	90	110	
55	Mn	45	191.958	845497	0.23	200	96.0	90	110	
56	Fe	45	5010.145	31490074	0.13	5000	100.2	90	110	
59	Co	72	196.011	2623858	0.21	200	98.0	90	110	
60	Ni	72	195.944	719700	0.89	200	98.0	90	110	
63	Cu	72	198.174	1925626	0.91	200	99.1	90	110	
66	Zn	72	197.094	273225	0.48	200	98.5	90	110	
75	As	72	194.546	173137	0.42	200	97.3	90	110	
78	Se	72	195.165	13069	1.06	200	97.6	90	110	
88	Sr	115	189.830	1062559	0.06	200	94.9	90	110	
95	Mo	115	183.414	1048554	0.26	200	91.7	90	110	
107	Ag	115	197.285	3488890	0.20	200	98.6	90	110	
111	Cd	115	190.862	481633	0.74	200	95.4	90	110	
118	Sn	115	189.581	1002685	0.57	200	94.8	90	110	
121	Sb	115	196.232	1271388	0.47	200	98.1	90	110	
137	Ba	115	191.999	453121	0.30	200	96.0	90	110	
205	Tl	209	195.722	8202532	0.52	200	97.9	90	110	
208	Pb	209	191.594	10537657	0.21	200	95.8	90	110	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1231366	0.74	1250708	98.45	70	120	
72	Ge	853985	0.18	871265	98.02	70	120	
115	In	8616986	1.00	8749493	98.49	70	120	
209	Bi	23340146	1.32	24417425	95.59	70	120	

Low Level Calibration Verification (LLCV) Report

Date Acquired 9/15/2017 11:57
 Data Batch 170915.b
 Data File Name 057LCCV.d

Sample Name LCVL2-170915
 Comment LCVL6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	0.828	62	9.12	1	82.8	70	130	
11	B	45	18.219	796	13.00	20	91.1	70	130	
23	Na	45	94.857	120206	1.19	100	94.9	70	130	
24	Mg	45	89.276	52034	0.89	100	89.3	70	130	
27	Al	45	91.219	22660	1.10	100	91.2	70	130	
39	K	45	93.080	70845	1.15	100	93.1	70	130	
44	Ca	45	95.599	2980	6.07	100	95.6	70	130	
47	Ti	45	5.116	978	5.46	5	102.3	70	130	
51	V	45	0.957	8174	0.97	1	95.7	70	130	
52	Cr	45	4.653	38731	1.31	5	93.1	70	130	
55	Mn	45	4.712	21386	1.23	5	94.2	70	130	
56	Fe	45	102.598	670086	0.59	100	102.6	70	130	
59	Co	72	4.871	66355	1.33	5	97.4	70	130	
60	Ni	72	3.994	22640	2.49	5	79.9	70	130	
63	Cu	72	4.936	49582	1.22	5	98.7	70	130	
66	Zn	72	4.699	6927	2.28	5	94.0	70	130	
75	As	72	4.804	4395	1.22	5	96.1	70	130	
78	Se	72	4.795	345	1.80	5	95.9	70	130	
88	Sr	115	4.564	26508	1.19	5	91.3	70	130	
95	Mo	115	4.360	25594	0.62	5	87.2	70	130	
107	Ag	115	1.908	34566	2.59	2	95.4	70	130	
111	Cd	115	0.943	2445	2.52	1	94.3	70	130	
118	Sn	115	4.578	25185	1.07	5	91.6	70	130	
121	Sb	115	1.841	12353	0.34	2	92.1	70	130	
137	Ba	115	4.667	11332	0.55	5	93.3	70	130	
205	Tl	209	0.928	40239	0.79	1	92.8	70	130	
208	Pb	209	0.904	52536	1.24	1	90.4	70	130	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1250971	0.26	1250708	100.02	70	120	
72	Ge	865646	0.45	871265	99.36	70	120	
115	In	8812559	0.79	8749493	100.72	70	120	
209	Bi	23933410	1.39	24417425	98.02	70	120	

Continuing Calibration Blank (CCB) Report

Date Acquired 9/15/2017 12:03
 Data Batch 170915.b
 Data File Name 058_CCB.d

Sample Name CCB2-170915
 Comment CCB 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	45	-0.023	2	137.8	0.4	0.3	
11	B	45	1.076	216	9.9	10	10	
23	Na	45	4.021	19061	1.7	50	100	
24	Mg	45	-0.847	367	9.2	50	100	
27	Al	45	-3.081	3066	4.7	50	10	
39	K	45	1.143	27846	1.3	50	100	
44	Ca	45	4.190	392	20.3	50	100	
47	Ti	45	-0.017	3	100.1	4	3	
51	V	45	0.032	2070	3.4	4	3	
52	Cr	45	-0.063	388	3.9	2	2	
55	Mn	45	-0.022	206	8.3	2	3	
56	Fe	45	-0.769	10307	2.1	50	50	
59	Co	72	-0.011	132	8.1	2	3	
60	Ni	72	-0.843	4837	0.8	2	3	
63	Cu	72	-0.035	649	8.4	2	2	
66	Zn	72	0.033	380	3.8	4	2	
75	As	72	-0.004	60	2.8	2	2	
78	Se	72	0.092	27	30.7	1	2	
88	Sr	115	0.004	414	14.7	4	3	
95	Mo	115	0.010	160	13.0	2	2	
107	Ag	115	0.006	154	15.2	0.4	1	
111	Cd	115	-0.002	4	43.4	0.4	0.3	
118	Sn	115	-0.007	397	23.4	4	3	
121	Sb	115	0.004	181	4.2	2	0.8	
137	Ba	115	-0.005	57	27.0	2	3	
205	Tl	209	0.022	1298	12.5	2	0.5	
208	Pb	209	-0.012	894	2.7	0.4	0.3	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1246401	0.52	1250708	99.66	70	120	
72	Ge	867599	0.34	871265	99.58	70	120	
115	In	8751818	0.07	8749493	100.03	70	120	
209	Bi	24080146	0.62	24417425	98.62	70	120	

Continuing Calibration Verification (CCV) Report

Date Acquired 9/15/2017 12:36
 Data Batch 170915.b
 Data File Name 075_CCV.d

Sample Name CCV3-170915
 Comment CCV 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	184.206	12950	1.04	200	92.1	90	110	
11	B	45	191.785	6646	2.67	200	95.9	90	110	
23	Na	45	4773.292	5313747	0.60	5000	95.5	90	110	
24	Mg	45	4663.307	2668058	0.35	5000	93.3	90	110	
27	Al	45	4949.428	1029164	0.90	5000	99.0	90	110	
39	K	45	4788.420	2256407	0.75	5000	95.8	90	110	
44	Ca	45	4605.168	130289	0.40	5000	92.1	90	110	
47	Ti	45	195.588	37045	0.26	200	97.8	90	110	
51	V	45	191.205	1259267	0.32	200	95.6	90	110	
52	Cr	45	193.089	1567128	0.15	200	96.5	90	110	
55	Mn	45	194.174	866886	0.11	200	97.1	90	110	
56	Fe	45	5061.680	32246631	0.63	5000	101.2	90	110	
59	Co	72	198.509	2672300	0.41	200	99.3	90	110	
60	Ni	72	197.971	731176	0.37	200	99.0	90	110	
63	Cu	72	198.652	1941212	0.48	200	99.3	90	110	
66	Zn	72	198.802	277154	0.53	200	99.4	90	110	
75	As	72	195.695	175140	0.50	200	97.8	90	110	
78	Se	72	198.552	13371	1.18	200	99.3	90	110	
88	Sr	115	188.365	1075737	0.21	200	94.2	90	110	
95	Mo	115	181.255	1057171	0.69	200	90.6	90	110	
107	Ag	115	196.085	3537905	0.42	200	98.0	90	110	
111	Cd	115	190.052	489310	0.51	200	95.0	90	110	
118	Sn	115	187.776	1013255	0.41	200	93.9	90	110	
121	Sb	115	194.667	1286798	0.21	200	97.3	90	110	
137	Ba	115	190.479	458655	0.48	200	95.2	90	110	
205	Tl	209	193.953	8353146	0.38	200	97.0	90	110	
208	Pb	209	189.995	10739586	0.68	200	95.0	90	110	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1248080	0.24	1250708	99.79	70	120	
72	Ge	858855	0.83	871265	98.58	70	120	
115	In	8791246	0.57	8749493	100.48	70	120	
209	Bi	23986312	1.41	24417425	98.23	70	120	

Low Level Calibration Verification (LLCV) Report

Date Acquired 9/15/2017 12:42
 Data Batch 170915.b
 Data File Name 077LCCV.d

Sample Name LCVL3-170915
 Comment LCVL6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	0.970	73	7.51	1	97.0	70	130	
11	B	45	17.750	791	6.55	20	88.8	70	130	
23	Na	45	119.013	149203	0.70	100	119.0	70	130	
24	Mg	45	89.942	53170	1.08	100	89.9	70	130	
27	Al	45	90.070	22743	1.67	100	90.1	70	130	
39	K	45	93.306	71971	0.61	100	93.3	70	130	
44	Ca	45	91.113	2894	7.13	100	91.1	70	130	
47	Ti	45	4.841	939	1.82	5	96.8	70	130	
51	V	45	0.981	8452	3.00	1	98.1	70	130	
52	Cr	45	4.654	39293	2.03	5	93.1	70	130	
55	Mn	45	4.678	21539	1.46	5	93.6	70	130	
56	Fe	45	101.709	673968	1.16	100	101.7	70	130	
59	Co	72	4.840	66938	0.46	5	96.8	70	130	
60	Ni	72	4.074	23282	0.84	5	81.5	70	130	
63	Cu	72	4.954	50510	0.98	5	99.1	70	130	
66	Zn	72	4.982	7433	3.59	5	99.6	70	130	
75	As	72	4.777	4437	0.58	5	95.5	70	130	
78	Se	72	5.318	387	3.71	5	106.4	70	130	
88	Sr	115	4.563	27050	0.54	5	91.3	70	130	
95	Mo	115	4.341	26009	1.78	5	86.8	70	130	
107	Ag	115	1.874	34654	0.19	2	93.7	70	130	
111	Cd	115	0.910	2407	1.57	1	91.0	70	130	
118	Sn	115	4.597	25818	1.35	5	91.9	70	130	
121	Sb	115	1.857	12713	2.65	2	92.9	70	130	
137	Ba	115	4.555	11290	0.63	5	91.1	70	130	
205	Tl	209	0.926	41041	1.13	1	92.6	70	130	
208	Pb	209	0.897	53313	0.96	1	89.7	70	130	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1268963	0.23	1250708	101.46	70	120	
72	Ge	878724	0.95	871265	100.86	70	120	
115	In	8995132	0.82	8749493	102.81	70	120	
209	Bi	24478912	1.11	24417425	100.25	70	120	

Continuing Calibration Blank (CCB) Report

Date Acquired 9/15/2017 12:44
 Data Batch 170915.b
 Data File Name 078_CCB.d

Sample Name CCB3-170915
 Comment CCB 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	45	0.003	4	35.3	0.4	0.3	
11	B	45	1.250	228	10.8	10	10	
23	Na	45	25.789	44412	0.3	50	100	
24	Mg	45	-0.912	339	7.9	50	100	
27	Al	45	-3.629	3036	3.4	50	10	
39	K	45	0.566	28354	1.9	50	100	
44	Ca	45	-0.808	258	7.6	50	100	
47	Ti	45	-0.035	0	#DIV/0!	4	3	
51	V	45	0.022	2061	4.3	4	3	
52	Cr	45	-0.056	459	14.8	2	2	
55	Mn	45	-0.020	222	7.7	2	3	
56	Fe	45	-1.022	8941	1.5	50	50	
59	Co	72	-0.003	234	12.9	2	3	
60	Ni	72	-0.886	4777	3.4	2	3	
63	Cu	72	-0.023	782	4.1	2	2	
66	Zn	72	0.060	427	12.3	4	2	
75	As	72	0.014	78	16.4	2	2	
78	Se	72	0.085	27	2.1	1	2	
88	Sr	115	-0.003	387	13.3	4	3	
95	Mo	115	0.021	234	21.3	2	2	
107	Ag	115	0.011	251	23.8	0.4	1	
111	Cd	115	-0.001	9	78.1	0.4	0.3	
118	Sn	115	0.001	453	6.0	4	3	
121	Sb	115	0.025	324	10.0	2	0.8	
137	Ba	115	0.000	71	13.5	2	3	
205	Tl	209	0.030	1667	3.1	2	0.5	
208	Pb	209	-0.013	866	5.3	0.4	0.3	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1281510	0.27	1250708	102.46	70	120	
72	Ge	885633	0.56	871265	101.65	70	120	
115	In	9038963	0.15	8749493	103.31	70	120	
209	Bi	24649887	0.19	24417425	100.95	70	120	

Method Blank Report

Date Acquired 9/15/17 12:46 PM
 Data Batch 170915.b
 Data File Name 079_LRB.d

Sample Name MB-82354
 Comment MBLK6020A_W
 Dilution 1

Mass	Name	IS	Conc (ppb)	CPS	%RSD	High Limit	Flag
9	Be	45	0.003	4	93.26		
11	B	45	3.904	320	16.17		
23	Na	45	29.317	48517	0.13		
24	Mg	45	1.410	1706	6.09		
27	Al	45	6.411	5180	4.90		
39	K	45	2.024	29102	0.76		
44	Ca	45	22.828	945	3.78		
47	Ti	45	0.033	13	25.01		
51	V	45	0.048	2241	7.67		
52	Cr	45	-0.041	579	10.87		
55	Mn	45	-0.004	294	7.19		
56	Fe	45	-0.199	14350	1.17		
59	Co	72	-0.005	216	3.89		
60	Ni	72	-0.841	4943	5.22		
63	Cu	72	-0.003	989	7.15		
66	Zn	72	1.284	2181	5.04		
75	As	72	0.010	74	9.56		
78	Se	72	0.019	22	35.64		
88	Sr	115	0.124	1142	2.36		
95	Mo	115	0.024	256	7.18		
107	Ag	115	0.012	278	12.02		
111	Cd	115	-0.002	6	91.64		
118	Sn	115	0.013	523	15.46		
121	Sb	115	0.028	352	4.86		
137	Ba	115	0.024	131	7.34		
205	Tl	209	0.024	1445	2.24		
208	Pb	209	-0.009	1110	12.30		

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1283712	0.37	1250708	102.64	70	120	
72	Ge	884718	0.44	871265	101.54	70	120	
115	In	9128722	0.74	8749493	104.33	70	120	
209	Bi	25067441	1.07	24417425	102.66	70	120	

Laboratory Control Sample (LCS) Report

Date Acquired 9/15/2017 12:48
 Data Batch 170915.b
 Data File Name 080_LFB.d

Sample Name LCS-82354
 Comment LCS 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	190.452	13336	1.46	200	95.2	80	120	
11	B	45	195.319	6738	3.14	200	97.7	80	120	
23	Na	45	4658.033	5165137	1.47	5000	93.2	80	120	
24	Mg	45	4596.806	2619537	0.71	5000	91.9	80	120	
27	Al	45	4983.419	1032071	0.70	5000	99.7	80	120	
39	K	45	4655.975	2186003	0.90	5000	93.1	80	120	
44	Ca	45	4564.881	128638	0.60	5000	91.3	80	120	
47	Ti	45	197.297	37220	1.19	200	98.6	80	120	
51	V	45	192.996	1265980	0.26	200	96.5	80	120	
52	Cr	45	195.103	1577150	0.43	200	97.6	80	120	
55	Mn	45	194.787	866142	0.82	200	97.4	80	120	
56	Fe	45	5055.539	32078908	0.40	5000	101.1	80	120	
59	Co	72	201.845	2688611	0.27	200	100.9	80	120	
60	Ni	72	200.694	733309	0.40	200	100.3	80	120	
63	Cu	72	203.399	1966594	0.15	200	101.7	80	120	
66	Zn	72	201.978	278606	0.45	200	101.0	80	120	
75	As	72	199.249	176445	0.56	200	99.6	80	120	
78	Se	72	198.817	13248	1.08	200	99.4	80	120	
88	Sr	115	191.472	1083657	0.68	200	95.7	80	120	
95	Mo	115	184.231	1064909	0.63	200	92.1	80	120	
107	Ag	115	198.467	3548722	0.53	200	99.2	80	120	
111	Cd	115	193.834	494549	0.61	200	96.9	80	120	
118	Sn	115	190.286	1017552	0.12	200	95.1	80	120	
121	Sb	115	196.596	1287866	0.11	200	98.3	80	120	
137	Ba	115	193.061	460694	0.10	200	96.5	80	120	
205	Tl	209	195.903	8460312	0.26	200	98.0	80	120	
208	Pb	209	191.307	10842401	0.52	200	95.7	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1243105	0.35	1250708	99.39	70	120	
72	Ge	849771	0.25	871265	97.53	70	120	
115	In	8712117	0.23	8749493	99.57	70	120	
209	Bi	24048774	0.72	24417425	98.49	70	120	

Laboratory Control Sample (LCS) Report

Date Acquired 9/15/2017 12:50
 Data Batch 170915.b
 Data File Name 081_LFB.d

Sample Name LCSD-82354
 Comment LCSD6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	187.231	13196	0.94	200	93.6	80	120	
11	B	45	196.409	6819	1.47	200	98.2	80	120	
23	Na	45	4840.461	5401999	0.59	5000	96.8	80	120	
24	Mg	45	4765.561	2733496	0.11	5000	95.3	80	120	
27	Al	45	4929.519	1027673	0.90	5000	98.6	80	120	
39	K	45	4844.718	2288499	0.68	5000	96.9	80	120	
44	Ca	45	4679.556	132734	1.38	5000	93.6	80	120	
47	Ti	45	191.778	36418	0.89	200	95.9	80	120	
51	V	45	188.837	1246871	0.56	200	94.4	80	120	
52	Cr	45	191.389	1557300	0.14	200	95.7	80	120	
55	Mn	45	191.375	856565	0.38	200	95.7	80	120	
56	Fe	45	4979.224	31803532	0.59	5000	99.6	80	120	
59	Co	72	198.819	2652355	0.12	200	99.4	80	120	
60	Ni	72	198.969	728168	0.78	200	99.5	80	120	
63	Cu	72	200.901	1945398	0.77	200	100.5	80	120	
66	Zn	72	200.937	277595	0.48	200	100.5	80	120	
75	As	72	196.164	173985	0.58	200	98.1	80	120	
78	Se	72	199.058	13284	0.44	200	99.5	80	120	
88	Sr	115	186.890	1068449	0.98	200	93.4	80	120	
95	Mo	115	180.508	1053974	0.07	200	90.3	80	120	
107	Ag	115	195.805	3536654	0.31	200	97.9	80	120	
111	Cd	115	190.323	490523	0.65	200	95.2	80	120	
118	Sn	115	186.602	1007981	0.25	200	93.3	80	120	
121	Sb	115	192.918	1276593	0.47	200	96.5	80	120	
137	Ba	115	188.184	453616	0.28	200	94.1	80	120	
205	Tl	209	196.210	8450736	0.55	200	98.1	80	120	
208	Pb	209	189.085	10687596	0.32	200	94.5	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1251318	0.79	1250708	100.05	70	120	
72	Ge	851096	0.66	871265	97.69	70	120	
115	In	8800537	0.29	8749493	100.58	70	120	
209	Bi	23983768	0.56	24417425	98.22	70	120	

Dilution Sample (Dil) Report

Date Acquired 9/15/2017 12:56
 Data Batch 170915.b
 Data File Name 084_SD.d

Sample Name 1709087-01A SD
 Comment SD 6020A_W
 Dilution 5

Mass	Name	IS	Conc	CPS	%RSD	Ref Value	%Rec	Low	High	Flag
9	Be	45	0.003	4	81.04	0.0	180.6	110	90	
11	B	45	397.465	13922	0.62	1864.4	106.6	110	90	Good
23	Na	45	14288.360	16277084	0.45	69006.5	103.5	110	90	Good
24	Mg	45	7582.302	4446825	0.35	36709.5	103.3	110	90	Good
27	Al	45	33.774	10976	3.30	168.0	100.5	110	90	Good
39	K	45	1790.636	882584	0.28	8709.6	102.8	110	90	Good
44	Ca	45	21680.417	627793	0.52	105556.6	102.7	110	90	Good
47	Ti	45	0.222	50	53.34	1.3	86.2	110	90	
51	V	45	0.338	4191	1.40	1.3	131.7	110	90	
52	Cr	45	-0.012	821	10.47	0.1	-54.2	110	90	
55	Mn	45	2.405	11317	1.05	11.7	102.8	110	90	Good
56	Fe	45	10.454	83849	1.21	53.7	97.4	110	90	Good
59	Co	72	0.023	599	6.96	0.2	74.8	110	90	
60	Ni	72	-0.085	7780	2.75	3.0	-14.1	110	90	
63	Cu	72	0.116	2178	3.10	0.6	93.0	110	90	Good
66	Zn	72	0.916	1652	6.05	3.7	123.1	110	90	
75	As	72	0.196	245	5.98	1.0	94.9	110	90	Good
78	Se	72	0.095	27	34.06	0.8	59.6	110	90	
88	Sr	115	282.352	1650917	0.39	1455.7	97.0	110	90	Good
95	Mo	115	0.573	3528	0.38	2.8	102.8	110	90	Good
107	Ag	115	0.020	424	8.83	0.0	245.4	110	90	
111	Cd	115	0.010	37	47.23	0.0	184.5	110	90	
118	Sn	115	0.012	514	8.10	0.1	47.8	110	90	
121	Sb	115	0.067	608	4.79	0.3	131.3	110	90	
137	Ba	115	9.675	23922	0.67	47.8	101.1	110	90	Good
205	Tl	209	0.042	2162	6.80	0.1	241.9	110	90	
208	Pb	209	0.205	13110	0.68	1.0	98.4	110	90	Good

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1279526	0.46	1250708	102.30	70	120	
72	Ge	883830	0.40	871265	101.44	70	120	
115	In	9001719	0.41	8749493	102.88	70	120	
209	Bi	23918638	0.57	24417425	97.96	70	120	

Sample Report

Date Acquired 9/15/17 1:04 PM
 Data Batch 170915.b
 Data File Name 088_WS.d

Sample Name 1709099-01B
 Comment SAMP6020A_W
 Dilution 1

Mass	Name	IS	Conc (ppb)	CPS	%RSD	High Limit	Flag
9	Be	45	0.003	4	50.00	2000	
11	B	45	324.787	10621	2.37	2000	>RL
23	Na	45	738764.781	782842120	1.36	25000	OUTCAL
24	Mg	45	38808.012	21187146	1.15	25000	OUTCAL
27	Al	45	13.906	6291	5.76	10000	J
39	K	45	2082.583	951538	2.74	25000	>RL
44	Ca	45	109500.107	2951258	2.06	10000	OUTCAL
47	Ti	45	0.124	29	56.92	2000	
51	V	45	1.979	14203	1.72	2000	
52	Cr	45	0.074	1435	4.90	2000	
55	Mn	45	179.549	765086	0.78	2000	>RL
56	Fe	45	33.999	221147	1.10	10000	
59	Co	72	0.125	1788	4.97	2000	
60	Ni	72	1.201	11235	1.92	2000	
63	Cu	72	0.339	3937	4.71	2000	
66	Zn	72	1.682	2449	2.30	2000	
75	As	72	1.184	1029	6.94	2000	
78	Se	72	11.369	719	6.82	2000	>RL
88	Sr	115	617.723	3149890	1.45	2000	>RL
95	Mo	115	0.383	2087	4.33	2000	
107	Ag	115	0.028	494	15.17	500	
111	Cd	115	0.023	61	12.59	2000	
118	Sn	115	0.021	490	12.38	2000	
121	Sb	115	0.072	563	16.70	500	
137	Ba	115	88.439	190209	0.93	2000	>RL
205	Tl	209	0.024	1135	4.30	2000	
208	Pb	209	0.002	1336	0.72	2000	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1191287	1.00	1250708	95.25	70	120	
72	Ge	787228	0.05	871265	90.35	70	120	
115	In	7851824	1.12	8749493	89.74	70	120	
209	Bi	19485502	1.17	24417425	79.80	70	120	

Post Digestion Spike Sample (PDS) Report

Date Acquired 9/15/2017 13:15
 Data Batch 170915.b
 Data File Name 094_PDS.d

Sample Name 1709087-01A PDS
 Comment PDS 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	177.283	12002	1.00	0.0	200	88.6	75	125	
11	B	45	1987.245	64698	0.41	1864.4	200	61.4	75	125	Fail
23	Na	45	69313.152	74120388	0.86	69006.5	5000	6.1	75	125	Fail
24	Mg	45	39000.831	21482935	1.07	36709.5	5000	45.8	75	125	Fail
27	Al	45	4833.891	968096	0.82	168.0	5000	93.3	75	125	
39	K	45	13347.249	6009959	0.45	8709.6	5000	92.8	75	125	
44	Ca	45	#####	2830753	0.21	105556.6	5000	-29.0	75	125	Fail
47	Ti	45	195.634	35684	0.15	1.3	200	97.2	75	125	
51	V	45	195.449	1239605	0.56	1.3	200	97.1	75	125	
52	Cr	45	194.768	1522348	0.65	0.1	200	97.3	75	125	
55	Mn	45	201.813	867669	0.59	11.7	200	95.1	75	125	
56	Fe	45	4810.934	29518449	1.09	53.7	5000	95.1	75	125	
59	Co	72	197.578	2496244	0.54	0.2	200	98.7	75	125	
60	Ni	72	195.810	678797	0.45	3.0	200	96.4	75	125	
63	Cu	72	191.315	1754543	0.58	0.6	200	95.3	75	125	
66	Zn	72	194.459	254422	0.33	3.7	200	95.4	75	125	
75	As	72	203.213	170684	0.24	1.0	200	101.1	75	125	
78	Se	72	205.103	12962	2.38	0.8	200	102.2	75	125	
88	Sr	115	1598.153	8699415	1.34	1455.7	200	71.2	75	125	Fail
95	Mo	115	186.920	1039517	0.54	2.8	200	92.1	75	125	
107	Ag	115	185.856	3197319	0.29	0.0	200	92.9	75	125	
111	Cd	115	186.882	458750	0.21	0.0	200	93.4	75	125	
118	Sn	115	192.924	992574	0.46	0.1	200	96.4	75	125	
121	Sb	115	185.794	1171005	0.89	0.3	200	92.8	75	125	
137	Ba	115	238.000	546399	0.75	47.8	200	95.1	75	125	
205	Tl	209	197.908	7898996	0.44	0.1	200	98.9	75	125	
208	Pb	209	191.394	10025283	0.57	1.0	200	95.2	75	125	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1201989	0.79	1250708	96.10	70	120	
72	Ge	806009	0.64	871265	92.51	70	120	
115	In	8382044	0.41	8749493	95.80	70	120	
209	Bi	22226565	0.97	24417425	91.03	70	120	

Matrix Spike Sample (MS) Report

Date Acquired 9/15/2017 13:17
 Data Batch 170915.b
 Data File Name 095_MSW.d

Sample Name 1709087-01A MS
 Comment MS 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	177.009	11891	1.67	0.0	200	88.5	80	120	
11	B	45	2035.512	65748	0.46	1864.4	200	85.6	80	120	
23	Na	45	72003.630	76399079	0.61	69006.5	5000	59.9	80	120	Fail
24	Mg	45	40902.892	22355338	1.19	36709.5	5000	83.9	80	120	
27	Al	45	4874.998	968676	0.68	168.0	5000	94.1	80	120	
39	K	45	13871.231	6196657	1.99	8709.6	5000	103.2	80	120	
44	Ca	45	#####	2963028	0.41	105556.6	5000	85.3	80	120	
47	Ti	45	199.479	36106	1.64	1.3	200	99.1	80	120	
51	V	45	193.525	1217922	0.79	1.3	200	96.1	80	120	
52	Cr	45	190.144	1474738	0.92	0.1	200	95.0	80	120	
55	Mn	45	202.479	863814	0.77	11.7	200	95.4	80	120	
56	Fe	45	4977.826	30303548	0.27	53.7	5000	98.5	80	120	
59	Co	72	196.836	2471885	0.21	0.2	200	98.3	80	120	
60	Ni	72	197.840	681628	0.24	3.0	200	97.4	80	120	
63	Cu	72	192.856	1758016	0.32	0.6	200	96.1	80	120	
66	Zn	72	192.934	250917	0.70	3.7	200	94.6	80	120	
75	As	72	203.791	170142	0.44	1.0	200	101.4	80	120	
78	Se	72	205.627	12917	0.68	0.8	200	102.4	80	120	
88	Sr	115	1666.840	9022461	1.04	1455.7	200	105.6	80	120	
95	Mo	115	188.485	1042336	0.33	2.8	200	92.8	80	120	
107	Ag	115	186.523	3190830	0.32	0.0	200	93.2	80	120	
111	Cd	115	186.566	455409	0.94	0.0	200	93.3	80	120	
118	Sn	115	190.320	973684	0.53	0.1	200	95.1	80	120	
121	Sb	115	198.973	1247017	0.41	0.3	200	99.4	80	120	
137	Ba	115	239.259	546208	0.33	47.8	200	95.7	80	120	
205	Tl	209	200.924	7991407	1.25	0.1	200	100.4	80	120	
208	Pb	209	193.476	10098521	0.14	1.0	200	96.2	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1192665	0.85	1250708	95.36	70	120	
72	Ge	801150	0.02	871265	91.95	70	120	
115	In	8335006	0.12	8749493	95.26	70	120	
209	Bi	22148302	0.89	24417425	90.71	70	120	

Matrix Spike Sample (MS) Report

Date Acquired 9/15/2017 13:19
 Data Batch 170915.b
 Data File Name 096_MSW.d

Sample Name 1709087-01A MSD
 Comment MSD 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	178.188	11749	0.43	0.0	200	89.1	80	120	
11	B	45	2032.110	64424	0.51	1864.4	200	83.9	80	120	
23	Na	45	72627.548	75631073	1.20	69006.5	5000	72.4	80	120	Fail
24	Mg	45	41133.859	22066160	1.18	36709.5	5000	88.5	80	120	
27	Al	45	4948.637	965065	1.03	168.0	5000	95.6	80	120	
39	K	45	13797.233	6049446	1.35	8709.6	5000	101.8	80	120	
44	Ca	45	#####	2902522	0.91	105556.6	5000	81.0	80	120	
47	Ti	45	201.062	35716	1.35	1.3	200	99.9	80	120	
51	V	45	195.828	1209543	0.75	1.3	200	97.3	80	120	
52	Cr	45	191.343	1456467	0.52	0.1	200	95.6	80	120	
55	Mn	45	204.613	856693	0.45	11.7	200	96.5	80	120	
56	Fe	45	5038.206	30103004	1.31	53.7	5000	99.7	80	120	
59	Co	72	197.855	2454915	0.68	0.2	200	98.9	80	120	
60	Ni	72	197.957	673857	0.05	3.0	200	97.5	80	120	
63	Cu	72	192.912	1737458	0.13	0.6	200	96.1	80	120	
66	Zn	72	194.697	250175	1.03	3.7	200	95.5	80	120	
75	As	72	204.967	169074	0.19	1.0	200	102.0	80	120	
78	Se	72	203.504	12630	1.29	0.8	200	101.4	80	120	
88	Sr	115	1673.634	8845706	0.76	1455.7	200	109.0	80	120	
95	Mo	115	192.069	1037123	0.81	2.8	200	94.6	80	120	
107	Ag	115	191.004	3190496	0.56	0.0	200	95.5	80	120	
111	Cd	115	189.881	452576	1.41	0.0	200	94.9	80	120	
118	Sn	115	193.270	965470	0.21	0.1	200	96.6	80	120	
121	Sb	115	199.926	1223461	0.37	0.3	200	99.8	80	120	
137	Ba	115	242.541	540650	0.64	47.8	200	97.3	80	120	
205	Tl	209	202.527	7946969	0.60	0.1	200	101.2	80	120	
208	Pb	209	194.433	10012463	0.21	1.0	200	96.7	80	120	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1170531	0.69	1250708	93.59	70	120	
72	Ge	791565	0.48	871265	90.85	70	120	
115	In	8138614	0.18	8749493	93.02	70	120	
209	Bi	21850720	0.41	24417425	89.49	70	120	

Continuing Calibration Verification (CCV) Report

Date Acquired 9/15/2017 13:24
 Data Batch 170915.b
 Data File Name 099_CCV.d

Sample Name CCV4-170915
 Comment CCV 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	183.346	12204	0.67	200	91.7	90	110	
11	B	45	208.019	6810	2.83	200	104.0	90	110	
23	Na	45	4764.114	5021300	0.22	5000	95.3	90	110	
24	Mg	45	4617.933	2501487	0.19	5000	92.4	90	110	
27	Al	45	4932.059	970977	0.59	5000	98.6	90	110	
39	K	45	4761.149	2124287	0.78	5000	95.2	90	110	
44	Ca	45	4611.525	123525	0.80	5000	92.2	90	110	
47	Ti	45	195.031	34974	0.21	200	97.5	90	110	
51	V	45	189.288	1180319	0.47	200	94.6	90	110	
52	Cr	45	192.261	1477377	0.32	200	96.1	90	110	
55	Mn	45	193.587	818274	0.66	200	96.8	90	110	
56	Fe	45	5063.581	30542191	1.05	5000	101.3	90	110	
59	Co	72	196.675	2522209	0.40	200	98.3	90	110	
60	Ni	72	197.062	693367	0.28	200	98.5	90	110	
63	Cu	72	197.644	1839825	0.43	200	98.8	90	110	
66	Zn	72	197.602	262430	0.82	200	98.8	90	110	
75	As	72	194.749	166044	0.96	200	97.4	90	110	
78	Se	72	198.853	12756	1.57	200	99.4	90	110	
88	Sr	115	186.834	1037079	0.25	200	93.4	90	110	
95	Mo	115	179.402	1017045	0.81	200	89.7	90	110	Fail
107	Ag	115	195.193	3423088	0.49	200	97.6	90	110	
111	Cd	115	190.845	477570	0.42	200	95.4	90	110	
118	Sn	115	187.494	983352	0.26	200	93.7	90	110	
121	Sb	115	194.054	1246778	0.17	200	97.0	90	110	
137	Ba	115	189.550	443621	0.22	200	94.8	90	110	
205	Tl	209	194.381	8316027	1.37	200	97.2	90	110	
208	Pb	209	188.186	10566685	0.26	200	94.1	90	110	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1181655	0.07	1250708	94.48	70	120	
72	Ge	818136	0.39	871265	93.90	70	120	
115	In	8544640	0.27	8749493	97.66	70	120	
209	Bi	23826392	0.91	24417425	97.58	70	120	

Low Level Calibration Verification (LLCV) Report

Date Acquired 9/15/2017 13:46
 Data Batch 170915.b
 Data File Name 104LCCV.d

Sample Name LCVL4-170915
 Comment LCVL6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	0.847	59	1.69	1	84.7	70	130	
11	B	45	27.132	1017	6.94	20	135.7	70	130	Fail
23	Na	45	138.439	156375	0.46	100	138.4	70	130	Fail
24	Mg	45	90.443	48851	0.72	100	90.4	70	130	
27	Al	45	90.597	20884	1.78	100	90.6	70	130	
39	K	45	88.932	63873	1.40	100	88.9	70	130	
44	Ca	45	88.800	2584	4.37	100	88.8	70	130	
47	Ti	45	4.923	872	7.31	5	98.5	70	130	
51	V	45	0.942	7485	2.82	1	94.2	70	130	
52	Cr	45	4.731	36491	1.52	5	94.6	70	130	
55	Mn	45	4.772	20070	1.62	5	95.4	70	130	
56	Fe	45	102.077	618040	0.49	100	102.1	70	130	
59	Co	72	4.769	60890	1.37	5	95.4	70	130	
60	Ni	72	3.910	20926	0.91	5	78.2	70	130	
63	Cu	72	4.824	45431	1.95	5	96.5	70	130	
66	Zn	72	4.876	6725	3.39	5	97.5	70	130	
75	As	72	4.668	4004	1.07	5	93.4	70	130	
78	Se	72	4.803	324	0.76	5	96.1	70	130	
88	Sr	115	4.404	24651	1.75	5	88.1	70	130	
95	Mo	115	4.339	24535	0.81	5	86.8	70	130	
107	Ag	115	1.864	32523	1.36	2	93.2	70	130	
111	Cd	115	0.924	2306	6.10	1	92.4	70	130	
118	Sn	115	4.537	24049	2.34	5	90.7	70	130	
121	Sb	115	1.827	11808	2.98	2	91.4	70	130	
137	Ba	115	4.559	10663	1.58	5	91.2	70	130	
205	Tl	209	0.889	39082	0.83	1	88.9	70	130	
208	Pb	209	0.876	51657	0.47	1	87.6	70	130	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1159557	0.21	1250708	92.71	70	120	
72	Ge	811154	0.28	871265	93.10	70	120	
115	In	8488328	0.80	8749493	97.02	70	120	
209	Bi	24256758	0.74	24417425	99.34	70	120	

Continuing Calibration Blank (CCB) Report

Date Acquired 9/15/2017 13:48
 Data Batch 170915.b
 Data File Name 105_CCB.d

Sample Name CCB4-170915
 Comment CCB 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	45	-0.036	1	86.6	0.4	0.3	
11	B	45	7.018	386	2.8	10	10	
23	Na	45	47.633	62526	0.5	50	100	
24	Mg	45	-0.625	458	13.0	50	100	
27	Al	45	-3.335	2795	3.3	50	10	
39	K	45	-0.872	24959	1.2	50	100	
44	Ca	45	0.786	275	9.7	50	100	
47	Ti	45	-0.035	0	#DIV/0!	4	3	
51	V	45	0.067	2132	4.9	4	3	
52	Cr	45	-0.055	420	8.4	2	2	
55	Mn	45	-0.022	193	7.5	2	3	
56	Fe	45	-0.963	8418	3.9	50	50	
59	Co	72	-0.009	140	31.0	2	3	
60	Ni	72	-0.904	4309	3.7	2	3	
63	Cu	72	-0.029	662	6.7	2	2	
66	Zn	72	0.031	352	8.3	4	2	
75	As	72	-0.010	51	13.2	2	2	
78	Se	72	0.063	23	38.3	1	2	
88	Sr	115	0.005	408	5.3	4	3	
95	Mo	115	0.008	146	26.3	2	2	
107	Ag	115	0.007	179	8.6	0.4	1	
111	Cd	115	-0.003	3	100.1	0.4	0.3	
118	Sn	115	-0.025	292	6.3	4	3	
121	Sb	115	0.005	178	5.7	2	0.8	
137	Ba	115	0.001	68	17.3	2	3	
205	Tl	209	0.009	752	5.9	2	0.5	
208	Pb	209	-0.019	500	15.1	0.4	0.3	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1156037	0.18	1250708	92.43	70	120	
72	Ge	810543	0.70	871265	93.03	70	120	
115	In	8499538	0.29	8749493	97.14	70	120	
209	Bi	24261741	0.59	24417425	99.36	70	120	

Dilution Sample (Dil) Report

Date Acquired 9/15/2017 13:52
 Data Batch 170915.b
 Data File Name 107_SD.d

Sample Name 1709087-01A SD
 Comment SD 6020A_W
 Dilution 50

Mass	Name	IS	Conc	CPS	%RSD	Ref Value	%Rec	Low	High	Flag
9	Be	45	-0.027	2	100.00	0.0	368.5	110	90	
11	B	45	47.042	1655	11.20	197.0	119.4	110	90	
23	Na	45	1455.989	1528121	1.03	7165.2	101.6	110	90	Good
24	Mg	45	765.327	410901	0.63	3796.8	100.8	110	90	Good
27	Al	45	0.724	3615	4.39	15.9	22.8	110	90	
39	K	45	183.760	105767	0.34	897.1	102.4	110	90	Good
44	Ca	45	2183.887	58023	1.80	10781.6	101.3	110	90	Good
47	Ti	45	0.040	13	90.16	0.1	188.1	110	90	
51	V	45	0.096	2336	4.80	0.2	261.9	110	90	
52	Cr	45	-0.054	431	3.81	0.0	598.5	110	90	
55	Mn	45	0.240	1292	9.99	1.2	98.1	110	90	Good
56	Fe	45	0.082	14747	2.06	4.9	8.3	110	90	
59	Co	72	-0.010	138	8.50	0.0	-694.1	110	90	
60	Ni	72	-0.800	4735	1.22	-0.5	836.0	110	90	
63	Cu	72	-0.005	893	6.11	0.0	-55.3	110	90	
66	Zn	72	0.295	709	5.49	0.6	259.7	110	90	
75	As	72	0.015	73	3.88	0.1	78.4	110	90	
78	Se	72	-0.069	15	35.94	0.1	-467.7	110	90	
88	Sr	115	27.865	155755	0.96	137.9	101.0	110	90	Good
95	Mo	115	0.058	431	2.36	0.3	106.1	110	90	Good
107	Ag	115	0.006	166	16.15	0.0	508.2	110	90	
111	Cd	115	-0.002	6	69.34	0.0	-792.2	110	90	
118	Sn	115	-0.024	298	10.58	0.0	608.0	110	90	
121	Sb	115	0.010	216	10.30	0.0	211.7	110	90	
137	Ba	115	0.953	2308	2.24	4.9	98.3	110	90	Good
205	Tl	209	0.007	657	4.34	0.0	525.6	110	90	
208	Pb	209	0.005	1885	1.77	0.1	30.2	110	90	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1169334	0.52	1250708	93.49	70	120	
72	Ge	822245	0.28	871265	94.37	70	120	
115	In	8586508	1.00	8749493	98.14	70	120	
209	Bi	24351121	0.39	24417425	99.73	70	120	

Post Digestion Spike Sample (PDS) Report

Date Acquired 9/15/2017 13:54
 Data Batch 170915.b
 Data File Name 108_PDS.d

Sample Name 1709087-01A PDS
 Comment PDS 6020A_W
 Dilution 10

Mass	Name	IS	Conc	CPS	%RSD	Ref Conc	Spk Amt	%Rec	Low	High	Flag
9	Be	45	190.769	12174	0.86	0.0	200	95.4	75	125	
11	B	45	398.173	12349	3.56	197.0	200	100.6	75	125	
23	Na	45	12089.547	12196816	1.24	7165.2	5000	98.5	75	125	
24	Mg	45	8542.240	4435882	0.32	3796.8	5000	94.9	75	125	
27	Al	45	4915.006	927753	0.34	15.9	5000	98.0	75	125	
39	K	45	5851.540	2497505	0.27	897.1	5000	99.1	75	125	
44	Ca	45	15840.230	406207	0.18	10781.6	5000	101.2	75	125	
47	Ti	45	203.538	34995	0.70	0.1	200	101.7	75	125	
51	V	45	202.362	1209716	0.25	0.2	200	101.1	75	125	
52	Cr	45	205.341	1512789	0.64	0.0	200	102.7	75	125	
55	Mn	45	201.550	816815	0.77	1.2	200	100.2	75	125	
56	Fe	45	5046.572	29185344	1.39	4.9	5000	100.8	75	125	
59	Co	72	203.907	2502776	1.18	0.0	200	102.0	75	125	
60	Ni	72	201.851	679586	0.65	-0.5	200	101.2	75	125	
63	Cu	72	201.607	1796220	0.50	0.0	200	100.8	75	125	
66	Zn	72	206.682	262696	0.95	0.6	200	103.1	75	125	
75	As	72	205.232	167475	0.56	0.1	200	102.6	75	125	
78	Se	72	208.065	12774	1.15	0.1	200	104.0	75	125	
88	Sr	115	333.737	1788227	0.83	137.9	200	97.9	75	125	
95	Mo	115	185.776	1016800	0.48	0.3	200	92.8	75	125	
107	Ag	115	199.637	3379973	0.20	0.0	200	99.8	75	125	
111	Cd	115	197.074	476120	0.80	0.0	200	98.5	75	125	
118	Sn	115	199.966	1012473	0.19	0.0	200	100.0	75	125	
121	Sb	115	187.192	1161127	0.71	0.0	200	93.6	75	125	
137	Ba	115	202.967	458601	0.41	4.9	200	99.1	75	125	
205	Tl	209	199.250	8363421	0.58	0.0	200	99.6	75	125	
208	Pb	209	194.477	10712650	0.50	0.1	200	97.2	75	125	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1132957	0.16	1250708	90.59	70	120	
72	Ge	783051	0.32	871265	89.88	70	120	
115	In	8249466	0.72	8749493	94.29	70	120	
209	Bi	23374227	1.07	24417425	95.73	70	120	

Continuing Calibration Verification (CCV) Report

Date Acquired 9/15/2017 14:13
 Data Batch 170915.b
 Data File Name 118_CCV.d

Sample Name CCV5-170915
 Comment CCV 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	184.956	11901	0.59	200	92.5	90	110	
11	B	45	199.211	6312	2.40	200	99.6	90	110	
23	Na	45	4710.855	4800377	1.77	5000	94.2	90	110	
24	Mg	45	4648.570	2434426	1.74	5000	93.0	90	110	
27	Al	45	4897.825	932243	2.20	5000	98.0	90	110	
39	K	45	4683.122	2020473	1.91	5000	93.7	90	110	
44	Ca	45	4512.325	116861	2.26	5000	90.2	90	110	
47	Ti	45	195.829	33945	1.78	200	97.9	90	110	
51	V	45	191.772	1155909	1.21	200	95.9	90	110	
52	Cr	45	194.039	1441333	0.95	200	97.0	90	110	
55	Mn	45	194.600	795158	0.82	200	97.3	90	110	
56	Fe	45	5101.926	29749150	0.50	5000	102.0	90	110	
59	Co	72	195.509	2448677	0.45	200	97.8	90	110	
60	Ni	72	195.709	672609	0.33	200	97.9	90	110	
63	Cu	72	198.174	1801831	0.75	200	99.1	90	110	
66	Zn	72	199.028	258179	1.27	200	99.5	90	110	
75	As	72	192.162	160021	0.78	200	96.1	90	110	
78	Se	72	197.523	12375	0.39	200	98.8	90	110	
88	Sr	115	182.083	1001904	0.59	200	91.0	90	110	
95	Mo	115	176.514	991983	0.32	200	88.3	90	110	Fail
107	Ag	115	194.305	3378068	0.45	200	97.2	90	110	
111	Cd	115	189.118	469175	1.05	200	94.6	90	110	
118	Sn	115	186.637	970406	0.78	200	93.3	90	110	
121	Sb	115	191.305	1218475	0.38	200	95.7	90	110	
137	Ba	115	188.379	437071	0.54	200	94.2	90	110	
205	Tl	209	192.855	8404695	0.69	200	96.4	90	110	
208	Pb	209	186.654	10675665	0.58	200	93.3	90	110	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1142345	0.65	1250708	91.34	70	120	
72	Ge	799139	1.35	871265	91.72	70	120	
115	In	8471318	1.21	8749493	96.82	70	120	
209	Bi	24269017	0.68	24417425	99.39	70	120	

Low Level Calibration Verification (LLCV) Report

Date Acquired 9/15/2017 14:18
 Data Batch 170915.b
 Data File Name 120LCCV.d

Sample Name LCVL5-170915
 Comment LCVL6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	Exp	%Rec	Low	High	Flag
9	Be	45	0.852	59	19.16	1	85.2	70	130	
11	B	45	24.858	934	6.38	20	124.3	70	130	
23	Na	45	123.877	139691	0.79	100	123.9	70	130	
24	Mg	45	91.793	48986	0.92	100	91.8	70	130	
27	Al	45	90.883	20693	1.11	100	90.9	70	130	
39	K	45	88.704	63025	0.77	100	88.7	70	130	
44	Ca	45	90.772	2605	6.30	100	90.8	70	130	
47	Ti	45	4.495	788	13.38	5	89.9	70	130	
51	V	45	0.994	7715	2.70	1	99.4	70	130	
52	Cr	45	4.640	35384	2.33	5	92.8	70	130	
55	Mn	45	4.797	19936	0.16	5	95.9	70	130	
56	Fe	45	103.146	617011	0.24	100	103.1	70	130	
59	Co	72	4.866	62159	0.75	5	97.3	70	130	
60	Ni	72	4.057	21443	0.79	5	81.1	70	130	
63	Cu	72	4.879	45964	0.27	5	97.6	70	130	
66	Zn	72	4.872	6723	3.30	5	97.4	70	130	
75	As	72	4.796	4114	1.37	5	95.9	70	130	
78	Se	72	4.764	322	8.88	5	95.3	70	130	
88	Sr	115	4.472	25279	0.49	5	89.4	70	130	
95	Mo	115	4.338	24773	0.47	5	86.8	70	130	
107	Ag	115	1.879	33127	1.81	2	94.0	70	130	
111	Cd	115	0.944	2379	2.19	1	94.4	70	130	
118	Sn	115	4.593	24584	2.12	5	91.9	70	130	
121	Sb	115	1.863	12156	2.64	2	93.1	70	130	
137	Ba	115	4.589	10841	2.42	5	91.8	70	130	
205	Tl	209	0.912	40742	1.34	1	91.2	70	130	
208	Pb	209	0.888	53229	0.87	1	88.8	70	130	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1145903	0.24	1250708	91.62	70	120	
72	Ge	811588	0.40	871265	93.15	70	120	
115	In	8573990	0.87	8749493	97.99	70	120	
209	Bi	24668915	0.72	24417425	101.03	70	120	

Continuing Calibration Blank (CCB) Report

Date Acquired 9/15/2017 14:28
 Data Batch 170915.b
 Data File Name 125_CCB.d

Sample Name CCB5-170915
 Comment CCB 6020A_W
 Dilution 1

Mass	Name	IS	Conc	CPS	%RSD	MDL S	MDL Aq	QC Flag
9	Be	45	-0.047	1	173.2	0.4	0.3	
11	B	45	7.314	390	3.4	10	10	
23	Na	45	29.301	43148	1.2	50	100	
24	Mg	45	-0.620	454	9.6	50	100	
27	Al	45	-3.288	2770	3.1	50	10	
39	K	45	-1.192	24520	1.6	50	100	
44	Ca	45	-0.730	232	25.6	50	100	
47	Ti	45	-0.022	2	86.6	4	3	
51	V	45	0.071	2135	1.6	4	3	
52	Cr	45	-0.058	389	12.5	2	2	
55	Mn	45	-0.015	219	16.0	2	3	
56	Fe	45	-1.045	7835	1.2	50	50	
59	Co	72	-0.011	116	10.9	2	3	
60	Ni	72	-0.868	4397	2.9	2	3	
63	Cu	72	-0.036	591	15.9	2	2	
66	Zn	72	0.045	367	4.2	4	2	
75	As	72	-0.012	49	9.2	2	2	
78	Se	72	-0.006	19	36.5	1	2	
88	Sr	115	-0.004	354	13.9	4	3	
95	Mo	115	0.004	124	10.8	2	2	
107	Ag	115	0.005	146	16.2	0.4	1	
111	Cd	115	-0.003	3	0.0	0.4	0.3	
118	Sn	115	-0.026	287	13.7	4	3	
121	Sb	115	0.013	229	3.7	2	0.8	
137	Ba	115	0.016	104	15.1	2	3	
205	Tl	209	0.008	698	8.2	2	0.5	
208	Pb	209	-0.019	516	12.2	0.4	0.3	

QC ISTD Table

Mass	Name	CPS	%RSD	Ref CPS	%Rec	Low	High	QC Flag
45	Sc	1142082	0.41	1250708	91.31	70	120	
72	Ge	803815	0.09	871265	92.26	70	120	
115	In	8531749	0.83	8749493	97.51	70	120	
209	Bi	24844603	0.71	24417425	101.75	70	120	

Pmoist

For

DHL Work Order

1709099

PMOIST_170915A

For

DHL Work Order

1709099

Run ID: PMOIST_170915A

Run No.: 94197

Analytical Run Date: 9/15/2017

InstrumentID: Pmoist

Analyst: Vikki Adler

SampID	DF	TestCode	SampType	Batch ID	Analysis Date/Time	Q	Comments
1709034-02D	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709034-04D	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709034-06D	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709034-08D	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709034-10D	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709098-01A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709099-02A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709100-04B	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709106-01A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709108-04C	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-01A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-02A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-03A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-04A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-05A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-06A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-07A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-08A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-09A	1	PMOIST	SAMP	82392	9/18/2017 9:01:00 AM		
1709115-09A-DUP	1	PMOIST	DUP	82392	9/18/2017 9:01:00 AM		

DHL Analytical, Inc.**PREP BATCH REPORT**Prep Start Date: **9/15/2017 10:54:12 AM**Digestion: **Start: 9/15/2017 11:57:00 AM / Stop: 9/18/2017 9:01:00 AM**Prep End Date: **9/18/2017 10:56:54 AM**Prep Batch **82392** Prep Code: **PMOIST_PREP**Technician: **Vikki Adler**Prep Factor Units:
mL/g**Equipment List**Oven #2
Balance #20
Thermometer # 81

Sample ID	Matrix	pH	SampAmt	Fin Vol	Factor	Bottle #	Cleanup
1709034-02D	Soil		10	10	1.000	1 of 1	
1709034-04D	Soil		10	10	1.000	1 of 1	
1709034-06D	Soil		10	10	1.000	1 of 1	
1709034-08D	Soil		10	10	1.000	1 of 1	
1709034-10D	Soil		10	10	1.000	1 of 1	
1709098-01A	Soil		10	10	1.000	1 of 1	
1709099-02A	Soil		10	10	1.000	1 of 1	
1709100-04B	Soil		10	10	1.000	1 of 1	
1709106-01A	Soil		10	10	1.000	1 of 1	
1709108-04C	Soil		10	10	1.000	1 of 1	
1709115-01A	Soil		10	10	1.000	1 of 1	
1709115-02A	Soil		10	10	1.000	1 of 1	
1709115-03A	Soil		10	10	1.000	1 of 1	
1709115-04A	Soil		10	10	1.000	1 of 1	
1709115-05A	Soil		10	10	1.000	1 of 1	
1709115-06A	Soil		10	10	1.000	1 of 1	
1709115-07A	Soil		10	10	1.000	1 of 1	
1709115-08A	Soil		10	10	1.000	1 of 1	
1709115-09A	Soil		10	10	1.000	1 of 1	
1709115-09A-DUP	Soil		10	10	1.000	of	

REVIEWED BY

By Janice Whitt at 11:04:49 AM, 9/18/2017

Percent Moisture - Bench Sheet

Enter ALL weights into the DHL LIMS - Single Analyte Worksheet

Method Requirements: Samples dried to constant weight (12-16 hours) at oven temperature of 110 ± 5°C

Constant Weight is achieved if 2nd weight is <0.1% of 1st weight

$[(\text{Final Weight} - 2\text{nd Weight}) / (\text{Final Weight})] \times 100\%$

RUN ID: PMOIST_170915A		Date Started: 9/15/17		Date Ended: 9/18/17	
Time Started: 11:57		Time Ended: 9:01		Analyst Start: VA	
Analyst End: VA		Balance #: 20		Balance #: 20	
Oven #: FISHER-2		Thermometer #: 81 (08/22/17)		Dry Time >12hrs	
Initial Temperature: 110.6		Correction Factor: 0.0		2nd Weighing - if 1st dry is <12 hrs	
Final Temperature: 111					

Sample ID	Tare Wt (g)	Tare + Sample (g)	Final Wt (g)	2nd Weight	<0.1% (Y/N)
1709034-02D	1.03	11.23	10.74		
1709034-04D	1.05	11.30	10.64		
1709034-06D	1.03	11.67	10.77		
1709034-08D	1.03	10.98	10.63		
1709034-10D	1.02	12.52	11.51		
1709098-01A	1.05	13.15	11.88		
1709099-02A	1.04	11.31	10.31		
1709100-04B	1.03	12.19	12.09		
1709104-01A	1.01	11.80	11.80		
1709106-01A	1.04	12.61	11.83		
1709108-04C	1.01	10.89	8.45		
1709115-01A	1.06	12.52	11.87		
1709115-02A	1.04	11.15	10.75		
1709115-03A	1.03	12.32	11.93		
1709115-04A	1.07	11.80	10.77		
1709115-05A	1.01	11.82	11.34		
1709115-06A	1.02	13.87	13.14		
1709115-07A	1.02	12.75	11.68		
1709115-08A	1.05	13.5 13.52	12.71		
1709115-09A	1.04	11.55	10.52		
1709115-09A-DUP	1.06	11.32	10.46		

1709100-04B
VA 9-18-17

VA 9-15-17

SAMPLE REMOVED FROM OVEN.

Data Folder Contents	Review Items	Check	2nd Level Review
Hard Copies MUST match LIMS data			
1. Is the Prep Batch Report included?	Prep Start/End Dates SampAmt=10, FinVol=10 20 field samples/batch, 1 DUP/batch	X	
2. Is the Run Log included?	Test Code, Sample Type Batch ID, and Analysis Date/Time	X	
3. Is PMOIST bench sheet included?	Bench sheet vs. LIMS - Single Analyte Worksheet	X	
4. Is the RPD for the DUP ≤30%?	If RPD fails criteria, then state reason below:	X	
Comments:			

Analyst: *[Signature]*

Date: 9-18-17

Second-Level Review:

Date:



Percent Moisture - Bench Sheet					
Enter ALL weights into the DHL LIMS - Single Analyte Worksheet					
Method Requirements: Samples dried to constant weight (12-16 hours) at oven temperature of 110 ± 5°C					
Constant Weight is achieved if 2nd weight is <0.1% of 1st weight [(Final Weight - 2nd Weight) / (Final Weight)] x 100%					
RUN ID:	PMOIST_170915A				
Date Started:	9/15/17	Date Ended:	9/18/17	Date Ended:	
Time Started:	11:57	Time Ended:	9:01	Time Ended:	
Analyst Start:	VA	Analyst End:	VA	Analyst End:	
Balance #	20	Balance #	20	Balance #	
Oven #	FISHER-2	Thermometer #	81 (08/22/17)	Dry Time >12hrs	
		Correction Factor	0.0	2nd Weighing - if 1st dry is <12 hrs	
Initial Temperature	110.6	Final Temperature	111.1		
Sample ID	Tare Wt (g)	Tare + Sample (g)	Final Wt (g)	2nd Weight	<0.1% (Y/N)
SampID					
1709034-02D	1.03	11.23	10.74		
1709034-04D	1.05	11.30	10.64		
1709034-06D	1.03	11.67	10.77		
1709034-08D	1.03	10.98	10.63		
1709034-10D	1.02	12.52	11.51		
1709098-01A	1.05	13.15	11.88		
1709099-02A	1.04	11.31	10.31		
1709100-04B	1.03	12.19	12.09		
1709106-01A	1.04	12.61	11.83		
1709108-04C	1.01	10.89	8.45		
1709115-01A	1.06	12.52	11.87		
1709115-02A	1.04	11.15	10.75		
1709115-03A	1.03	12.32	11.93		
1709115-04A	1.07	11.80	10.77		
1709115-05A	1.01	11.82	11.34		
1709115-06A	1.02	13.87	13.14		
1709115-07A	1.02	12.75	11.68		
1709115-08A	1.05	13.52	12.71		
1709115-09A	1.04	11.55	10.52		
1709115-09A-DUP	1.06	11.32	10.46		

Data Folder Contents	Review Items	Check	2nd Level Review
Hard Copies MUST match LIMS data			
1. Is the Prep Batch Report included?	Prep Start/End Dates SampAmt=10, FinVol=10 20 field samples/batch, 1 DUP/batch	X	X
2. Is the Run Log included?	Test Code, Sample Type Batch ID, and Analysis Date/Time	X	
3. Is PMOIST bench sheet included?	Bench sheet vs. LIMS - Single Analyte Worksheet	X	
4. Is the RPD for the DUP ≤30%?	If RPD fails criteria, then state reason below:	X	
Comments:			

Analyst: *Not Coler* Date: 9/18/17

Second-Level Review: *Janice Whitt* 277 Date: 9/18/2017