Paragon Analytics

Aromatic Volatile Organics Case Narrative

Cordilleran Compliance Services, Inc.

Rulison Area Well monitoring

Order Number - 0811110

1. This report consists of 2 water samples. The samples were received cool and intact by Paragon on 11/14/2008. The vial for both samples contained head space prior to analysis because it was not received head space free.

   Sample 2 had a pH > 2 at the time of analysis. Sample 1 had a pH < 2 at the time of analysis.

2. These samples were prepared and analyzed according to SW-846, 3rd Edition procedures. Specifically, the water samples were prepared by heating and purging 5ml using purge and trap procedures based on Method 5030B. The calibration curve was also prepared using the heated purge.

3. The samples were analyzed using a GC with DB-VRX and DB-624 capillary columns leading to photo ionization detectors (PID) according to Paragon Analytics Standard Operating Procedure 424 Revision 12 based on SW-846 Method 8021B. All results were quantified with the responses from the initial calibration curve using the internal standard technique. Second column confirmation was performed simultaneously because the sample was split between the two columns.

4. All initial and continuing calibration criteria were met with the following exceptions:

   Sequence btx 11/20/08

   Initial calibration verification (data file 00282) – benzene was out high on column 1. 2,3,4-trifluorotoluene was out low on both columns..

   Sequence btx 11/24/08

-Continuing calibration CCV (data file 00295) – 2,3,4-trifluorotoluene was out low on column 1.
-Continuing calibration CCV (data file 00310) – 2,3,4-trifluorotoluene was out low on both columns.

See NCR#11045.

5. The method blank associated with this project was below the reporting limit, but above the MDL for toluene and m+p-xylene.
This compound was also detected in all samples, so the data were flagged accordingly.

6. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria.

7. All matrix spike and matrix spike duplicate recoveries and RPDs were within the acceptance criteria with the following exceptions:

Spiked Compound	QC Sample	Direction
Benzene	MSD	Low
Toluene	MS/MSD	Low

The recoveries of these compounds in the laboratory control sample and laboratory control sample duplicate were within control limits, which suggest the outliers in the matrix spikes may have been due to matrix effects. No further action was taken.

8. All samples were extracted and analyzed within the established holding time.

9. All surrogate recoveries were within acceptable limits with the following exceptions:

Surrogate	Sample	Direction
2,3,4-Trifluorotoluene	1, 1RR1, 2, 2RR1, LCSD and MS/MSD	Low/High

Due to the low surrogate recoveries, samples 1 and 2 were re-analyzed by method 8260 (GCMS). Results from the re-analyses were in good agreement with the initial (8021) results. The low surrogate recoveries are believed to be due to instrumental issues that are now being addressed. Confirmation data has been included in the miscellaneous section of this report. See NCR#11045.

10. All internal standard recoveries were within acceptance criteria.

11. All samples were analyzed at dilutions in order to bring target analytes within the calibration range of the instrument. The reporting limits have been adjusted accordingly.

12. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in Paragon Analytics Standard Operating Procedure 939 Revision 3. The chromatographic data system marks the manual integrations with an m on the quantitation report. Whenever manual integrations are performed, before and after chromatograms of the peak that was manually integrated are included in the report along with the reason why the re-integration was necessary.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Mindy Norton — 12.4.08
Mindy Norton
Organics Primary Data Reviewer
Date

Joe Nolte — 12-5-08
Organics Final Data Reviewer
Date

Paragon Analytics, Inc.
Data Qualifier Flags
Chromatography and Mass Spectrometry

U or ND:	**This flag indicates that the compound was analyzed for but not detected.**
J:	**This flag indicates an estimated value. This flag is used as follows : (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the data indicate the presence of a compound that meets the identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.**
B:	**This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.**
E:	**This flag identifies compounds whose concentration exceeds the upper level of the calibration range.**
A:	**This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.**
X:	**This flag indicates that the analyte was diluted below an accurate quantitation level.**
***:**	**This flag indicates that a spike recovery is outside the control criteria.**
+:	**This flag indicates that the relative percent difference (RPD) exceeds the control criteria.**

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0811110
Client Name: Cordilleran Compliance Services, Inc.
Client Project Name: Rulison Area Well monitoring
Client Project Number:
Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
A11-15D	0811110-1		WATER	13-Nov-08	8:40
A11-15B	0811110-2		WATER	13-Nov-08	8:30

Paragon Analytics
A Division of DataChem Laboratories, Inc.

225 Commerce Drive Fort Collins, CO 80524
800-443-1511 or (970) 490-1511 (970) 490-1522 Fax

Accession Number (LAB ID) 081110

Chain-of-Custody Date 11/13/08 Page 1 of 1

Originator: Retain pink copy!

Project Name/No.: Rulison Area Well Monitoring **Sampler(s):** TPD Turnaround (circle one) **Standard** or **Rush** (Due _____) Dispose: **Date** _____ or **Return to Client**

Report To: James Hix
Phone: (303) 237.2072
Fax: (303) 237 2659
E-mail: jameshix@cordcomp.com
Company: Cordilleran Compliance Services, Inc.
Address: ~~826 21½ Road~~
4690 Table Mountain Dr. #200
Golden, CO 80403

Circle method (right); provide additional information as needed (comments).

Sample ID	Date	Time *	Lab ID	Matrix	Preservative (indicate type... HCl, etc.)	No. of Containers	VOCs SW8260B	BTEX (only) MTBE SW8021B	SVOCs SW8270C	OC Pesticides SW8081A	PCBs SW8082	Herbicides SW8151A	Explosives SW8330	TCLP Organics SW1311 SW8260B 8270C 8081A 8151A	TCLP Metals SW1311 Hg SW6010B 7470	Total Metals by ICP Hg SW6010B 7470 7471 E200.7	Dissolved Metals by ICP Hg SW6010B 7470 E200.7	Total Metals by ICP/MS SW6020A E200.8	Dissolved Metals by ICP/MS SW6020A E200.8	Hexavalent Chromium SW7196A Alkaline Digest? Y / N	Inorganic Anions SW9056 E300.0 (specify in comments)	Solids: Total E160.3 TDS E160.1 TSS E160.2	pH SW9040B SW9045C	TPH SW8015B GRO DRO (circle one or both)	Gross Alpha / Beta SW9310 E900.0	Actinides by Paragon SOP Pu / U / Am / Th / Cm / ___	Tritium E906.0	Total Alpha-Emitting Radium SW9315 E903.0	Radium 226 E903.1	Radium 228 SW9320 E904.0	Strontium 90 (Total RadioSr) D5811-00	Gamma Isotopes E901.1	Radon 222 SM7510Rn	RSK	NH_3, NO_x, T-Phos
A11-15D	11/13/08	0840	1	W	HNO_3 HCl, H_2SO_4	17		X										X			X			X	X		X			X	X	X	X
A11-15B	11/13/08	0830	2	W	"	17		X										X			X			X	X		X			X	X	X	X

* **Time Zone:** EST CST MST PST **Matrix Key:** O = oil, S = soil, NS = non-soil solid, W = water, L = liquid, E = extract, F = filter

Comments:

Relinquished By: (1)	Relinquished By: (2)
Signature	Signature
Printed Name T.M. DOBRANSKY	Printed Name
Date 11/13/08 Time 1600	Date Time
Company CORDILLERAN COMPLIANCE	Company
Received By: (1)	**Received By:** (2)
Signature	Signature
Printed Name	Printed Name
Date 11/14/08 Time 0955	Date Time
Company	Company

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Form 202r6.xls (6/16/06)

CONDITION OF SAMPLE UPON RECEIPT FORM **Paragon Analytics**

Client: Cordillieran Workorder No: 0811110

Project Manager: LS Initials: CO Date: 11-14-08

1.	Does this project require any **special handling** in addition to standard Paragon procedures?		YES	(NO)
2.	Are custody **seals** on **shipping containers** intact?	NONE	(YES)	NO
3.	Are Custody seals on **sample containers** intact?	NONE	(YES)	NO
4.	Is there a **COC (Chain-of-Custody) present** or other representative documents?		(YES)	NO
5.	Are the **COC and bottle labels complete and legible**?		(YES)	NO
6.	Is the **COC in agreement** with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7.	Were **airbills / shipping documents** present and/or removable?	DROP OFF	(YES)	NO
8.	Are **all** aqueous **samples requiring preservation preserved correctly?** (excluding volatiles)	N/A	YES	(NO)
9.	Are all aqueous **non-preserved samples pH 4-9**?	N/A	(YES)	NO
10.	Is there **sufficient sample** for the requested analyses?		(YES)	NO
11.	Were all samples placed in the **proper containers** for the requested analyses?		(YES)	NO
12.	Are all samples within **holding times** for the requested analyses?		(YES)	NO
13.	Were all sample containers received **intact**? (not broken or leaking, etc.)		(YES)	NO
14.	Are all samples requiring **no** headspace (**VOC, GRO, RSK/MEE, Rx CN/S, radon**) headspace free? **Size of bubble:** √ < green pea ___ > green pea	N/A	YES	(NO)
15.	Do perchlorate LCMS-MS samples **have** headspace? (at least 1/3 of container required)	(N/A)	YES	NO
16.	Were samples checked for and free from the presence of **residual chlorine?** (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	(N/A)	YES	NO
17.	Were the samples **shipped on ice**?		(YES)	NO
18.	Were cooler temperatures **measured at 0.1-6.0°C**? **IR gun used*:** (#2) #4	RAD ONLY	(YES)	NO

Cooler #:	1								
Temperature (°C):	3.4								
No. of custody seals on cooler:	1								
DOT Survey/ Acceptance Information — External µR/hr reading:	14								
Background µR/hr reading:	13								

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? (YES) / NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

Headspace Bottle # (#1) 1, 2, 3, 6, 7, 9

#2 - 1, 2

Slime layer in -1-15 & -1-16 (Organic?)

If applicable, was the client contacted? YES / NO / NA Contact: J. Hix Date/Time: ___

Project Manager Signature / Date: 11/12/08

*IR Gun #2: Oakton, SN 29922500201-0066 *IR Gun #4: Oakton, SN 2372220101-0002

CONDITION OF SAMPLE UPON RECEIPT FORM **Paragon Analytics**

Client: Cardiliveran Workorder No: 0811110

Project Manager: LS Initials: CO Date: 11-14-08

Additional Information:

Was the laboratory directed to proceed with the analysis of any samples yielding the presence of residual chlorine? **YES / NO / NA**

NOTE:

No pH adjustments shall be made without prior consent of Project Manager. After pH adjustments, hold metals and radchem samples ≥ 24 hrs. before analysis.

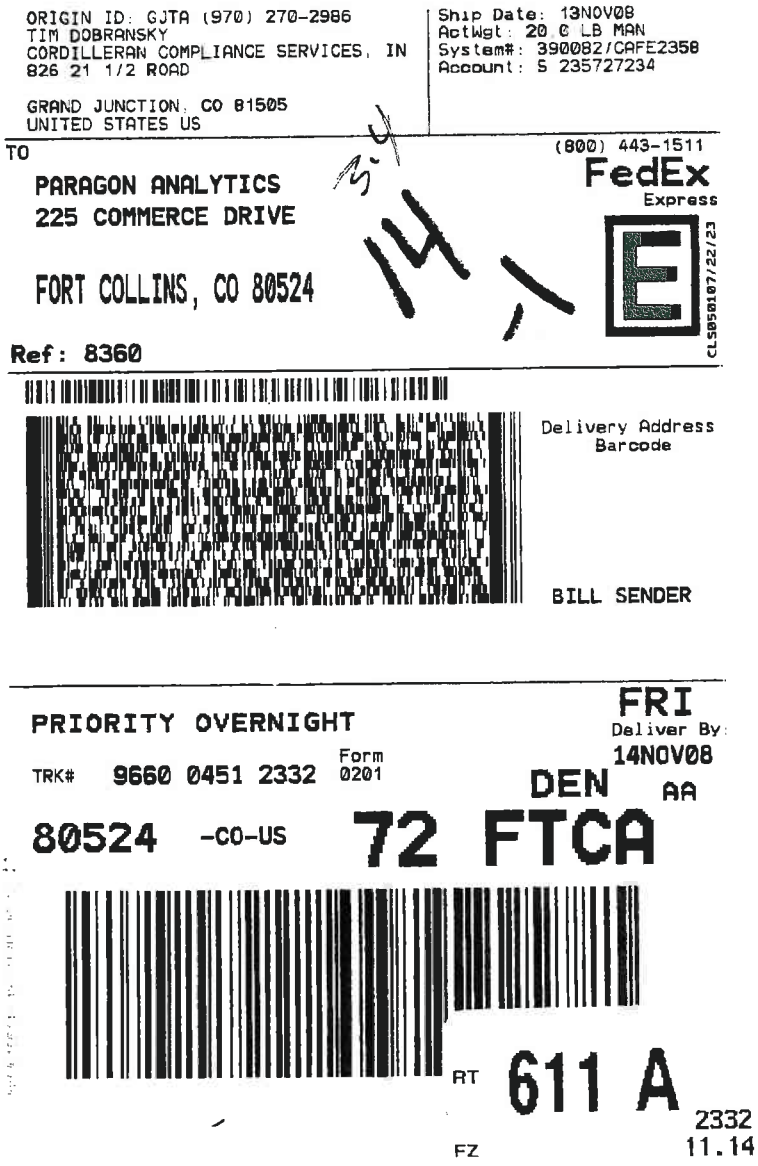
Was the pH of any sample adjusted by the laboratory? **YES** (See Table below) / **NO**

pH Excursion:

Paragon Sample ID	Client Sample ID	Initial pH	Final pH	Reagent Used	Volume Added (mL)	Lot No. of Reagent	Requested Analysis	Initials / Date / Time
-1-12		7	1.6	conc HNO3	1mL			CO 11/14/08 1030
-1-15								
-1-16								
-1-17								
-2-12								
-2-15								
-2-16								
-2-17								

If applicable, was the client contacted? **YES / NO / NA** Contact: _____ Date/Time: _____

Project Manager Signature / Date: 11/17/08



ORIGIN ID: GJTA (970) 270-2986
TIM DOBRANSKY
CORDILLERAN COMPLIANCE SERVICES, IN
826 21 1/2 ROAD

GRAND JUNCTION, CO 81505
UNITED STATES US

Ship Date: 13NOV08
ActWgt: 20.0 LB MAN
System#: 390082/CAFE2350
Account: S 235727234

TO

PARAGON ANALYTICS
225 COMMERCE DRIVE

FORT COLLINS, CO 80524

Ref: 8360

(800) 443-1511
FedEx
Express

CLS0501107/22/23

Delivery Address
Barcode

BILL SENDER

PRIORITY OVERNIGHT

FRI
Deliver By:
14NOV08

TRK# 9660 0451 2332

Form
0201

DEN AA

80524 -CO-US

72 FTCA

RT

611 A

2332
11.14

FZ

Analytical Results

Volatile Aromatics by GC/PID

Method SW8021B

Method Blank

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Lab ID: HCB081124-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 24-Nov-08
Date Analyzed: 24-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: N/A
File Name: 00300.dat

Sample Aliquot: 5ml
Final Volume: 5ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	0.5	0.5	U	
71-43-2	BENZENE	1	0.5	0.5	U	
108-88-3	TOLUENE	1	0.19	0.5	J	
100-41-4	ETHYLBENZENE	1	0.5	0.5	U	
136777-61-2	M+P-XYLENE	1	0.3	0.5	J	
95-47-6	O-XYLENE	1	0.5	0.5	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	87.2		100	87	85 - 115

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15D
Lab ID: 0811110-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 24-Nov-08
Date Analyzed: 24-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received
File Name: 00302.dat

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
1634-04-4	METHYL TERTIARY BUTYL ETHER	1000	500	500	U	
71-43-2	BENZENE	1000	10000	500		
108-88-3	TOLUENE	1000	20000	500	B	
100-41-4	ETHYLBENZENE	1000	860	500		
136777-61-2	M+P-XYLENE	1000	9500	500	B	
95-47-6	O-XYLENE	1000	1900	500		

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	83700	*	100000	84	85 - 115

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15B
Lab ID: 0811110-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 24-Nov-08
Date Analyzed: 24-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received
File Name: 00303.dat

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
1634-04-4	METHYL TERTIARY BUTYL ETHER	1000	500	500	U	
71-43-2	BENZENE	1000	7100	500		
108-88-3	TOLUENE	1000	15000	500	B	
100-41-4	ETHYLBENZENE	1000	1100	500		
136777-61-2	M+P-XYLENE	1000	13000	500	B	
95-47-6	O-XYLENE	1000	2500	500		

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	88200		100000	88	85 - 115

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15D
Lab ID: 0811110-1RR1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 24-Nov-08
Date Analyzed: 24-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received
File Name: 00304.dat

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
1634-04-4	METHYL TERTIARY BUTYL ETHER	200	100	100	U	
71-43-2	BENZENE	200	9800	100	E	
108-88-3	TOLUENE	200	23000	100	B,E	
100-41-4	ETHYLBENZENE	200	770	100		
136777-61-2	M+P-XYLENE	200	9400	100	B,E	
95-47-6	O-XYLENE	200	1900	100		

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	16700	*	20000	84	85 - 115

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15B
Lab ID: 0811110-2RR1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 24-Nov-08
Date Analyzed: 24-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received
File Name: 00305.dat

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
1634-04-4	METHYL TERTIARY BUTYL ETHER	200	100	100	U	
71-43-2	BENZENE	200	7700	100		
108-88-3	TOLUENE	200	17000	100	B,E	
100-41-4	ETHYLBENZENE	200	790	100		
136777-61-2	M+P-XYLENE	200	10000	100	B,E	
95-47-6	O-XYLENE	200	1900	100		

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	16800	*	20000	84	85 - 115

Data Package ID: *HCB0811110-1*

Supporting QA/QC Data

Surrogate Summary for Volatile Aromatics by GC/PID

Method SW8021B

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

PrepBatchID: HCB081124-1
QC Batch ID: HCB081124-1-1
Date Extracted: 11/24/2008

Surrogate Compound	Control Limits Lower	Upper
2,3,4-trifluorotoluene	85	115

Lab ID	Client Sample ID	Date Collected	Date Received	% Recovery
0811110-1MS	A11-15D	11/13/2008	11/14/2008	79
0811110-1MSD	A11-15D	11/13/2008	11/14/2008	82
HCB081124-1LCSD	XXXXXXX	11/24/2008	11/14/2008	84
HCB081124-1LCS	XXXXXXX	11/24/2008	11/14/2008	85
HCB081124-1MB	XXXXXXX	11/24/2008	11/14/2008	87
0811110-1	A11-15D	11/13/2008	11/14/2008	84
0811110-2	A11-15B	11/13/2008	11/14/2008	88
0811110-1RR1	A11-15D	11/13/2008	11/14/2008	84
0811110-2RR1	A11-15B	11/13/2008	11/14/2008	84

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Lab ID: HCB081124-1LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/24/2008
Date Analyzed: 11/24/2008
Prep Method: SW5030B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: N/A
File Name: 00295.dat

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	18.1	0.5		91	73 - 118%
71-43-2	BENZENE	20	19.4	0.5		97	78 - 119%
108-88-3	TOLUENE	20	19.4	0.5		97	80 - 117%
100-41-4	ETHYLBENZENE	20	19.2	0.5		96	79 - 117%
136777-61-2	M+P-XYLENE	40	38.2	0.5		95	78 - 118%
95-47-6	O-XYLENE	20	19.1	0.5		96	79 - 118%

Lab ID: HCB081124-1LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11/24/2008
Date Analyzed: 11/25/2008
Prep Method: SW5030B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: N/A
File Name: 00310.dat

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	18.5	0.5		93	20	2
71-43-2	BENZENE	20	19.8	0.5		99	20	2
108-88-3	TOLUENE	20	19.9	0.5		99	20	2
100-41-4	ETHYLBENZENE	20	19.6	0.5		98	20	2
136777-61-2	M+P-XYLENE	40	39.1	0.5		98	20	2
95-47-6	O-XYLENE	20	19.9	0.5		99	20	4

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	100	85		84	*	85 - 115

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15D
LabID: 0811110-1MS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 24-Nov-08
Date Analyzed: 25-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00308.dat

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
1634-04-4	METHYL TERTIARY BUTYL ETHER	500	U	8500		500	10000	85	73 - 118%
71-43-2	BENZENE	10000		18200		500	10000	80	78 - 119%
108-88-3	TOLUENE	20000	B	26200	*	500	10000	65	80 - 117%
100-41-4	ETHYLBENZENE	860		9390		500	10000	85	79 - 117%
136777-61-2	M+P-XYLENE	9500	B	25200		500	20000	79	78 - 118%
95-47-6	O-XYLENE	1900		10400		500	10000	85	79 - 118%

Field ID: A11-15D
LabID: 0811110-1MSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 13-Nov-08
Date Extracted: 24-Nov-08
Date Analyzed: 25-Nov-08
Prep Method: SW5030 Rev B

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00309.dat

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
1634-04-4	METHYL TERTIARY BUTYL ETHER	7890		10000	79	500	20	7
71-43-2	BENZENE	17900	*	10000	77	500	20	2
108-88-3	TOLUENE	26600	*	10000	69	500	20	1
100-41-4	ETHYLBENZENE	9110		10000	83	500	20	3
136777-61-2	M+P-XYLENE	25300		20000	79	500	20	0
95-47-6	O-XYLENE	10200		10000	83	500	20	2

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Surrogate Recovery MS/MSD

CASNO	Target Analyte	Spike Added	MS % Rec.	MS Flag	MSD % Rec.	MSD Flag	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	100000	79	*	82	*	85 - 115

Data Package ID: *HCB0811110-1*

Prep Batch ID: HCB081124-1

Start Date: 11/24/08
Start Time: 19:55
Prep Analyst: Joel F. Nolte

End Date: 11/24/08
End Time: 19:55

Concentration Method: NONE
Extract Method: SW5030B
Initial Volume Units: ml
Final Volume Units: ml

Batch Created By: jfn
Date Created: 11/24/08
Time Created: 19:55
Validated By: jfn
Date Validated: 12/01/08
Time Validated: 15:07

Comments:

waters

QC Batch ID: HCB081124-1-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
HCB081124-1	MB	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811110
HCB081124-1	LCS	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811110
HCB081124-1	LCSD	XXXXXX	WATER	XXXXXX	5	5	NONE	1	0811110
0811110-1	MS	A11-15D	WATER	11/13/2008	5	5	NONE	1	0811110
0811110-1	MSD	A11-15D	WATER	11/13/2008	5	5	NONE	1	0811110
0811110-1	SMP	A11-15D	WATER	11/13/2008	5	5	NONE	1	0811110
0811110-2	SMP	A11-15B	WATER	11/13/2008	5	5	NONE	1	0811110

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
SMP	Field Sample	SYS	Sample Yield Spike

Calibration ID: btx112008
Instrument ID: GC7
Calibration Date: 11/20/2008 5:23:39 P

ALS Paragon Analytics
Initial Calibration Report

FileName: \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00282.dat

Analyte	Cal LVL ID:	1	2	3	4	5	6	7	8	9	Avg CF	LSQ Wt	%RSD	Curve Type	R2	Higher Order Equation Quad Term	Slope	Intercept
PID 1																		
TRIFLUOROTOLUENE		1	1	1	1	1	1				1.0000	None	0.00	AvgRF				
METHYL TERTIARY BUTYL E		0.161022	0.194829	0.193728	0.252043	0.352704	0.387939				0.2572	1/Amount^2		Quadratic	0.995	0.431088	0.233357	-0.00040
2,3,4-Trifluorotoluene		3.388654	2.576823	1.905687	1.905368	2.125233	1.840109				2.2905	None		Quadratic	0.992	-0.238505	2.175350	0.015253
BENZENE		0.857846	1.238964	1.393441	2.015284	2.697547	2.748997				1.8253	1/Amount^2		Quadratic	0.992	2.567181	1.894552	-0.00575
TOLUENE		0.999509	1.220592	1.317185	2.031771	3.095859	3.450731				2.0025	1/Amount^2		Quadratic	0.992	4.650384	1.797058	-0.00517
CHLOROBENZENE		0.997950	1.45237	1.854069	3.115294	4.881011	4.762223				2.8238	1/Amount		Quadratic	0.998	2.391201	3.939245	-0.02206
ETHYLBENZENE		0.794759	1.044272	1.159289	1.919068	3.432225	3.780081				2.0216	1/Amount		Quadratic	0.997	3.427721	2.511113	-0.01400
m+p-Xylene		0.782076	1.217335	1.316751	2.108261	3.744515	4.076081				2.2072	1/Amount		Quadratic	0.997	1.749659	2.788555	-0.03118
o-Xylene		0.532443	0.915187	0.930863	1.489242	2.728539	3.219485				1.6526	1/Amount^2		Quadratic	0.991	5.350173	1.277610	-0.00374
1,3-Dichlorobenzene		0.719712	0.991966	1.016331	1.60244	2.591855	2.68849				1.6018	1/Amount		Quadratic	0.997	1.717104	2.077654	-0.01067
1,4-Dichlorobenzene		0.845866	1.234234	1.428483	2.655106	5.229647	5.675937				2.8449	1/Amount		Quadratic	0.996	5.253574	3.753999	-0.02398
1,2-Dichlorobenzene		0.590385	0.901133	0.986162	1.752005	3.240836	3.488178				1.8285	1/Amount		Quadratic	0.996	2.988523	2.398699	-0.01451
PID 2																		
TRIFLUOROTOLUENE		1	1	1	1	1	1				1.0000	None	0.00	AvgRF				
METHYL TERTIARY BUTYL E		0.670553	0.684775	0.695207	0.736808	0.65919	0.680486				0.7546	None		Linear	1.000		0.673352	0.001122
2,3,4-Trifluorotoluene		4.001764	2.668665	1.697913	1.411882	1.389282	1.198189				2.0813	None		Linear	0.993		1.119817	0.155653
BENZENE		2.942364	3.487194	3.077261	3.37175	3.400156	3.325382				3.2674	None		Linear	1.000		3.338543	0.000500
TOLUENE		2.857964	3.072284	2.786601	3.036011	2.99018	2.874716				2.9046	None		Quadratic	1.000	-0.603909	3.123784	-0.00291
CHLOROBENZENE		2.576052	2.958459	2.908802	3.027876	3.011205	2.95652				2.9063	None		Quadratic	1.000	-0.302121	3.083070	-0.00228
ETHYLBENZENE		2.334002	2.714863	2.542168	2.737714	2.736842	2.678888				2.6244	None		Quadratic	1.000	-0.326098	2.816789	-0.00290
m+p-Xylene		2.561042	3.072446	2.854655	3.110822	3.107476	3.046701				2.9622	None		Quadratic	1.000	-0.170148	3.191601	-0.00691
o-Xylene		2.078993	2.466897	2.340753	2.551323	2.595914	2.560582				2.4324	None		Linear	1.000		2.578756	-0.00199
1,3-Dichlorobenzene		2.480742	2.741354	2.460601	2.681026	2.673226	2.681126				2.6163	None		Linear	1.000		2.684257	-0.00159
1,4-Dichlorobenzene		2.48344	2.922303	2.811161	2.780057	2.803752	2.764153				2.7275	None		Linear	1.000		2.771406	0.000144
1,2-Dichlorobenzene		2.085298	2.180421	1.99585	2.184631	2.149584	2.158339				2.1280	None		Linear	1.000		2.158708	-0.00058

Data Package ID:

BTEX (8021) Calibration Verification Summary

Paragon Analytics

Sample : 10 ug/L ICV
Filename : 00282.dat
Acq. Date : 11/20/2008 5:23:39 PM
Acq. Method : btx112008.met
Acq. Sequence : btx112008.seq
Data Description :

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Compound	Column #1 Exp. RT	Column #1 RT	Column #1 Dev.	Column #2 Exp. RT	Column #2 RT	Column #2 Dev.	ug/L Nom. Conc.	ug/L Conc. #1	ug/L Conc. #2	% Rec. #1	% Rec. #2	Avg RF Column #1	Avg RF Column #2
(internal standard)													
a,a,a-Trifluorotoluene	5.980	5.997	0.017	5.153	5.173	0.020	100	100.00	100.00	100	100	1.0000	1.0000
(surrogate)													
2,3,4-Trifluorotoluene	7.943	7.947	0.003	7.120	7.127	0.007	100	68.47	76.26	68 *	76 *	2.2905	2.0613
(targets)													
MTBE	2.977	3.010	0.033	2.170	2.193	0.023	10	10.78	10.90	108	109	0.2572	0.7545
Benzene	4.977	5.003	0.027	4.027	4.057	0.030	10	11.76	10.78	118	108	1.8253	3.2674
Toluene	7.220	7.227	0.007	6.213	6.227	0.013	10	11.14	10.16	111	102	2.0026	2.9046
Chlorobenzene	8.850	8.853	0.003	7.883	7.887	0.003	10	9.08	9.87	91	99	2.8238	2.9063
Ethylbenzene	9.170	9.170	0.000	8.067	8.073	0.007	10	9.24	10.32	92	103	2.0216	2.6244
m+p-Xylene	9.447	9.447	0.000	8.237	8.237	0.000	20	18.46	20.77	92	104	2.2072	2.9622
o-Xylene	9.947	9.943	-0.003	8.760	8.760	0.000	10	10.78	10.69	108	107	1.6526	2.4324
1,3-Dichlorobenzene	12.240	12.233	-0.007	11.113	11.110	-0.003	10	8.87	9.57	89	96	1.6018	2.6163
1,4-Dichlorobenzene	12.350	12.343	-0.007	11.263	11.260	-0.003	10	9.28	10.31	93	103	2.8449	2.7275
1,2-Dichlorobenzene	12.830	12.827	-0.003	11.823	11.820	-0.003	10	8.91	9.57	89	96	1.8265	2.1290

Avg. % Dev Col. #1	Avg. % Dev Col. #2
10	5

[* NA - no control 2nd source (and ∴ no control) for surr in ICV. JW]

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event,
N=begin negative peak, P=end negative peak, H=forward horiz,
h=backward horiz, M=manual baseline or peak, S=shoulder
T=tangent skim, V=valley, v=forced valley point, x=split peak
E=end of chromatogram encountered, R=reset baseline
L=lowest point horiz.

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BTEX (8021) Calibration Verification Summary

Sample : HCB081124-1CCS
Filename : 00295.dat
Acq. Date : 11/24/2008 6:25:37 PM
Acq. Method : btx112008.met
Acq. Sequence : btx112408.seq
Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Compound	Column #1 Exp. RT	Column #1 RT	Column #1 Dev.	Column #2 Exp. RT	Column #2 RT	Column #2 Dev.	ug/L Nom. Conc.	ug/L Conc. #1	ug/L Conc. #2	% Rec. #1	% Rec. #2	Avg RF Column #1	Avg RF Column #2
(internal standard)													
a,a,a-Trifluorotoluene	5.987	5.987	0.000	5.163	5.163	0.000	100	100.00	100.00	100	100	1.0000	1.0000
(surrogate)													
2,3,4-Trifluorotoluene	7.933	7.933	0.000	7.113	7.113	0.000	100	80.70	84.74	81↓	85✓	2.2905	2.0613
(targets)													
MTBE	3.003	3.003	0.000	2.187	2.187	0.000	20	19.77	18.11	99	91	0.2572	0.7545
Benzene	4.993	4.993	0.000	4.047	4.047	0.000	20	20.94	19.37	105	97	1.8253	3.2674
Toluene	7.213	7.213	0.000	6.217	6.217	0.000	20	21.28	19.45	106	97	2.0026	2.9046
Chlorobenzene	8.837	8.837	0.000	7.873	7.873	0.000	20	19.31	19.24	97	96	2.8238	2.9063
Ethylbenzene	9.153	9.153	0.000	8.057	8.057	0.000	20	19.55	19.15	98	96	2.0216	2.6244
m+p-Xylene	9.430	9.430	0.000	8.223	8.223	0.000	40	39.64	38.19	99	95	2.2072	2.9622
o-Xylene	9.927	9.927	0.000	8.743	8.743	0.000	20	20.70	19.13	104	96	1.6526	2.4324
1,3-Dichlorobenzene	12.217	12.217	0.000	11.090	11.090	0.000	20	19.11	18.56	96	93	1.6018	2.6163
1,4-Dichlorobenzene	12.330	12.330	0.000	11.240	11.240	0.000	20	19.20	18.58	96	93	2.8449	2.7275
1,2-Dichlorobenzene	12.813	12.813	0.000	11.803	11.803	0.000	20	19.04	18.69	95	93	1.8265	2.1290

Avg. % Dev Col. #1	Avg. % Dev Col. #2
4	5

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event,
N=begin negative peak, P=end negative peak, H=forward horiz,
h=backward horiz, M=manual baseline or peak, S=shoulder
T=tangent skim, V=valley, v=forced valley point, x=split peak
E=end of chromatogram encountered, R=reset baseline
L=lowest point horiz.

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BTEX (8021) Calibration Verification Summary

Sample : HCB081124-1CCSD
Filename : 00310.dat
Acq. Date : 11/25/2008 1:02:58 AM
Acq. Method : btx112008.met
Acq. Sequence : btx112408.seq
Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Compound	Column #1 Exp. RT	Column #1 RT	Column #1 Dev.	Column #2 Exp. RT	Column #2 RT	Column #2 Dev.	ug/L Nom. Conc.	ug/L Conc. #1	ug/L Conc. #2	% Rec. #1	% Rec. #2	Avg RF Column #1	Avg RF Column #2
(internal standard)													
a,a,a-Trifluorotoluene	5.987	5.973	-0.013	5.163	5.150	-0.013	100	100.00	100.00	100	100	1.0000	1.0000
(surrogate)													
2,3,4-Trifluorotoluene	7.933	7.933	0.000	7.113	7.113	0.000	100	79.09	84.39	79 ↓	84 ↓ for ccv not LCS	2.2905	2.0613
(targets)													
MTBE	3.003	2.977	-0.027	2.187	2.167	-0.020	20	20.82	18.55	104	93	0.2572	0.7545
Benzene	4.993	4.977	-0.017	4.047	4.027	-0.020	20	21.27	19.83	106	99	1.8253	3.2674
Toluene	7.213	7.213	0.000	6.217	6.210	-0.007	20	21.56	19.86	108	99	2.0026	2.9046
Chlorobenzene	8.837	8.840	0.003	7.873	7.877	0.003	20	19.43	19.83	97	99	2.8238	2.9063
Ethylbenzene	9.153	9.157	0.003	8.057	8.060	0.003	20	19.39	19.60	97	98	2.0216	2.6244
m+p-Xylene	9.430	9.433	0.003	8.223	8.227	0.003	40	39.41	39.11	99	98	2.2072	2.9622
o-Xylene	9.927	9.930	0.003	8.743	8.750	0.007	20	20.72	19.87	104	99	1.6526	2.4324
1,3-Dichlorobenzene	12.217	12.213	-0.003	11.090	11.093	0.003	20	18.97	18.71	95	94	1.6018	2.6163
1,4-Dichlorobenzene	12.330	12.323	-0.007	11.240	11.247	0.007	20	18.87	18.64	94	93	2.8449	2.7275
1,2-Dichlorobenzene	12.813	12.807	-0.007	11.803	11.803	0.000	20	19.07	18.96	95	95	1.8265	2.1290

Avg. % Dev Col. #1	Avg. % Dev Col. #2
4	3

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event,
N=begin negative peak, P=end negative peak, H=forward horiz,
h=backward horiz, M=manual baseline or peak, S=shoulder
T=tangent skim, V=valley, v=forced valley point, x=split peak
E=end of chromatogram encountered, R=reset baseline
L=lowest point horiz.

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Volatile Aromatics by GC/PID

Method SW8021

Column Comparison

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: XXXXXXX
Lab ID: HCB081124-1MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected:
Date Extracted: 11/24/2008
Date Analyzed: 11/24/2008

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis:

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00300.dat

CASNO	Target Analyte	Column 1 Result	Column 2 Result	%D	Column 1 %Rec	Column 2 %Rec
108-88-3	TOLUENE	0.38	0.19	100.0		
136777-61-2	M+P-XYLENE	1.1	0.3	266.7		
193533-92-5	2,3,4-TRIFLUOROTOLUENE	82.4	87.2	5.8	82	87

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021

Column Comparison

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15D
Lab ID: 0811110-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 11/13/2008
Date Extracted: 11/24/2008
Date Analyzed: 11/24/2008

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00302.dat

CASNO	Target Analyte	Column 1 Result	Column 2 Result	%D	Column 1 %Rec	Column 2 %Rec
71-43-2	BENZENE	11000	10000	10.0		
108-88-3	TOLUENE	21000	20000	5.0		
100-41-4	ETHYLBENZENE	890	860	3.5		
136777-61-2	M+P-XYLENE	6900	9500	37.7		
95-47-6	O-XYLENE	1700	1900	11.8		
193533-92-5	2,3,4-TRIFLUOROTOLUENE	78600	83700	6.5	79	84

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021

Column Comparison

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15B
Lab ID: 0811110-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 11/13/2008
Date Extracted: 11/24/2008
Date Analyzed: 11/24/2008

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00303.dat

CASNO	Target Analyte	Column 1 Result	Column 2 Result	%D	Column 1 %Rec	Column 2 %Rec
71-43-2	BENZENE	7900	7100	11.3		
108-88-3	TOLUENE	17000	15000	13.3		
100-41-4	ETHYLBENZENE	1400	1100	27.3		
136777-61-2	M+P-XYLENE	11000	13000	18.2		
95-47-6	O-XYLENE	2900	2500	16.0		
193533-92-5	2,3,4-TRIFLUOROTOLUENE	86400	88200	2.1	86	88

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021

Column Comparison

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15D
Lab ID: 0811110-1RR1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 11/13/2008
Date Extracted: 11/24/2008
Date Analyzed: 11/24/2008

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00304.dat

CASNO	Target Analyte	Column 1 Result	Column 2 Result	%D	Column 1 %Rec	Column 2 %Rec
71-43-2	BENZENE	9300	9800	5.4		
108-88-3	TOLUENE	15000	23000	53.3		
100-41-4	ETHYLBENZENE	620	770	24.2		
136777-61-2	M+P-XYLENE	9700	9400	3.2		
95-47-6	O-XYLENE	2100	1900	10.5		
193533-92-5	2,3,4-TRIFLUOROTOLUENE	17100	16700	2.4	85	84

Data Package ID: *HCB0811110-1*

Volatile Aromatics by GC/PID

Method SW8021

Column Comparison

Lab Name: ALS Paragon
Work Order Number: 0811110
Client Name: Cordilleran Compliance Services, Inc.
ClientProject ID: Rulison Area Well monitoring

Field ID: A11-15B
Lab ID: 0811110-2RR1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 11/13/2008
Date Extracted: 11/24/2008
Date Analyzed: 11/24/2008

Prep Batch: HCB081124-1
QCBatchID: HCB081124-1-1
Run ID: HCB081124-1A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 5 ml
Final Volume: 5 ml
Result Units: UG/L
File Name: 00305.dat

CASNO	Target Analyte	Column 1 Result	Column 2 Result	%D	Column 1 %Rec	Column 2 %Rec
71-43-2	BENZENE	7700	7700	0.0		
108-88-3	TOLUENE	13000	17000	30.8		
100-41-4	ETHYLBENZENE	730	790	8.2		
136777-61-2	M+P-XYLENE	11000	10000	10.0		
95-47-6	O-XYLENE	2600	1900	36.8		
193533-92-5	2,3,4-TRIFLUOROTOLUENE	17200	16800	2.4	86	84

Data Package ID: *HCB0811110-1*

Supporting Raw Data

BTEX / AVO (8021) Sequence Log

Logbook No. / Page : 3683 / 14

ICV file # : GC700282

Analytical Method : 8021 BTEX SOP : 424r12

Data Acquired By : noltej
Data Processed By : noltej

Instrument : GC7
(1st file) Acq. Date : 11/20/2008 11:57:34 AM
(1st file) Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00271.dat
Sequence File : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Acq. Method Path : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met

QC Name	Std ID #	Std Vol. (uL)	Final Std Vol. (uL)
CCV (LCS)	ST081110-9	2	5000
MS	ST081110-9	1	5000
ICV	ST081110-10	1	5000

mn 112408

ISTD/~~Surr~~ Std ID # : ST081120-2
ISTD/Surr Spk Vol. (uL) : 1.135
(by autosampler)

(for surr, D:O 100x D'lin of st081110-2 AND shot 5 µL for each sample. mn)

Data File	Acq. Method	Sample	Auto Samp Pos	HS?	pH <= 2?	RR?	Comments
00271.dat	btx112008.met	blank	1	~~Y/N~~ ~~Y/N~~ ~~Y/N~~			
00272.dat	btx112008.met	blank	2	Y/N	Y/N	Y/N	
00273.dat	btx112008.met	blank	3	Y/N	Y/N	Y/N	
00274.dat	btx112008.met	blank	4	Y/N	Y/N	Y/N	
00275.dat	btx112008.met	0.5 ug/L ICAL	5	Y/N	Y/N	Y/N	1.0 µL of 400x D'lin of ST081110-2, 1.0 µL of 20x D'lin of st081110-9
00276.dat	btx112008.met	1.0 ug/L ICAL	6	Y/N	Y/N	Y/N	2.0 µL, 2.0 µL
00277.dat	btx112008.met	2.0 ug/L ICAL	7	Y/N	Y/N	Y/N	5.0 µL, 4.0 µL
00278.dat	btx112008.met	5.0 ug/L ICAL	8	Y/N	Y/N	Y/N	10 µL, 10 µL
00279.dat	btx112008.met	20 ug/L ICAL	9	Y/N	Y/N	Y/N	18 µL, 40 µL
00280.dat	btx112008.met	40 ug/L ICAL	10	Y/N	Y/N	Y/N	26 µL, 80 µL
00281.dat	btx112008.met	blank	11	Y/N	Y/N	Y/N	NA
00282.dat	btx112008.met	10 ug/L ICV	12	Y/N	Y/N	Y/N	(20 µL of 20x D'lin of st081110-10) * All targets w/ in ±15% cal.
00283.dat	btx112008.met	blank	13	Y/N	Y/N	Y/N	
00284.dat	btx112008.met	HCB081120-2MB	14	~~Y/N~~ ~~Y/N~~	Y/N	soil	NO RR
00285.dat	btx112008.met	0810178-7 5x	15	~~Y/N~~ ~~Y/N~~	Y/N	soil PT - 10uL to 5g/5mL	
00286.dat	btx112008.met	0810178-7 2x	16	Y/N	Y/N	soil PT - 25uL to 5g/5mL	
00287.dat	btx112008.met	0810178-7	17	Y/N	Y/N	soil PT - 50uL to 5g/5mL	
00288.dat	btx112008.met	blank	18	Y/N	Y/N	~~Y/N~~	DO NOT RR (mn)
00289.dat	btx112008.met	blank	19	Y/N	~~Y/N~~	~~Y/N~~	
00290.dat	btx112008.met	HCB081120-2LCS	20	Y/N	Y/N	Y/N soil, 20ppb	
00291.dat	btx112008.met	HCB081120-2~~LCSD~~	21	Y/N	Y/N	Y/N soil, 20ppb	
00292.dat	btx112008.met	HCB081120-1CCS	22	Y/N	Y/N	(Y)/N water, 20ppb	FAILED low both col's
00293.dat	btx112008.met	blank	23	~~Y/N~~	~~Y/N~~	~~Y/N~~	
00294.dat	btx112008.met	HCB081120-1MB	24	Y/N	Y/N	(Y)/N water	RR
00295.dat	btx112008.met	0811110-1 1000x	25	Y/N	Y/N	(Y)/N water 5uL to 5mL fv	
00296.dat	btx112008.met	0811110-2 1000x	26	Y/N	Y/N	(Y)/N water 5uL to 5mL fv	
00297.dat	btx112008.met	0811110-1 500x	27	Y/N	Y/N	(Y)/N water 10uL to 5mL fv	
00298.dat	btx112008.met	0811110-2 500x	28	Y/N	Y/N	(Y)/N water 10uL to 5mL fv	
00299.dat	btx112008.met	blank	29	Y/N	Y/N	Y/N	
00300.dat	btx112008.met	0811110-1MS 1000x	30	Y/N	Y/N	(Y)/N water 5uL to 5mL fv, spiked at 10	
00301.dat	btx112008.met	0811110-1MSD 1000x	31	Y/N	Y/N	(Y)/N water 5uL to 5mL fv, spiked at 10	
00302.dat	btx112008.met	HCB081120-1CCSD	32	Y/N	Y/N	(Y)/N water 20ug/L	

(*benzene high col. 1 in ICV - 118% Rec)

BTEX / AVO (8021) Sequence Log

Logbook No. / Page : 3683 / 16

ICV file # : GC700282

Analytical Method : 8021 BTEX SOP : 424r12

Data Acquired By : collinss

Instrument : GC7 Data Processed By : noltej

(1st file) Acq. Date : 11/24/2008 1:46:58 PM

(1st file) Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00286.dat

Sequence File : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq

Acq. Method Path : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met

QC Name	Std ID #	Std Vol. (UL)	Final Std Vol. (UL)
CCV (LCS)	ST081110-9	2	5000
MS	ST081110-10	1	5000
ICV	ST081110-10	1	5000

ISTD/Surr Std ID # : ST081120-2

ISTD/~~Surr~~ Spk Vol. (uL) : 1135 (by autosampler)

(surr = 5 mL of ST081124-7)

Data File	Acq. Method	Sample	Auto Samp Pos	HS?	pH <= 2?	RR?	Comments
00286.dat	btx112008.met	blank	1	~~Y/N Y/N Y/N~~			
00287.dat	btx112008.met	blank	2	Y/N	Y/N	Y/N	
00288.dat	btx112008.met	blank	3	Y/N	Y/N	Y/N	
00289.dat	btx112008.met	blank	4	Y/N	Y/N	Y/N	
00290.dat	btx112008.met	blank	5	Y/N	Y/N	Y/N	IS added by loop 2 - surr added
00291.dat	btx112008.met	blank	6	Y/N	Y/N	Y/N	IS added by loop 2 - surr added
00292.dat	btx112008.met	blank	7	~~Y/N Y/N Y/N~~			IS added by loop 2 - surr added
00293.dat	btx112008.met	HCB081124-1CCS	8	~~Y/N Y/N~~	(Y)	N	~~2.0~~ 5.0 uL ST081124-7 (surr) & 2.0 uL STO
00294.dat	btx112008.met	blank	9	~~Y/N Y/N Y/N~~			
00295.dat	btx112008.met	HCB081124-1CCS	10	~~Y/N Y/N~~	Y	(N)	~~2.0~~ 5.0 uL ST081124-7 (surr) & 2.0 uL STO
00296.dat	btx112008.met	blank	11	~~Y/N Y/N Y/N~~			
00297.dat	btx112008.met	HCB081124-1MB	12	~~Y/N Y/N~~	(Y)	N	water
00298.dat	btx112008.met	HCB081124-1MB	13	Y/N	Y/N	(Y)	N water
00299.dat	btx112008.met	HCB081124-1MB	14	Y/N	Y/N	(Y)	N water
00300.dat	btx112008.met	HCB081124-1MB	15	~~Y/N Y/N~~	Y	(N)	water
00301.dat	btx112008.met	0811185-3	16	Y	(N) (Y)/N	Y	(N) water
00302.dat	btx112008.met	*0811110-1 1000x	17	(Y)	N (Y)	N	Y/N 5uL / 5mL fv
00303.dat	btx112008.met	0811110-2 1000x	18	Y	N Y	(N)	Y/N 5uL / 5mL fv
00304.dat	btx112008.met	*0811110-1 200x	19	Y	N (Y)	N	Y/N 25uL / 5mL fv
00305.dat	btx112008.met	*0811110-2 200x	20	Y	N Y	(N)	Y/N 25uL / 5mL fv
00306.dat	btx112008.met	blank	21	~~Y/N Y/N Y/N~~			cleanup
00307.dat	btx112008.met	blank	22	~~Y/N Y/N Y/N~~			cleanup
00308.dat	btx112008.met	*0811110-1MS 1000x	23	(Y)	N Y/N	Y	(N) 1.0uL ST081110-9 (10ppb)
00309.dat	btx112008.met	*0811110-1MSD 1000x	24	(Y)	N Y/N	Y	(N) 1.0uL ST081110-9 (10ppb)
00310.dat	btx112008.met	*HCB081124-1CCSD	25	~~Y/N Y/N~~	Y	(N)	~~2.0~~ 5.0 uL ST081124-7 (surr) & 2.0 uL STO

NA

by hand

FAILS Low - see 7

NA

All targets w/ in ±15% both col's

TARGETS > MDL < RL

TOLUENE + M+P XYLENES > MDL < RL

N.S. < green pea

(pH ~ 4)

(pH ~ 4)

TOLUENE + M+P > MDL < RL

All targets w/ in ±15% both col's EXCEPT surr - (84% Rec on col. 2, 79% on col. 1)

* Low surr. Lower Limit is 85% Recovery. ~~Sample~~ surr Recoveries Ranging from 79% to 84%. (MW 12/4/08)

** files #'s accidentally Duplicated from btx112008.SEQ - PATHways ARE UNIQUE - Data NOT Affected. MW

Calibration Raw Data

Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 0.5 ug/L ICAL
Filename : 00275.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 1:59:01 PM
Quant. Date : 11/28/2008 5:05:24 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00275.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	6.003	5.177	1521719	BV	2224334	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.963	7.143	257829	BB	445063	BB	7.14	3.97	57.2	100	7	4
(targets)												
MTBE	3.010	2.193	1232	BV	9682	VB	0.515	0.480	7.1			
Benzene	5.003	4.057	6527	Bx	32724	BB	0.527	0.426	21.2			
Toluene	7.237	6.240	6844	BB	29561	BB	0.531	0.519	2.2			
Chlorobenzene	8.860	7.910	7593	BB	28650	BV	0.684	0.492	32.7			
Ethylbenzene	9.177	8.090	6047	xB	25958	VV	0.709	0.518	31.2			
m+p-Xylene	9.453	8.257	11901	xB	57411	VB	1.387	1.026	29.9			
o-Xylene	9.950	8.773	4812	Bx	23133	BB	0.529	0.481	9.6			
1,3-Dichlorobenzene	12.227	11.120	5476	BV	27590	BV	0.683	0.521	26.9			
1,4-Dichlorobenzene	12.340	11.267	6436	VB	27620	VB	0.744	0.443	50.7			
1,2-Dichlorobenzene	12.820	11.830	4492	BB	23192	BB	0.722	0.510	34.4			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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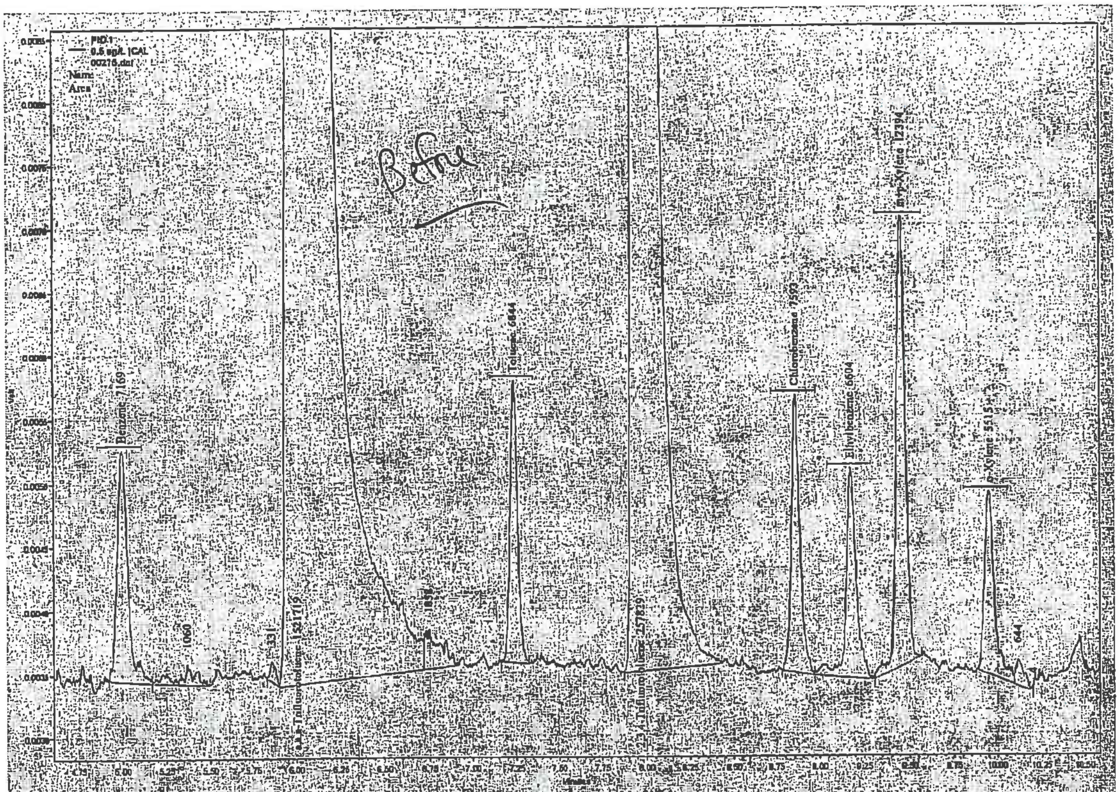


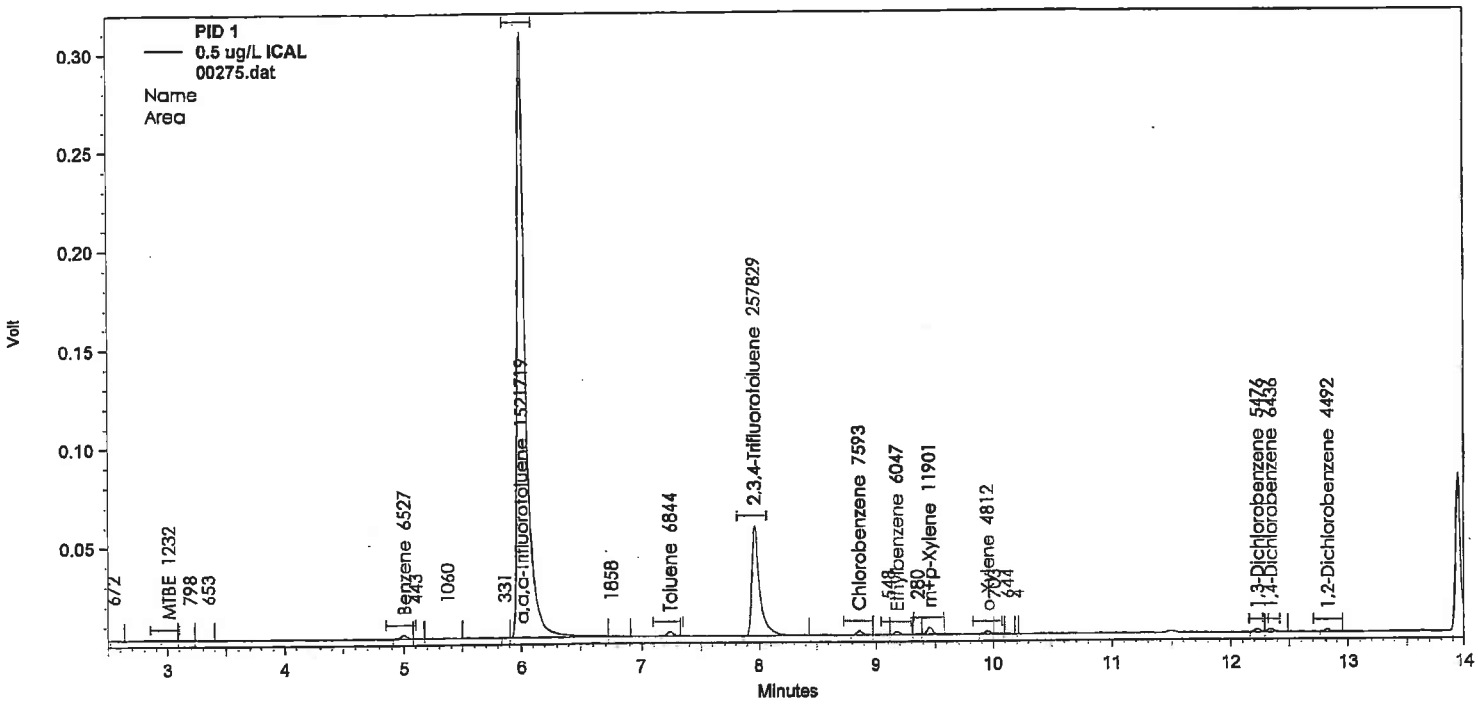
Peak splits

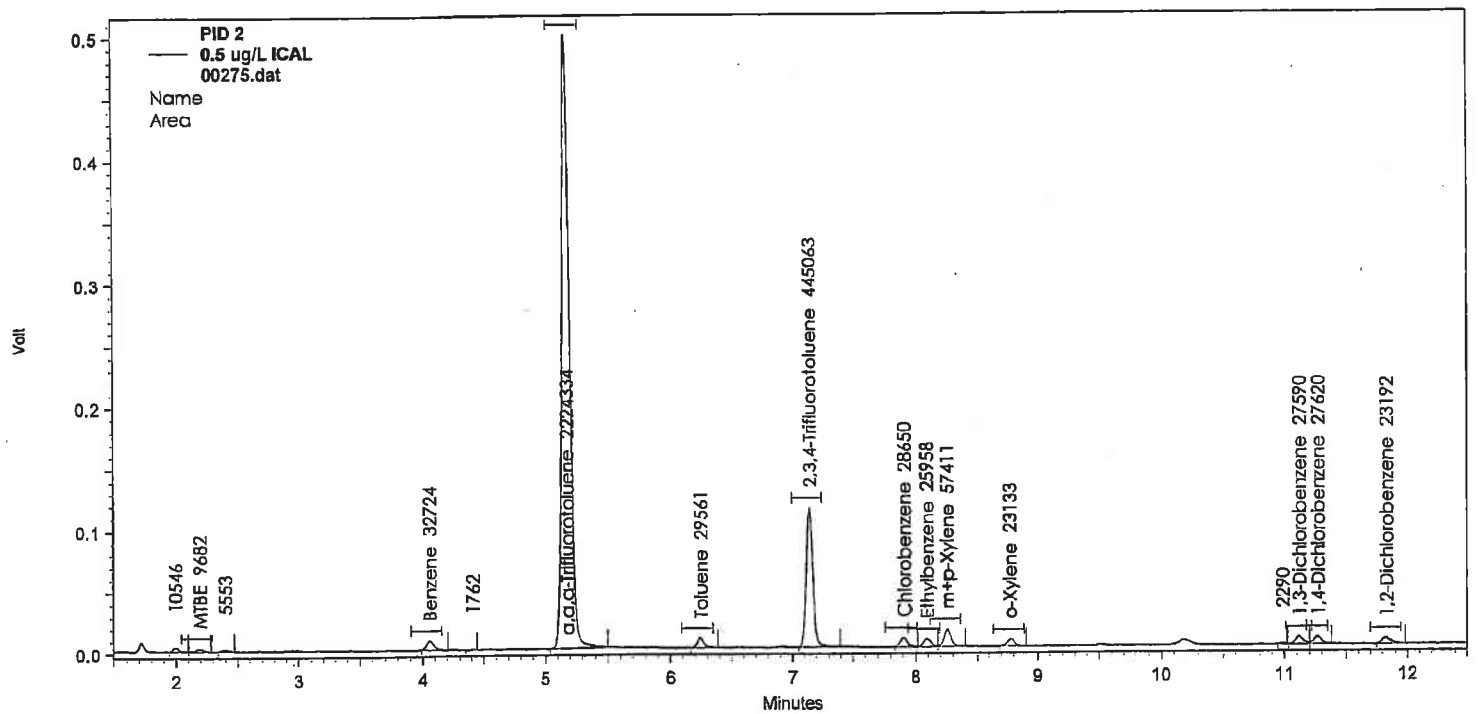
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0.5 ug/L ICAL
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00275.dat
Acquisition Date : 11/20/2008 1:59:01 PM
Quantitation Date : 11/28/2008 5:05:24 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 1.0 ug/L ICAL
Filename : 00276.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 2:25:28 PM
Quant. Date : 11/28/2008 5:05:44 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00276.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	6.007	5.183	1458719	BB	2163602	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.960	7.140	375886	BV	577393	BB	11.28	9.93	12.8	100	11	10
(targets)												
MTBE	3.023	2.213	2842	BB	19143	BV	0.990	1.147	14.8			
Benzene	5.017	4.073	18073	BB	75449	BB	0.946	1.030	8.5			
Toluene	7.237	6.240	17805	BV	66472	BV	0.944	1.079	13.4			
Chlorobenzene	8.863	7.903	21186	BV	63966	BV	0.924	1.034	11.3			
Ethylbenzene	9.180	8.087	15233	VV	58741	VV	0.961	1.068	10.6			
m+p-Xylene	9.453	8.253	35515	VV	132951	VB	1.967	2.144	8.6			
o-Xylene	9.953	8.777	13350	VB	53376	BB	0.970	1.034	6.4			
1,3-Dichlorobenzene	12.233	11.120	14470	BV	59312	BV	0.983	1.081	9.4			
1,4-Dichlorobenzene	12.343	11.270	18004	VV	63227	VB	0.955	1.049	9.4			
1,2-Dichlorobenzene	12.827	11.823	13145	BV	47392	BB	0.969	1.042	7.2			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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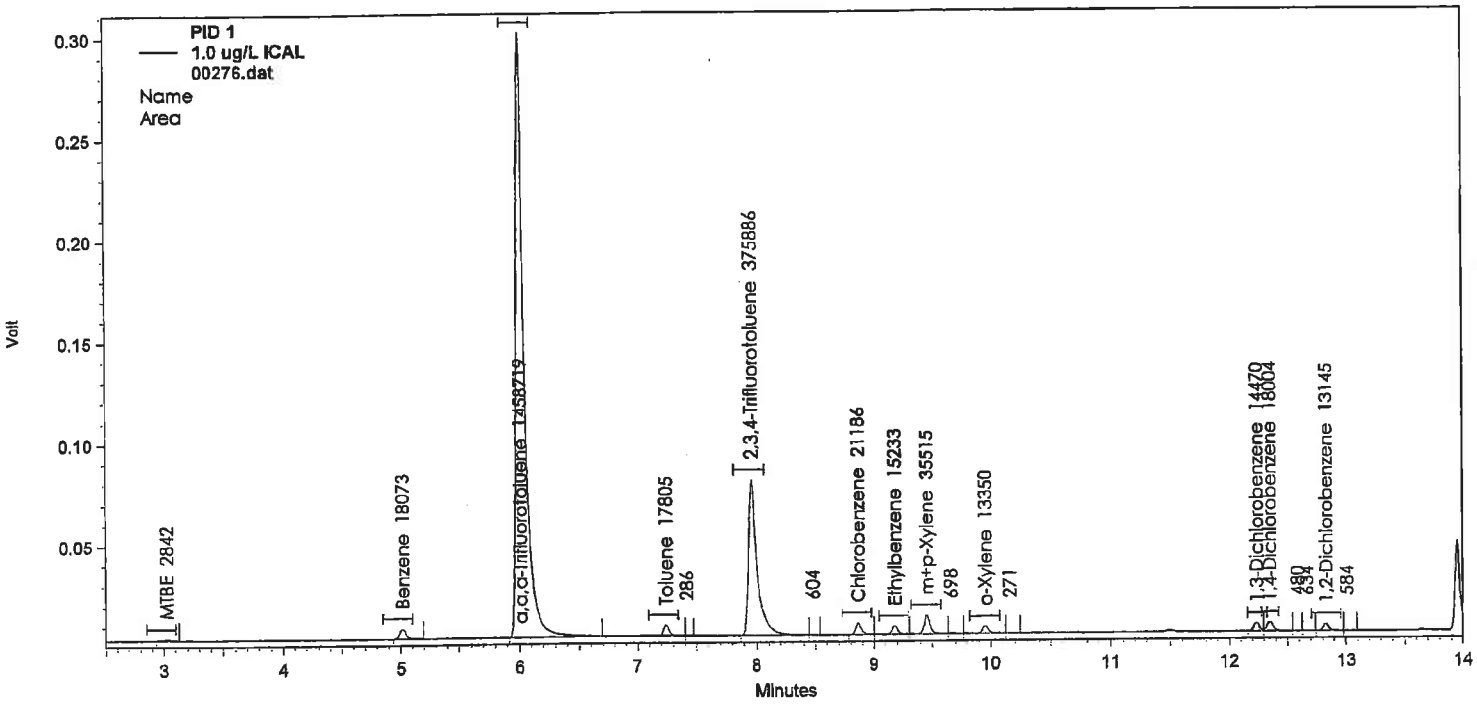
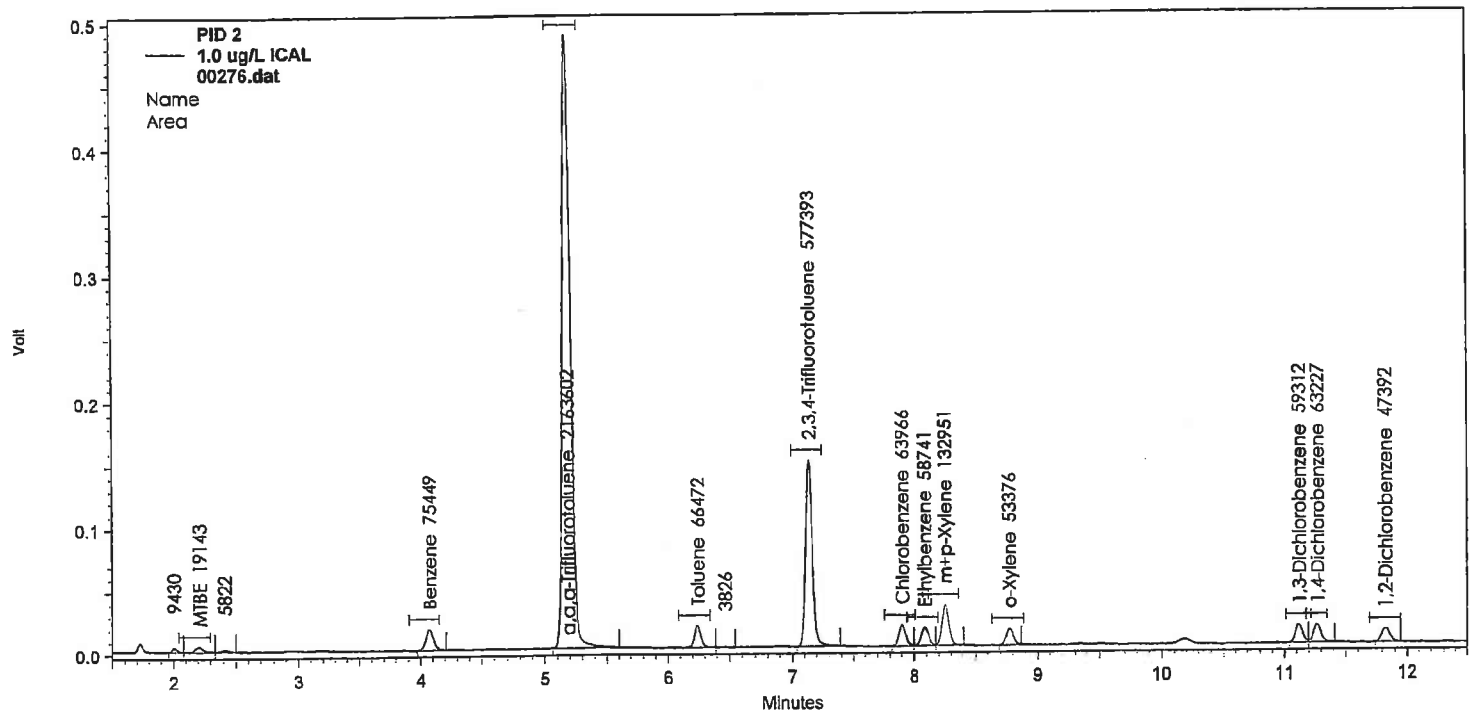
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 1.0 ug/L ICAL
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00276.dat
Acquisition Date : 11/20/2008 2:25:28 PM
Quantitation Date : 11/28/2008 5:05:44 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 2.0 ug/L ICAL
Filename : 00277.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 2:51:20 PM
Quant. Date : 11/28/2008 5:06:04 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00277.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	6.000	5.173	1498233	BV	2219051	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.957	7.133	714169	BB	941939	BV	21.73	24.01	10.0	100	22	24
(targets)												
MTBE	3.003	2.187	5805	BB	30854	BV	1.775	1.898	6.7			
Benzene	5.003	4.057	41754	BV	136572	BB	1.734	1.829	5.3			
Toluene	7.230	6.230	39469	BV	124116	BV	1.681	1.891	11.8			
Chlorobenzene	8.863	7.900	58553	BV	129140	BV	1.538	1.965	24.4			
Ethylbenzene	9.180	8.083	34738	VV	112824	VV	1.452	1.912	27.4			
m+p-Xylene	9.457	8.250	78912	VB	253385	VB	2.952	3.802	25.2			
o-Xylene	9.953	8.773	27893	BB	103885	BB	1.638	1.893	14.4			
1,3-Dichlorobenzene	12.220	11.113	30454	BV	109204	BV	1.474	1.893	24.8			
1,4-Dichlorobenzene	12.330	11.260	42804	VV	115886	VB	1.373	1.879	31.1			
1,2-Dichlorobenzene	12.810	11.813	29550	VB	88569	BB	1.403	1.876	28.8			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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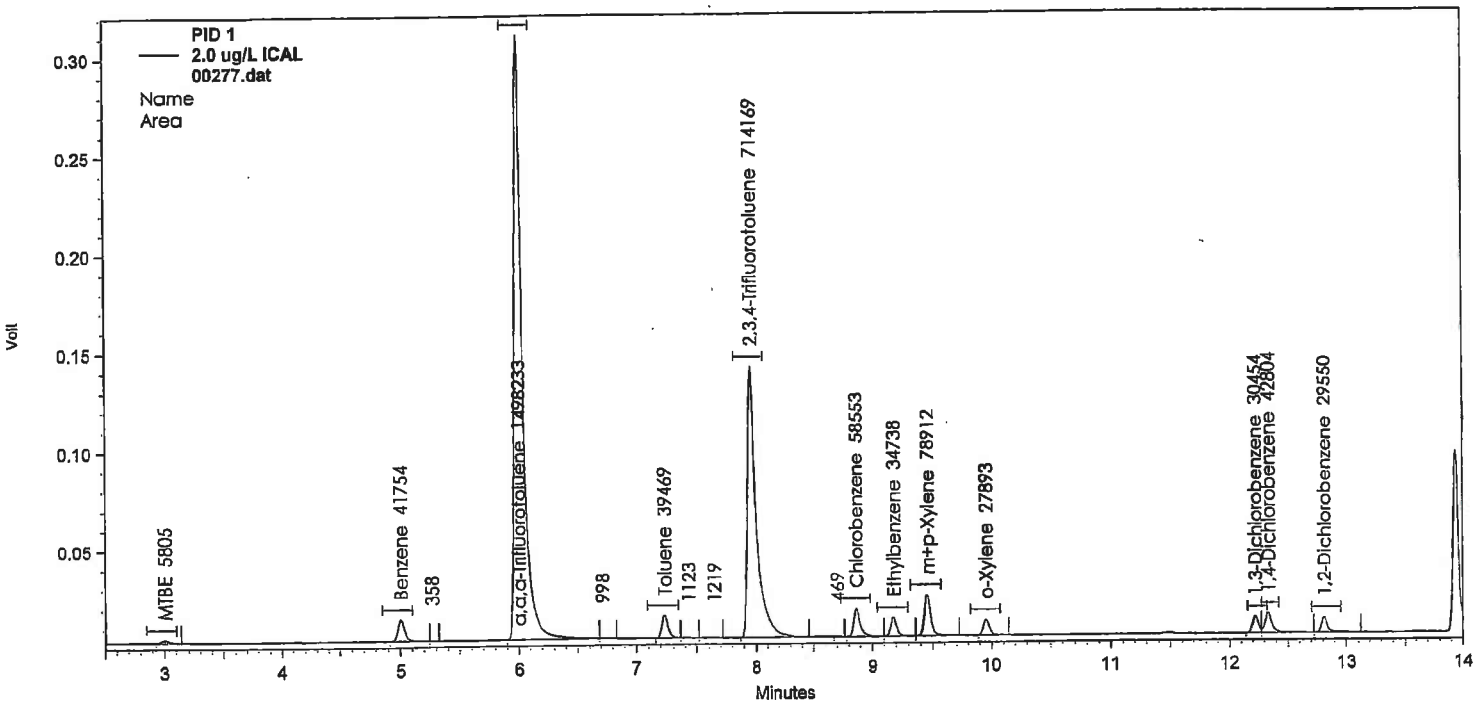
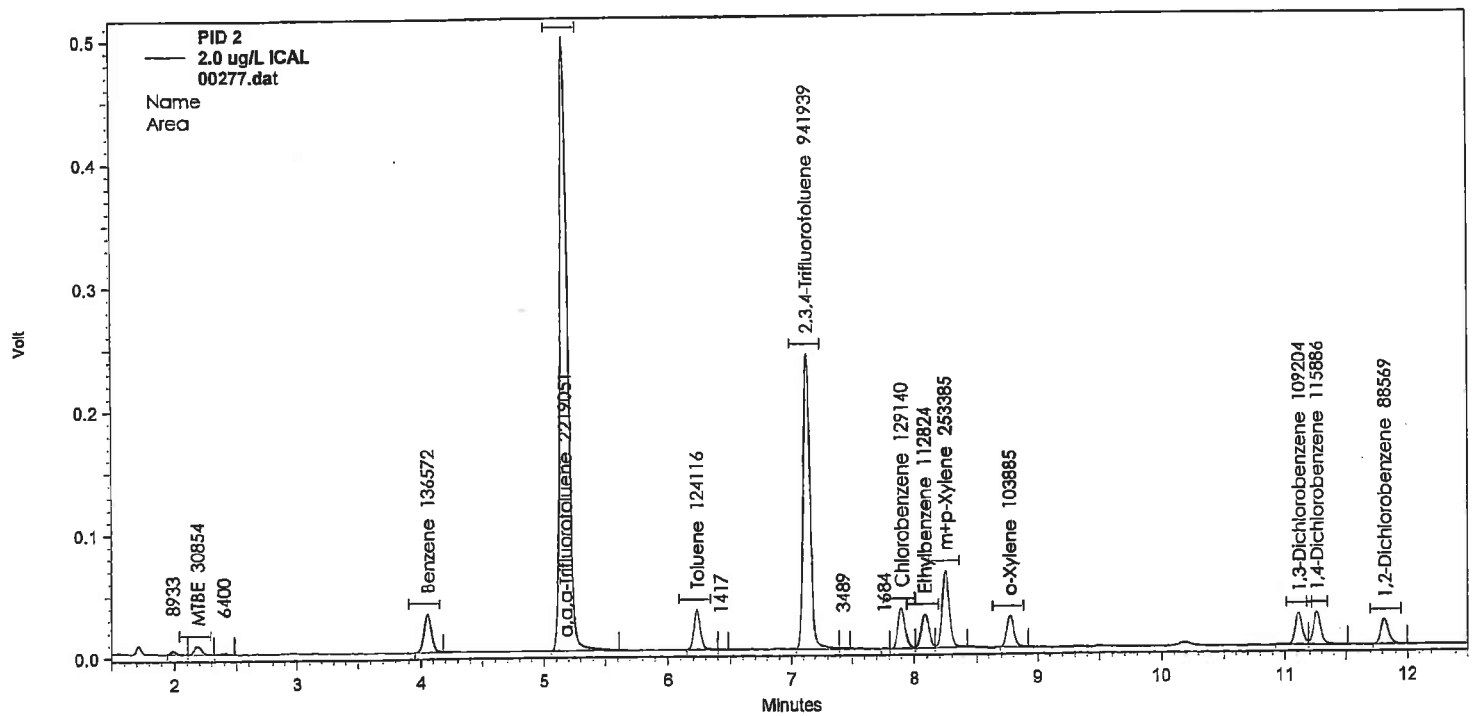
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 2.0 ug/L ICAL
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00277.dat
Acquisition Date : 11/20/2008 2:51:20 PM
Quantitation Date : 11/28/2008 5:06:04 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 5.0 ug/L ICAL
Filename : 00278.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 3:17:30 PM
Quant. Date : 11/28/2008 5:06:24 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00278.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.997	5.173	1473877	BV	2195394	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.943	7.123	1404139	BV	1549819	BB	45.35	49.14	8.0	100	45	49
(targets)												
MTBE	3.007	2.187	18574	BV	80879	BV	5.094	5.305	4.1			
Benzene	5.007	4.057	148514	BB	370116	BV	5.249	5.035	4.2			
Toluene	7.223	6.227	149729	BV	333262	BV	5.232	5.001	4.5			
Chlorobenzene	8.843	7.883	229578	VV	332369	BV	4.397	5.009	13.0			
Ethylbenzene	9.160	8.067	141425	VV	300518	VV	4.144	4.992	18.5			
m+p-Xylene	9.437	8.233	310437	VV	682904	VB	8.245	10.016	19.4			
o-Xylene	9.933	8.753	109748	VV	280058	BB	5.053	5.024	0.6			
1,3-Dichlorobenzene	12.227	11.103	118090	BV	292100	BV	4.223	5.016	17.2			
1,4-Dichlorobenzene	12.337	11.253	195665	VV	305166	VV	3.956	5.010	23.5			
1,2-Dichlorobenzene	12.820	11.810	129112	VV	240904	VB	4.053	5.110	23.1			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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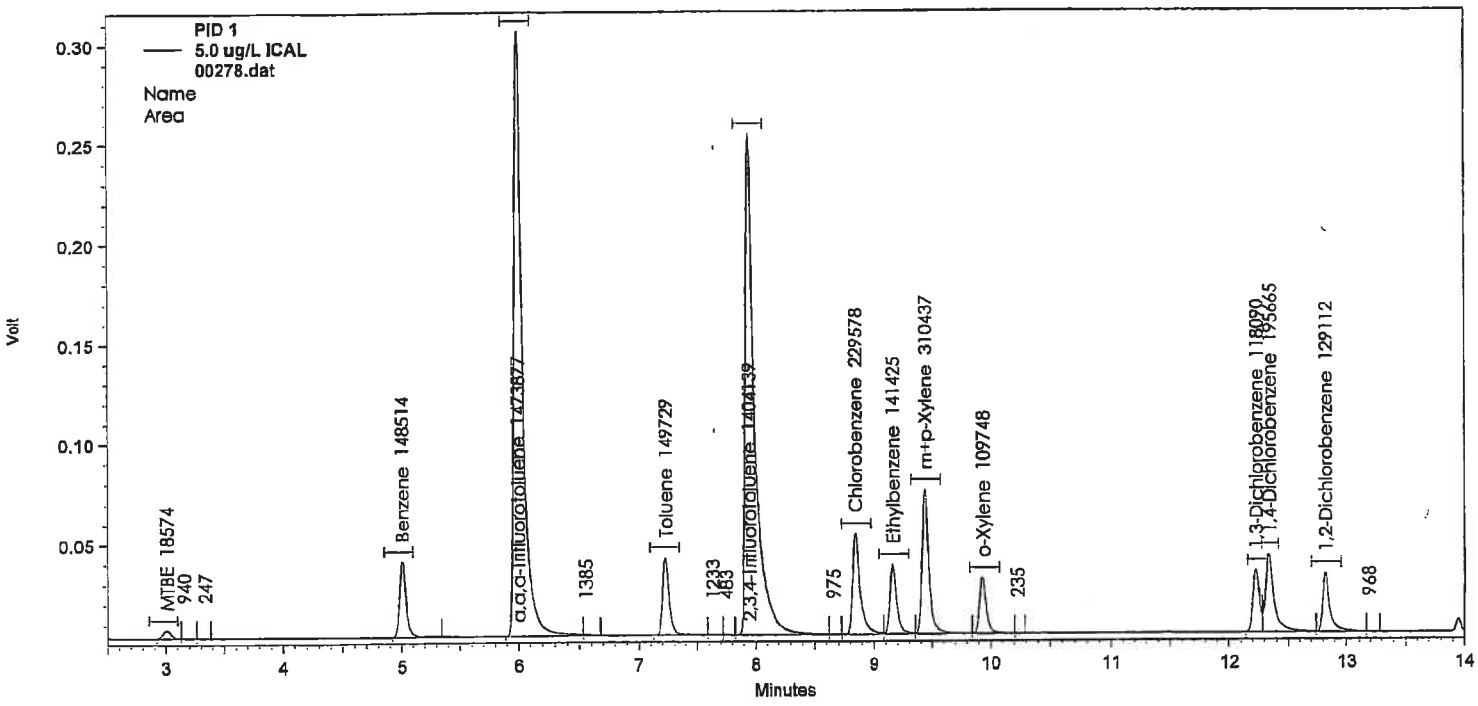
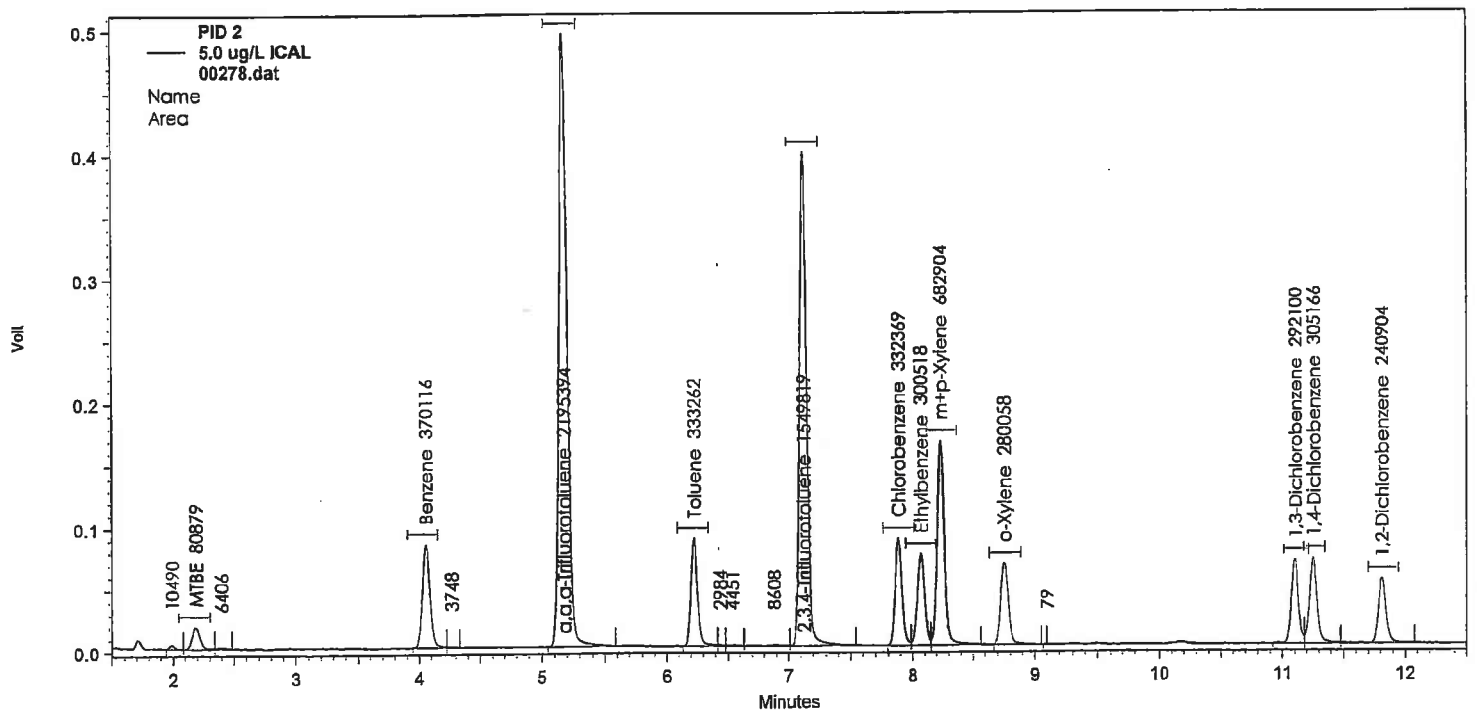
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 5.0 ug/L ICAL
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00278.dat
Acquisition Date : 11/20/2008 3:17:30 PM
Quantitation Date : 11/28/2008 5:06:24 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 20 ug/L ICAL
Filename : 00279.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 3:42:45 PM
Quant. Date : 11/28/2008 5:06:43 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00279.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.980	5.153	1398778	BB	2115635	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.943	7.120	2675456	BB	2645293	BB	97.69	97.76	0.1	100	98	98
(targets)												
MTBE	2.977	2.170	98671	BB	278921	BV	21.701	19.413	11.1			
Benzene	4.977	4.027	754654	BV	1438698	BB	22.139	20.354	8.4			
Toluene	7.220	6.213	866084	BV	1265226	BV	22.102	20.012	9.9			
Chlorobenzene	8.850	7.883	1303944	BV	1274122	BV	21.436	20.000	6.9			
Ethylbenzene	9.170	8.067	960184	VV	1158878	VV	21.553	20.013	7.4			
m+p-Xylene	9.447	8.237	2095098	VV	2629714	VV	43.149	40.016	7.5			
o-Xylene	9.947	8.760	763324	VI	1094170	VI	22.259	20.133	10.0			
1,3-Dichlorobenzene	12.240	11.113	725086	BV	1131114	BV	21.606	19.977	7.8			
1,4-Dichlorobenzene	12.350	11.263	1463023	VV	1186343	VV	21.831	20.228	7.6			
1,2-Dichlorobenzene	12.830	11.823	906670	VI	909547	VB	21.740	19.942	8.6			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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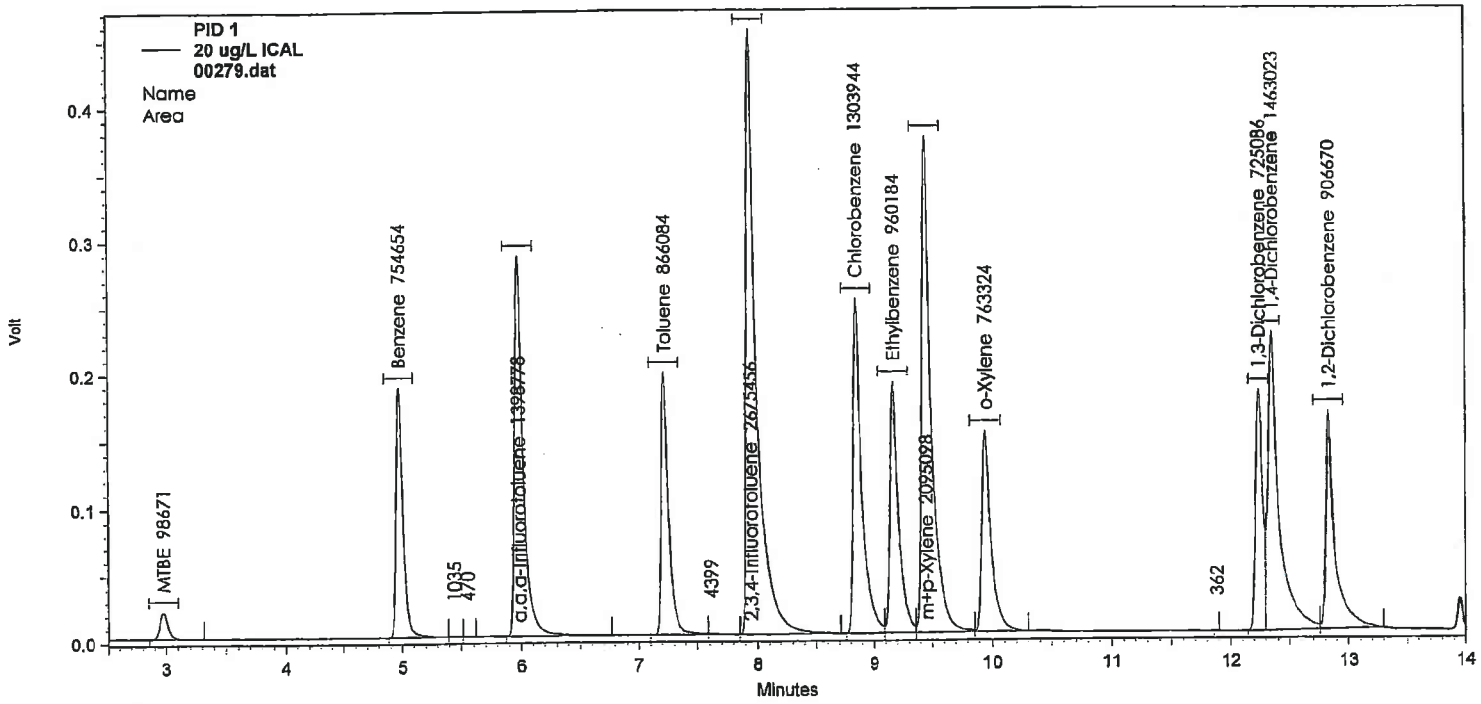
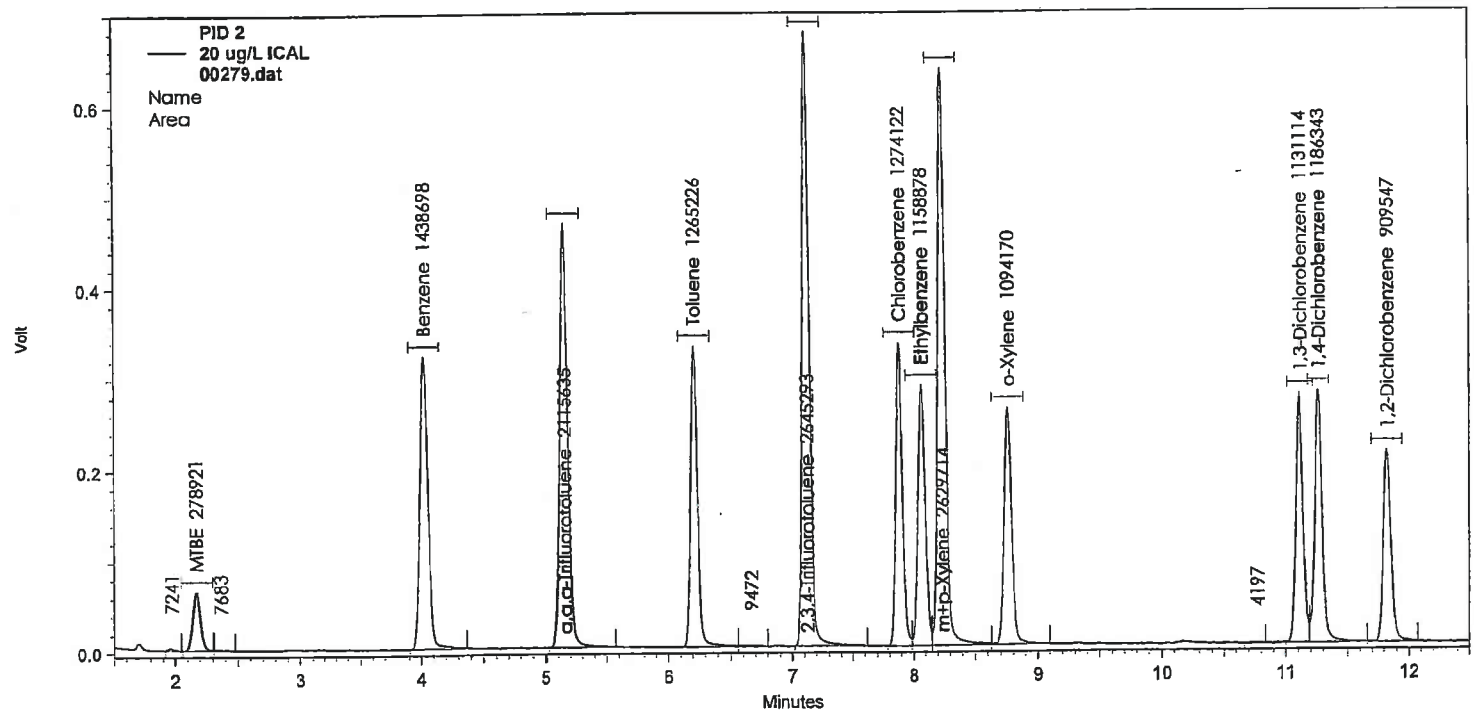
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 20 ug/L ICAL
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00279.dat
Acquisition Date : 11/20/2008 3:42:45 PM
Quantitation Date : 11/28/2008 5:06:43 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 40 ug/L ICAL
Filename : 00280.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 4:08:56 PM
Quant. Date : 11/28/2008 5:07:02 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00280.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.977	5.153	1573323	VV	2180610	BV	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.933	7.117	3763612	VB	3396562	BB	126.93	125.20	1.4	100	127	125
(targets)												
MTBE	2.990	2.180	244141	BB	593550	BV	38.824	40.257	3.6			
Benzene	4.977	4.030	1730024	BV	2900545	BB	38.382	39.827	3.7			
Toluene	7.213	6.210	2171646	BV	2507454	BB	38.580	39.997	3.6			
Chlorobenzene	8.840	7.877	2997006	BV	2578807	BV	39.463	40.000	1.4			
Ethylbenzene	9.157	8.060	2378903	VV	2336644	VV	39.487	39.997	1.3			
m+p-Xylene	9.437	8.230	5130394	VV	5314933	VV	78.948	79.996	1.3			
o-Xylene	9.933	8.750	2026116	VI	2241311	VI	38.623	39.935	3.3			
1,3-Dichlorobenzene	12.217	11.093	1691945	BV	2338596	BV	39.427	40.013	1.5			
1,4-Dichlorobenzene	12.323	11.243	3572033	VV	2411016	VV	39.397	39.890	1.2			
1,2-Dichlorobenzene	12.810	11.800	2195213	VI	1882598	VB	39.416	40.020	1.5			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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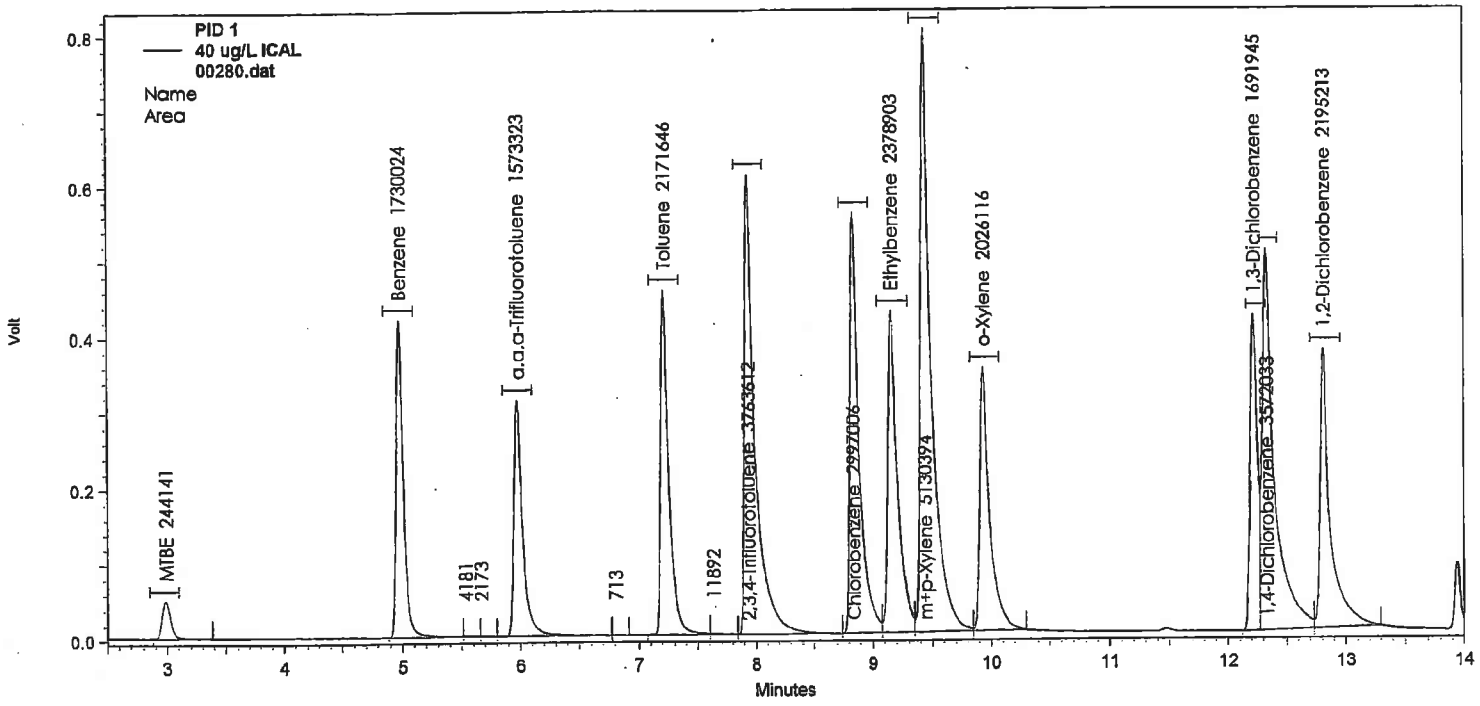
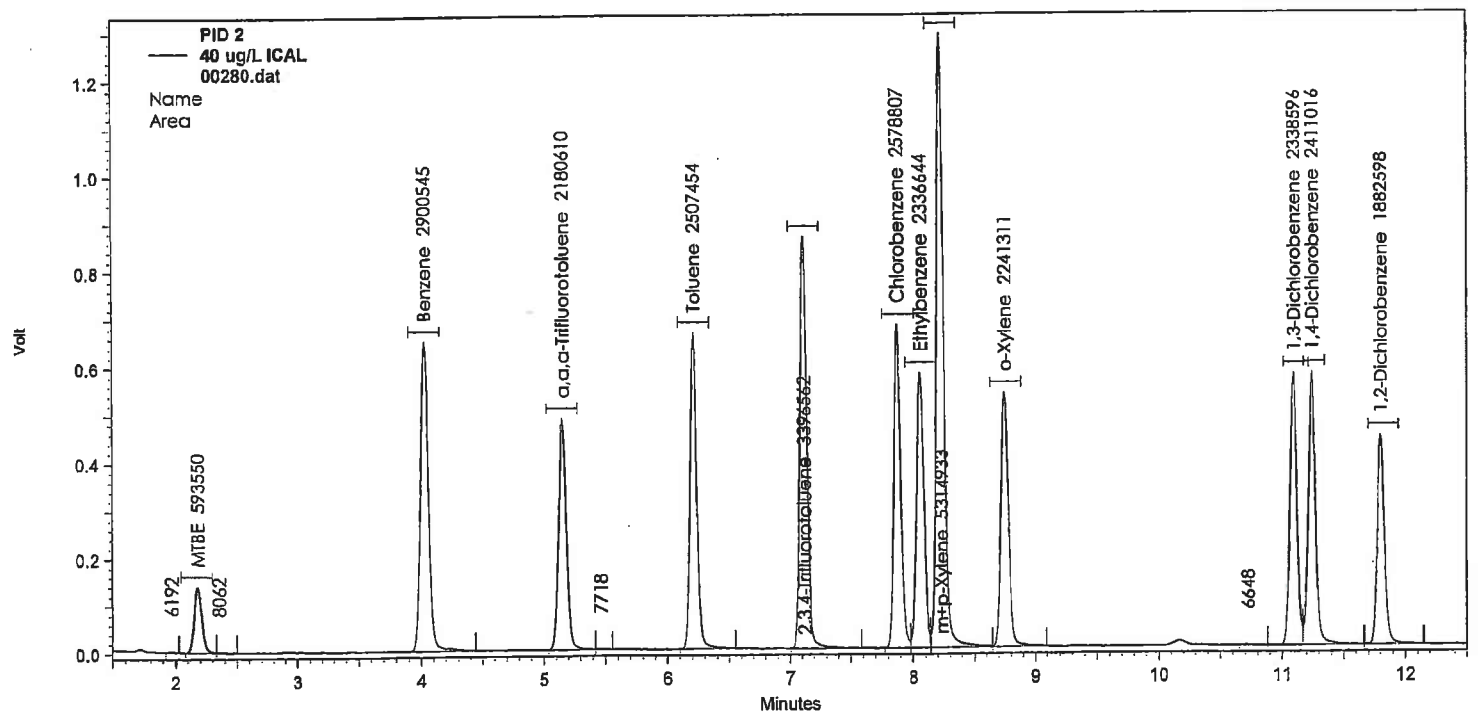
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 40 ug/L ICAL
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00280.dat
Acquisition Date : 11/20/2008 4:08:56 PM
Quantitation Date : 11/28/2008 5:07:02 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : 10 ug/L ICV
Filename : 00282.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/20/2008 5:23:39 PM
Quant. Date : 11/28/2008 5:07:20 PM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00282.dat

Data Description :

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.997	5.173	1499362	BB	2077645	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.947	7.127	2088471	BB	2097715	BB	68.47	76.26	10.8	100	68	76
(targets)												
MTBE	3.010	2.193	44623	BV	154765	VB	10.780	10.896	1.1			
Benzene	5.003	4.057	378581	BB	748665	BB	11.758	10.778	8.7			
Toluene	7.227	6.227	378794	BV	640466	BB	11.137	10.161	9.2			
Chlorobenzene	8.853	7.887	532554	BV	621148	BV	9.077	9.866	8.3			
Ethylbenzene	9.170	8.073	370723	VV	590861	VV	9.239	10.323	11.1			
m+p-Xylene	9.447	8.237	814436	VV	1347385	VV	18.459	20.766	11.8			
o-Xylene	9.943	8.760	294100	VI	568832	VI	10.780	10.694	0.8			
1,3-Dichlorobenzene	12.233	11.110	280453	BV	530417	BV	8.867	9.570	7.6	(Recalculated)		
1,4-Dichlorobenzene	12.343	11.260	553904	VV	594101	VB	9.276	10.313	10.6			
1,2-Dichlorobenzene	12.827	11.820	334086	VI	428208	BB	8.906	9.574	7.2			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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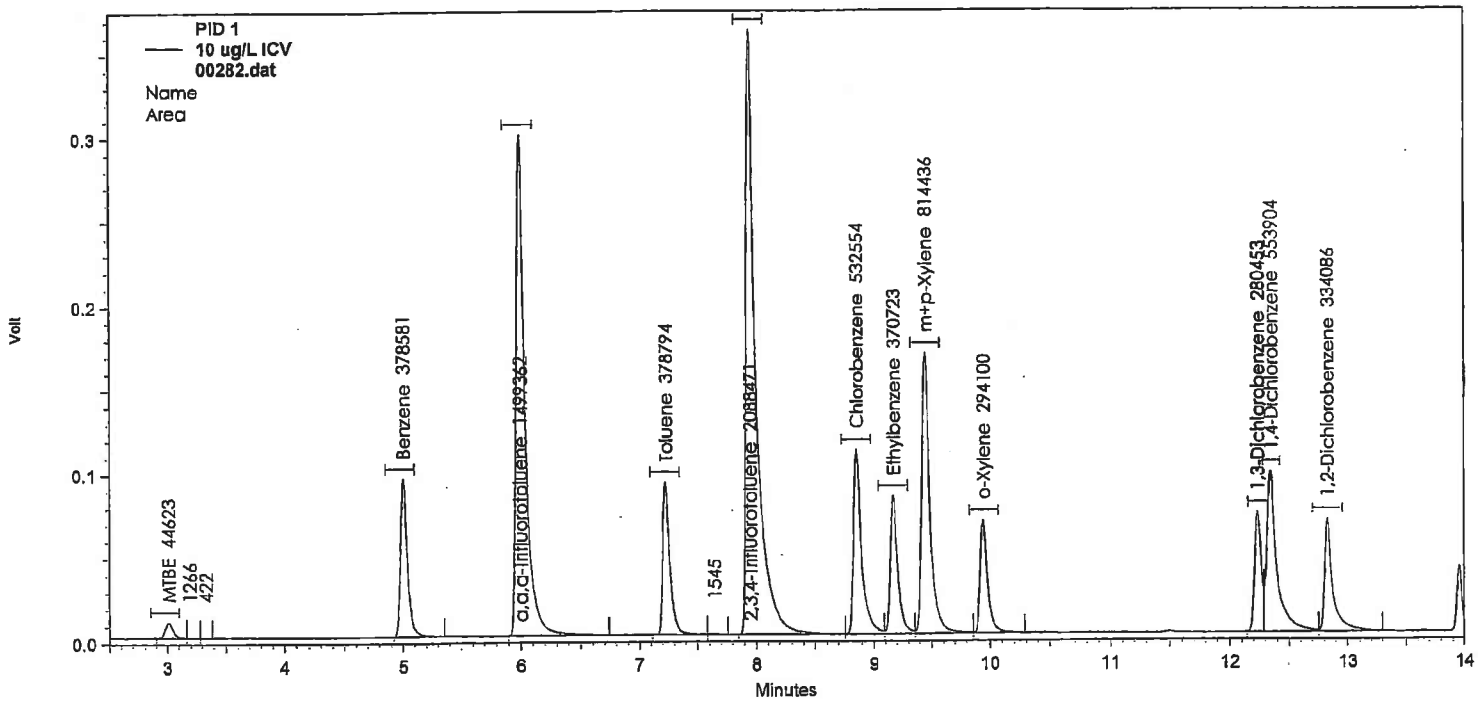
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

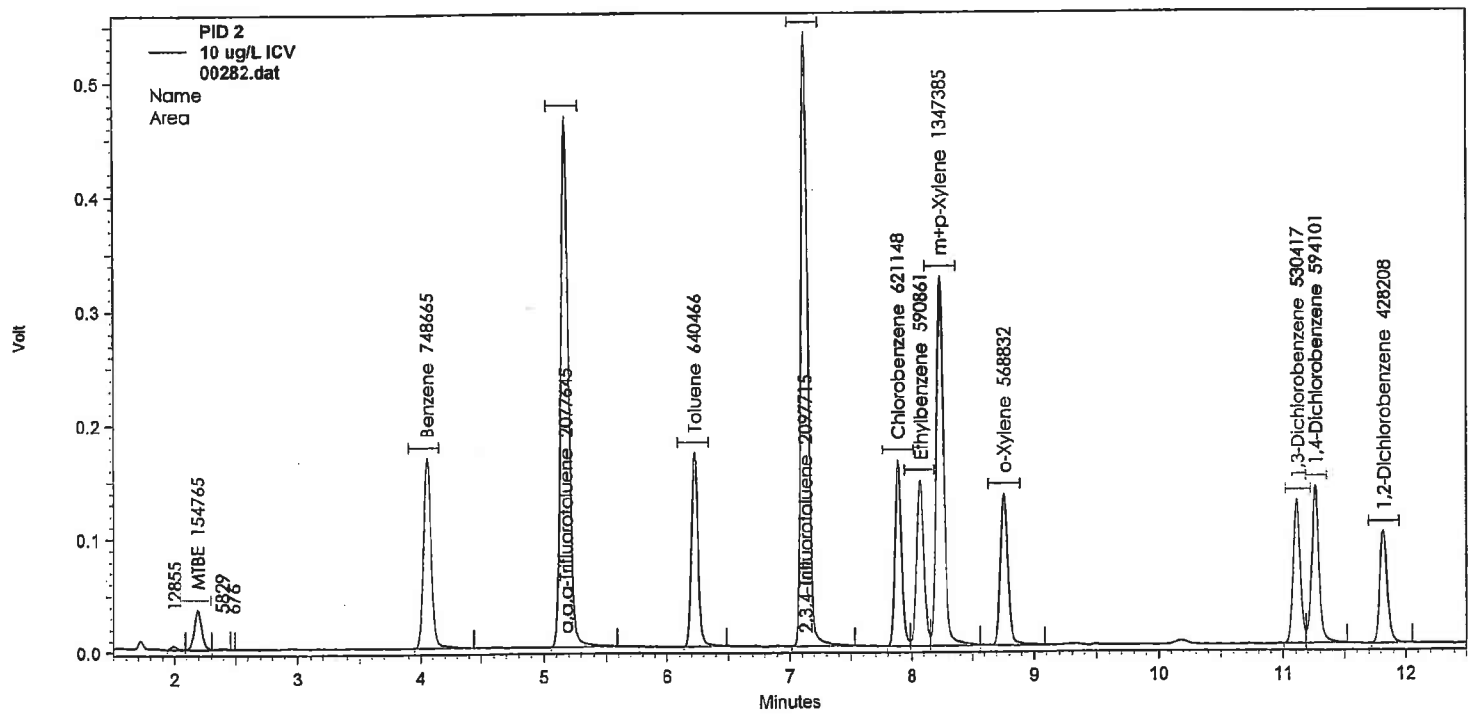
Paragon Analytics

Sample : 10 ug/L ICV

Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112008\00282.dat
Acquisition Date : 11/20/2008 5:23:39 PM
Quantitation Date : 11/28/2008 5:07:20 PM
Last Method Update : 11/28/2008 5:03:09 PM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112008.seq
Data Description : {Data Description}

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





BTEX (8021) Calibration Verification Summary

Paragon Analytics

Sample : HCB081124-1CCS
Filename : 00295.dat
Acq. Date : 11/24/2008 6:25:37 PM
Acq. Method : btx112008.met
Acq. Sequence : btx112408.seq
Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Compound	Column #1 Exp. RT	Column #1 RT	Column #1 Dev.	Column #2 Exp. RT	Column #2 RT	Column #2 Dev.	ug/l Nom. Conc.	ug/L Conc. #1	ug/L Conc. #2	% Rec. #1	% Rec. #2	Avg RF Column #1	Avg RF Column #2
(internal standard)													
a,a,a-Trifluorotoluene	5.987	5.987	0.000	5.163	5.163	0.000	100	100.00	100.00	100	100	1.0000	1.0000
(surrogate)													
2,3,4-Trifluorotoluene	7.933	7.933	0.000	7.113	7.113	0.000	100	80.70	84.74	81↓	85✓	2.2905	2.0613
(targets)													
MTBE	3.003	3.003	0.000	2.187	2.187	0.000	20	19.77	18.11	99	91	0.2572	0.7545
Benzene	4.993	4.993	0.000	4.047	4.047	0.000	20	20.94	19.37	105	97	1.8253	3.2674
Toluene	7.213	7.213	0.000	6.217	6.217	0.000	20	21.28	19.45	106	97	2.0026	2.9046
Chlorobenzene	8.837	8.837	0.000	7.873	7.873	0.000	20	19.31	19.24	97	96	2.8238	2.9063
Ethylbenzene	9.153	9.153	0.000	8.057	8.057	0.000	20	19.55	19.15	98	96	2.0216	2.6244
m+p-Xylene	9.430	9.430	0.000	8.223	8.223	0.000	40	39.64	38.19	99	95	2.2072	2.9622
o-Xylene	9.927	9.927	0.000	8.743	8.743	0.000	20	20.70	19.13	104	96	1.6526	2.4324
1,3-Dichlorobenzene	12.217	12.217	0.000	11.090	11.090	0.000	20	19.11	18.56	96	93	1.6018	2.6163
1,4-Dichlorobenzene	12.330	12.330	0.000	11.240	11.240	0.000	20	19.20	18.58	96	93	2.8449	2.7275
1,2-Dichlorobenzene	12.813	12.813	0.000	11.803	11.803	0.000	20	19.04	18.69	95	93	1.8265	2.1290

Avg. % Dev Col. #1	Avg. % Dev Col. #2
4	5

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event,
N=begin negative peak, P=end negative peak, H=forward horiz,
h=backward horiz, M=manual baseline or peak, S=shoulder
T=tangent skim, V=valley, v=forced valley point, x=split peak
E=end of chromatogram encountered, R=reset baseline
L=lowest point horiz.

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BTEX (8021) Calibration Verification Summary

Paragon Analytics

Sample : HCB081124-1CCSD
Filename : 00310.dat
Acq. Date : 11/25/2008 1:02:58 AM
Acq. Method : btx112008.met
Acq. Sequence : btx112408.seq
Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Compound	Column #1 Exp. RT	Column #1 RT	Column #1 Dev.	Column #2 Exp. RT	Column #2 RT	Column #2 Dev.	ug/L Nom. Conc.	ug/L Conc. #1	ug/L Conc. #2	% Rec. #1	% Rec. #2	Avg RF Column #1	Avg RF Column #2
(internal standard)													
a,a,a-Trifluorotoluene	5.987	5.973	-0.013	5.163	5.150	-0.013	100	100.00	100.00	100	100	1.0000	1.0000
(surrogate)													
2,3,4-Trifluorotoluene	7.933	7.933	0.000	7.113	7.113	0.000	100	79.09	84.39	79 ↓	84 ↓ for ccv not LCS	2.2905	2.0613
(targets)													
MTBE	3.003	2.977	-0.027	2.187	2.167	-0.020	20	20.82	18.55	104	93	0.2572	0.7545
Benzene	4.993	4.977	-0.017	4.047	4.027	-0.020	20	21.27	19.83	106	99	1.8253	3.2674
Toluene	7.213	7.213	0.000	6.217	6.210	-0.007	20	21.56	19.86	108	99	2.0026	2.9046
Chlorobenzene	8.837	8.840	0.003	7.873	7.877	0.003	20	19.43	19.83	97	99	2.8238	2.9063
Ethylbenzene	9.153	9.157	0.003	8.057	8.060	0.003	20	19.39	19.60	97	98	2.0216	2.6244
m+p-Xylene	9.430	9.433	0.003	8.223	8.227	0.003	40	39.41	39.11	99	98	2.2072	2.9622
o-Xylene	9.927	9.930	0.003	8.743	8.750	0.007	20	20.72	19.87	104	99	1.6526	2.4324
1,3-Dichlorobenzene	12.217	12.213	-0.003	11.090	11.093	0.003	20	18.97	18.71	95	94	1.6018	2.6163
1,4-Dichlorobenzene	12.330	12.323	-0.007	11.240	11.247	0.007	20	18.87	18.64	94	93	2.8449	2.7275
1,2-Dichlorobenzene	12.813	12.807	-0.007	11.803	11.803	0.000	20	19.07	18.96	95	95	1.8265	2.1290

Avg. % Dev Col. #1	Avg. % Dev Col. #2
4	3

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event,
N=begin negative peak, P=end negative peak, H=forward horiz,
h=backward horiz, M=manual baseline or peak, S=shoulder
T=tangent skim, V=valley, v=forced valley point, x=split peak
E=end of chromatogram encountered, R=reset baseline
L=lowest point horiz.

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Sample Raw Data

Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : HCB081124-1MB
Filename : 00300.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/24/2008 8:42:48 PM
Quant. Date : 12/1/2008 8:58:32 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00300.dat

Data Description : water

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.983	5.160	1440685	BV	2115998	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.933	7.113	2371011	VV	2395353	BB	82.40	87.19	5.7	100	82	87
(targets)												
MTBE	3.040	0.000	264	BB	0		0.250	0.000				
Benzene	4.993	4.057	997	BB	2438	BB	0.339	0.020	178.2	BMDL		
Toluene	7.210	6.220	2598	BV	6298	BB	0.384	0.189	68.2			
Chlorobenzene	8.830	0.000	1972	VB	0		0.593	0.000		BMDL/NC		
Ethylbenzene	0.000	0.000	0		0		0.000	0.000				
m+p-Xylene	9.427	8.230	761	BB	5938	BB	1.129	0.304	115.0			
o-Xylene	9.933	0.000	930	VV	0		0.339	0.000				
1,3-Dichlorobenzene	0.000	0.000	0		0		0.000	0.000				
1,4-Dichlorobenzene	12.307	0.000	967	VB	0		0.651	0.000				
1,2-Dichlorobenzene	0.000	0.000	0		0		0.000	0.000				

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : HCB081124-1MB
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00300.dat
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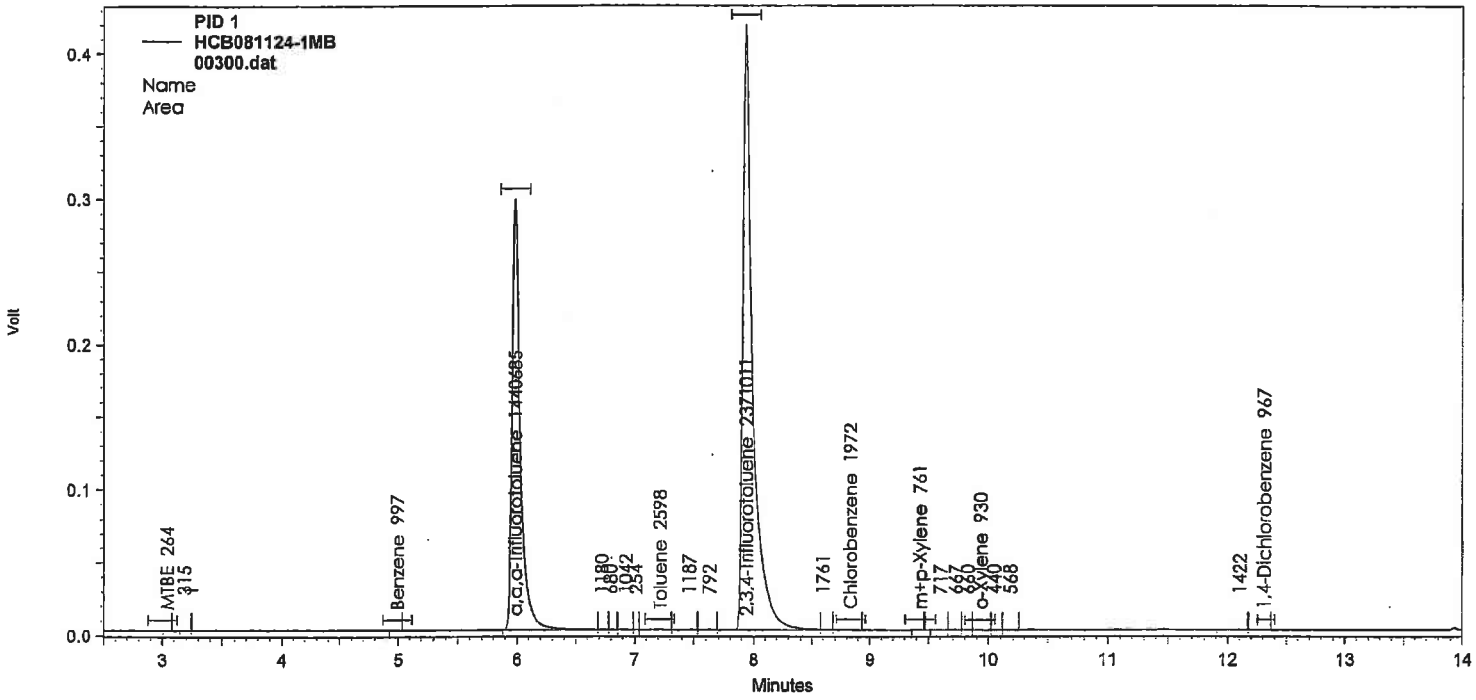
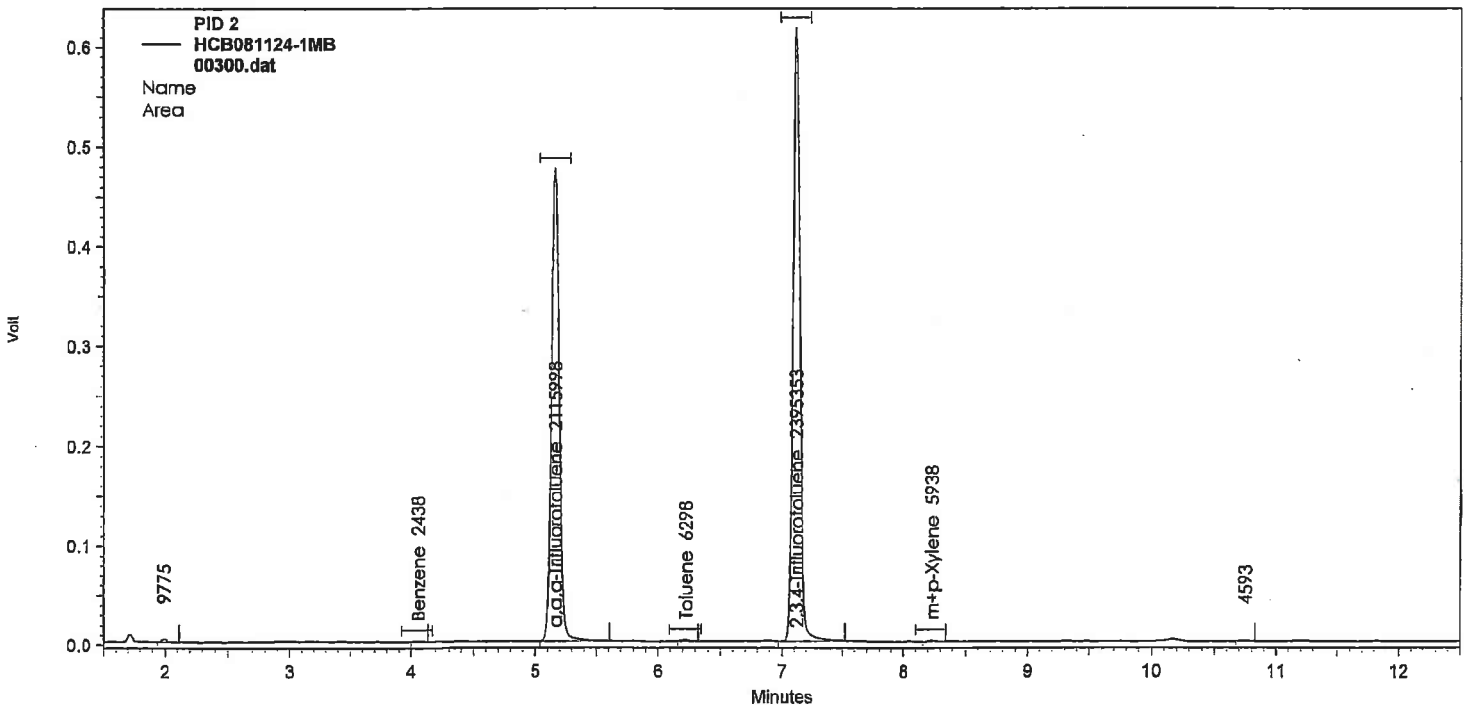
Quantitation Date : 12/1/2008 8:58:32 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : water

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1 1000x
Filename : 00302.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/24/2008 9:33:44 PM
Quant. Date : 12/1/2008 8:59:11 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00302.dat

Data Description : 5uL / 5mL fv

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1	
(internal standard)													
a,a,a-Trifluorotoluene	5.970	5.143	1548948	BB	2185182	VB	100.00	100.00					
(surrogate)													
2,3,4-Trifluorotoluene	7.927	7.107	2442766	VV	2387774	BB	78.56	83.68	6.3	100	79	84	
(targets)													
MTBE	0.000	0.000	0		0		0.000	0.000					
Benzene	4.970	4.020	360336	BB	743816	BB	10.956	10.181	7.3				
Toluene	7.207	6.203	894814	BV	1284184	BV	21.011	19.653	6.7	B-flag Toluene			
Chlorobenzene	8.833	0.000	1703	VV	0		0.586	0.000	N.C.				
Ethylbenzene	9.143	8.053	13373	VB	46355	BV	0.891	0.857	3.8				
m+p-Xylene	9.420	8.217	264308	BV	642868	VV	6.936	9.482	31.0	B-flag m+p Xylenes			
o-Xylene	9.920	8.743	30530	VB	102983	VB	1.713	1.905	10.6				
1,3-Dichlorobenzene	12.237	0.000	1655	VB	0		0.563	0.000	N.C.				
1,4-Dichlorobenzene	0.000	11.203	0		3211	BV	0.000	0.048	BMDL / NTC				
1,2-Dichlorobenzene	12.827	11.920	838	VV	12033	BB	0.623	0.282	75.3	NTC			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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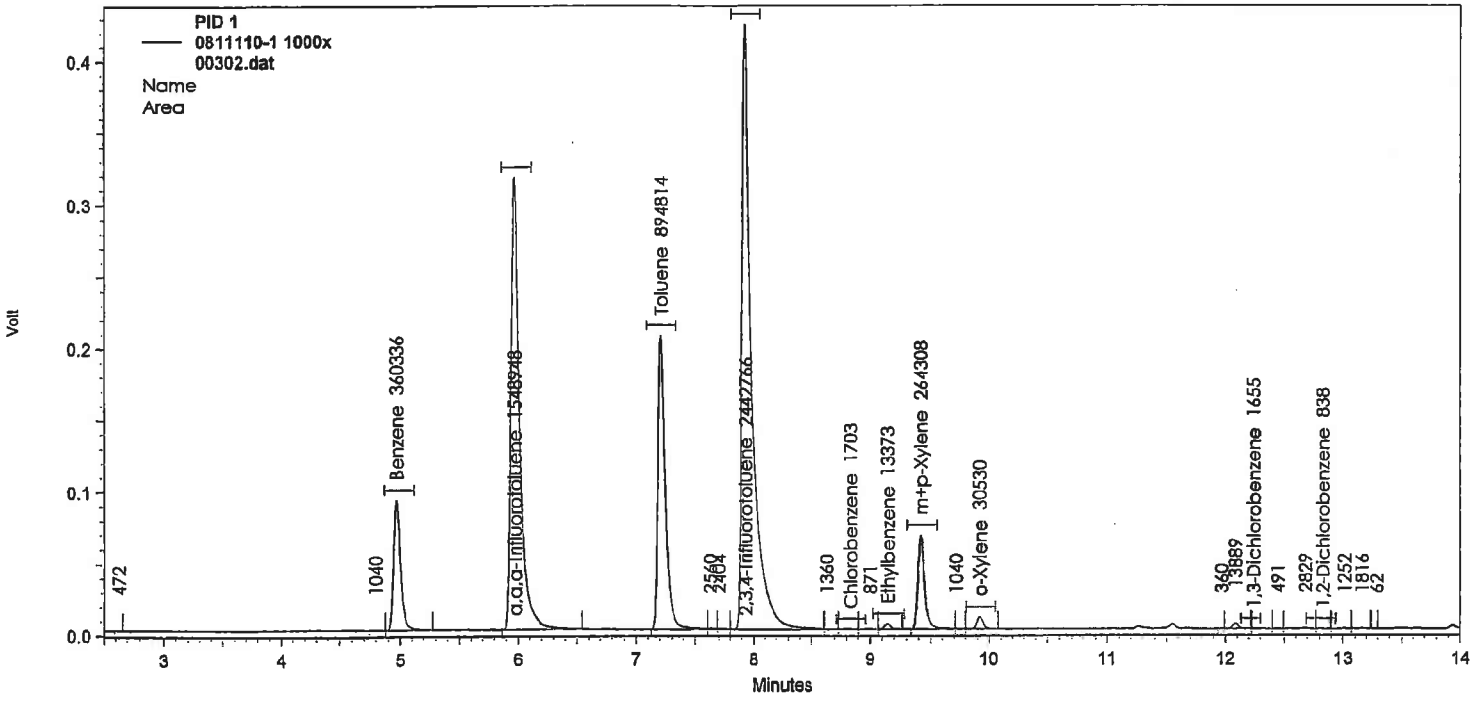
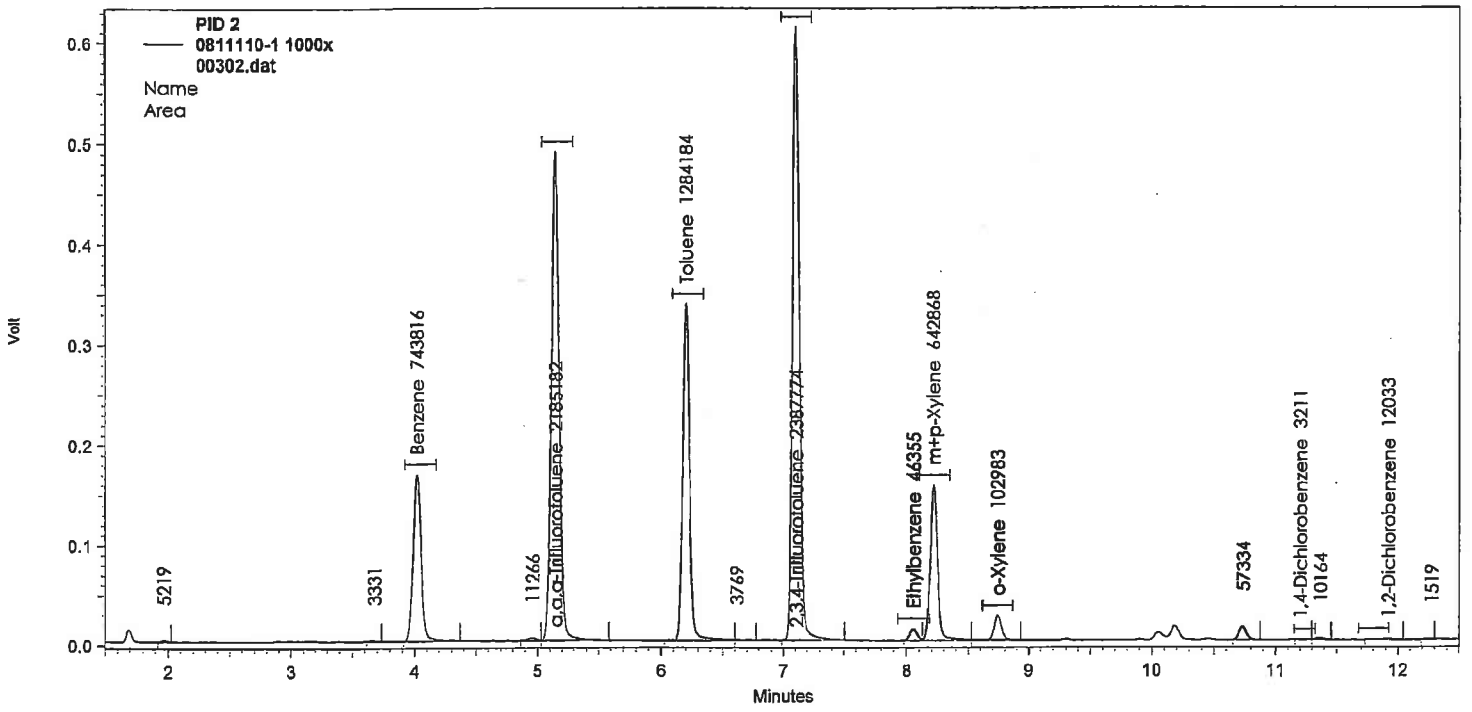
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1 1000x
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00302.dat
Acquisition Date : 11/24/2008 9:33:44 PM
Quantitation Date : 12/1/2008 8:59:11 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 5uL / 5mL fv

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-2 1000x
Filename : 00303.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/24/2008 9:59:22 PM
Quant. Date : 12/1/2008 8:59:30 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00303.dat

Data Description : 5uL / 5mL fv

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1	
(internal standard)													
a,a,a-Trifluorotoluene	5.973	5.147	1447376	Bx	2193575	VB	100.00	100.00					
(surrogate)													
2,3,4-Trifluorotoluene	7.927	7.107	2483691	VV	2507168	VV	86.36	88.17	2.1	100	86	88	
(targets)													
MTBE	0.000	0.000	0		0		0.000	0.000					
Benzene	4.977	4.027	232874	BB	521898	BV	7.942	7.112	11.0				
Toluene	7.207	6.203	620830	Vx	980348	VV	16.828	14.825	12.7	B-flag Toluene			
Chlorobenzene	8.907	7.823	13720	VV	22459	VB	0.797	0.406	65.0	NO - RT shift opposite Dir.			
Ethylbenzene	9.143	8.053	31872	VB	63541	BV	1.407	1.133	21.6				
m+p-Xylene	9.417	8.217	426245	BV	909295	VV	10.930	13.299	19.6	B-flag ~~Ethyl~~ M+P Xylene			
o-Xylene	9.917	8.740	54504	VV	139570	xV	2.891	2.545	12.7				
1,3-Dichlorobenzene	12.190	11.107	7977	VV	38382	VV	0.774	0.711	8.5	NTC			
1,4-Dichlorobenzene	12.293	11.193	15474	VV	27710	VV	0.912	0.451	67.7	NO - POOR RT MATCH (NTC)			
1,2-Dichlorobenzene	12.817	11.787	1451	BV	69260	VV	0.642	1.490	79.5	NTC			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start; 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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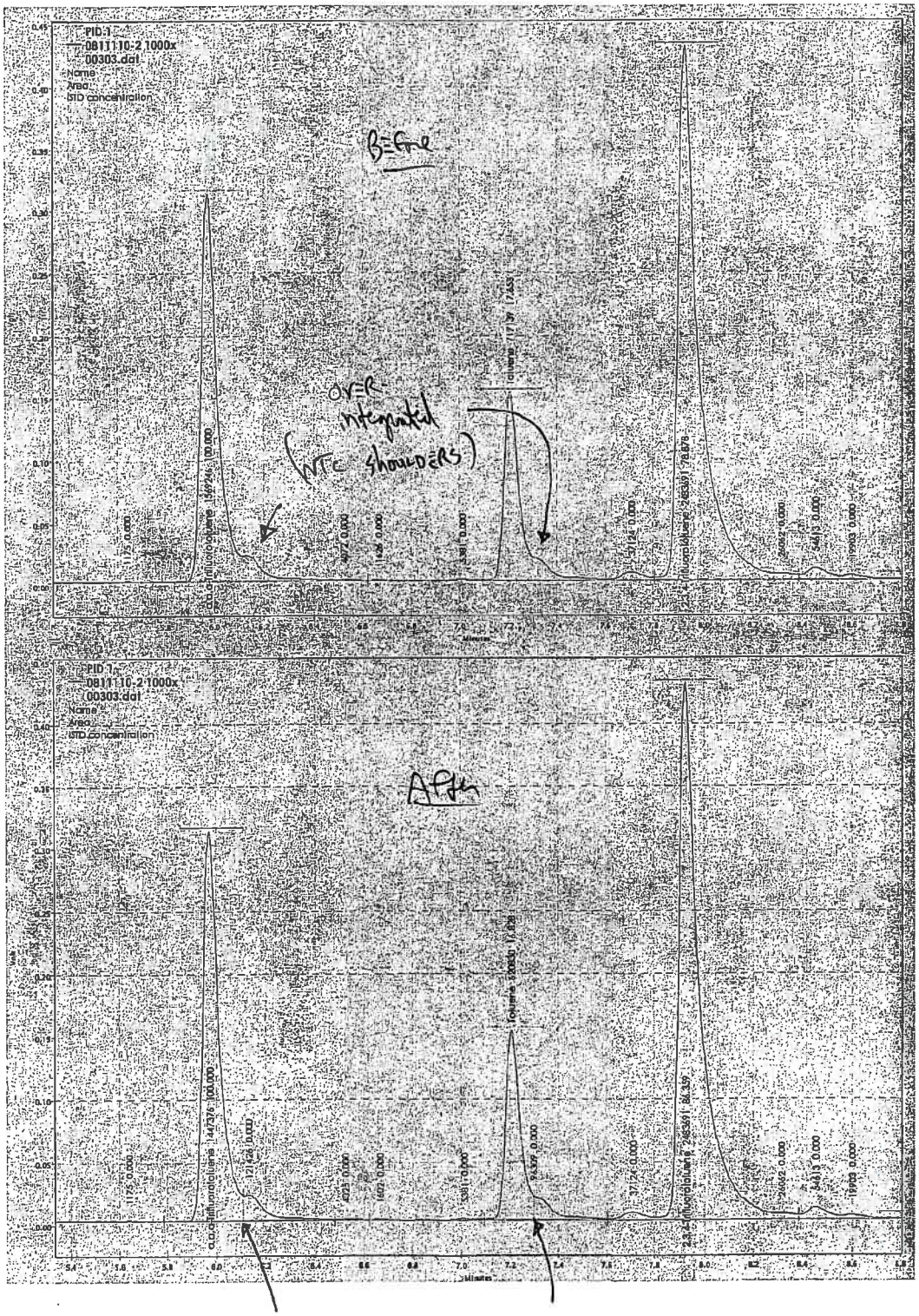
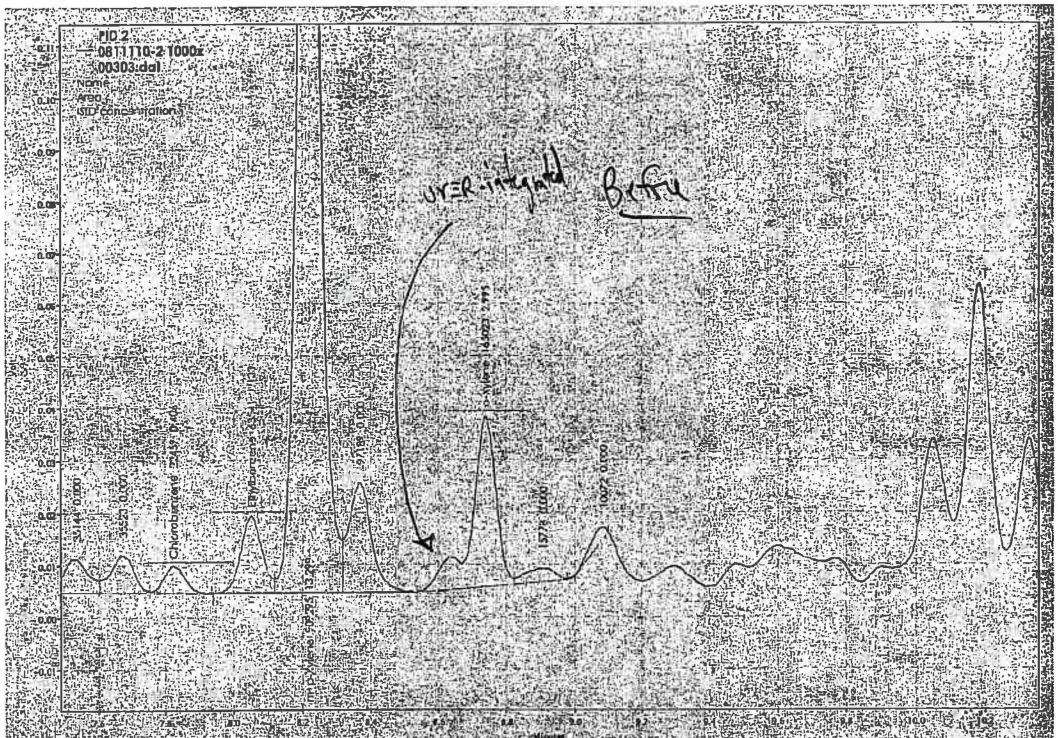
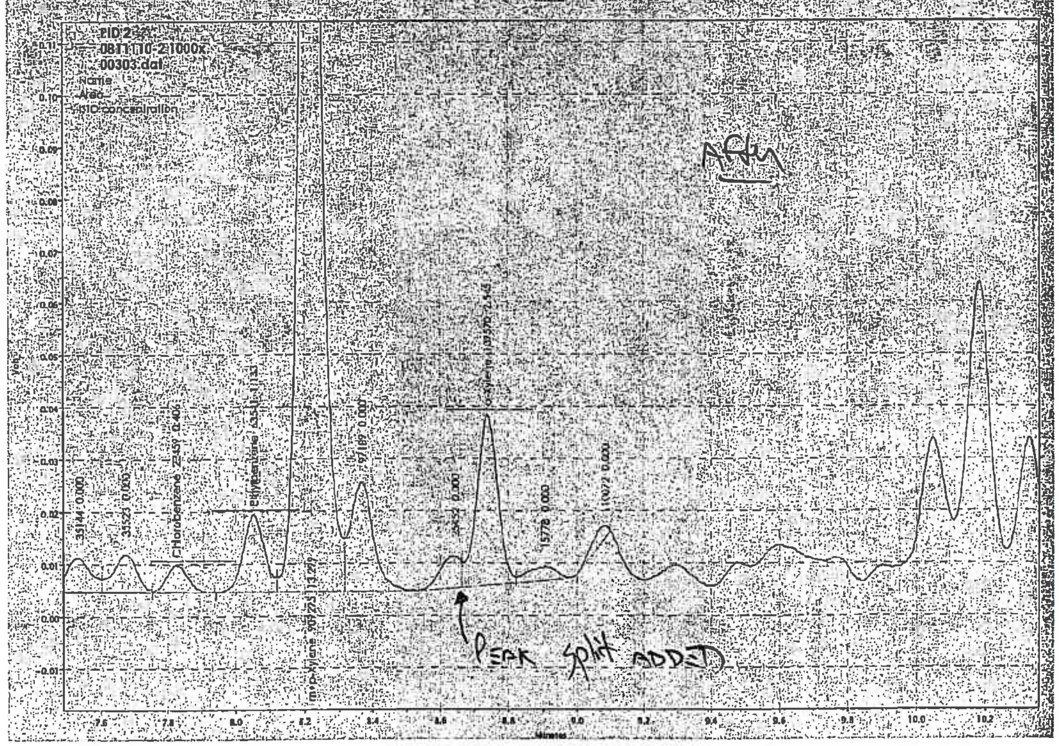

PID 1
08111 10-2 1000x
00303.dat
Name
Area
STD concentration
Before
over integrated (MTC shoulders)
PID 1
08111 10_2 1000x
(00303.dat
Name
Area
STD concentration
After
Minutes
Peak splits

12-1-08


FID 2
0811110-2 1000x
00303.dat
Name
Area
ISTD concentration
OVER-integrated
Before
Minutes


FID 2
0811110-2 1000x
00303.dat
Name
Area
ISTD concentration
After
PEAK split ADDED
Minutes

JW 12-1-08

Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-2 1000x
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00303.dat
Acquisition Date : 11/24/2008 9:59:22 PM
Quantitation Date : 12/1/2008 8:59:30 AM
Last Method Update : 12/1/2008 8:36:39 AM
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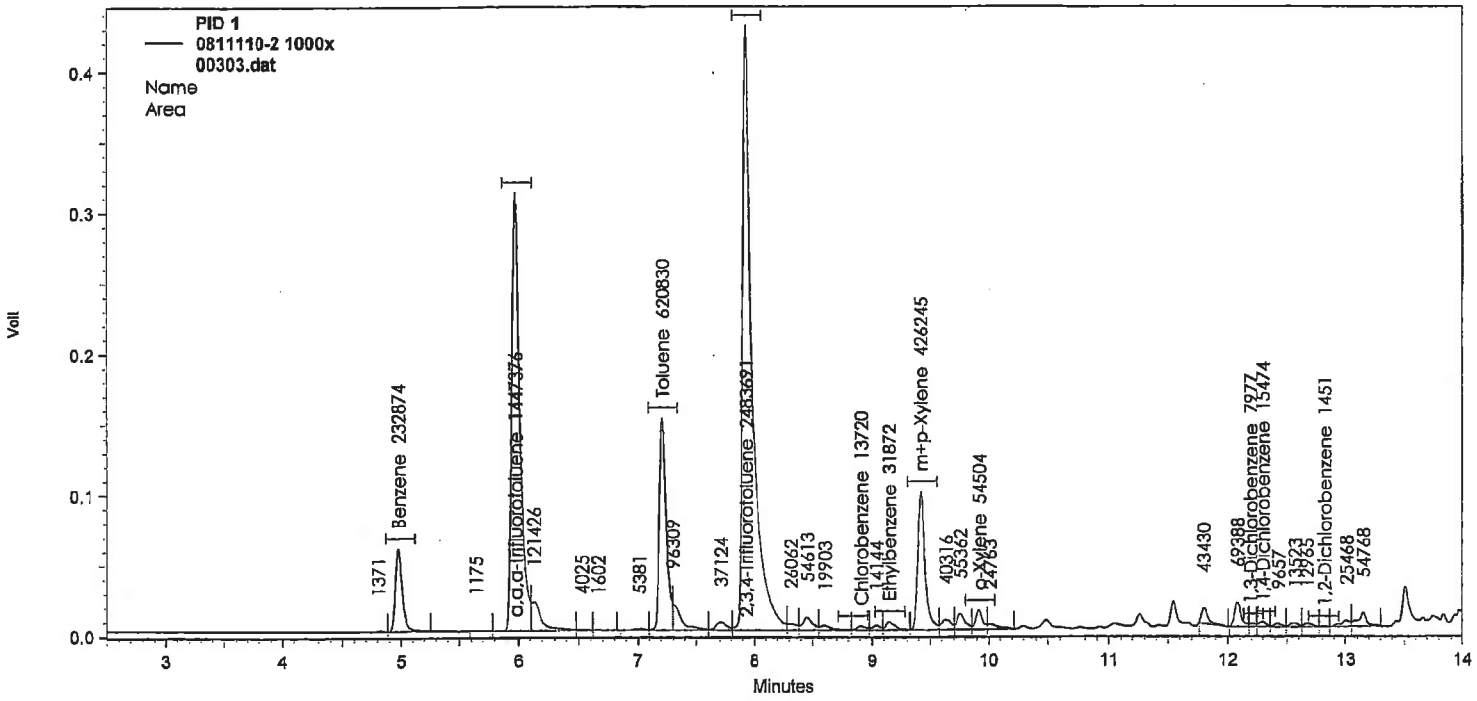
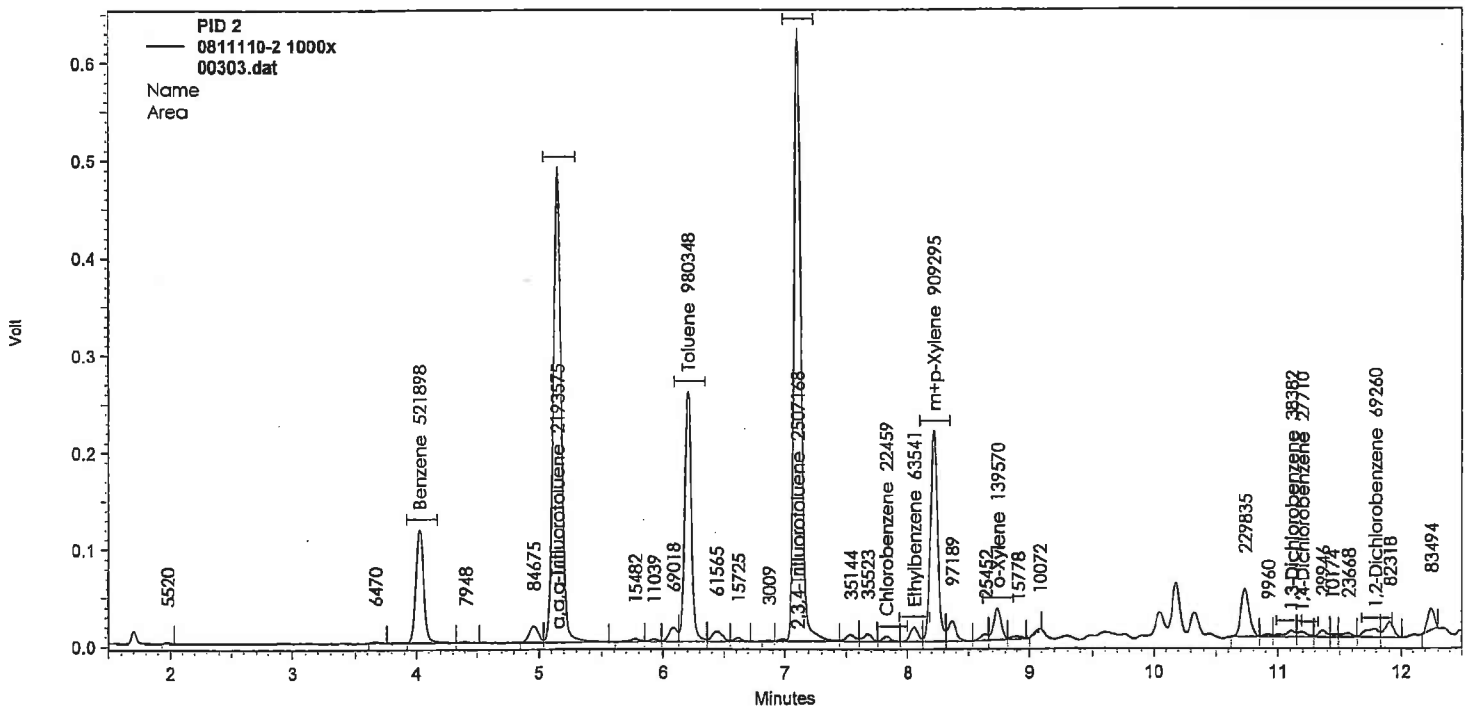
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 5uL / 5mL fv

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1 200x
Filename : 00304.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/24/2008 10:25:44 PM
Quant. Date : 12/1/2008 8:59:50 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00304.dat

Data Description : 25uL / 5mL fv

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.990	5.167	1489407	Vx	2210248	VB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.933	7.117	2530277	VV	2414672	VV	85.39	83.66	2.0	100	85	84
(targets)												
MTBE	0.000	2.150	0		5242	BB	0.000	0.186				
Benzene	5.000	4.053	2145084	VV	3599490	BB	46.732	48.765	4.3			
Toluene	7.220	6.220	5777730	BV	6138997	BV	74.092	114.238	42.6			
Chlorobenzene	8.797	7.837	1939	VV	3715	BB	0.591	0.128	128.6			
Ethylbenzene	9.150	8.060	99130	BV	230898	BV	3.079	3.829	21.7			
m+p-Xylene	9.423	8.223	2576774	VV	3208083	VV	48.438	46.865	3.3			
o-Xylene	9.920	8.743	288925	VB	528659	VB	10.691	9.353	13.4			
1,3-Dichlorobenzene	0.000	0.000	0		0		0.000	0.000				
1,4-Dichlorobenzene	12.287	11.193	2198	VV	17477	VV	0.672	0.280	82.3			
1,2-Dichlorobenzene	12.810	11.780	2837	VB	17901	VV	0.679	0.402	51.2			

N.C.

E B-flag

E B-flag

NO - Poor RT match.

NTC

Rerun this @ 200x to get lower RL's for MTBE and chlorobenzene

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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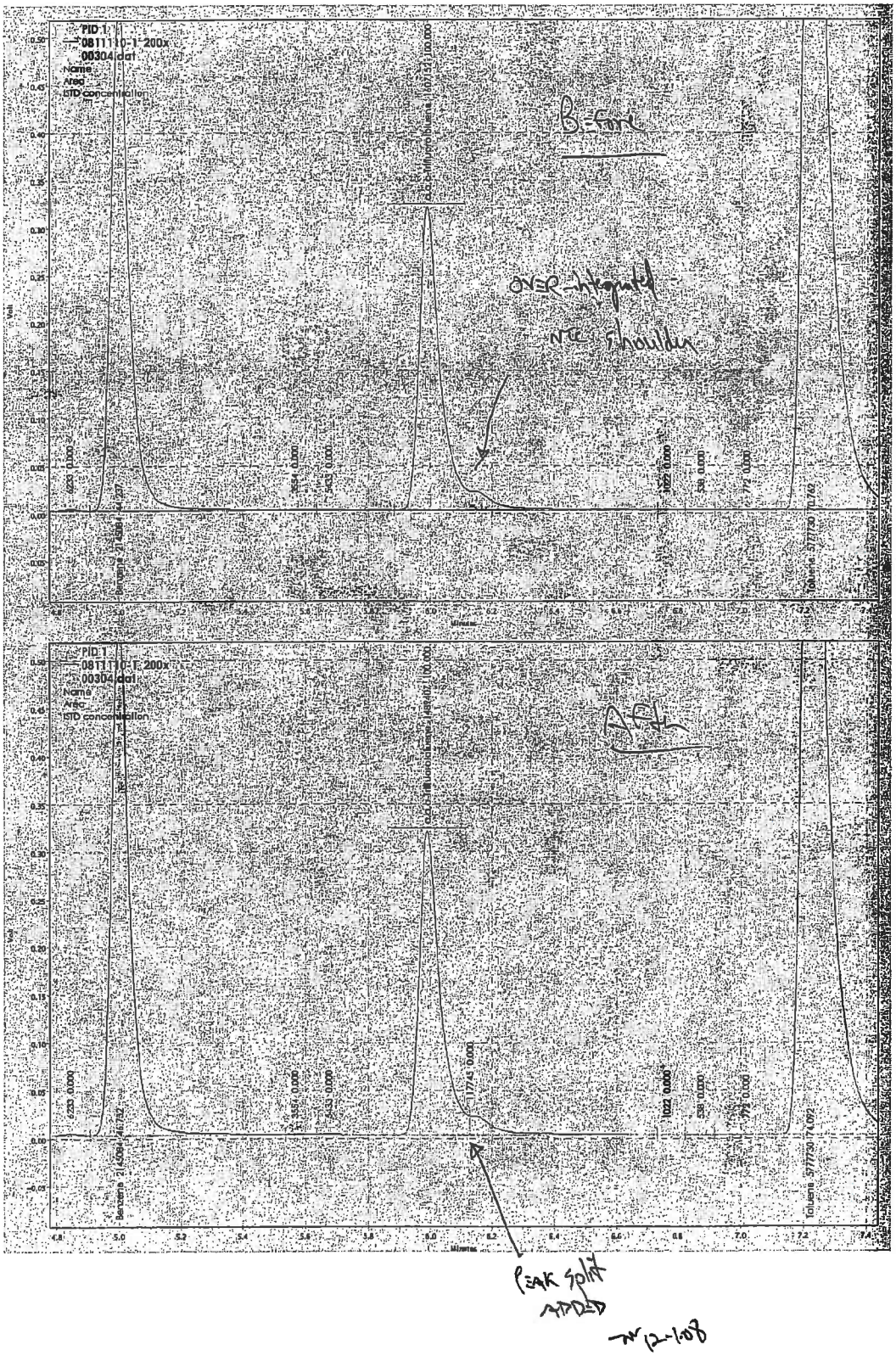
PID 1
0811110-1 200x
00304.dat
Name
Area
ISTD concentration
Before
over-integrated
not shown
PID 1
0811110-1 200x
00304.dat
Name
Area
ISTD concentration
After
peak split
added
Jan-12-10

Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1 200x
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Acquisition Date : 11/24/2008 10:25:44 PM
Quantitation Date : 12/1/2008 8:59:50 AM
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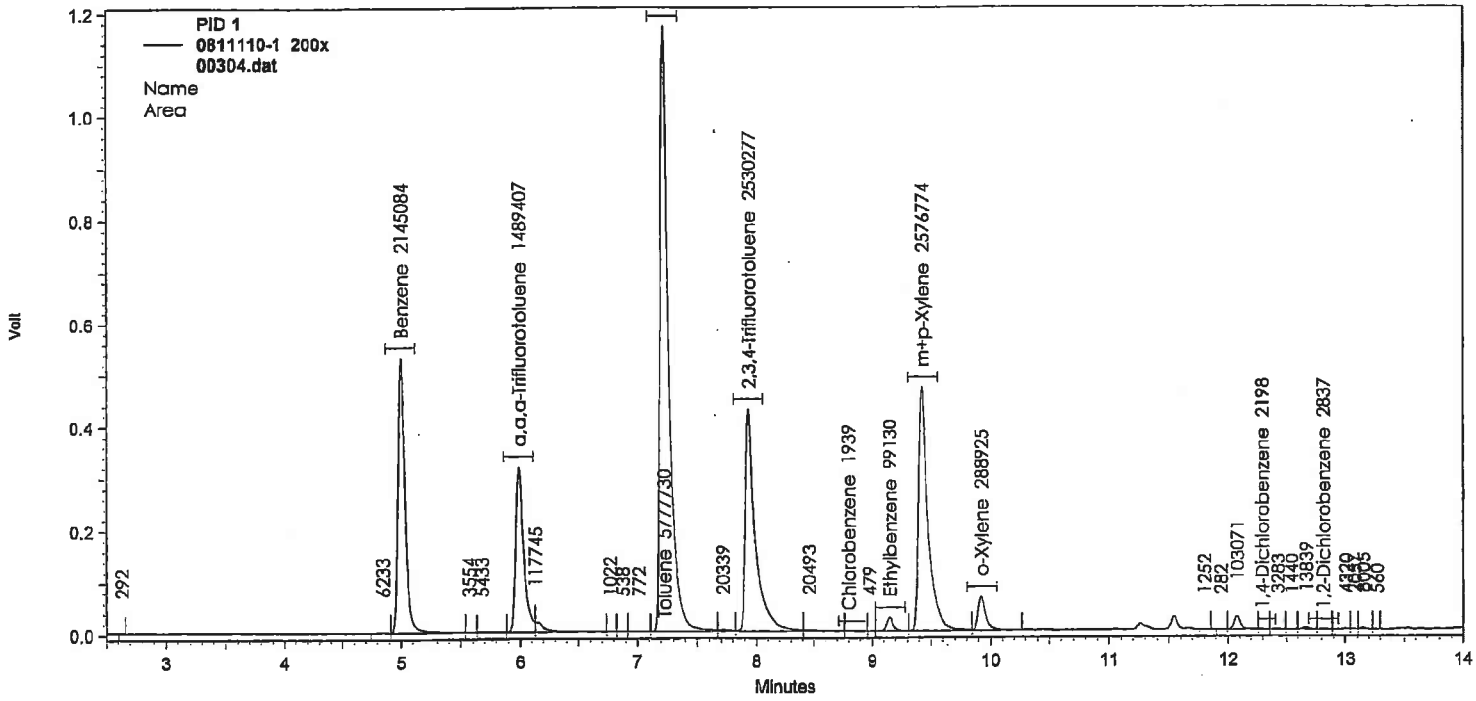
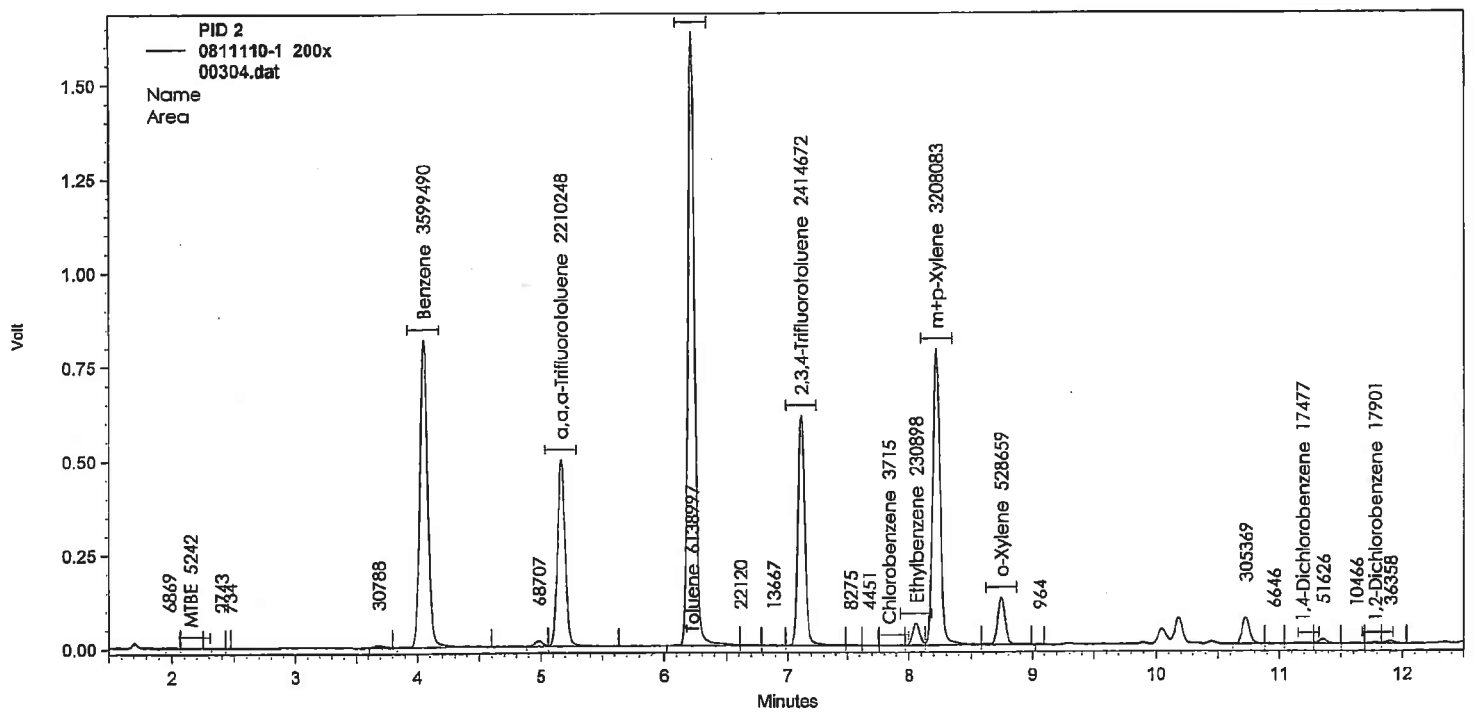
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 25uL / 5mL fv

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-2 200x
Filename : 00305.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/24/2008 10:51:59 PM
Quant. Date : 12/1/2008 9:00:10 AM

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Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00305.dat

Data Description : 25uL / 5mL fv

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #2
(internal standard)												
a,a,a-Trifluorotoluene	5.990	5.167	1502215	BV	2209137	VB	100.00	100.00	X			
(surrogate)												
2,3,4-Trifluorotoluene	7.930	7.113	2563208	VV	2423690	RB	85.81	84.07	2.0	100	86	84
(targets)												
MTBE	0.000	0.000	0		0		0.000	0.000	no			
Benzene	4.997	4.047	1659482	VV	2827259	BV	38.514	38.319	0.5			
Toluene	7.217	6.220	4777091	VV	4991635	xV	65.665	87.090	28.1 E	B-flag		
Chlorobenzene	8.907	7.830	10685	BV	17816	BB	0.737	0.336	74.9	no - RT shift opposite Dir.		
Ethylbenzene	9.147	8.057	123985	VB	239231	BV	3.661	3.966	8.0			
m+p-Xylene	9.420	8.220	2946492	BV	3469220	VV	53.499	50.796	5.2 E	B-flag		
o-Xylene	9.917	8.740	373076	VB	536637	xB	12.834	9.497	29.9			
1,3-Dichlorobenzene	0.000	11.100	0		24173	VV	0.000	0.467		NTC		
1,4-Dichlorobenzene	12.283	11.190	18579	VV	34525	VV	0.956	0.559	52.4			
1,2-Dichlorobenzene	12.810	11.780	3602	VB	78280	VV	0.699	1.668	81.9			

Re-Run @ 200x to get Lower RL's for MTBE + Chlorobenzene.

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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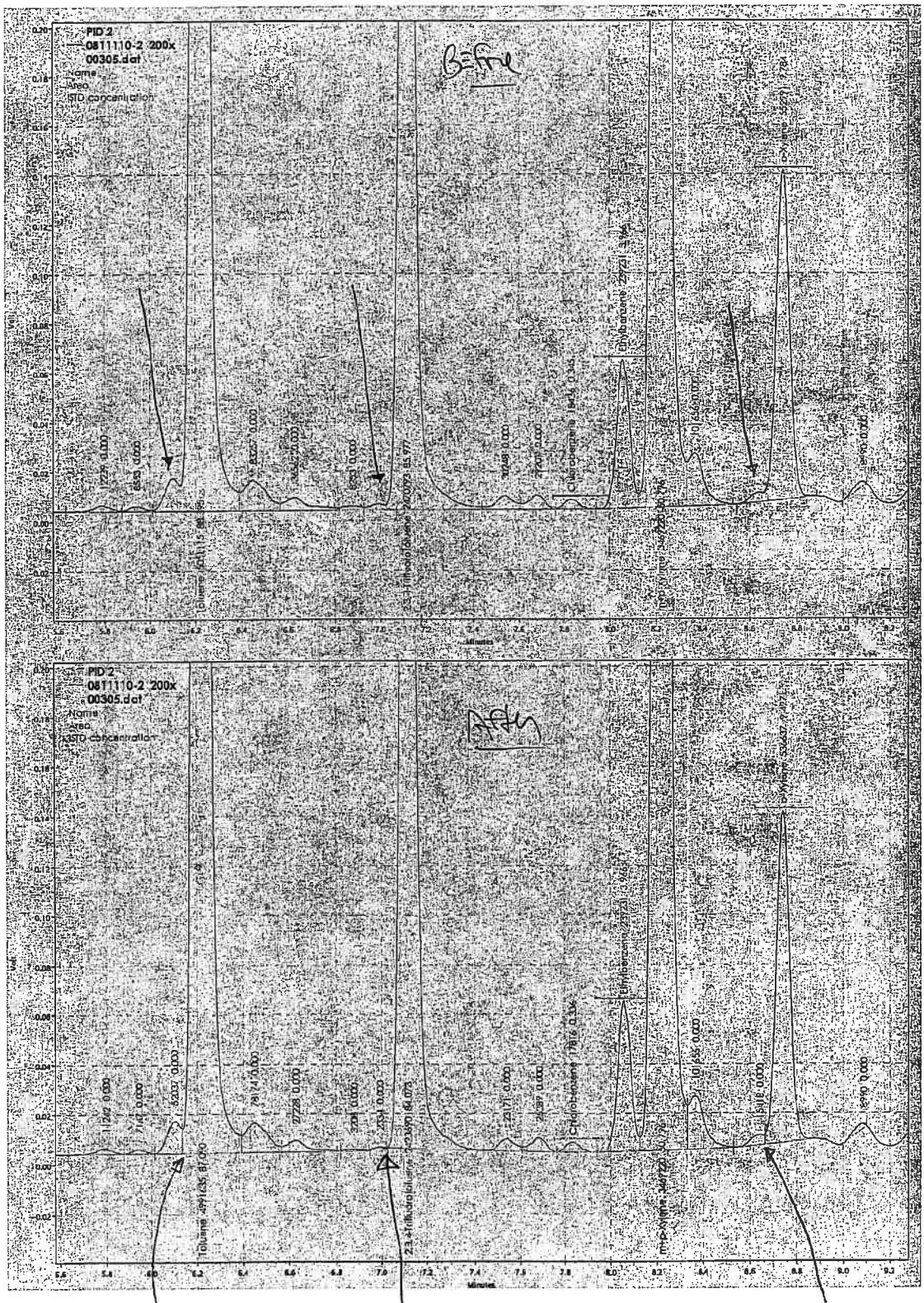
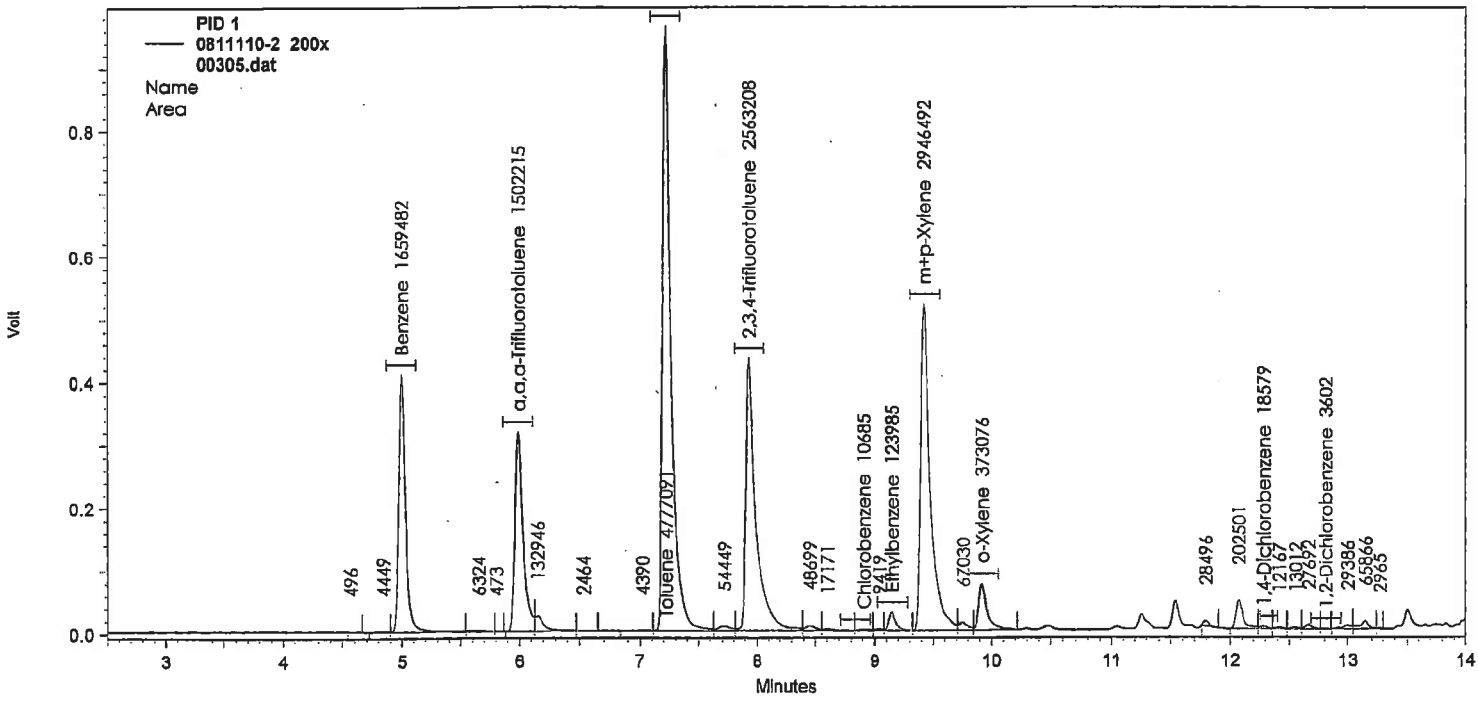

PID 2
08111 10-2 200x
00305.dat
Name
Area
ISTD concentration
Before
PID 2
08111 10-2 200x
00305.dat
Name
Area
ISTD concentration
After
Minutes
Peak split
Baseline adjusted
Peak split

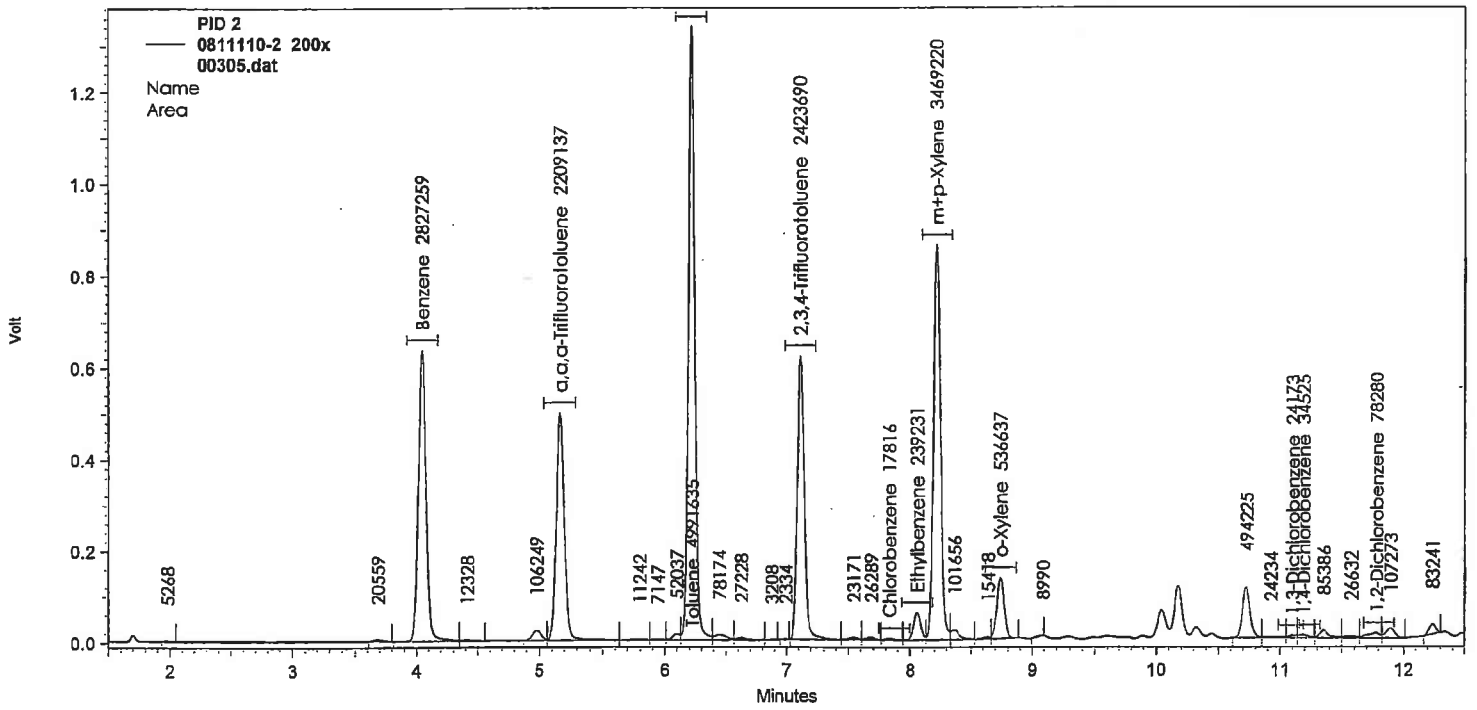
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-2 200x
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00305.dat
Acquisition Date : 11/24/2008 10:51:59 PM
Quantitation Date : 12/1/2008 9:00:10 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 25uL / 5mL fv

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Raw Data Quality Control Samples

Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Sample : HCB081124-1CCS
Filename : 00295.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/24/2008 6:25:37 PM
Quant. Date : 12/1/2008 8:56:48 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00295.dat

Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.987	5.163	1568593	BB	2250927	BB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.933	7.113	2533963	VB	2486412	BV	80.70	84.74	4.9	100	81	85
(targets)												
MTBE	3.003	2.187	98140	BB	277058	VV	19.766	18.113	8.7			
Benzene	4.993	4.047	789958	BV	1456785	BB	20.943	19.371	7.8			
Toluene	7.213	6.217	922327	BV	1309413	BB	21.284	19.447	9.0			
Chlorobenzene	8.837	7.873	1298631	BV	1305154	BV	19.313	19.244	0.4			
Ethylbenzene	9.153	8.057	953854	VV	1180917	VV	19.554	19.153	2.1			
m+p-Xylene	9.430	8.223	2115941	VV	2672383	VV	39.635	38.193	3.7			
o-Xylene	9.927	8.743	768598	VI	1106177	VV	20.701	19.134	7.9			
1,3-Dichlorobenzene	12.217	11.090	704365	VV	1117545	BV	19.109	18.555	2.9			
1,4-Dichlorobenzene	12.330	11.240	1397017	VV	1159430	VV	19.203	18.581	3.3			
1,2-Dichlorobenzene	12.813	11.803	863701	VI	907047	BV	19.042	18.694	1.8			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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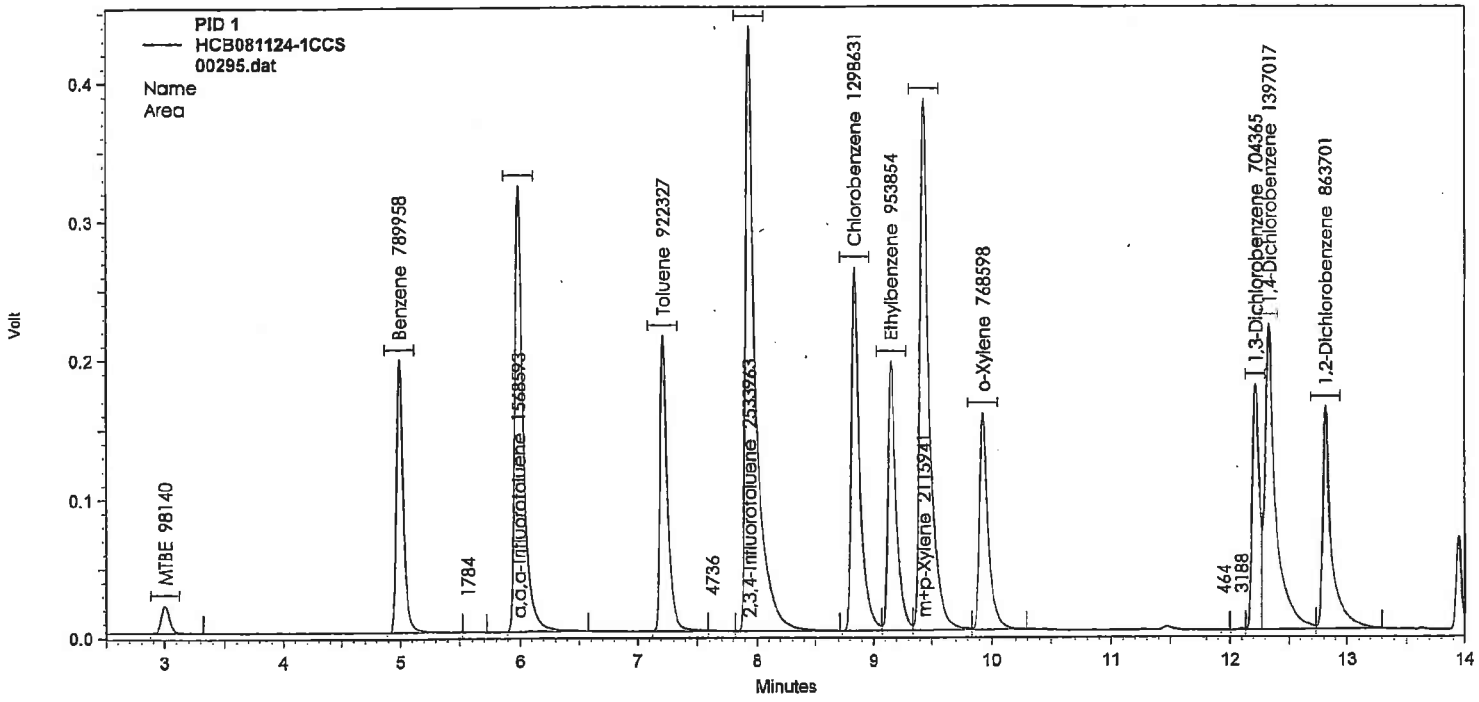
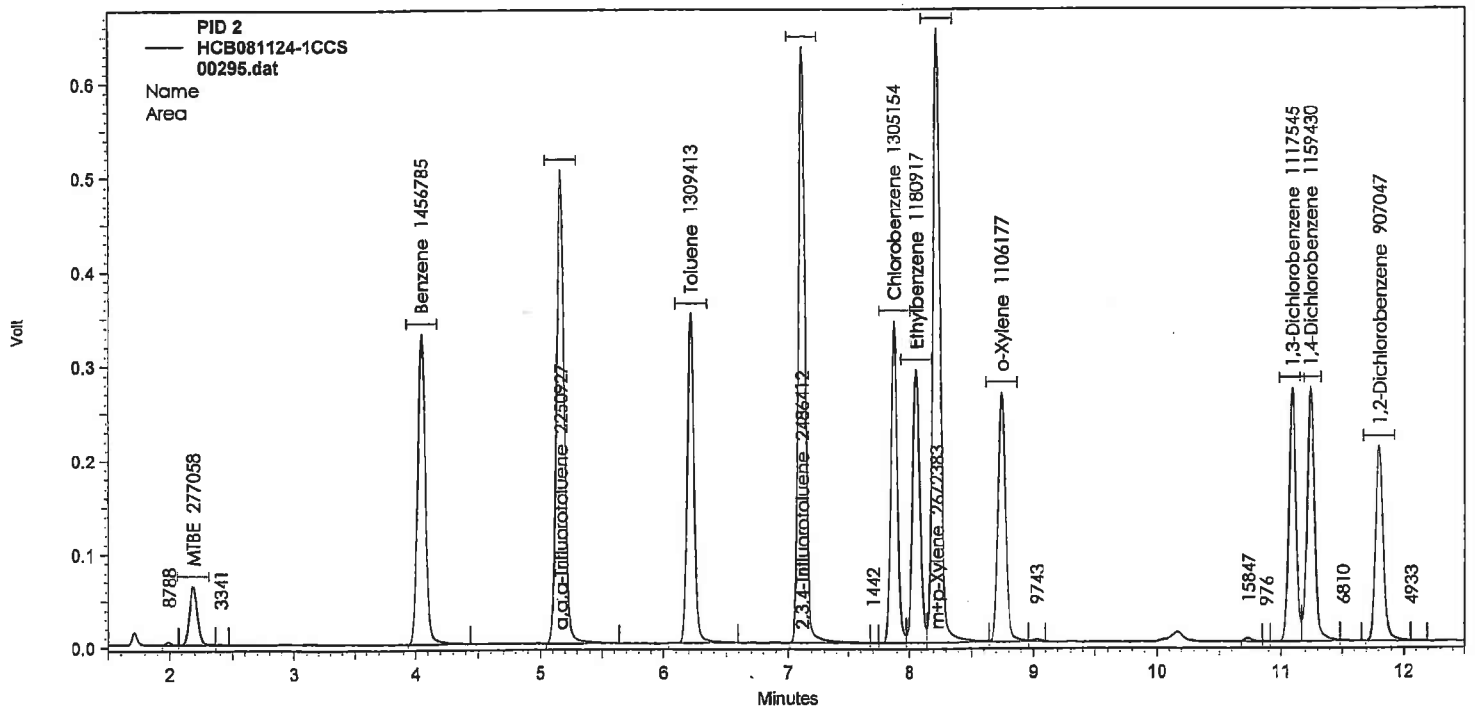
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : HCB081124-1CCS
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00295.dat
Acquisition Date : 11/24/2008 6:25:37 PM
Quantitation Date : 12/1/2008 8:56:48 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : HCB081124-1CCSD
Filename : 00310.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/25/2008 1:02:58 AM
Quant. Date : 12/1/2008 9:01:46 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00310.dat

Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.973	5.150	1541946	BB	2178242	BB	100.00	100.00	X			
(surrogate)												
2,3,4-Trifluorotoluene	7.933	7.113	2446475	VV	2397532	BB	79.09	84.39	6.5	100	79	84
(targets)												
MTBE	2.977	2.167	103132	BV	274448	BB	20.824	18.545	11.6			
Benzene	4.977	4.027	791468	BB	1443019	BB	21.268	19.828	7.0			
Toluene	7.213	6.210	922530	BV	1293245	BB	21.556	19.862	8.2			
Chlorobenzene	8.840	7.877	1285452	BV	1300981	BV	19.431	19.832	2.0			
Ethylbenzene	9.157	8.060	927901	VV	1169057	VV	19.390	19.601	1.1			
m+p-Xylene	9.433	8.227	2065437	VV	2647126	VV	39.409	39.109	0.8			
o-Xylene	9.930	8.750	756768	VI	1111554	VI	20.723	19.866	4.2			
1,3-Dichlorobenzene	12.213	11.093	686719	VV	1090381	BV	18.974	18.708	1.4			
1,4-Dichlorobenzene	12.323	11.247	1343608	VV	1125834	VB	18.868	18.644	1.2			
1,2-Dichlorobenzene	12.807	11.803	850273	VI	890411	BB	19.065	18.963	0.5			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : HCB081124-1CCSD
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00310.dat
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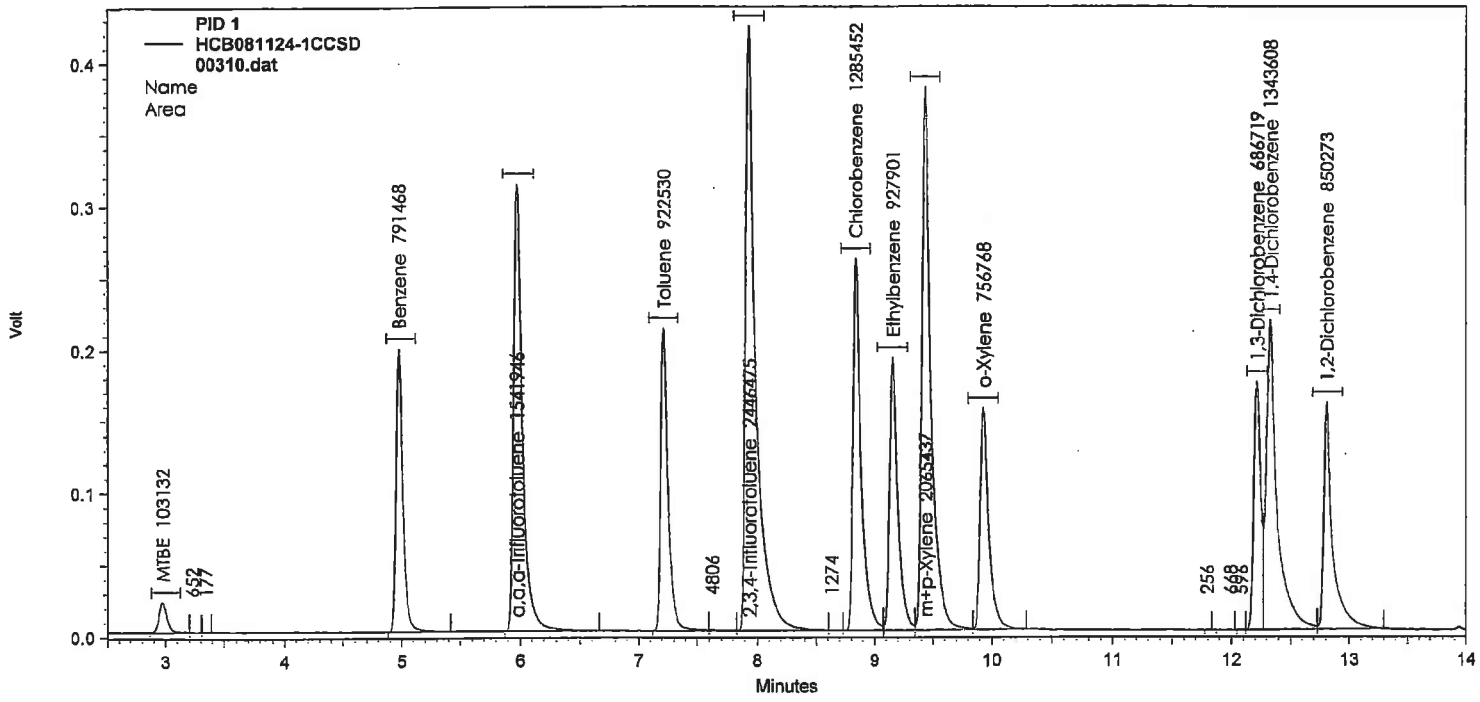
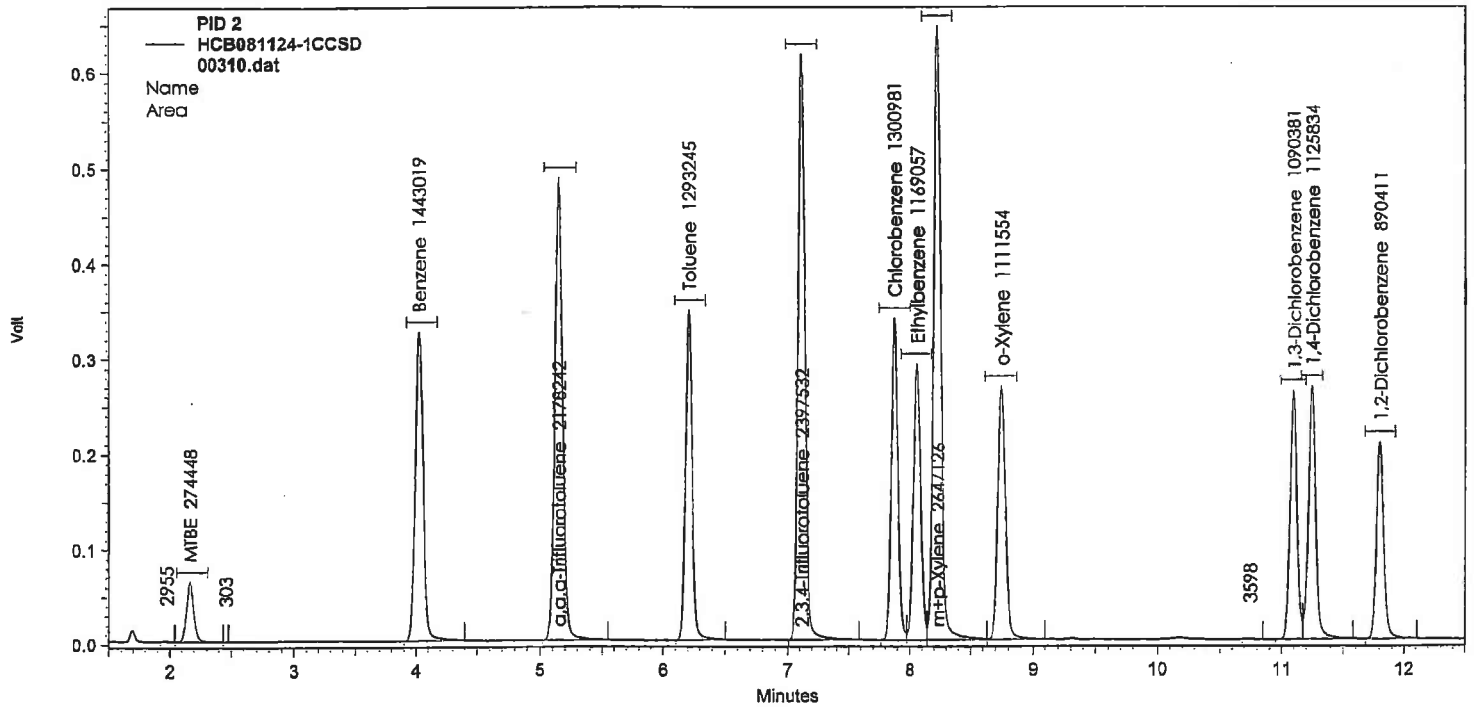
Quantitation Date : 12/1/2008 9:01:46 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 2.0ul ST081124-7 (surr) & 2.0 uL ST081110-9 (btex)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1MS 1000x
Filename : 00308.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/25/2008 12:10:38 AM
Quant. Date : 12/1/2008 9:01:08 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00308.dat

Data Description : 1.0uL ST081110-9 (10ppb)

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.997	5.173	1559624	BB	2219662	VB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.943	7.127	2340939	VV	2309203	BB	74.36	79.00	6.1	100	74	79
(targets)												
MTBE	3.003	2.180	40060	BV	129568	BV	9.509	8.502	11.2			
Benzene	5.007	4.053	709756	VV	1348035	BV	19.285	18.176	5.9			
Toluene	7.227	6.230	1300274	BV	1717797	BB	27.339	26.194	4.3			
Chlorobenzene	8.843	7.883	496582	BV	605429	BV	8.232	9.000	8.9			
Ethylbenzene	9.157	8.067	346897	VV	574301	VV	8.442	9.391	10.6			
m+p-Xylene	9.433	8.233	1153733	VV	1748841	VB	24.025	25.242	4.9			
o-Xylene	9.927	8.750	316050	VB	590818	BV	11.046	10.399	6.0			
1,3-Dichlorobenzene	12.203	11.087	265008	VV	502561	BV	8.144	8.494	4.2			
1,4-Dichlorobenzene	12.310	11.237	453646	VV	529431	VB	7.582	8.601	12.6			
1,2-Dichlorobenzene	12.793	11.790	297574	VV	417705	BB	7.801	8.744	11.4			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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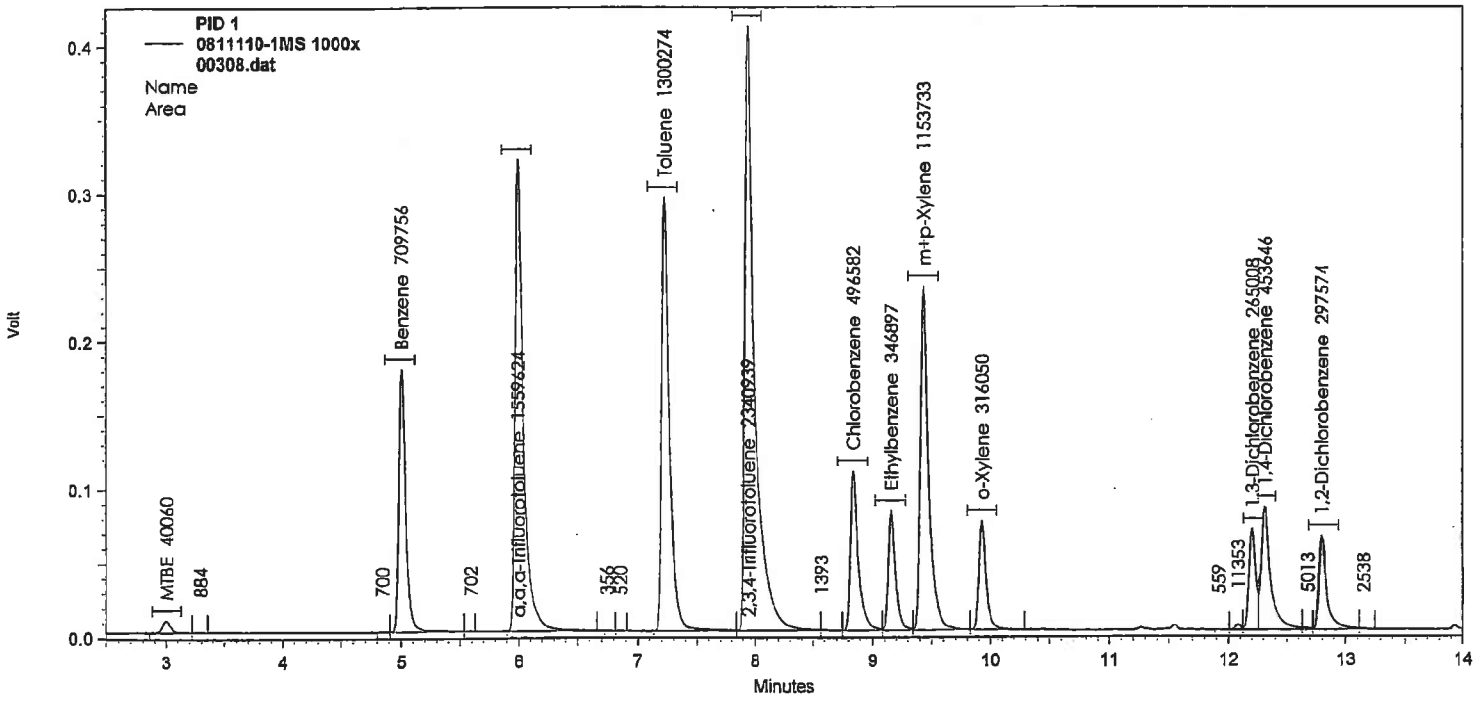
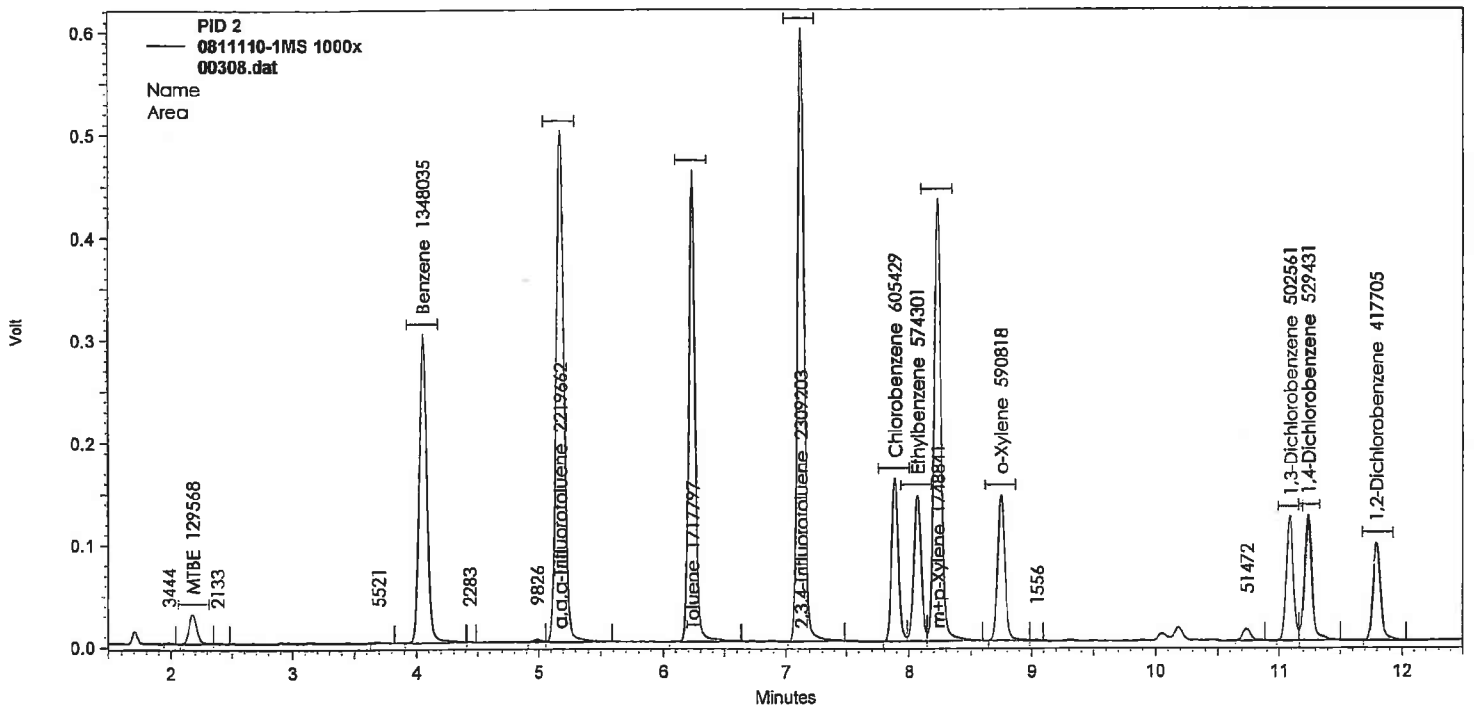
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1MS 1000x
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00308.dat
Acquisition Date : 11/25/2008 12:10:38 AM
Quantitation Date : 12/1/2008 9:01:08 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 1.0uL ST081110-9 (10ppb)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1MSD 1000x
Filename : 00309.dat

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej

Acq. Date : 11/25/2008 12:36:52 AM
Quant. Date : 12/1/2008 9:01:27 AM

Acq. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Quant. Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Acq. Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Path : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00309.dat

Data Description : 1.0uL ST081110-9 (10ppb)

Compound	RT #1	RT #2	Area #1	Int. Code #1	Area #2	Int. Code #2	ug/L Conc. #1	ug/L Conc. #2	Conc. RPD	Nom. Conc.	% Rec. #1	% Rec. #1
(internal standard)												
a,a,a-Trifluorotoluene	5.990	5.163	1531995	BB	2170408	VB	100.00	100.00				
(surrogate)												
2,3,4-Trifluorotoluene	7.950	7.127	2357292	VB	2319538	BB	76.44	81.54	6.5	100	76	82
(targets)												
MTBE	2.987	2.173	35331	BV	117794	BV	8.668	7.893	9.4			
Benzene	4.993	4.040	692712	VV	1295582	BB	19.184	17.865	7.1			
Toluene	7.227	6.223	1298389	BV	1703279	BB	27.656	26.582	4.0			
Chlorobenzene	8.853	7.890	458328	BV	567630	BV	7.787	8.630	10.3			
Ethylbenzene	9.170	8.073	319762	VV	544611	VV	7.997	9.107	13.0			
m+p-Xylene	9.447	8.240	1118799	VV	1714102	VB	23.764	25.303	6.3			
o-Xylene	9.943	8.763	294517	VB	564952	BV	10.619	10.171	4.3			
1,3-Dichlorobenzene	12.227	11.107	250579	VV	480077	BV	7.874	8.300	5.3			
1,4-Dichlorobenzene	12.337	11.260	424821	VV	507670	VB	7.283	8.435	14.7			
1,2-Dichlorobenzene	12.820	11.813	278791	VV	400866	BB	7.492	8.583	13.6			

Column #1 : DB-624 (30M x 0.53mm x 3.0u)
Column #2 : DB-VRX (30M x 0.45mm x 2.55u)

(1st int. code is for peak start, 2nd int code is for peak stop)
B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

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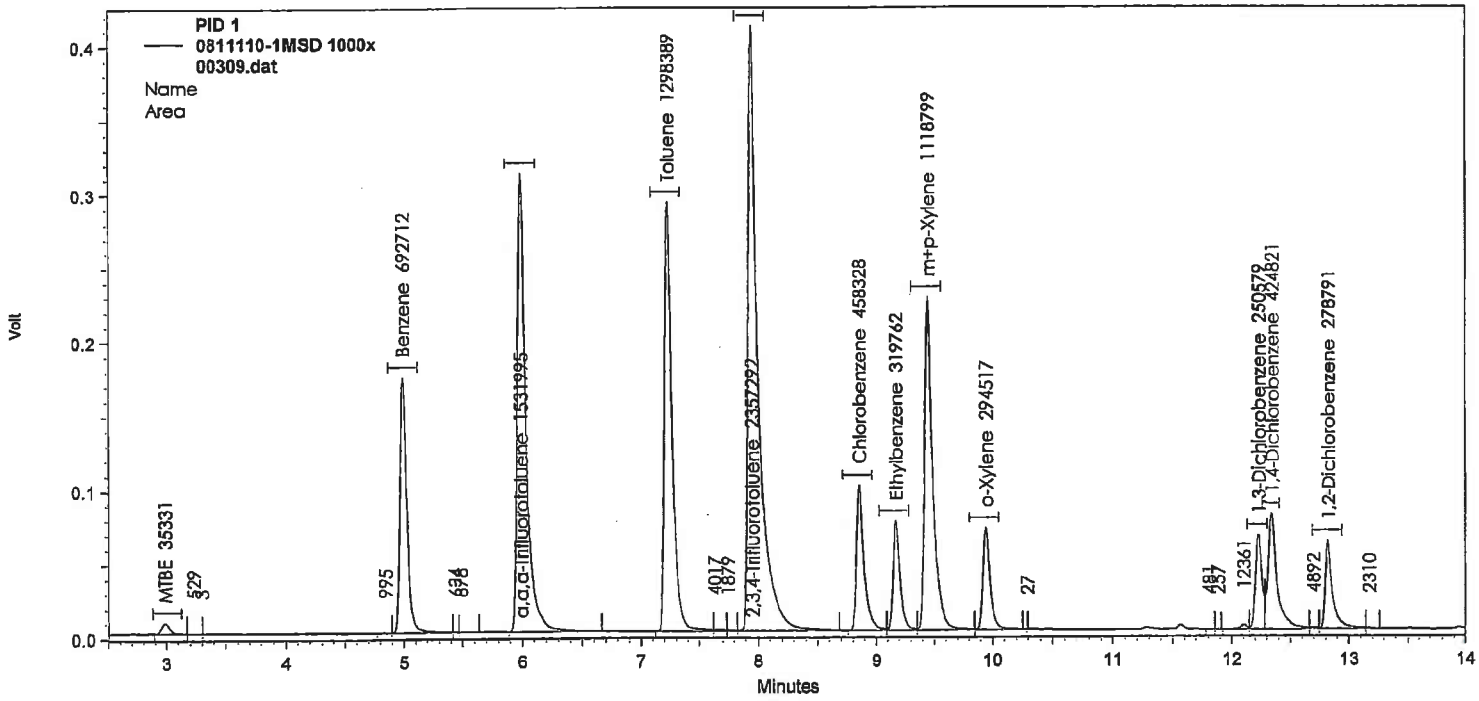
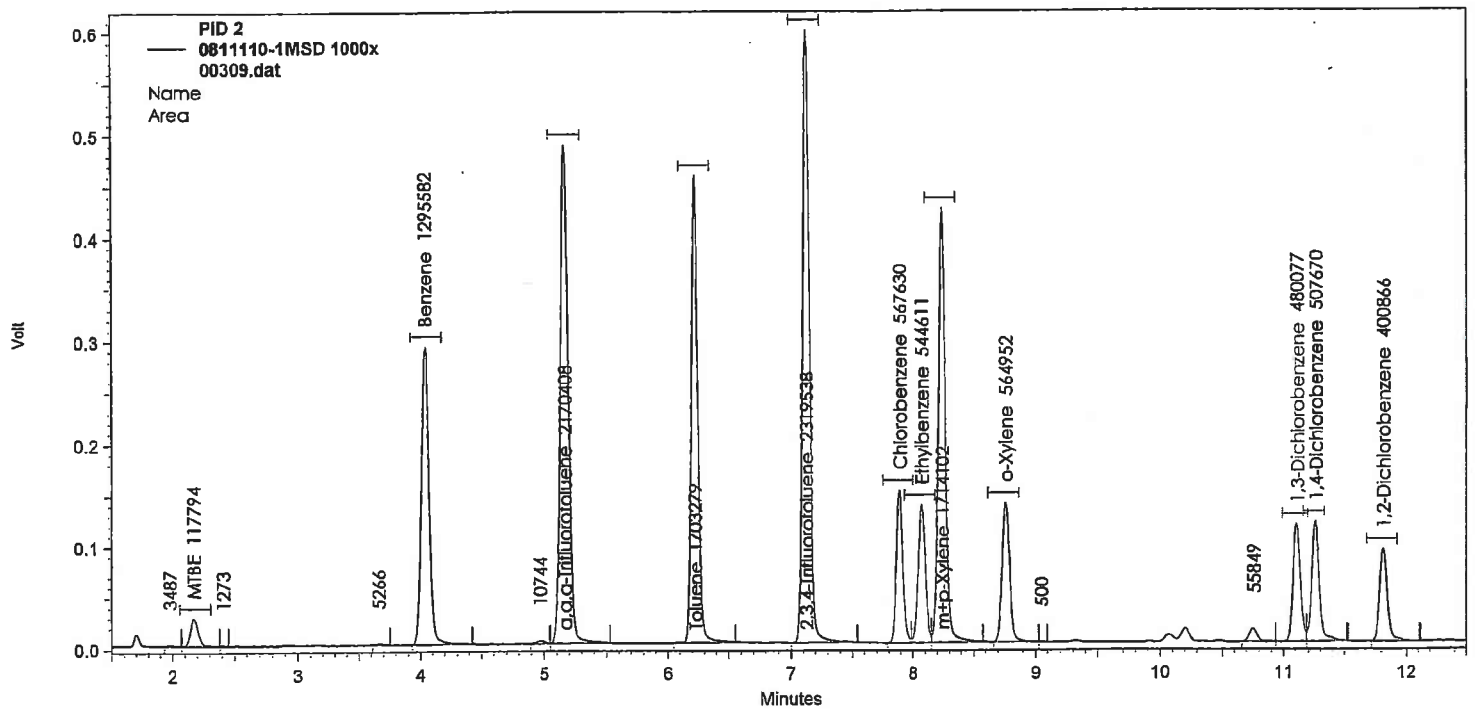
Aromatic Volatile Organics / BTEX (8021) Quantitation Report

Paragon Analytics

Sample : 0811110-1MSD 1000x
Filename : \\gcserver\gcdata\Projects\GC7\Data\2008\btx112408\00309.dat
Acquisition Date : 11/25/2008 12:36:52 AM
Quantitation Date : 12/1/2008 9:01:27 AM
Last Method Update : 12/1/2008 8:36:39 AM
Method : \\gcserver\gcdata\Projects\GC7\Method\2008\btx112008.met
Sequence : \\gcserver\gcdata\Projects\GC7\Sequence\2008\btx112408.seq
Data Description : 1.0uL ST081110-9 (10ppb)

Instrument : GC7
Data Acquired By : noltej
Data Processed By : noltej





Miscellaneous

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\120308\D24896.D Vial: 14
Acq On : 3 Dec 2008 14:04 Operator: TWK-sop525r12
Sample : 0811110-1 1000X Inst : HPV4
Misc : 10mL purge - HS>pea from previous Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 03 14:28:01 2008 Quant Results File: 101608W.RES

Quant Method : C:\MSDCHEM\1\METHODS\101608W.M (RTE Integrator)
Title : GCMS Volatiles (S.O.P. 525)
Last Update : Wed Dec 03 10:58:46 2008
Response via : Initial Calibration
DataAcq Meth : 101608W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.32	96	438047	25.00	ppb	0.00
52) Chlorobenzene-d5	13.28	117	355921	25.00	ppb	0.00
72) 1,4-Dichlorobenzene-d4	15.45	152	202041	25.00	ppb	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	9.47	113	82374	21.36	ppb	0.00
Spiked Amount 25.000	Range 79 - 120		Recovery = 85.44%			
39) 1,2-Dichloroethane-d4	10.06	65	78729	22.09	ppb	0.00
Spiked Amount 25.000	Range 62 - 139		Recovery = 88.36%			
53) Toluene-d8	11.82	98	393830	22.61	ppb	0.00
Spiked Amount 25.000	Range 83 - 120		Recovery = 90.44%			
73) 4-Bromofluorobenzene	14.37	174	149496	28.22	ppb	0.00
Spiked Amount 25.000	Range 74 - 123		Recovery = 112.88%			
Target Compounds						Qvalue
40) Benzene	9.93	78	205257	8.48	ppb	99
42) 1,2-Dichloroethane	9.93	62	1298	0.26	ppb	#No 93
50) cis-1,3-Dichloropropene	11.87	75	2958	0.35	ppb	#No 1
54) Toluene	11.87	91	431608	16.53	ppb	99
57) 1,1,2-Trichloroethane	12.42	83	993	0.32	ppb	#No 4
65) Ethylbenzene	13.27	91	21455	0.71	ppb	98
67) m,p-Xylene	13.39	106	100283	8.13	ppb	94
68) o-Xylene	13.79	106	18787	1.52	ppb	94
79) 1,3,5-Trimethylbenzene	14.58	105	20619	0.74	ppb	97
83) 1,2,4-Trimethylbenzene	14.97	105	28868	1.04	ppb	96
94) Naphthalene	18.22	128	3827	0.29	ppb	100

dk

Confimation data (8260B/GCMS)

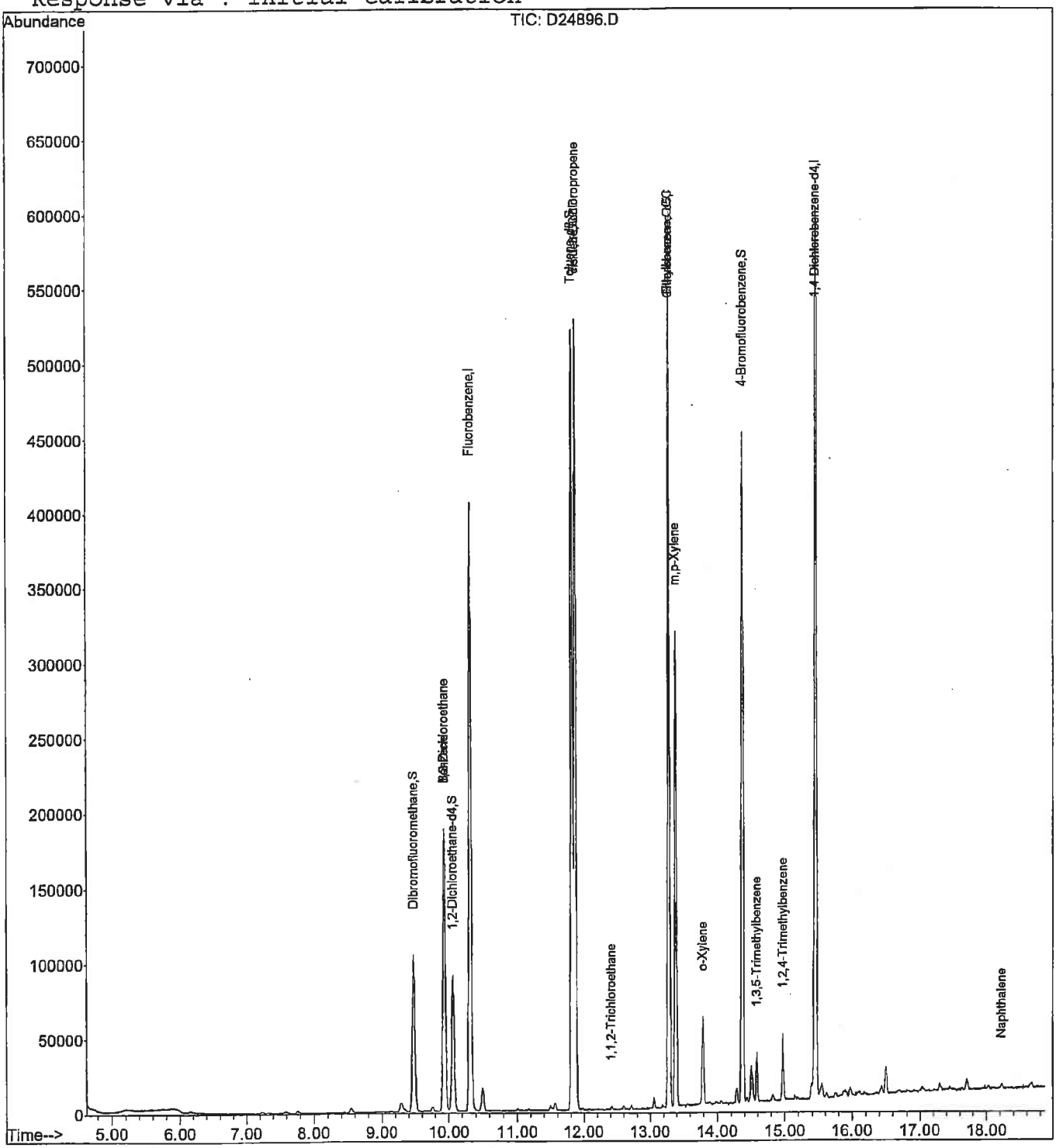
m 12/3/08

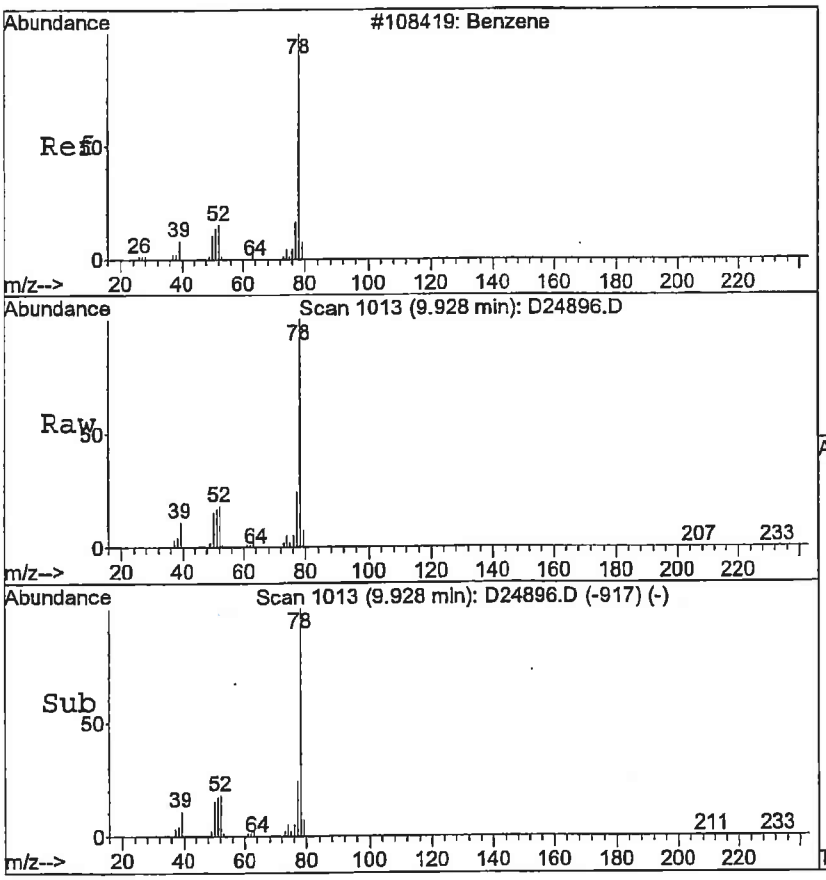
(#) = qualifier out of range (m) = manual integration (+) = signals summed
D24896.D 101608W.M Wed Dec 03 14:28:24 2008 Page 78

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\120308\D24896.D Vial: 14
Acq On : 3 Dec 2008 14:04 Operator: TWK-sop525r1
Sample : 0811110-1 1000X Inst : HPV4
Misc : 10mL purge - HS>pea from previous Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 3 14:28 2008 Quant Results File: 101608W.RES

Method : C:\MSDCHEM\1\METHODS\101608W.M (RTE Integrator)
Title : GCMS Volatiles (S.O.P. 525)
Last Update : Wed Dec 03 10:58:46 2008
Response via : Initial Calibration

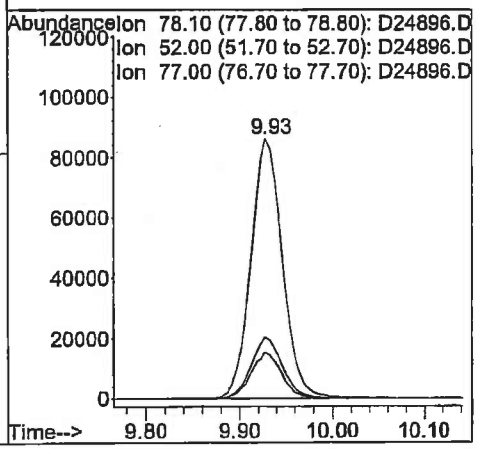


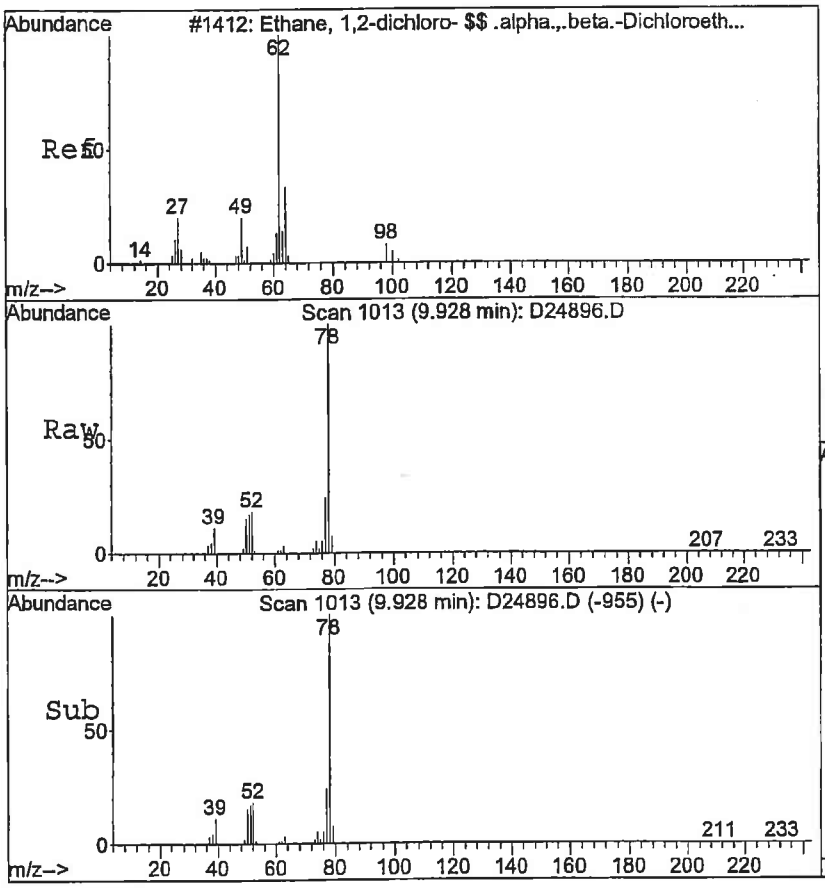


#40
Benzene
Concen: 8.48 ppb
RT: 9.93 min Scan# 1013
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion: 78 Resp: 205257

Ion	Ratio	Lower	Upper
78	100		
52	18.0	14.7	22.1
77	23.8	19.4	29.2

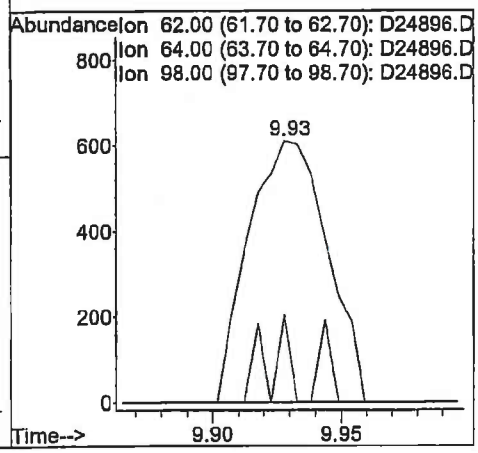


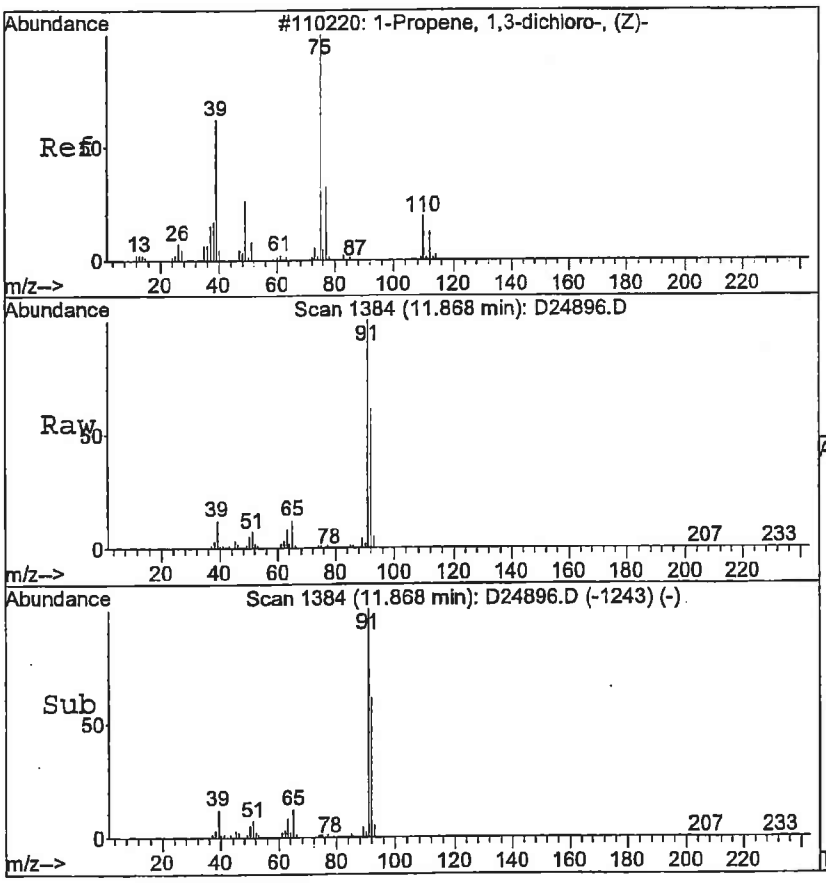


#42
1,2-Dichloroethane NO
Concen: 0.26 ppb
RT: 9.93 min Scan# 1013
Delta R.T. -0.20 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion: 62 Resp: 1298

Ion	Ratio	Lower	Upper
62	100		
64	33.2	26.3	39.5
98	0.0	8.1	12.1#

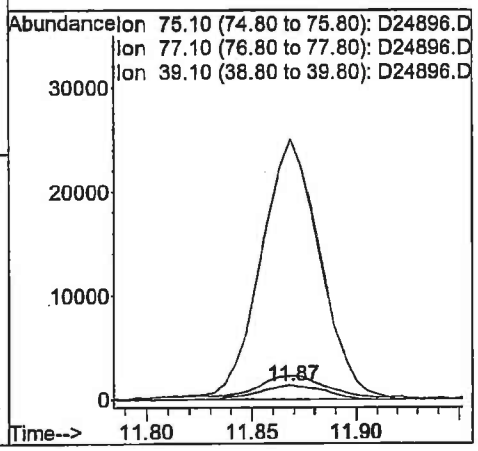


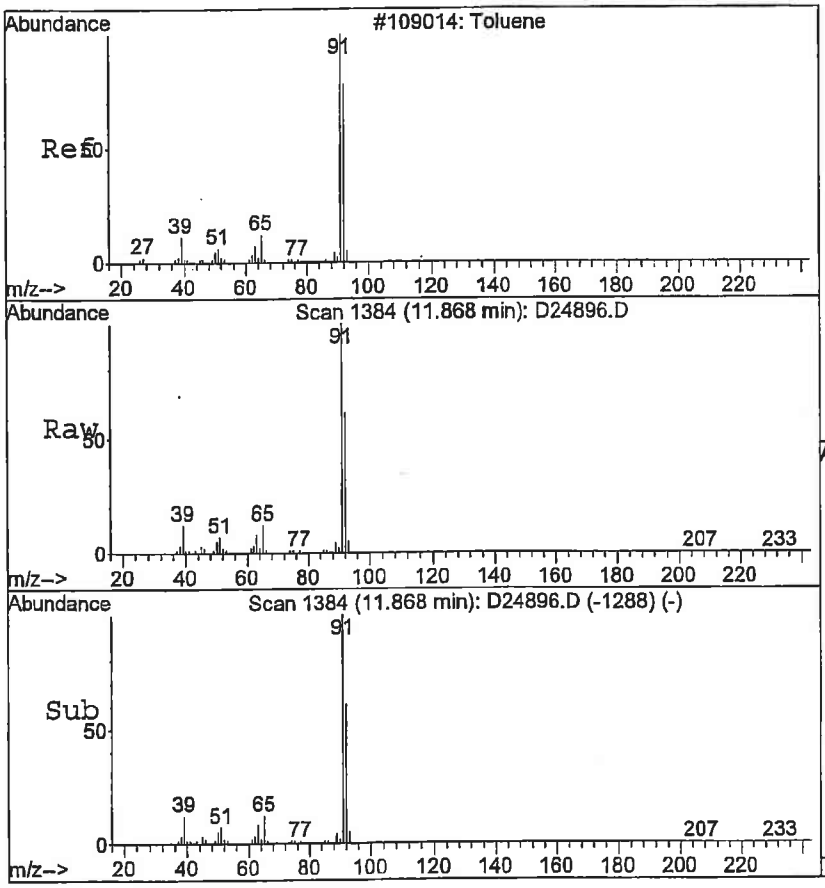


#50
cis-1,3-Dichloropropene NO
Concen: 0.35 ppb
RT: 11.87 min Scan# 1384
Delta R.T. 0.24 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion: 75 Resp: 2958

Ion	Ratio	Lower	Upper
75	100		
77	140.9	24.7	37.1#
39	1777.3	41.8	62.8#

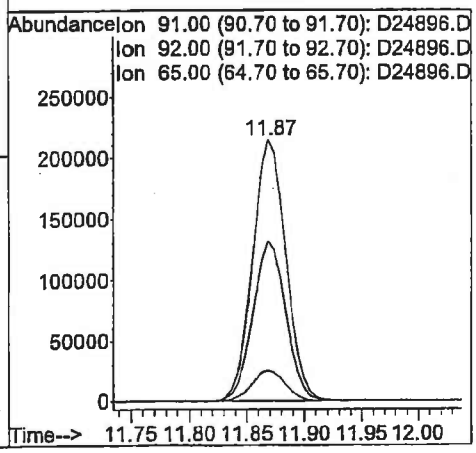


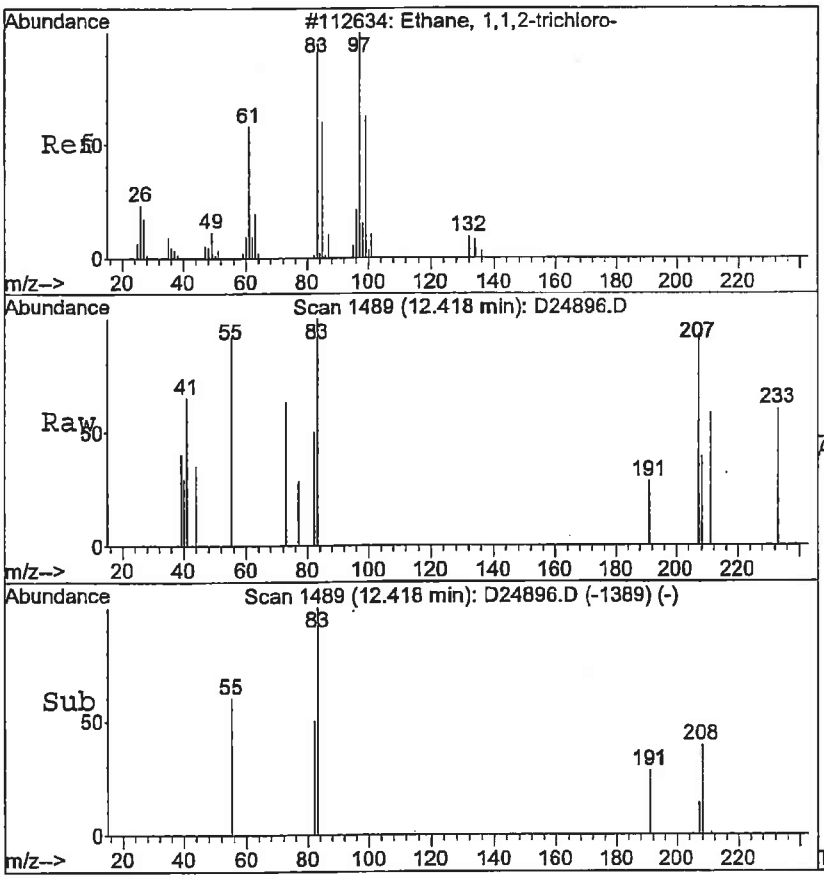


#54
Toluene
Concen: 16.53 ppb
RT: 11.87 min Scan# 1384
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion: 91 Resp: 431608

Ion	Ratio	Lower	Upper
91	100		
92	61.3	48.6	72.8
65	11.6	9.3	13.9

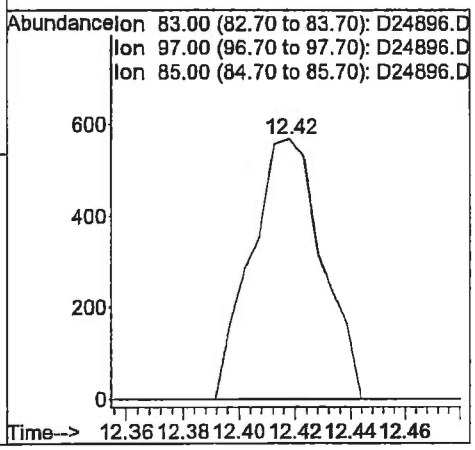


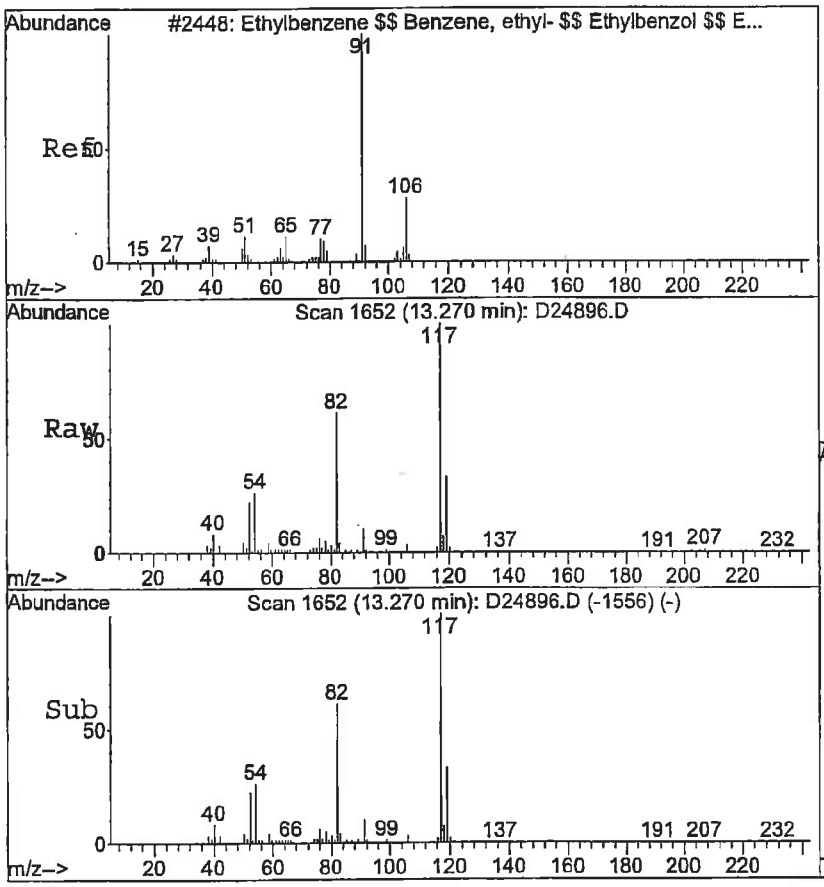


#57
1,1,2-Trichloroethane NO
Concen: 0.32 ppb
RT: 12.42 min Scan# 1489
Delta R.T. 0.02 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion: 83 Resp: 993

Ion	Ratio	Lower	Upper
83	100		
97	0.0	89.1	133.7#
85	0.0	51.2	76.8#

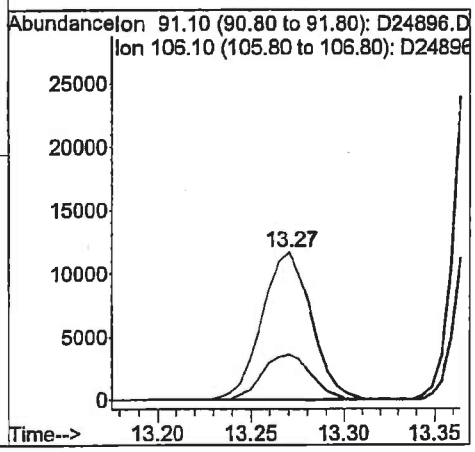


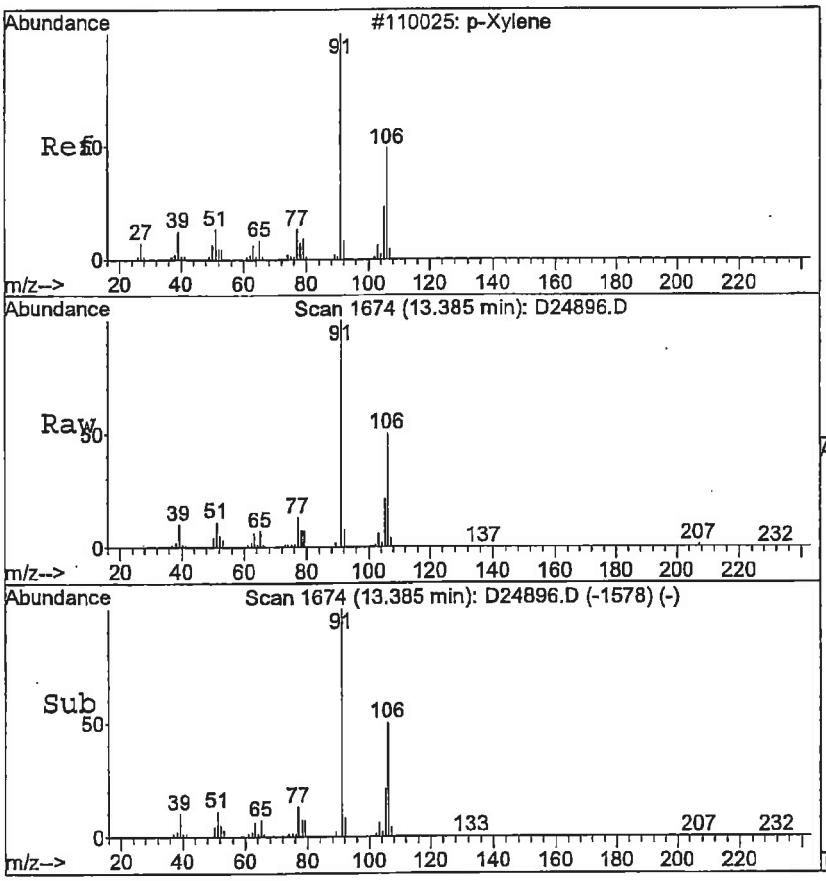


#65
Ethylbenzene
Concen: 0.71 ppb
RT: 13.27 min Scan# 1652
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion: 91 Resp: 21455

Ion	Ratio	Lower	Upper
91	100		
106	30.9	25.6	38.4

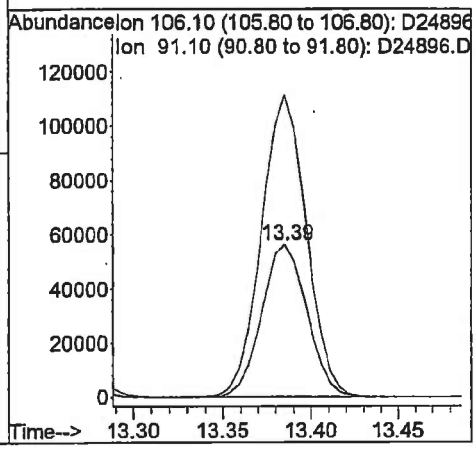


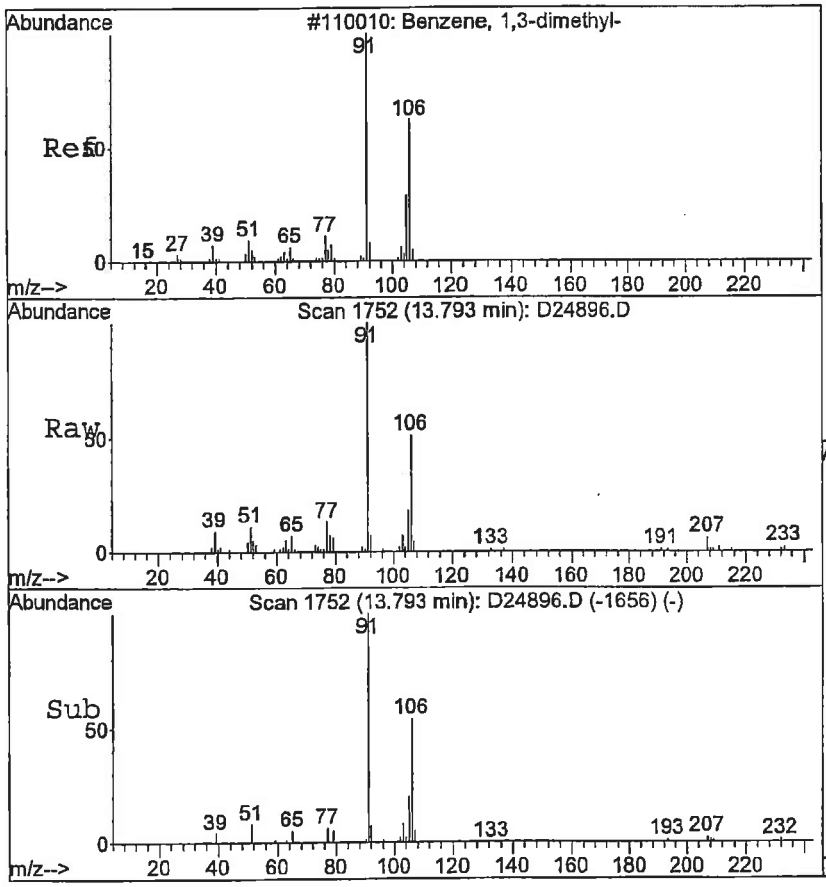


#67
m,p-Xylene
Concen: 8.13 ppb
RT: 13.39 min Scan# 1674
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion:106 Resp: 100283

Ion	Ratio	Lower	Upper
106	100		
91	198.0	151.2	226.8

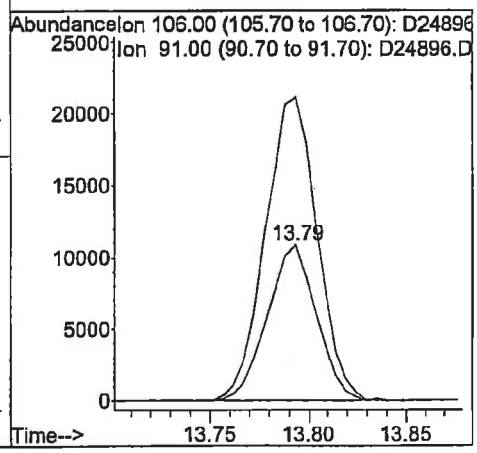


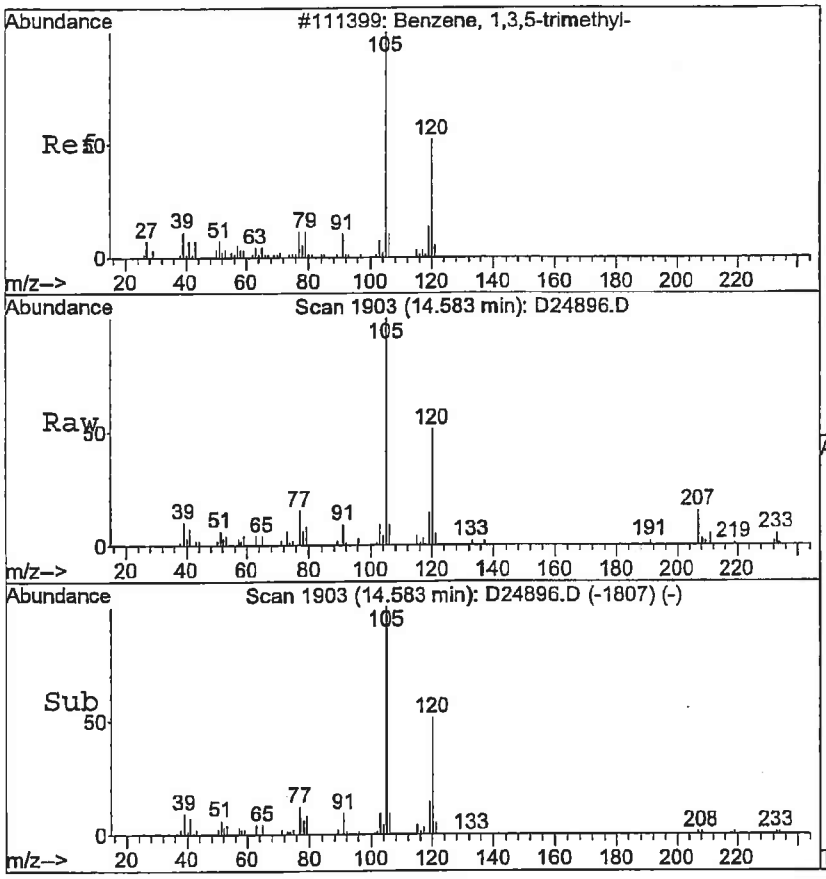


#68
o-Xylene
Concen: 1.52 ppb
RT: 13.79 min Scan# 1752
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion:106 Resp: 18787

Ion	Ratio	Lower	Upper
106	100		
91	194.9	163.5	245.3

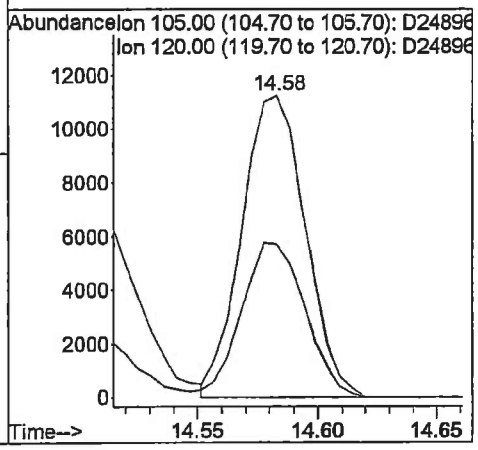


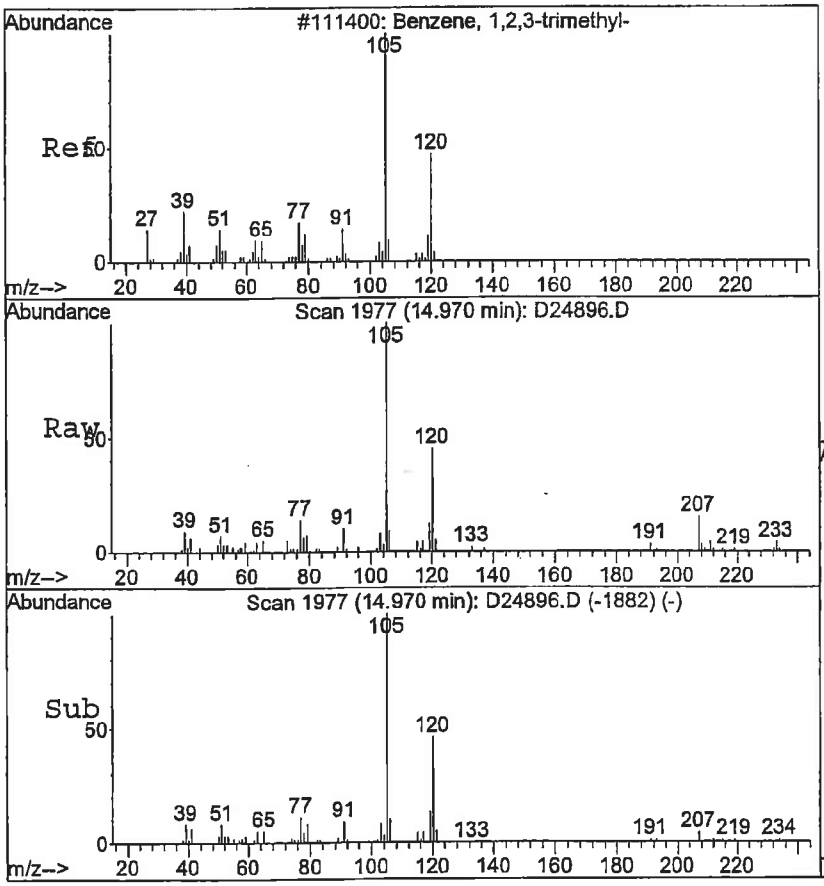


#79
1,3,5-Trimethylbenzene
Concen: 0.74 ppb
RT: 14.58 min Scan# 1903
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion:105 Resp: 20619

Ion	Ratio	Lower	Upper
105	100		
120	50.6	42.0	63.0

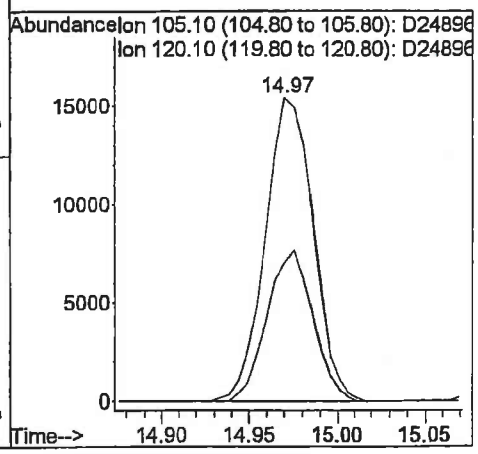


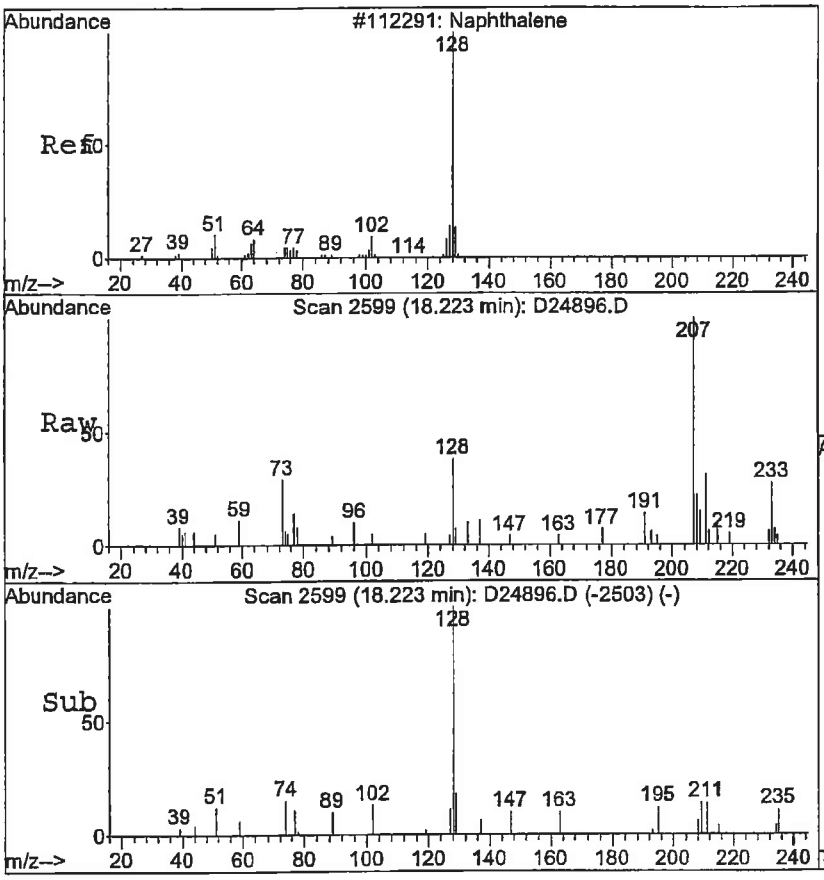


#83
1,2,4-Trimethylbenzene
Concen: 1.04 ppb
RT: 14.97 min Scan# 1977
Delta R.T. -0.01 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion:105 Resp: 28868

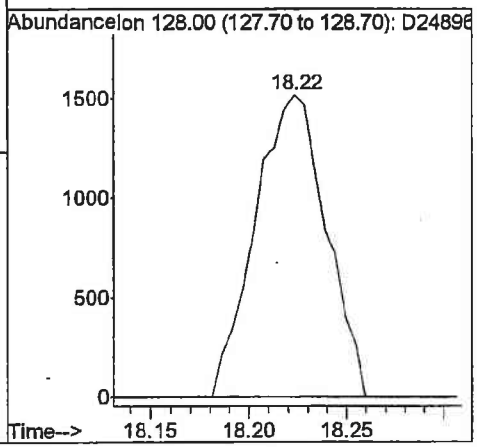
Ion	Ratio	Lower	Upper
105	100		
120	45.4	38.6	58.0





#94
Naphthalene
Concen: 0.29 ppb
RT: 18.22 min Scan# 2599
Delta R.T. 0.00 min
Lab File: D24896.D
Acq: 3 Dec 2008 14:04

Tgt Ion:128 Resp: 3827



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\120308\D24899.D Vial: 17
Acq On : 3 Dec 2008 15:29 Operator: TWK-sop525r12
Sample : 0811110-2 1000X Inst : HPV4
Misc : 10mL purge - HS>pea from previous Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 03 15:49:06 2008 Quant Results File: 101608W.RES

Quant Method : C:\MSDCHEM\1\METHODS\101608W.M (RTE Integrator)
Title : GCMS Volatiles (S.O.P. 525)
Last Update : Wed Dec 03 10:58:46 2008
Response via : Initial Calibration
DataAcq Meth : 101608W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.31	96	461573	25.00	ppb	0.00
52) Chlorobenzene-d5	13.29	117	385662	25.00	ppb	0.00
72) 1,4-Dichlorobenzene-d4	15.45	152	219926	25.00	ppb	0.00
System Monitoring Compounds						
34) Dibromofluoromethane	9.47	113	87090	21.43	ppb	0.00
Spiked Amount 25.000	Range 79 - 120		Recovery = 85.72%			
39) 1,2-Dichloroethane-d4	10.06	65	81300	21.65	ppb	0.00
Spiked Amount 25.000	Range 62 - 139		Recovery = 86.60%			
53) Toluene-d8	11.82	98	419450	22.22	ppb	0.00
Spiked Amount 25.000	Range 83 - 120		Recovery = 88.88%			
73) 4-Bromofluorobenzene	14.37	174	164953	28.61	ppb	0.00
Spiked Amount 25.000	Range 74 - 123		Recovery = 114.44%			
Target Compounds						Qvalue
10) Acrolein	7.52	56	1362	6.85	ppb	# NO 17
40) Benzene	9.93	78	178398	6.99	ppb	99
42) 1,2-Dichloroethane	9.93	62	1225	0.23	ppb	# NO 49
50) cis-1,3-Dichloropropene	11.87	75	2809	0.32	ppb	# 1
51) 4-Methyl-2-pentanone	12.21	43	5233	1.94	ppb	# 59
54) Toluene	11.87	91	468295	16.55	ppb	100
57) 1,1,2-Trichloroethane	12.42	83	22926	6.80	ppb	# NO 7
59) 2-Hexanone	13.06	43	105086	53.73	ppb	# NO 38
65) Ethylbenzene	13.27	91	42862	1.30	ppb	98
67) m,p-Xylene	13.39	106	233867	17.50	ppb	99
68) o-Xylene	13.79	106	38816	2.90	ppb	99
71) Isopropylbenzene	14.05	105	7373	0.23	ppb	100
74) 1,1,2,2-Tetrachloroethane	14.46	83	2253	0.43	ppb	# NO 31
75) n-Propylbenzene	14.44	91	14783	0.33	ppb	98
77) trans-1,4-Dichloro-2-buten	14.58	53	4382	4.34	ppb	# NO 1
79) 1,3,5-Trimethylbenzene	14.58	105	109119	3.62	ppb	97
80) 2-Chlorotoluene	14.58	91	10941	0.42	ppb	# NO 39
82) tert-Butylbenzene	14.98	119	17061	0.64	ppb	# NO 76
83) 1,2,4-Trimethylbenzene	14.98	105	130608	4.33	ppb	100
94) Naphthalene	18.22	128	7186	0.50	ppb	100

OK

Confirmation data (8260B/GCMS)

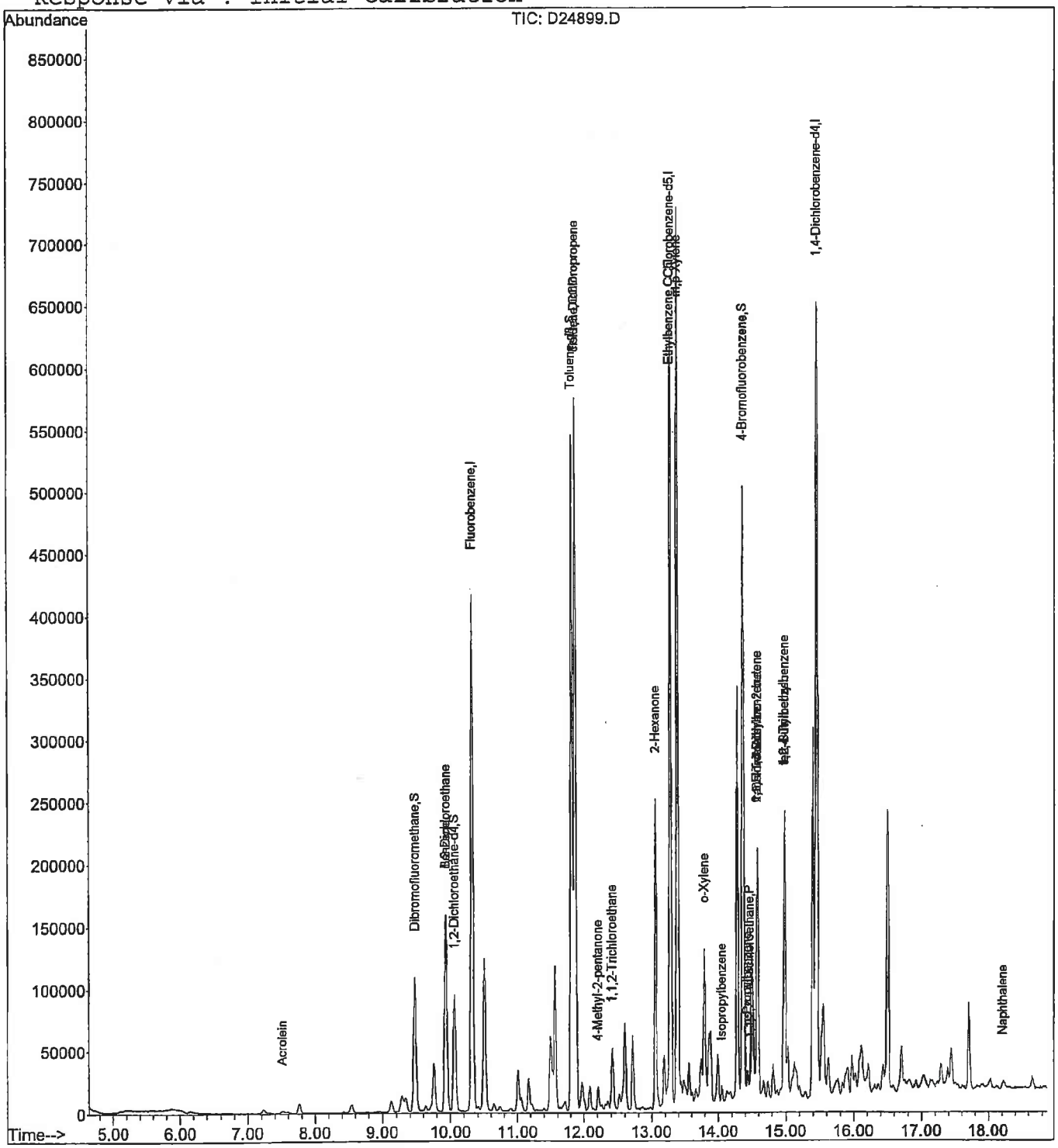
12/3/08

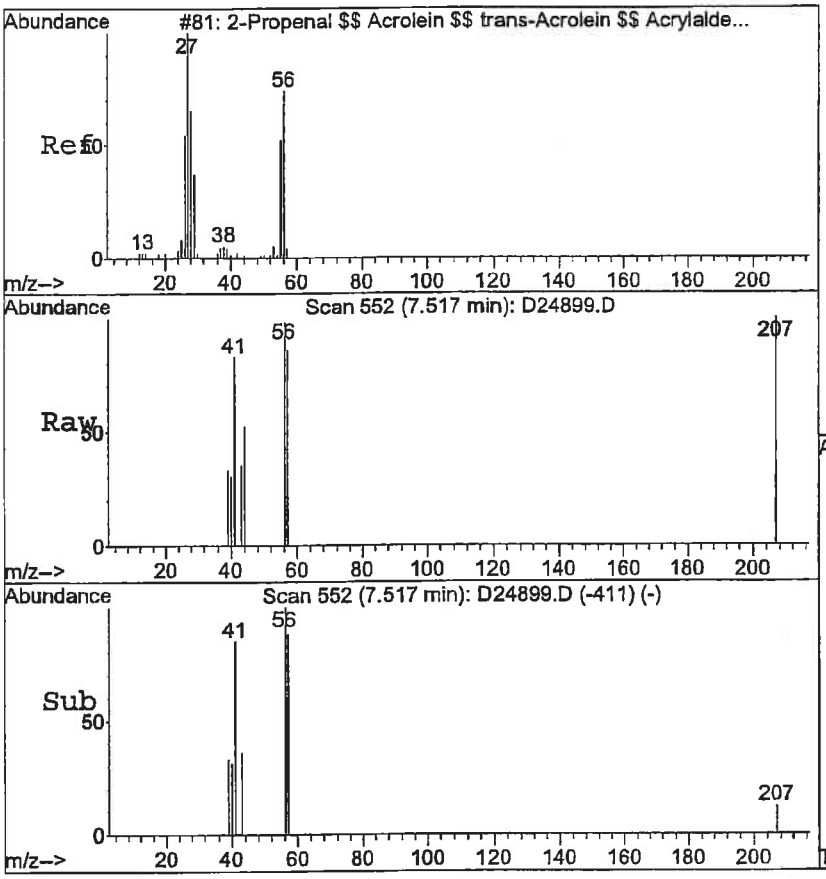
(#) = qualifier out of range (m) = manual integration (+) = signals summed
D24899.D 101608W.M Wed Dec 03 15:49:07 2008 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\120308\D24899.D Vial: 17
Acq On : 3 Dec 2008 15:29 Operator: TWK-sop525r1
Sample : 0811110-2 1000X Inst : HPV4
Misc : 10mL purge - HS>pea from previous Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 3 15:49 2008 Quant Results File: 101608W.RES

Method : C:\MSDCHEM\1\METHODS\101608W.M (RTE Integrator)
Title : GCMS Volatiles (S.O.P. 525)
Last Update : Wed Dec 03 10:58:46 2008
Response via : Initial Calibration

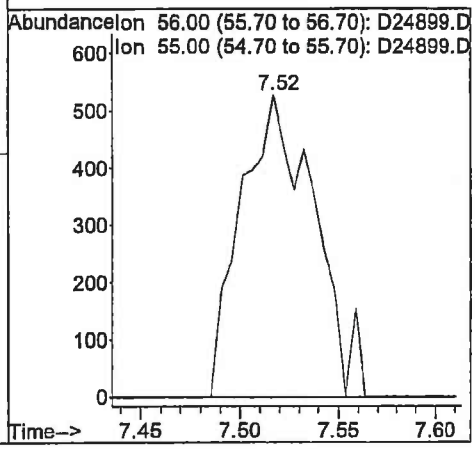


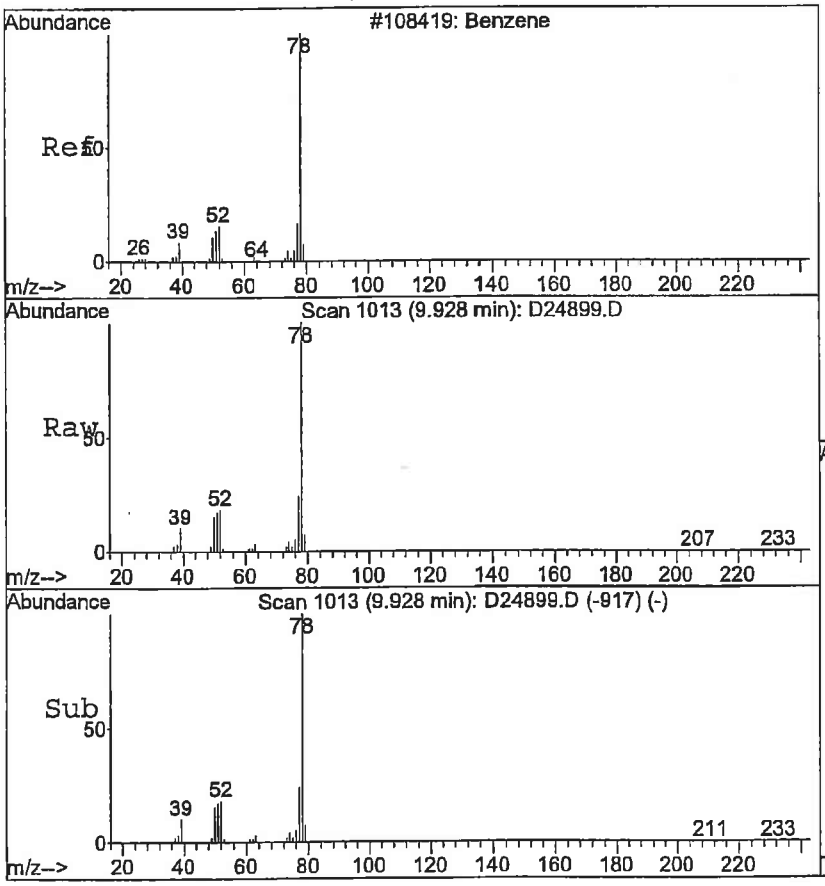


#10
Acrolein
Concen: 6.85 ppb
RT: 7.52 min Scan# 552
Delta R.T. 0.24 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 56 Resp: 1362

Ion	Ratio	Lower	Upper
56	100		
55	0.0	52.9	79.3#

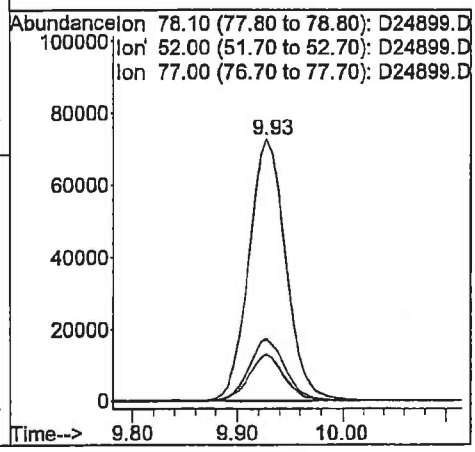


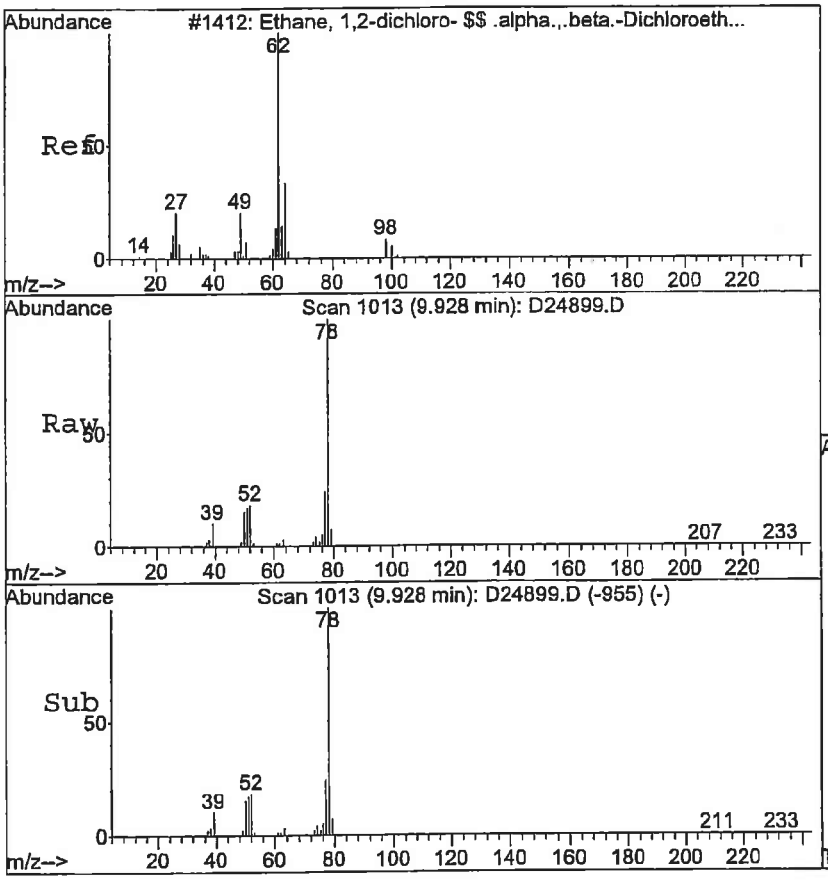


#40
Benzene
Concen: 6.99 ppb
RT: 9.93 min Scan# 1013
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 78 Resp: 178398

Ion	Ratio	Lower	Upper
78	100		
52	17.9	14.7	22.1
77	23.6	19.4	29.2

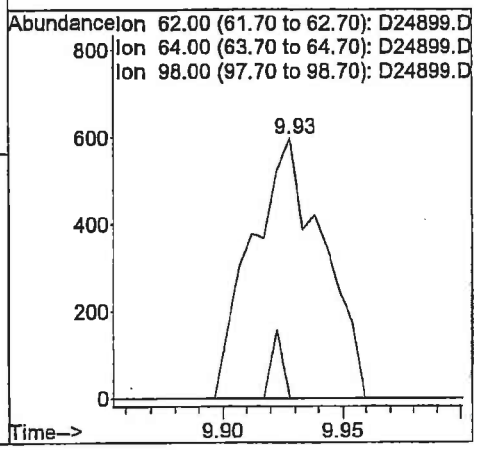


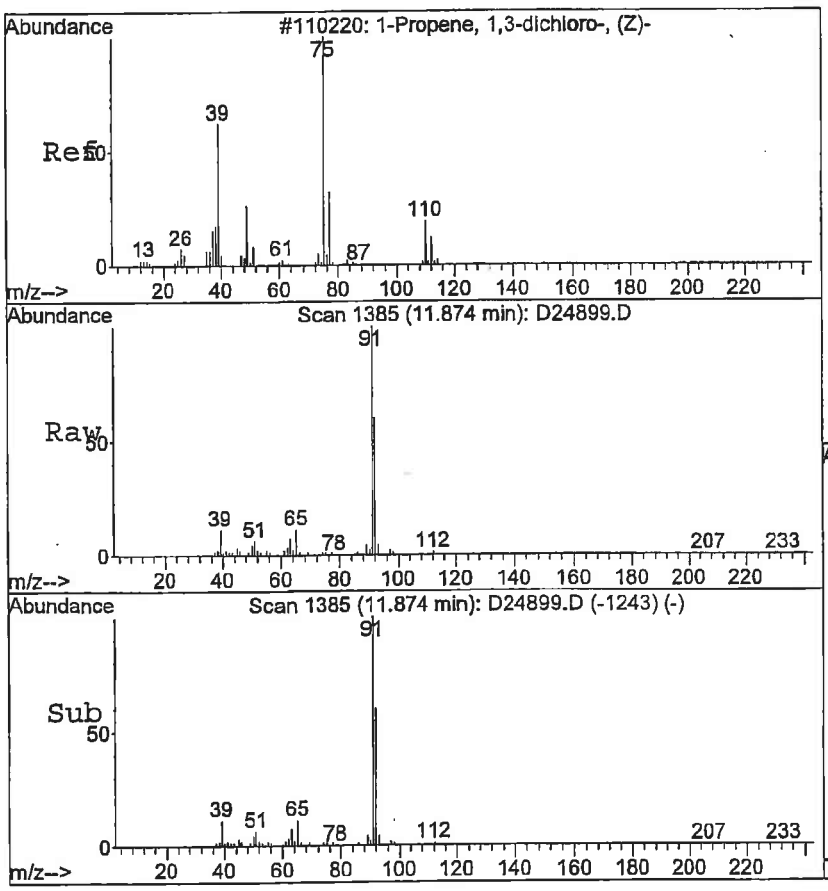


#42 NO
1,2-Dichloroethane
Concen: 0.23 ppb
RT: 9.93 min Scan# 1013
Delta R.T. -0.20 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 62 Resp: 1225

Ion	Ratio	Lower	Upper
62	100		
64	0.0	26.3	39.5#
98	0.0	8.1	12.1#

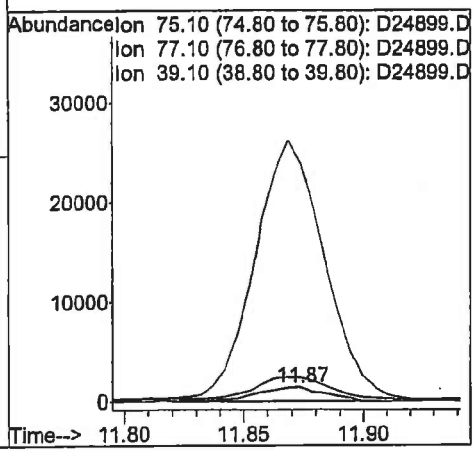


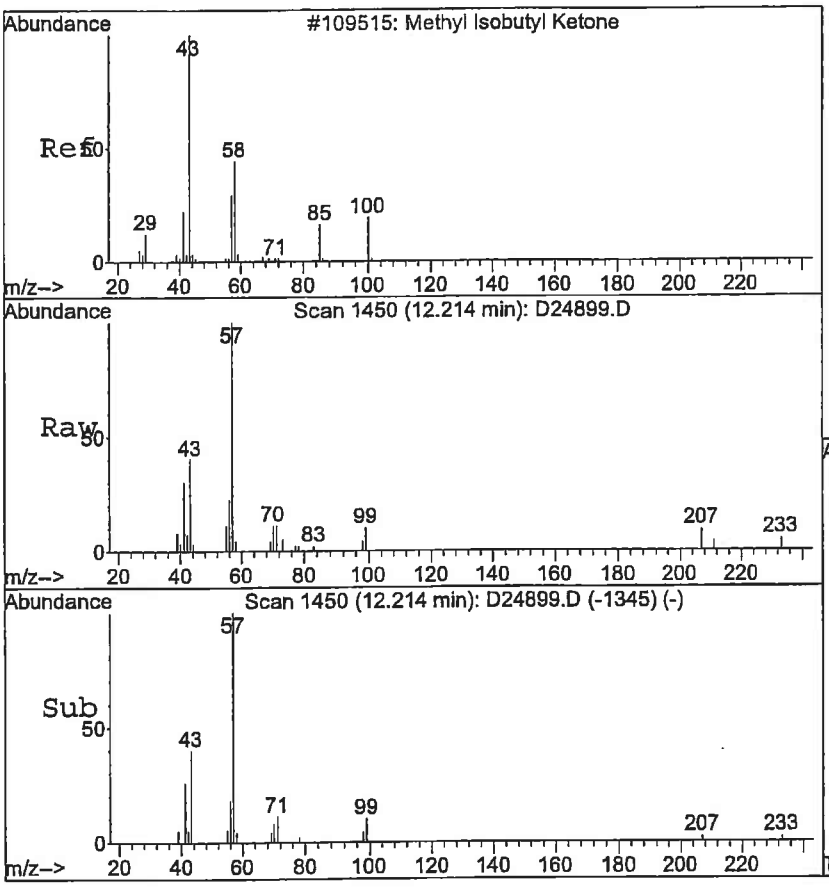


#50 NO
cis-1,3-Dichloropropene
Concen: 0.32 ppb
RT: 11.87 min Scan# 1385
Delta R.T. 0.24 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 75 Resp: 2809

Ion	Ratio	Lower	Upper
75	100		
77	141.9	24.7	37.1#
39	1575.0	41.8	62.8#

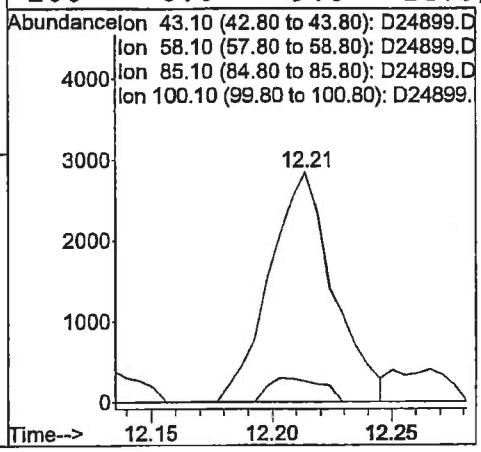


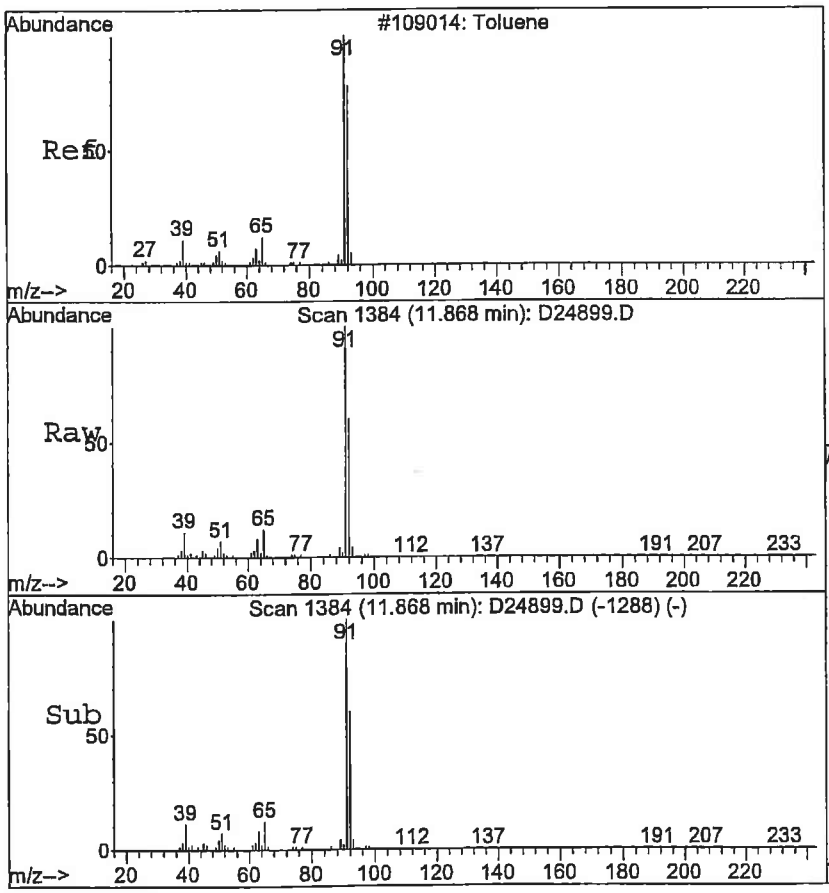


#51
4-Methyl-2-pentanone
Concen: 1.94 ppb
RT: 12.21 min Scan# 1450
Delta R.T. 0.05 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 43 Resp: 5233

Ion	Ratio	Lower	Upper
43	100		
58	9.5	29.5	44.3#
85	0.0	11.5	17.3#
100	0.0	9.8	14.8#

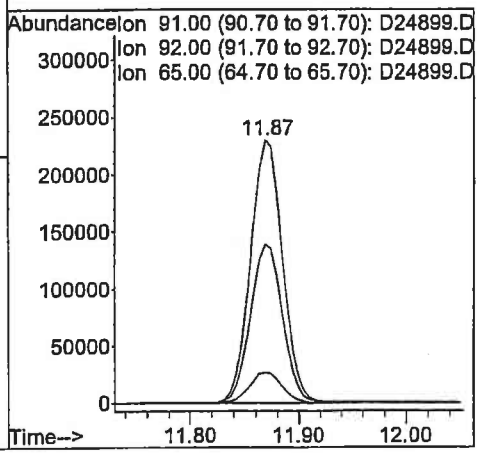


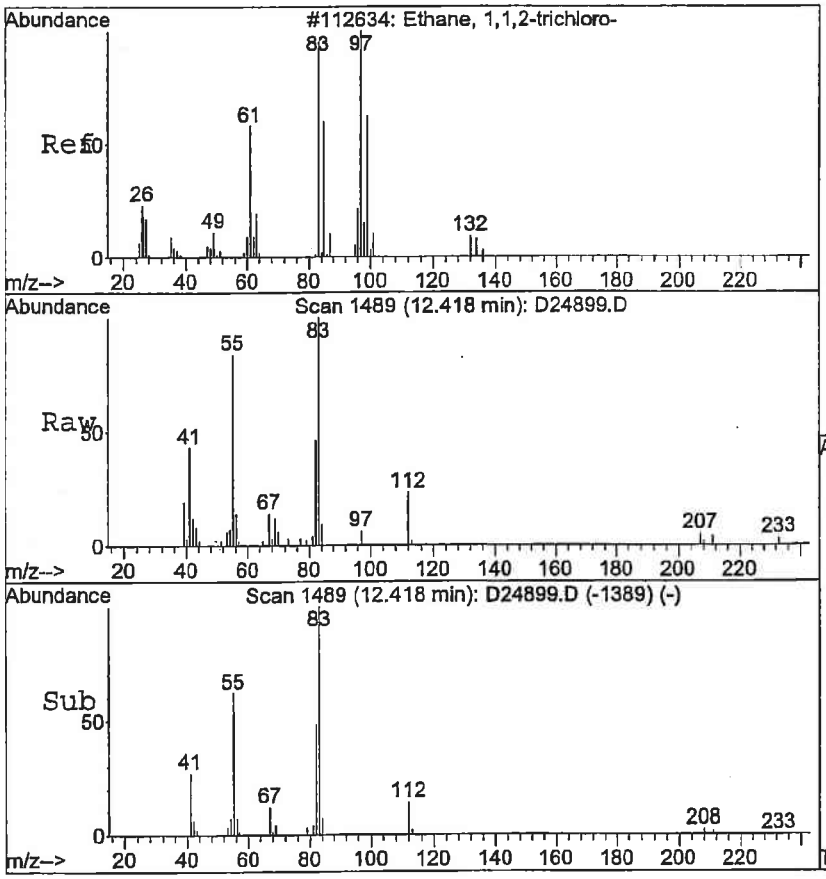


#54
Toluene
Concen: 16.55 ppb
RT: 11.87 min Scan# 1384
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 91 Resp: 468295

Ion	Ratio	Lower	Upper
91	100		
92	60.3	48.6	72.8
65	11.6	9.3	13.9

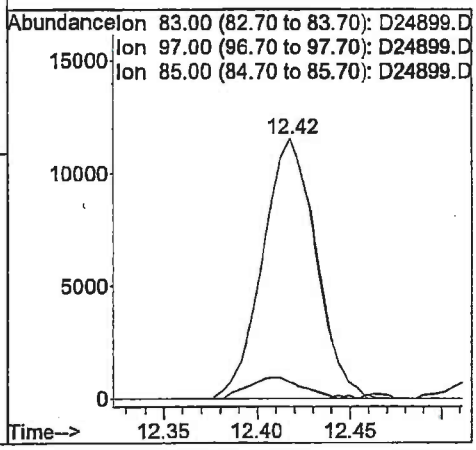


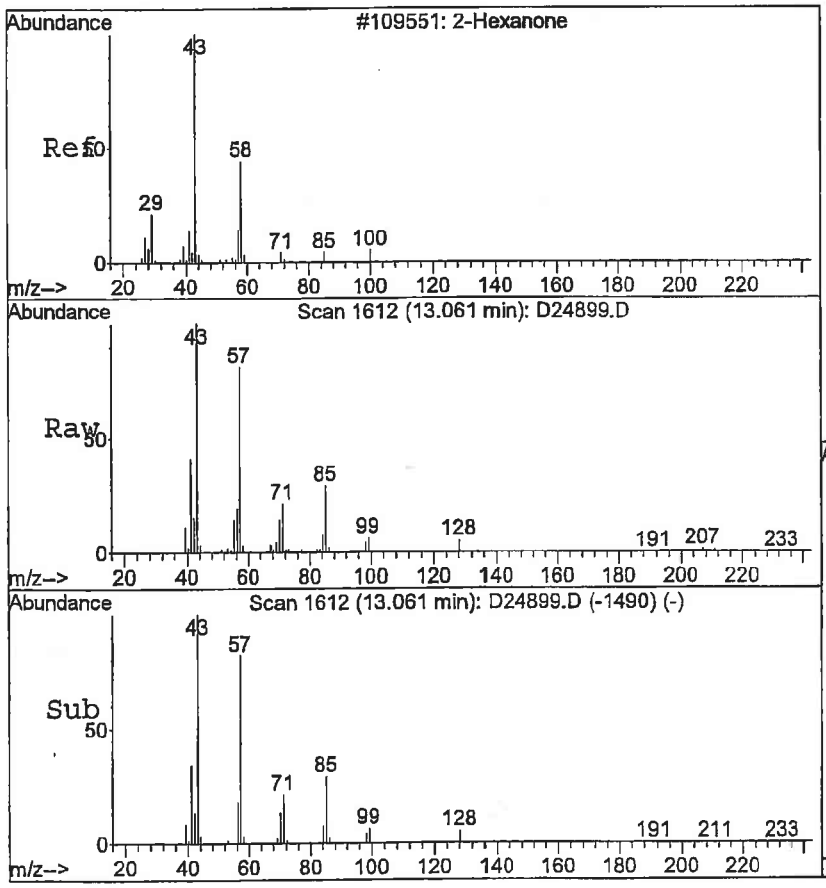


#57
1,1,2-Trichloroethane
Concen: 6.80 ppb
RT: 12.42 min Scan# 1489
Delta R.T. 0.02 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 83 Resp: 22926

Ion	Ratio	Lower	Upper
83	100		
97	5.4	89.1	133.7#
85	0.0	51.2	76.8#

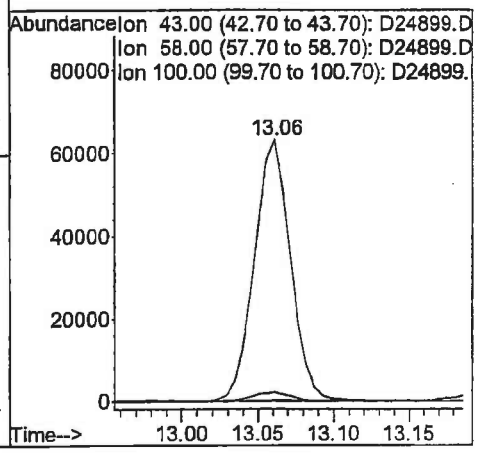


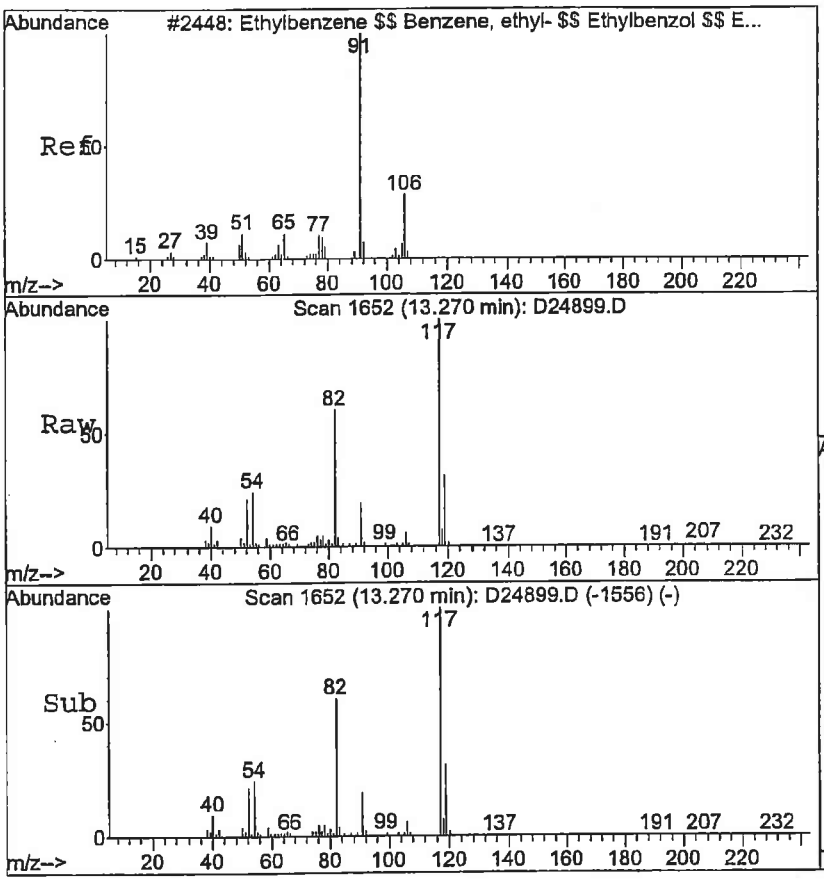


#59
2-Hexanone
Concen: 53.73 ppb
RT: 13.06 min Scan# 1612
Delta R.T. 0.14 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 43 Resp: 105086

Ion	Ratio	Lower	Upper
43	100		
58	3.3	41.5	62.3#
100	0.5	7.8	11.8#

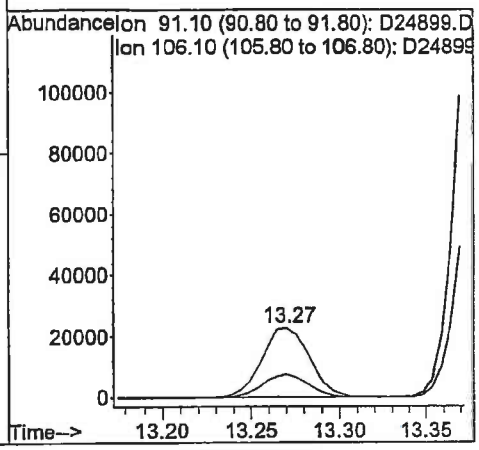


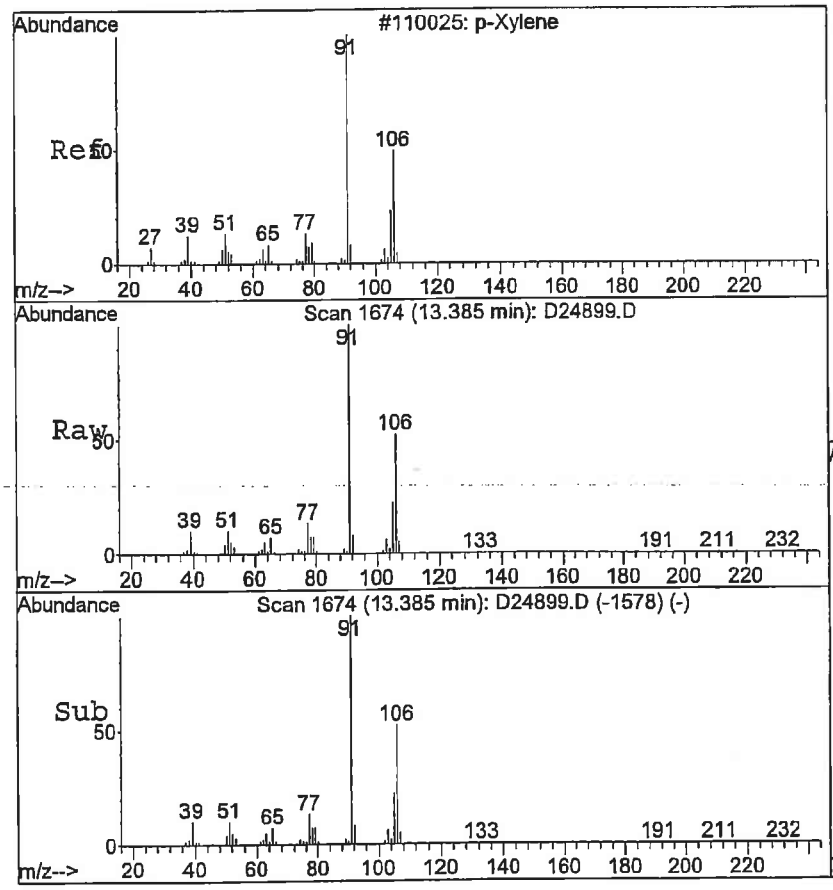


#65
Ethylbenzene
Concen: 1.30 ppb
RT: 13.27 min Scan# 1652
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 91 Resp: 42862

Ion	Ratio	Lower	Upper
91	100		
106	33.4	25.6	38.4

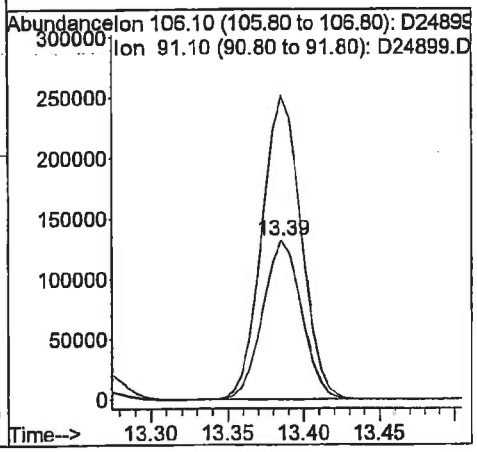


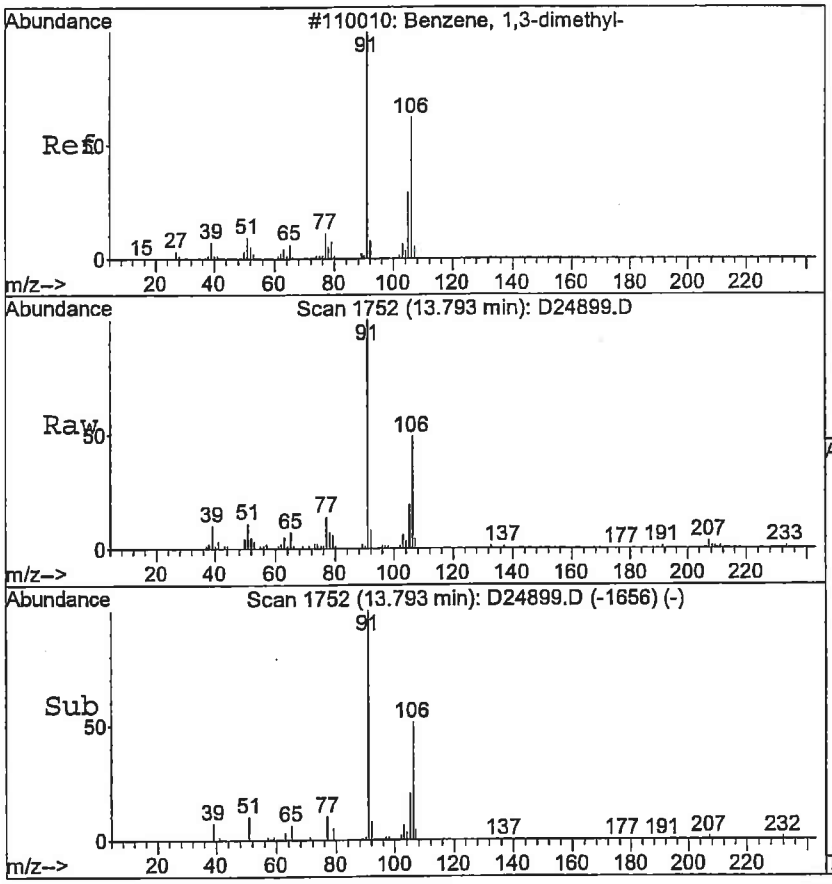


#67
m,p-Xylene
Concen: 17.50 ppb
RT: 13.39 min Scan# 1674
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:106 Resp: 233867

Ion	Ratio	Lower	Upper
106	100		
91	190.8	151.2	226.8

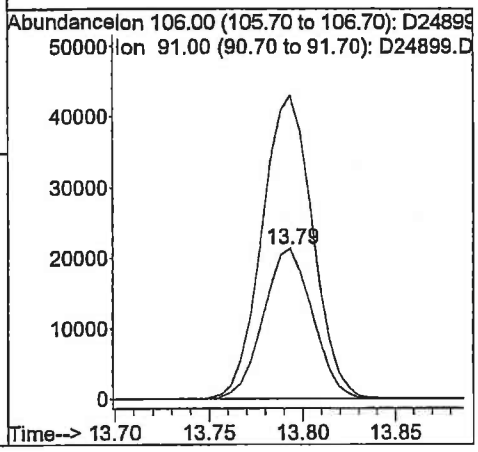


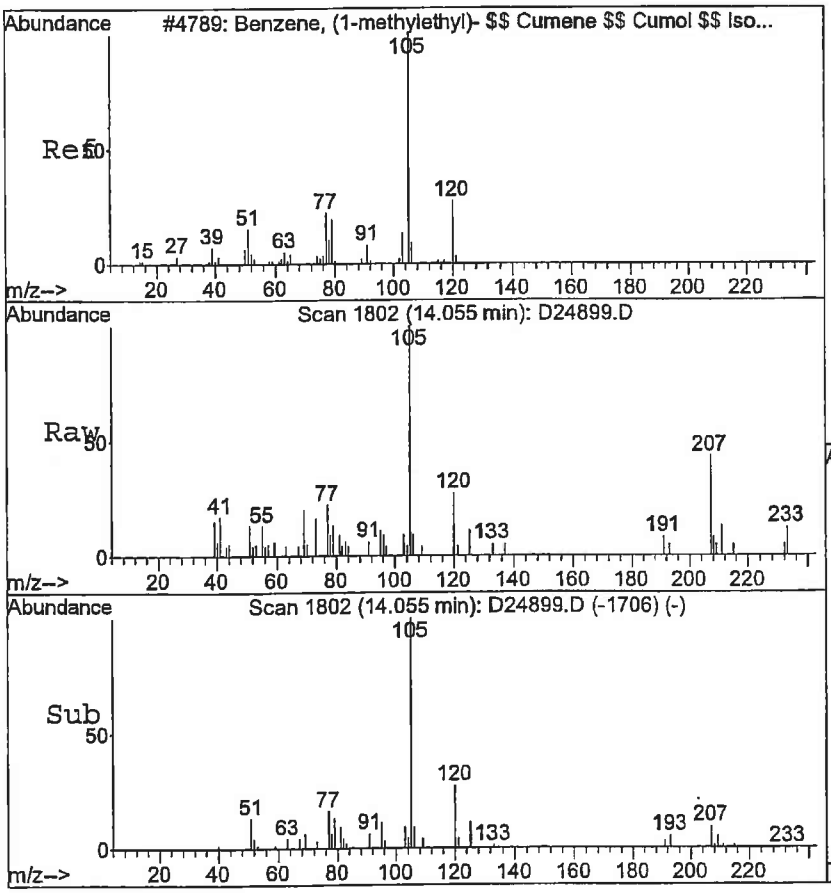


#68
o-Xylene
Concen: 2.90 ppb
RT: 13.79 min Scan# 1752
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:106 Resp: 38816

Ion	Ratio	Lower	Upper
106	100		
91	202.2	163.5	245.3

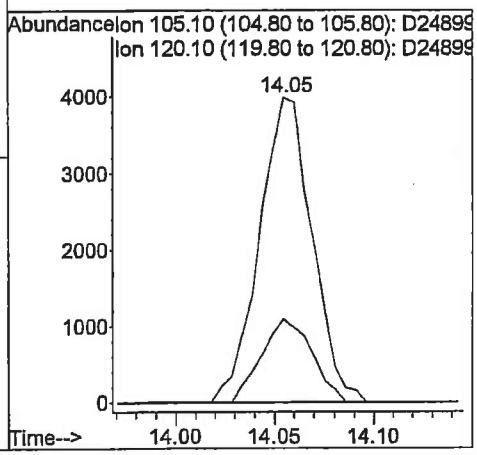




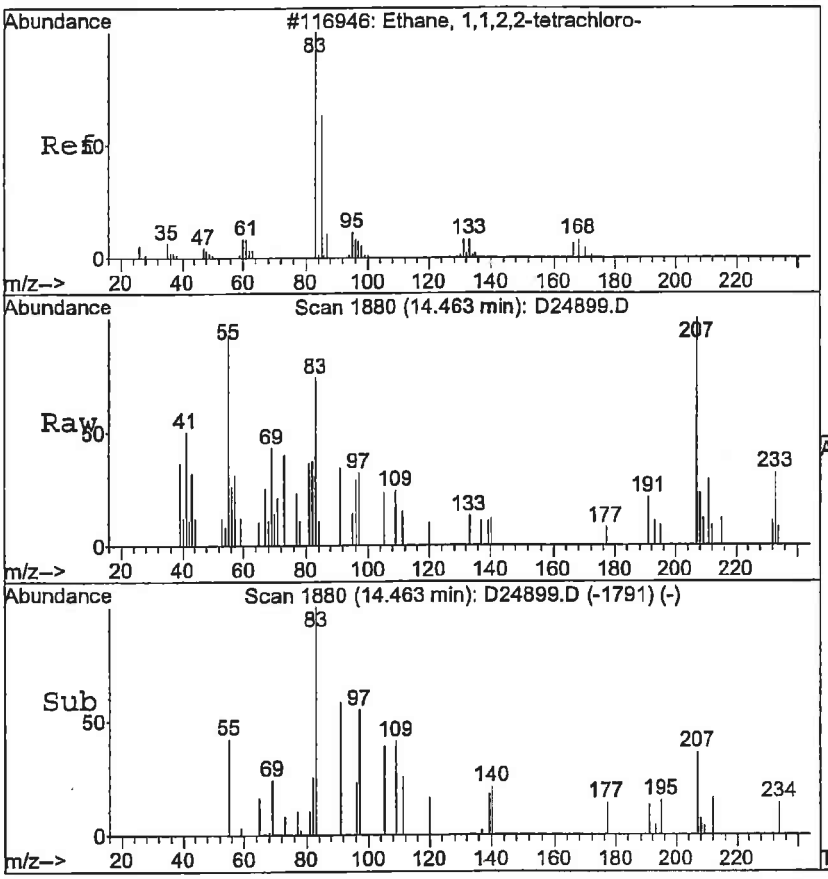
#71
Isopropylbenzene
Concen: 0.23 ppb
RT: 14.05 min Scan# 1802
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:105 Resp: 7373

Ion	Ratio	Lower	Upper
105	100		
120	27.2	21.9	32.9



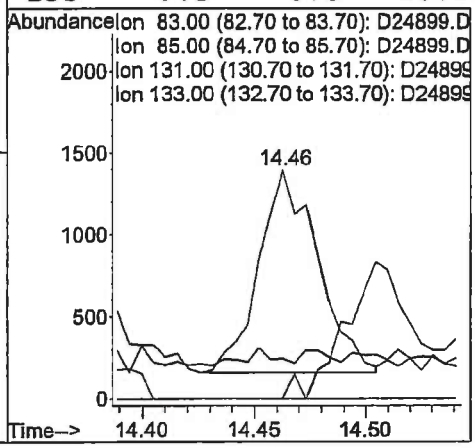
NO

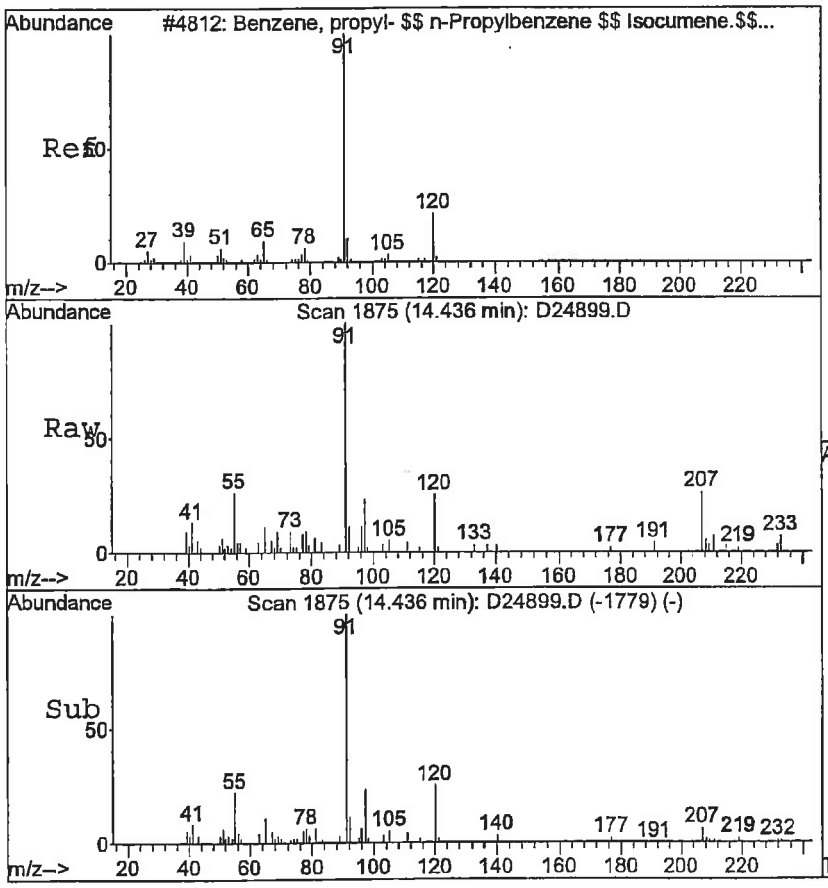


#74
1,1,2,2-Tetrachloroethane
Concen: 0.43 ppb
RT: 14.46 min Scan# 1880
Delta R.T. -0.04 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 83 Resp: 2253

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.1	76.7#
131	0.0	8.5	12.7#
133	0.5	6.8	10.2#

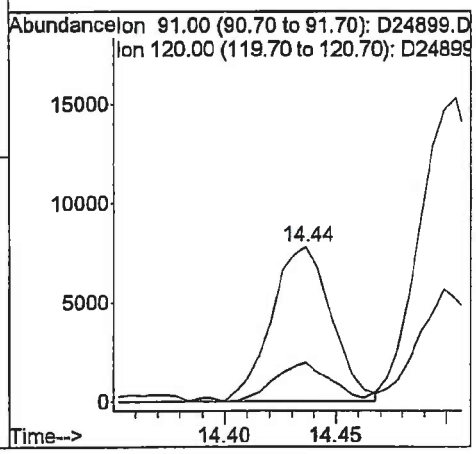




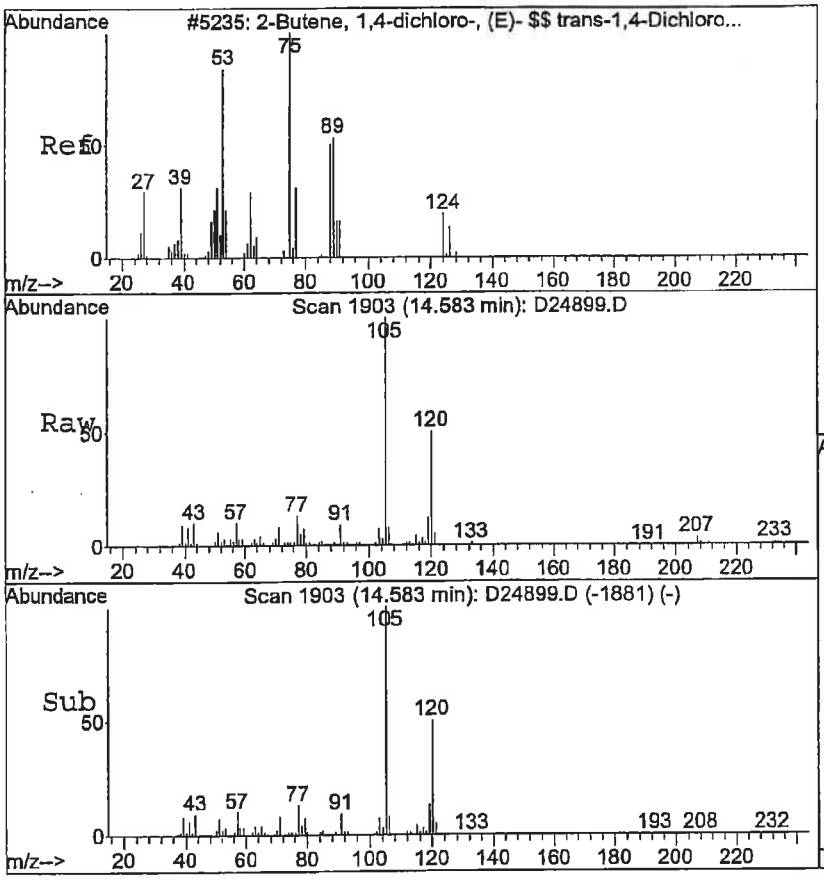
#75
n-Propylbenzene
Concen: 0.33 ppb
RT: 14.44 min Scan# 1875
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 91 Resp: 14783

Ion	Ratio	Lower	Upper
91	100		
120	22.7	18.8	28.2



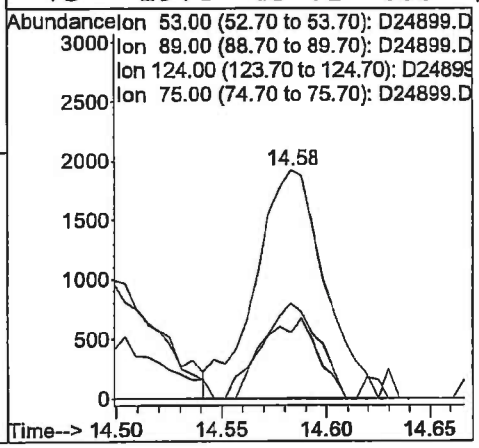
ND

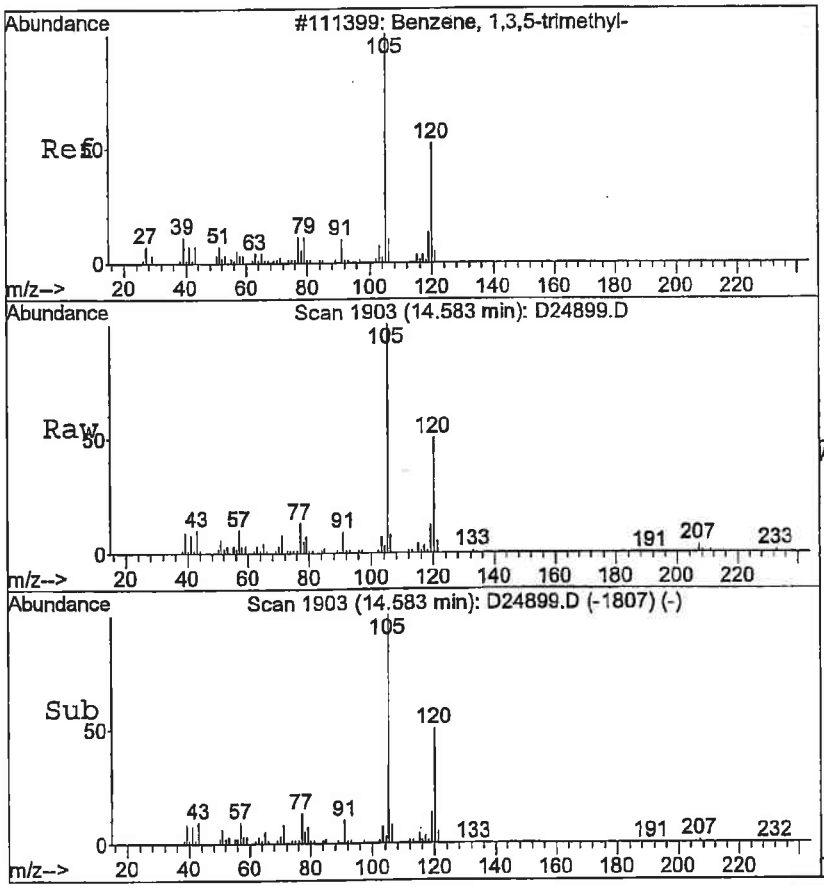


#77
trans-1,4-Dichloro-2-butene
Concen: 4.34 ppb
RT: 14.58 min Scan# 1903
Delta R.T. -0.08 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 53 Resp: 4382

Ion	Ratio	Lower	Upper
53	100		
89	33.0	417.5	626.3#
124	0.0	23.4	35.2#
75	29.4	437.1	655.7#

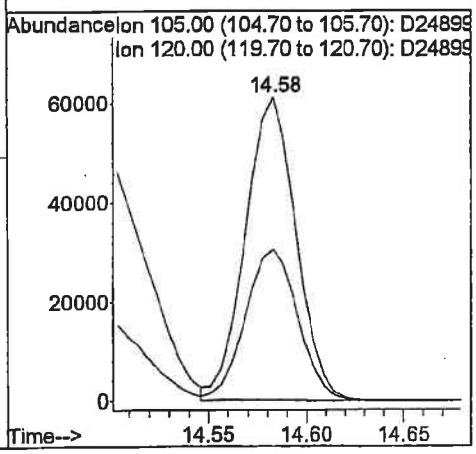


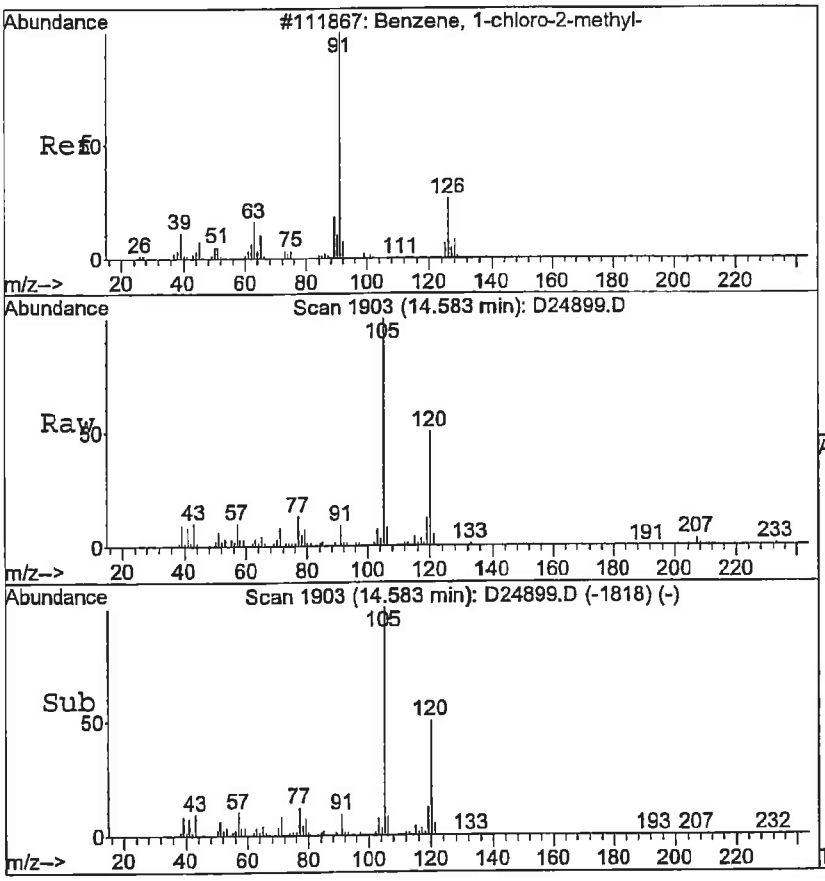


#79
1,3,5-Trimethylbenzene
Concen: 3.62 ppb
RT: 14.58 min Scan# 1903
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:105 Resp: 109119

Ion	Ratio	Lower	Upper
105	100		
120	50.3	42.0	63.0

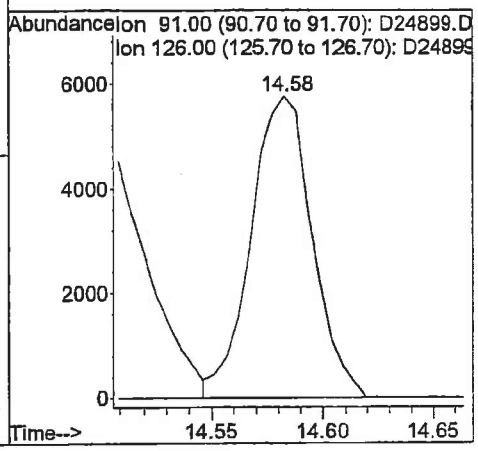


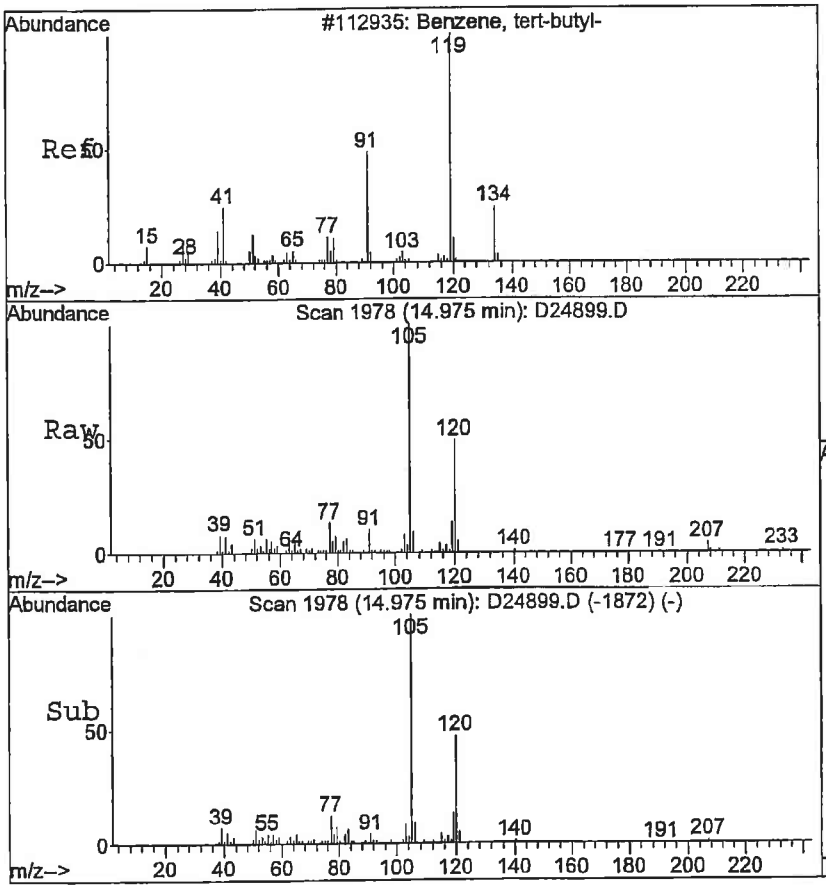


#80
2-Chlorotoluene
Concen: 0.42 ppb
RT: 14.58 min Scan# 1903
Delta R.T. -0.06 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion: 91 Resp: 10941

Ion	Ratio	Lower	Upper
91	100		
126	0.0	28.4	42.6#

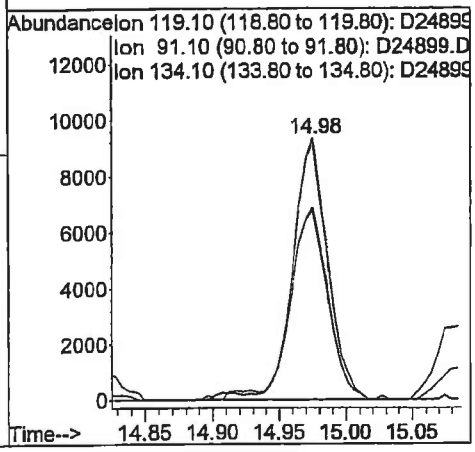


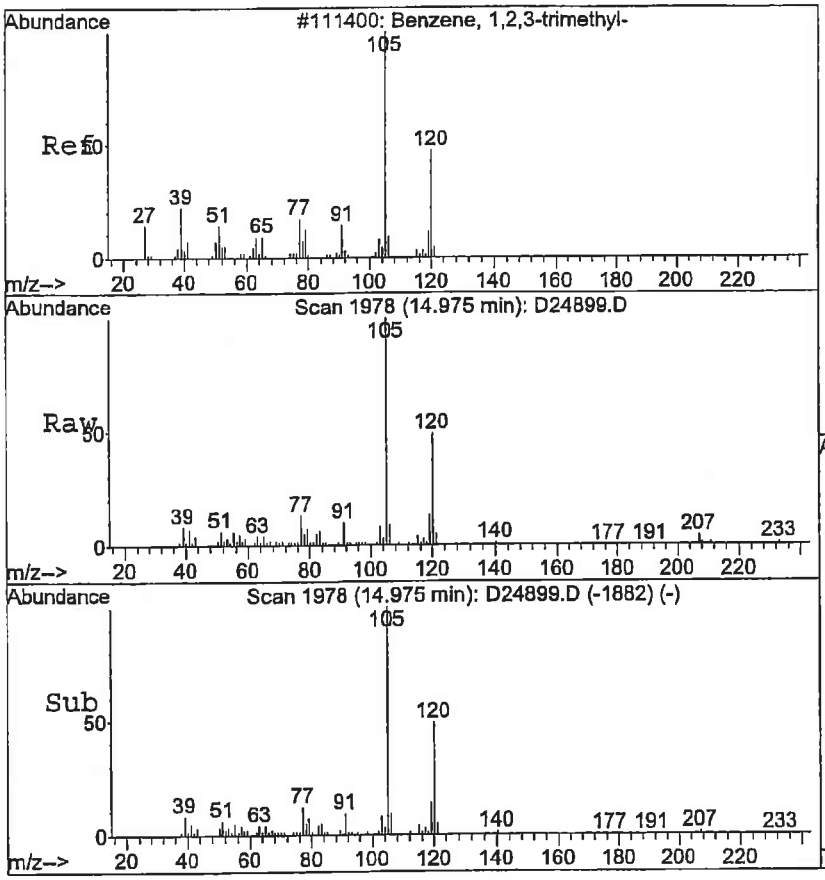


#82
tert-Butylbenzene
Concen: 0.64 ppb
RT: 14.98 min Scan# 1978
Delta R.T. 0.05 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:119 Resp: 17061

Ion	Ratio	Lower	Upper
119	100		
91	73.3	50.3	75.5
134	0.0	21.0	31.4#

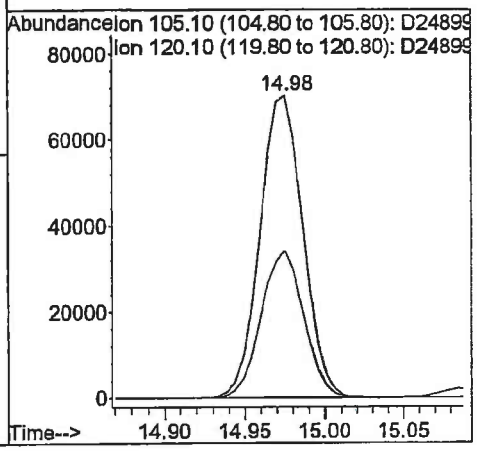


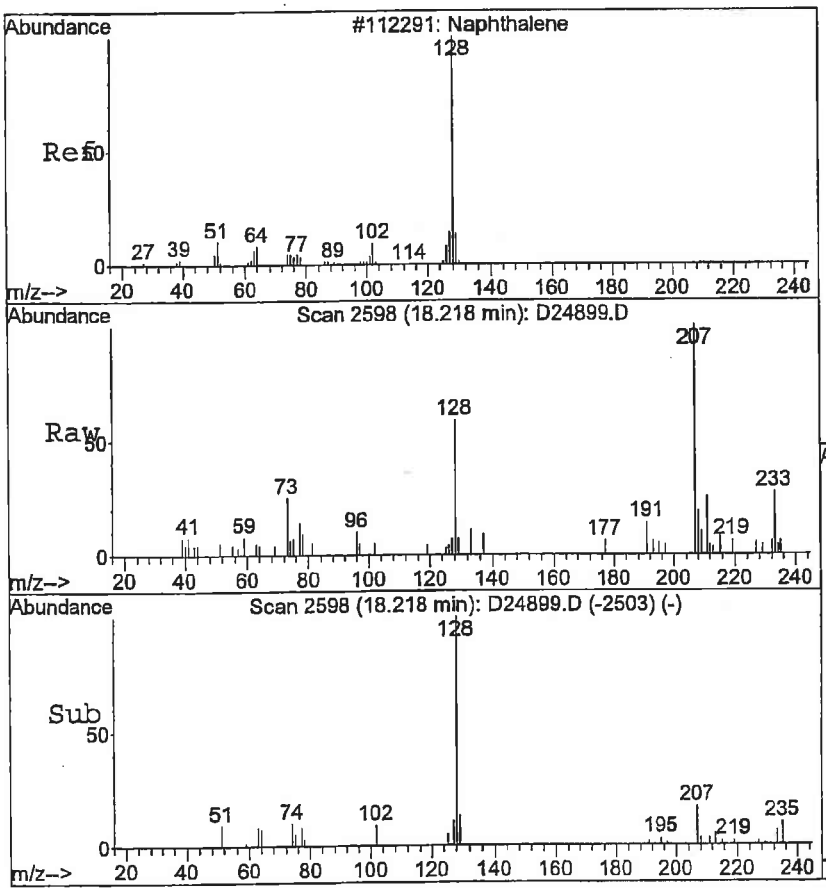


#83
1,2,4-Trimethylbenzene ✓
Concen: 4.33 ppb
RT: 14.98 min Scan# 1978
Delta R.T. -0.00 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:105 Resp: 130608

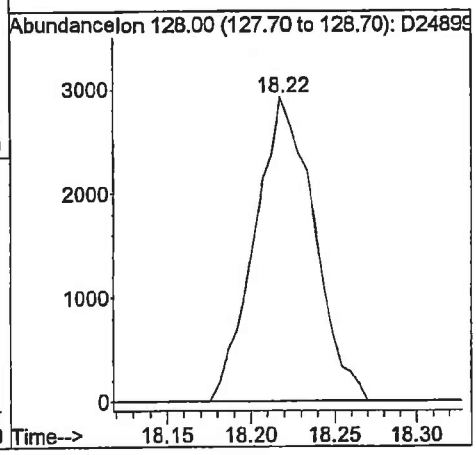
Ion	Ratio	Lower	Upper
105	100		
120	48.6	38.6	58.0





#94
Naphthalene ✓
Concen: 0.50 ppb
RT: 18.22 min Scan# 2598
Delta R.T. -0.01 min
Lab File: D24899.D
Acq: 3 Dec 2008 15:29

Tgt Ion:128 Resp: 7186



PARAGON ANALYTICS
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ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

NCR #: 11045

CONTROLLED
NON-CONFORMANCE REPORT

Non-Conformance

Initiated By: Joel F. Nolte on 12/1/2008

Event Type: Calibration Criteria Not Met -- CCV

Event Explanation: HCB081124-1CCSD had the surrogate recovering at 79% (col.1) and 84% (col.2). Both recoveries are >15% from the expected amount, and thus are out of control.

Surrogate recovery is acceptable for 0811185-3 (at 88.3%), per the limits in the assigned test code. (NOTE: 0811185 was re-analyzed within HT by GCMS 8260, so this NCR no longer applies to it. JFN 12-3-08)

Surrogate recovery is not acceptable for 0811110-1, -1RR1, or -2RR1, or -1MS/D.

Action To Prevent Reccurence: believed to be instrument (autosampler) related - problem to be addressed shortly (jfn)

Corrective Action

Corrective Action: Document in Narrative

Department Manager Approval: Joel F. Nolte

Approval Date: 12/3/2008

Corrective Action Comments: Cordilleran: confirm hits via GCMS, even if past hold. Include raw data for this run in the package, and narrate how well things confirmed.

Workorders Affected

Workorder -- Procedure		Approved By	Approval Date
0811185 -- SW5030 0811185 -- SW8021	Michael Furtaw was contacted on 12/2/2008	Debbie J. Fazio	12/2/2008
0811110 -- SW5030 0811110 -- SW8021	No client contact information.	Lance R. Steere	12/3/2008

There Are No Associated Batches

Date Printed: Thursday, December 04, 2008

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CONTROLLED
NON-CONFORMANCE REPORT

NCR Approval

Comments: (NOTE: 0811185 was re-analyzed within HT by GCMS 8260, so this NCR no longer applies to it. JFN 12-3-08)

Project Manager Approval:

DJF on 12/3/2008

Department Manager Approval: Joel F. Nolte on 12/3/2008

QA Manager Approval:

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