ALS Paragon

GC/MS Volatiles

Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200204222

Work Order Number: 0902200

1. This report consists of 2 water samples. The samples were received cool and intact by ALS Paragon on 02/25/09. The vial for sample 0902200-2 contained headspace prior to analysis because it was not received headspace free into the volatiles laboratory.

   Sample 0902200-1, provided for volatiles, had a pH > 2 at the time of analysis. Sample 0902200-2 had a pH < 2 at the time of analysis.

2. These samples were prepared according to SW-846, 3rd Edition procedures. Specifically, the water samples were prepared by purging 10 mL using purge and trap procedures based on Method 5030C.

3. The samples were analyzed using GC/MS with an RTX-624, RTX-VMS, or equivalent capillary column according to SOP 525 Revision 12 based on SW-846 Method 8260B. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and mass spectrum of the sample versus the daily calibration standard.

4. All initial calibration criteria for SPCC's and CCC's were met. If average response factors were used in the initial calibration, %RSD was ≤15%. If linear or higher order regression calibrations were used in the initial calibration, the coefficient of determination (r^2) ≥0.99.

5. All initial calibrations are verified by comparing a second source standard calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D of less than 25%.

6. All criteria for SPCC's and CCC's were met in daily (continuing) calibration verifications (CCV).

7. Methylene chloride, acetone and 2-butanone are common laboratory contaminants. In order to minimize the levels of these compounds detected in the gc/ms analysis, ALS Paragon has designated its volatile laboratory as a restricted access area. In addition, the laboratory has been equipped with a dedicated, air intake and exhaust system that operates under positive pressure in order to minimize cross contamination of these compounds. Due to fluctuations in ambient laboratory conditions,

reported sample values for common laboratory contaminants may be due to lab contamination even if the compound in question is not detected in the associated method blank.

All method blank criteria were met.

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

9. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

10. The samples were analyzed within the established holding time.

11. All surrogate recoveries were within acceptance criteria.

12. All internal standard recoveries were within acceptance criteria.

13. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 3.

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

SLJ

Sharon L. Jobes
Organics Primary Data Reviewer

3-2-09
Date

Steven D. White

Organics Final Data Reviewer

3-2-09
Date

ALS Paragon
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 retention time data indicate the presence of a compound that meets the GC 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 equal to or outside the control criteria used.**
+:	**This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.**

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200204222
Client Project Number:
Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Dasko WW	0902200-1		WATER	24-Feb-09	14:37
Trip Blank	0902200-2		WATER	24-Feb-09	

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) 0902200

Chain-of-Custody Date 24 Feb 2009 Page 1 of 1

Originator: Retain pink copy!

Project Name/No.: _____ Sampler(s): Gintautas Turnaround (circle one) **Standard** or **Rush** (Due _____) Dispose: Date 30 days or Return to Client

Report To: Peter Gintautas
Phone: 719-546-3091
Fax:
E-mail: peter.gintautas@state.co.us
Company: Colo. Oil & Gas Cons. Comm.
Address:

Complaint 200204222

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~~ Methanol, ethanol, ethylene glycol, acetone	~~BTEX (only)~~ SW8021B	SVOCs SW8270C	OC Pesticides SW8081A	PCBs SW8082	Herbicides SW8151A	~~Explosives~~ ~~SW8330~~ TCL	TCLP Organics SW1311	TCLP Metals SW1311 Hg	Total Metals by ICP Hg	Dissolved Metals by ICP Hg	Total Metals by ICP/MS	Dissolved Metals by ICP/MS	~~Hexavalent Chromium~~ ~~SW7196A~~ ~~Hex Chrom~~ / N	Inorganic Anions SW9056 E300.0 (specify in comments)	Solids: Total E160.3 TDS E160.1 TSS E160.2	SW9040B SW9045C pH	~~TPH~~ SW8015B GRO DRO (circle one or both) Conductivity	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	SAR calc.	Anion Cation Balance
Dasko WW	24Feb09	14:37	①	W	none	9	X	X	X								X		X	X	X	X	X	X								X	X
" "	" "	14:37	↓	W	H_2SO_4	1							X																					
Trip Blank			②	W	HCl	2		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:
Filter & preserve metals upon receipt
Anions = Br, Cl, F, NO_2, NO_3, SO_4
200.7 = Ba, Be, B, Ca, Cr, Cu, Fe, Li, Mg, Mn, Ni, K, Na, Zn, Sr
200.8 = Sb, Ag, Cd, Pb, Mo, Se, Ag, Tl, U

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

Relinquished By: (1)	Relinquished By: (2)
Signature Peter Gintautas	Signature
Printed Name Peter	Printed Name
Date 24Feb09 Time 17:25	Date Time
Company Colo. Oil & Gas Cons. Comm.	Company

Received By: (1)	Received By: (2)
Signature Lara Orban	Signature
Printed Name Lara J Orban	Printed Name
Date 2/25/09 Time 1030	Date Time
Company ALS Paragon	Company

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

Client: COGCC Workorder No: 0902200

Project Manager: AW Initials: LJO Date: 2/25/09

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 x > 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):	1.6							
No. of custody seals on cooler:	2							
DOT Survey/ Acceptance Information — External µR/hr reading:	14							
Background µR/hr reading:	11							

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.

• The 125ml amber for toc analysis had no identification label.

* The 500ml poly for metals analysis was received unpreserved.

+ Sample #2 (Trip Blank) 2 of 2 40ml vial contain headspace > pea.

If applicable, was the client contacted? (YES) / NO / NA Contact: Peter Cointantas Date/Time: e-mail 2/25/09

Project Manager Signature / Date: 2/25/09

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

GC/MS Volatiles

Method SW8260_25B

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0902200

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204222

Lab ID: VL090225-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55465

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	U	
74-87-3	CHLOROMETHANE	1	1	1	U	
75-01-4	VINYL CHLORIDE	1	1	1	U	
74-83-9	BROMOMETHANE	1	1	1	U	
75-00-3	CHLOROETHANE	1	1	1	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	1	1	1	U	
67-64-1	ACETONE	1	10	10	U	
74-88-4	IODOMETHANE	1	1	1	U	
75-15-0	CARBON DISULFIDE	1	1	1	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	U	
108-05-4	VINYL ACETATE	1	2	2	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	U	
78-93-3	2-BUTANONE	1	10	10	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	U	
67-66-3	CHLOROFORM	1	1	1	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	U	
71-43-2	BENZENE	1	1	1	U	
79-01-6	TRICHLOROETHENE	1	1	1	U	

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0902200

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204222

Lab ID: VL090225-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55465

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	1	1	U	
74-95-3	DIBROMOMETHANE	1	1	1	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	U	
108-88-3	TOLUENE	1	1	1	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	U	
591-78-6	2-HEXANONE	1	10	10	U	
127-18-4	TETRACHLOROETHENE	1	1	1	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	U	
544-10-5	1-CHLOROHEXANE	1	1	1	U	
108-90-7	CHLOROBENZENE	1	1	1	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	U	
100-41-4	ETHYLBENZENE	1	1	1	U	
136777-61-2	M+P-XYLENE	1	1	1	U	
95-47-6	O-XYLENE	1	1	1	U	
100-42-5	STYRENE	1	1	1	U	
75-25-2	BROMOFORM	1	1	1	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	U	
108-86-1	BROMOBENZENE	1	1	1	U	
103-65-1	N-PROPYLBENZENE	1	1	1	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	U	

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Method Blank

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55465

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

98-06-6	TERT-BUTYLBENZENE	1	1	1	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	U	
104-51-8	N-BUTYLBENZENE	1	1	1	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	U	
91-20-3	NAPHTHALENE	1	1	1	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	24.7		25	99	78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	24.6		25	98	80 - 124
2037-26-5	TOLUENE-D8	25.4		25	102	81 - 119

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0902200

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204222

Field ID:

Lab ID: VL090225-2MB

Sample Matrix: WATER
%Moisture: N/A
Date Collected: N/A
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Clean DF: 1
File Name: B55465

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
		NONE DETECTED	1			U

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Dasko WW
Lab ID: 0902200-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received
File Name: B55473

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	U	
74-87-3	CHLOROMETHANE	1	1	1	U	
75-01-4	VINYL CHLORIDE	1	1	1	U	
74-83-9	BROMOMETHANE	1	1	1	U	
75-00-3	CHLOROETHANE	1	1	1	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1	1	1	U	
67-64-1	ACETONE	1	10	10	U	
74-88-4	IODOMETHANE	1	1	1	U	
75-15-0	CARBON DISULFIDE	1	1	1	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	U	
108-05-4	VINYL ACETATE	1	2	2	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	U	
78-93-3	2-BUTANONE	1	10	10	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	U	
67-66-3	CHLOROFORM	1	0.4	1	J	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	U	
71-43-2	BENZENE	1	1	1	U	
79-01-6	TRICHLOROETHENE	1	1	1	U	

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Dasko WW
Lab ID: 0902200-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received
File Name: B55473

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	1	1	U	
74-95-3	DIBROMOMETHANE	1	1	1	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	U	
108-88-3	TOLUENE	1	1	1	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	U	
591-78-6	2-HEXANONE	1	10	10	U	
127-18-4	TETRACHLOROETHENE	1	1	1	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	U	
544-10-5	1-CHLOROHEXANE	1	1	1	U	
108-90-7	CHLOROBENZENE	1	1	1	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	U	
100-41-4	ETHYLBENZENE	1	1	1	U	
136777-61-2	M+P-XYLENE	1	1	1	U	
95-47-6	O-XYLENE	1	1	1	U	
100-42-5	STYRENE	1	1	1	U	
75-25-2	BROMOFORM	1	1	1	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	U	
108-86-1	BROMOBENZENE	1	1	1	U	
103-65-1	N-PROPYLBENZENE	1	1	1	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	U	

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Dasko WW
Lab ID: 0902200-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received
File Name: B55473

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

98-06-6	TERT-BUTYLBENZENE	1	1	1	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	U	
104-51-8	N-BUTYLBENZENE	1	1	1	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	U	
91-20-3	NAPHTHALENE	1	1	1	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	24.5		25	98	78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	24.6		25	99	80 - 124
2037-26-5	TOLUENE-D8	25.2		25	101	81 - 119

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0902200

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200204222

Field ID: Dasko WW
Lab ID: 0902200-1

Sample Matrix: WATER
%Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Clean DF: 1
File Name: B55473

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
		NONE DETECTED	1			U

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Trip Blank
Lab ID: 0902200-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received
File Name: B55472

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	U	
74-87-3	CHLOROMETHANE	1	1	1	U	
75-01-4	VINYL CHLORIDE	1	1	1	U	
74-83-9	BROMOMETHANE	1	1	1	U	
75-00-3	CHLOROETHANE	1	1	1	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	1	1	1	U	
67-64-1	ACETONE	1	10	10	U	
74-88-4	IODOMETHANE	1	1	1	U	
75-15-0	CARBON DISULFIDE	1	1	1	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	U	
108-05-4	VINYL ACETATE	1	2	2	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	U	
78-93-3	2-BUTANONE	1	10	10	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	U	
67-66-3	CHLOROFORM	1	1	1	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	U	
71-43-2	BENZENE	1	1	1	U	
79-01-6	TRICHLOROETHENE	1	1	1	U	

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Trip Blank
Lab ID: 0902200-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received
File Name: B55472

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

78-87-5	1,2-DICHLOROPROPANE	1	1	1	U	
74-95-3	DIBROMOMETHANE	1	1	1	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	U	
108-88-3	TOLUENE	1	1	1	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	U	
591-78-6	2-HEXANONE	1	10	10	U	
127-18-4	TETRACHLOROETHENE	1	1	1	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	U	
544-10-5	1-CHLOROHEXANE	1	1	1	U	
108-90-7	CHLOROBENZENE	1	1	1	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	U	
100-41-4	ETHYLBENZENE	1	1	1	U	
136777-61-2	M+P-XYLENE	1	1	1	U	
95-47-6	O-XYLENE	1	1	1	U	
100-42-5	STYRENE	1	1	1	U	
75-25-2	BROMOFORM	1	1	1	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	U	
108-86-1	BROMOBENZENE	1	1	1	U	
103-65-1	N-PROPYLBENZENE	1	1	1	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	U	

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Trip Blank
Lab ID: 0902200-2

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09
Prep Method: SW5030 Rev C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received
File Name: B55472

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

98-06-6	TERT-BUTYLBENZENE	1	1	1	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	U	
104-51-8	N-BUTYLBENZENE	1	1	1	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	U	
91-20-3	NAPHTHALENE	1	1	1	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	24.3		25	97	78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	24.6		25	98	80 - 124
2037-26-5	TOLUENE-D8	25.1		25	100	81 - 119

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Field ID: Trip Blank
Lab ID: 0902200-2

Sample Matrix: WATER
%Moisture: N/A
Date Collected: 24-Feb-09
Date Extracted: 25-Feb-09
Date Analyzed: 25-Feb-09

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Clean DF: 1
File Name: B55472

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
		NONE DETECTED	1			U

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/25/2009
Date Analyzed: 02/25/2009
Prep Method: SW5030C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55461

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
75-71-8	DICHLORODIFLUOROMETHANE	10	10.2	1		102	38 - 131%
74-87-3	CHLOROMETHANE	10	10.4	1		104	62 - 141%
75-01-4	VINYL CHLORIDE	10	10.4	1		104	77 - 124%
74-83-9	BROMOMETHANE	10	9.47	1		95	76 - 133%
75-00-3	CHLOROETHANE	10	10.6	1		106	81 - 130%
75-69-4	TRICHLOROFLUOROMETHANE	10	10.3	1		103	84 - 146%
75-35-4	1,1-DICHLOROETHENE	10	10.3	1		103	75 - 126%
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHA	10	10.7	1		107	71 - 144%
67-64-1	ACETONE	40	40.4	10		101	50 - 150%
74-88-4	IODOMETHANE	10	10.6	1		106	76 - 116%
75-15-0	CARBON DISULFIDE	10	10.8	1		108	68 - 129%
75-09-2	METHYLENE CHLORIDE	10	10.2	1		102	22 - 146%
156-60-5	TRANS-1,2-DICHLOROETHENE	10	10.3	1		103	76 - 135%
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	18.4	1		92	75 - 125%
75-34-3	1,1-DICHLOROETHANE	10	10.3	1		103	77 - 131%
108-05-4	VINYL ACETATE	10	9.08	2		91	56 - 151%
156-59-2	CIS-1,2-DICHLOROETHENE	10	10.2	1		102	81 - 121%
78-93-3	2-BUTANONE	40	39.6	10		99	50 - 150%
74-97-5	BROMOCHLOROMETHANE	10	9.93	1		99	85 - 126%
67-66-3	CHLOROFORM	10	10.1	1		101	84 - 125%
71-55-6	1,1,1-TRICHLOROETHANE	10	9.96	1		100	82 - 129%
594-20-7	2,2-DICHLOROPROPANE	10	10.3	1		103	79 - 130%
56-23-5	CARBON TETRACHLORIDE	10	9.91	1		99	83 - 135%
563-58-6	1,1-DICHLOROPROPENE	10	10.3	1		103	85 - 127%
107-06-2	1,2-DICHLOROETHANE	10	9.17	1		92	84 - 126%
71-43-2	BENZENE	10	10.4	1		104	82 - 122%

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/25/2009
Date Analyzed: 02/25/2009
Prep Method: SW5030C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55461

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
79-01-6	TRICHLOROETHENE	10	10.2	1		102	82 - 121%
78-87-5	1,2-DICHLOROPROPANE	10	10.1	1		101	81 - 121%
74-95-3	DIBROMOMETHANE	10	9.54	1		95	81 - 125%
75-27-4	BROMODICHLOROMETHANE	10	9.49	1		95	82 - 120%
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	9.87	1		99	79 - 120%
108-10-1	4-METHYL-2-PENTANONE	40	35.8	10		89	50 - 150%
108-88-3	TOLUENE	10	10.1	1		101	83 - 121%
10061-02-6	TRANS-1,3-DICHLOROPROPENE	10	9.52	1		95	78 - 113%
79-00-5	1,1,2-TRICHLOROETHANE	10	9.35	1		93	82 - 122%
591-78-6	2-HEXANONE	40	35.1	10		88	50 - 150%
127-18-4	TETRACHLOROETHENE	10	10.5	1		105	79 - 136%
142-28-9	1,3-DICHLOROPROPANE	10	9.55	1		96	80 - 126%
124-48-1	DIBROMOCHLOROMETHANE	10	9.5	1		95	80 - 123%
106-93-4	1,2-DIBROMOETHANE	10	9.24	1		92	85 - 124%
544-10-5	1-CHLOROHEXANE	10	10.5	1		105	77 - 135%
108-90-7	CHLOROBENZENE	10	10.1	1		101	82 - 121%
630-20-6	1,1,1,2-TETRACHLOROETHANE	10	9.56	1		96	85 - 128%
100-41-4	ETHYLBENZENE	10	10.1	1		101	83 - 126%
136777-61-	M+P-XYLENE	20	20.8	1		104	82 - 129%
95-47-6	O-XYLENE	10	10.2	1		102	87 - 132%
100-42-5	STYRENE	10	9.82	1		98	82 - 123%
75-25-2	BROMOFORM	10	9.3	1		93	79 - 118%
98-82-8	ISOPROPYLBENZENE	10	10.1	1		101	75 - 132%
96-18-4	1,2,3-TRICHLOROPROPANE	10	8.98	1		90	77 - 128%
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	9.03	1		90	74 - 130%
108-86-1	BROMOBENZENE	10	10	1		100	78 - 124%
103-65-1	N-PROPYLBENZENE	10	10.2	1		102	75 - 134%

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/25/2009
Date Analyzed: 02/25/2009
Prep Method: SW5030C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55461

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
95-49-8	2-CHLOROTOLUENE	10	10.2	1		102	77 - 128%
108-67-8	1,3,5-TRIMETHYLBENZENE	10	10.2	1		102	77 - 131%
106-43-4	4-CHLOROTOLUENE	10	10.1	1		101	79 - 128%
98-06-6	TERT-BUTYLBENZENE	10	10.3	1		103	76 - 134%
95-63-6	1,2,4-TRIMETHYLBENZENE	10	10.2	1		102	80 - 138%
135-98-8	SEC-BUTYLBENZENE	10	10.2	1		102	73 - 135%
541-73-1	1,3-DICHLOROBENZENE	10	10	1		100	79 - 126%
99-87-6	P-ISOPROPYLTOLUENE	10	10.2	1		102	72 - 132%
106-46-7	1,4-DICHLOROBENZENE	10	10	1		100	81 - 125%
104-51-8	N-BUTYLBENZENE	10	10.1	1		101	77 - 141%
95-50-1	1,2-DICHLOROBENZENE	10	9.77	1		98	82 - 128%
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	8.67	2		87	64 - 134%
120-82-1	1,2,4-TRICHLOROBENZENE	10	9.53	1		95	80 - 128%
87-68-3	HEXACHLOROBUTADIENE	10	9.93	1		99	70 - 136%
91-20-3	NAPHTHALENE	10	8.89	1		89	78 - 125%
87-61-6	1,2,3-TRICHLOROBENZENE	10	9.25	1		92	79 - 131%

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/25/2009
Date Analyzed: 02/25/2009
Prep Method: SW5030C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55462

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
75-71-8	DICHLORODIFLUOROMETHANE	10	10.6	1		106	20	4
74-87-3	CHLOROMETHANE	10	10.6	1		106	20	2
75-01-4	VINYL CHLORIDE	10	10.6	1		106	20	2
74-83-9	BROMOMETHANE	10	9.51	1		95	20	0
75-00-3	CHLOROETHANE	10	10.7	1		107	20	1
75-69-4	TRICHLOROFLUOROMETHANE	10	10.4	1		104	20	0
75-35-4	1,1-DICHLOROETHENE	10	10.6	1		106	20	2
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHA	10	10.9	1		109	20	3
67-64-1	ACETONE	40	41.7	10		104	30	3
74-88-4	IODOMETHANE	10	10.7	1		107	20	1
75-15-0	CARBON DISULFIDE	10	10.9	1		109	20	1
75-09-2	METHYLENE CHLORIDE	10	10.4	1		104	20	2
156-60-5	TRANS-1,2-DICHLOROETHENE	10	10.6	1		106	20	2
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	19.7	1		98	20	7
75-34-3	1,1-DICHLOROETHANE	10	10.4	1		104	20	2
108-05-4	VINYL ACETATE	10	9.76	2		98	20	7
156-59-2	CIS-1,2-DICHLOROETHENE	10	10.4	1		104	20	2
78-93-3	2-BUTANONE	40	43.2	10		108	30	9
74-97-5	BROMOCHLOROMETHANE	10	10.3	1		103	20	4
67-66-3	CHLOROFORM	10	10.4	1		104	20	3
71-55-6	1,1,1-TRICHLOROETHANE	10	10.1	1		101	20	2
594-20-7	2,2-DICHLOROPROPANE	10	10.2	1		102	20	1
56-23-5	CARBON TETRACHLORIDE	10	10.3	1		103	20	4
563-58-6	1,1-DICHLOROPROPENE	10	10.5	1		105	20	3
107-06-2	1,2-DICHLOROETHANE	10	9.53	1		95	20	4
71-43-2	BENZENE	10	10.5	1		105	20	2
79-01-6	TRICHLOROETHENE	10	10.2	1		102	20	0

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/25/2009
Date Analyzed: 02/25/2009
Prep Method: SW5030C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55462

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
78-87-5	1,2-DICHLOROPROPANE	10	10.4	1		104	20	3
74-95-3	DIBROMOMETHANE	10	9.86	1		99	20	3
75-27-4	BROMODICHLOROMETHANE	10	9.95	1		99	20	5
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	10.4	1		104	20	5
108-10-1	4-METHYL-2-PENTANONE	40	39.9	10		100	30	11
108-88-3	TOLUENE	10	10.3	1		103	20	2
10061-02-6	TRANS-1,3-DICHLOROPROPENE	10	10.1	1		101	20	6
79-00-5	1,1,2-TRICHLOROETHANE	10	10.1	1		101	20	7
591-78-6	2-HEXANONE	40	38.3	10		96	30	9
127-18-4	TETRACHLOROETHENE	10	10.5	1		105	20	0
142-28-9	1,3-DICHLOROPROPANE	10	10	1		100	20	5
124-48-1	DIBROMOCHLOROMETHANE	10	9.96	1		100	20	5
106-93-4	1,2-DIBROMOETHANE	10	9.67	1		97	20	5
544-10-5	1-CHLOROHEXANE	10	10.5	1		105	20	0
108-90-7	CHLOROBENZENE	10	10.4	1		104	20	3
630-20-6	1,1,1,2-TETRACHLOROETHANE	10	9.96	1		100	20	4
100-41-4	ETHYLBENZENE	10	10.2	1		102	20	1
136777-61-	M+P-XYLENE	20	20.9	1		105	20	0
95-47-6	O-XYLENE	10	10.4	1		104	20	2
100-42-5	STYRENE	10	10	1		100	20	2
75-25-2	BROMOFORM	10	9.85	1		99	20	6
98-82-8	ISOPROPYLBENZENE	10	10.3	1		103	20	2
96-18-4	1,2,3-TRICHLOROPROPANE	10	9.94	1		99	20	10
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	9.82	1		98	20	8
108-86-1	BROMOBENZENE	10	10	1		100	20	0
103-65-1	N-PROPYLBENZENE	10	10.2	1		102	20	0
95-49-8	2-CHLOROTOLUENE	10	10.4	1		104	20	2

Data Package ID: *VL0902200-1*

GC/MS Volatiles

Method SW8260_25B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: Paragon Analytics
Work Order Number: 0902200
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200204222

Lab ID: VL090225-2LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 02/25/2009
Date Analyzed: 02/25/2009
Prep Method: SW5030C

Prep Batch: VL090225-2
QCBatchID: VL090225-2-3
Run ID: VL090225-2A
Cleanup: NONE
Basis: N/A
File Name: B55462

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
108-67-8	1,3,5-TRIMETHYLBENZENE	10	10.3	1		103	20	1
106-43-4	4-CHLOROTOLUENE	10	10.1	1		101	20	1
98-06-6	TERT-BUTYLBENZENE	10	10.6	1		106	20	3
95-63-6	1,2,4-TRIMETHYLBENZENE	10	10.1	1		101	20	1
135-98-8	SEC-BUTYLBENZENE	10	10.3	1		103	20	0
541-73-1	1,3-DICHLOROBENZENE	10	10.3	1		103	20	3
99-87-6	P-ISOPROPYLTOLUENE	10	10.1	1		101	20	0
106-46-7	1,4-DICHLOROBENZENE	10	9.96	1		100	20	1
104-51-8	N-BUTYLBENZENE	10	10.2	1		102	20	1
95-50-1	1,2-DICHLOROBENZENE	10	9.98	1		100	20	2
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	9.85	2		98	20	13
120-82-1	1,2,4-TRICHLOROBENZENE	10	10.1	1		101	20	6
87-68-3	HEXACHLOROBUTADIENE	10	10.3	1		103	20	4
91-20-3	NAPHTHALENE	10	9.67	1		97	20	8
87-61-6	1,2,3-TRICHLOROBENZENE	10	9.89	1		99	20	7

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25	98		100		78 - 129
1868-53-7	DIBROMOFLUOROMETHANE	25	97		99		80 - 124
2037-26-5	TOLUENE-D8	25	101		100		81 - 119

Data Package ID: *VL0902200-1*

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022509\B55465.D Vial: 8
Acq On : 25 Feb 2009 10:51 Operator: TWK-SOP525r12
Sample : VL090225-2MB Inst : CSS Instr
Misc : 10mL water Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Feb 25 11:54 2009 Quant Results File: 021209W.RES

Quant Method : C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Feb 25 10:05:16 2009
Response via : Initial Calibration
DataAcq Meth : 021209W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.13	96	1995130	25.00	ppb	0.00
52) Chlorobenzene-d5	12.96	82	753415	25.00	ppb	0.00
74) 1,4-Dichlorobenzene-d4	14.85	152	473499	25.00	ppb	0.00
System Monitoring Compounds						
35) Dibromofluoromethane	9.28	113	574850	24.59	ppb	0.00
Spiked Amount 25.000	Range 80 - 124		Recovery = 98.36%			
39) 1,2-dichloroethane-d4	9.86	65	413647	23.53	ppb	0.00
Spiked Amount 25.000	Range 62 - 139		Recovery = 94.12%			
53) Toluene-d8	11.59	98	1823811	25.43	ppb	0.00
Spiked Amount 25.000	Range 81 - 119		Recovery = 101.72%			
73) 4-Bromofluorobenzene	13.95	176	396823	24.74	ppb	0.00
Spiked Amount 25.000	Range 78 - 129		Recovery = 98.96%			

Target Compounds Qvalue

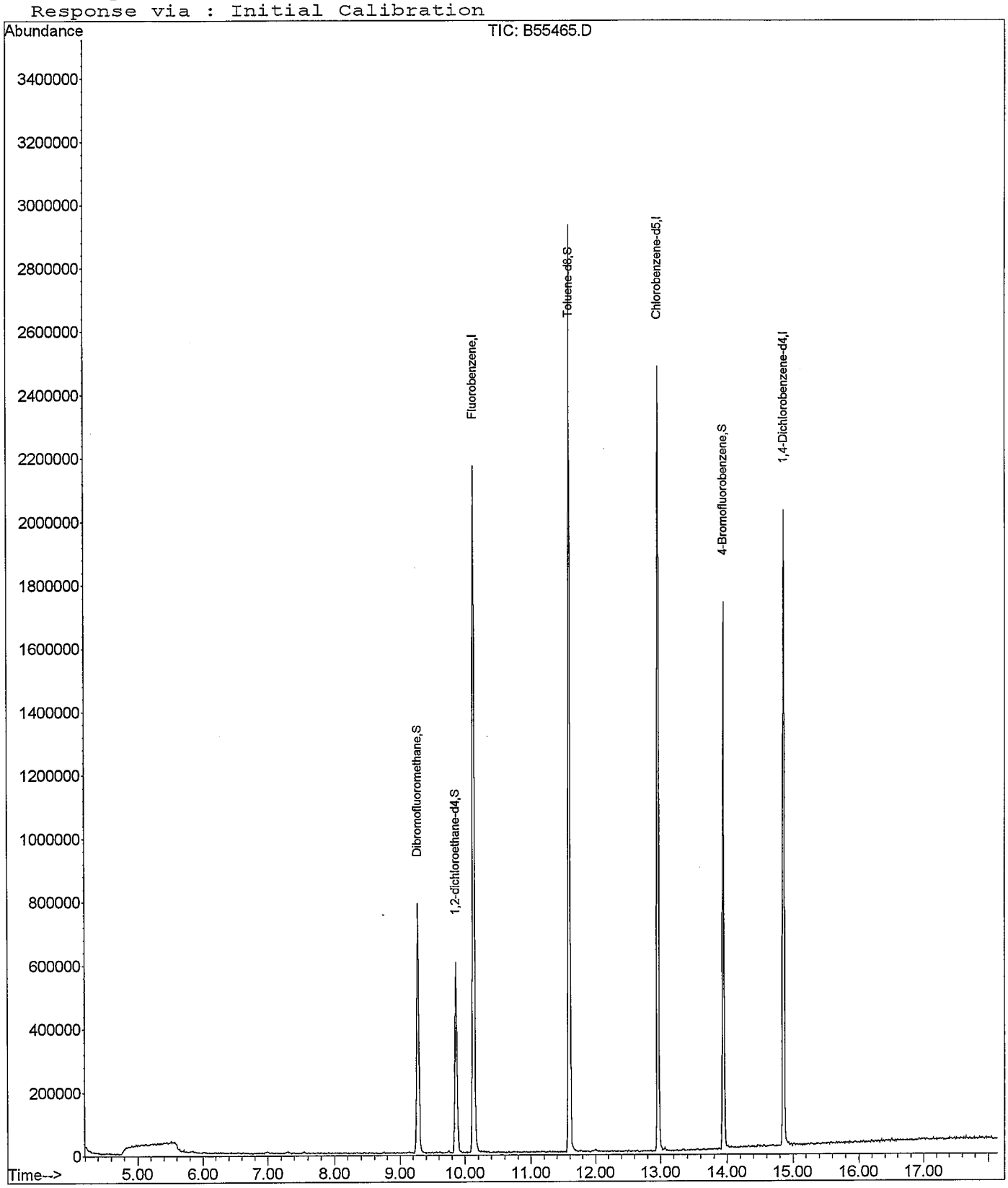
m 2/27/09

(#) = qualifier out of range (m) = manual integration
B55465.D 021209W.M Wed Feb 25 11:54:24 2009 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022509\B55465.D Vial: 8
Acq On : 25 Feb 2009 10:51 Operator: TWK-SOP525r12
Sample : VL090225-2MB Inst : CSS Instr
Misc : 10mL water Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Feb 25 11:54 2009 Quant Results File: 021209W.RES

Method : C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Feb 25 10:05:16 2009
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: TWK-SOP525r12 Date Acquired: 25 Feb 2009 10:51
Data File: C:\HPCHEM\1\DATA\022509\B55465.D
Name: VL090225-2MB
Misc: 10mL water
Method: C:\HPCHEM\1\METHODS\21209WRC.M (RTE Integrator)
Title: GC/MS Volatiles (S.O.P. 525)
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

B55465.D 020509S.M Fri Feb 27 12:01:42 2009

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022509\B55473.D Vial: 16
Acq On : 25 Feb 2009 14:00 Operator: TWK-SOP525r12
Sample : 0902200-1 Inst : CSS Instr
Misc : 10mL water Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Feb 25 14:21 2009 Quant Results File: 021209W.RES

Quant Method : C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Feb 25 10:05:16 2009
Response via : Initial Calibration
DataAcq Meth : 021209W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.15	96	1920041	25.00	ppb	0.02
52) Chlorobenzene-d5	12.97	82	738984	25.00	ppb	0.01
74) 1,4-Dichlorobenzene-d4	14.86	152	458991	25.00	ppb	0.01
System Monitoring Compounds						
35) Dibromofluoromethane	9.29	113	554390	24.64	ppb	0.02
Spiked Amount 25.000	Range 80 - 124		Recovery = 98.56%			
39) 1,2-dichloroethane-d4	9.88	65	408830	24.16	ppb	0.02
Spiked Amount 25.000	Range 62 - 139		Recovery = 96.64%			
53) Toluene-d8	11.60	98	1770182	25.16	ppb	0.02
Spiked Amount 25.000	Range 81 - 119		Recovery = 100.64%			
73) 4-Bromofluorobenzene	13.96	176	385471	24.50	ppb	0.01
Spiked Amount 25.000	Range 78 - 129		Recovery = 98.00%			
Target Compounds						Qvalue
34) Chloroform	9.09	83	19497	0.40	ppb	99

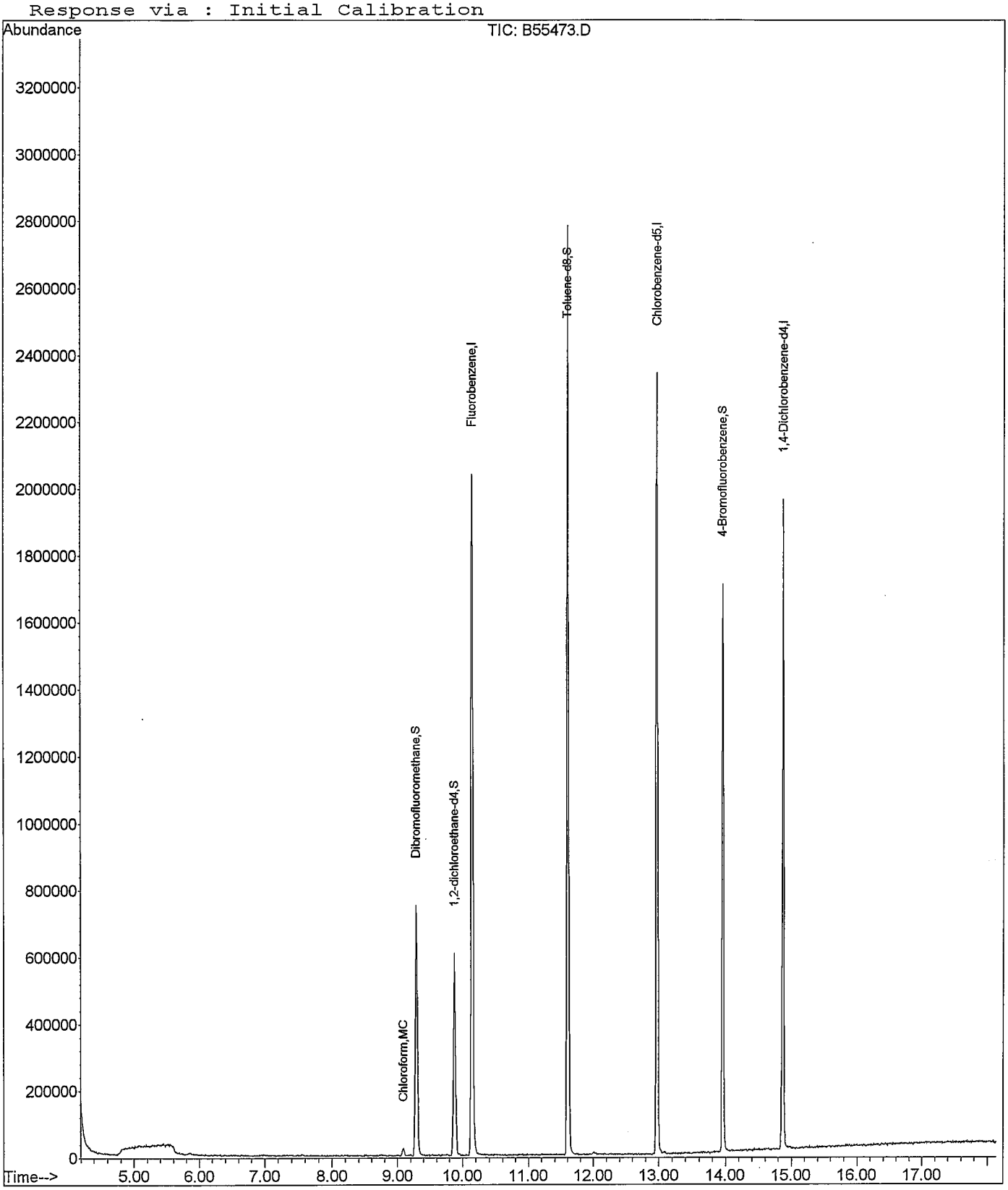
m 2/27/09

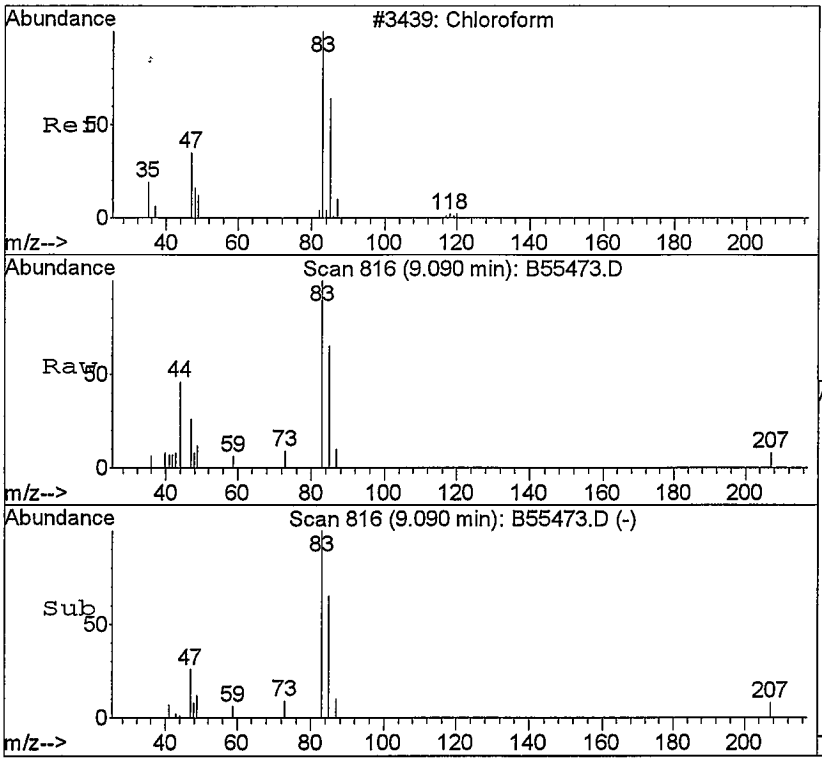
(#) = qualifier out of range (m) = manual integration
B55473.D 021209W.M Wed Feb 25 14:21:10 2009 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022509\B55473.D Vial: 16
Acq On : 25 Feb 2009 14:00 Operator: TWK-SOP525r12
Sample : 0902200-1 Inst : CSS Instr
Misc : 10mL water Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Feb 25 14:21 2009 Quant Results File: 021209W.RES

Method : C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Feb 25 10:05:16 2009
Response via : Initial Calibration

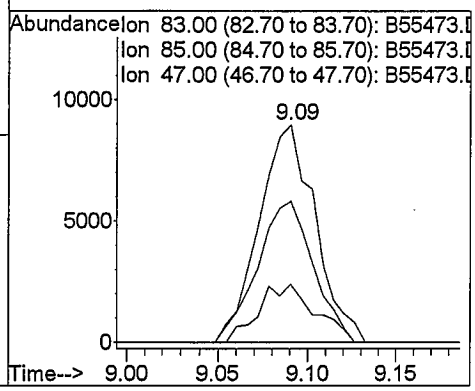




#34
Chloroform
Concen: 0.40 ppb
RT: 9.09 min Scan# 816
Delta R.T. 0.02 min
Lab File: B55473.D
Acq: 25 Feb 2009 14:00

Tgt Ion: 83 Resp: 19497

Ion	Ratio	Lower	Upper
83	100		
85	64.6	38.8	90.4
47	26.5	16.5	38.5



Tentatively Identified Compound (LSC) summary

Operator ID: TWK-SOP525r12 Date Acquired: 25 Feb 2009 14:00
Data File: C:\HPCHEM\1\DATA\022509\B55473.D
Name: 0902200-1
Misc: 10mL water
Method: C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title: GC/MS Volatiles (S.O.P. 525)
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

B55473.D 020509S.M Fri Feb 27 12:03:01 2009

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\022509\B55472.D Vial: 15
Acq On : 25 Feb 2009 13:36 Operator: TWK-SOP525r12
Sample : 0902200-2 Inst : CSS Instr
Misc : 10mL water - HS>pea Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Feb 25 14:20 2009 Quant Results File: 021209W.RES

Quant Method : C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Feb 25 10:05:16 2009
Response via : Initial Calibration
DataAcq Meth : 021209W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	10.15	96	1884035	25.00	ppb	0.02
52) Chlorobenzene-d5	12.98	82	724310	25.00	ppb	0.01
74) 1,4-Dichlorobenzene-d4	14.87	152	459230	25.00	ppb	0.01
System Monitoring Compounds						
35) Dibromofluoromethane	9.29	113	542408	24.57	ppb	0.01
Spiked Amount 25.000	Range 80 - 124		Recovery = 98.28%			
39) 1,2-dichloroethane-d4	9.88	65	404308	24.35	ppb	0.02
Spiked Amount 25.000	Range 62 - 139		Recovery = 97.40%			
53) Toluene-d8	11.61	98	1729205	25.08	ppb	0.02
Spiked Amount 25.000	Range 81 - 119		Recovery = 100.32%			
73) 4-Bromofluorobenzene	13.96	176	374349	24.28	ppb	0.00
Spiked Amount 25.000	Range 78 - 129		Recovery = 97.12%			
Target Compounds						Qvalue
17) Methylene chloride	7.30	84	1771	Below Cal	#	67

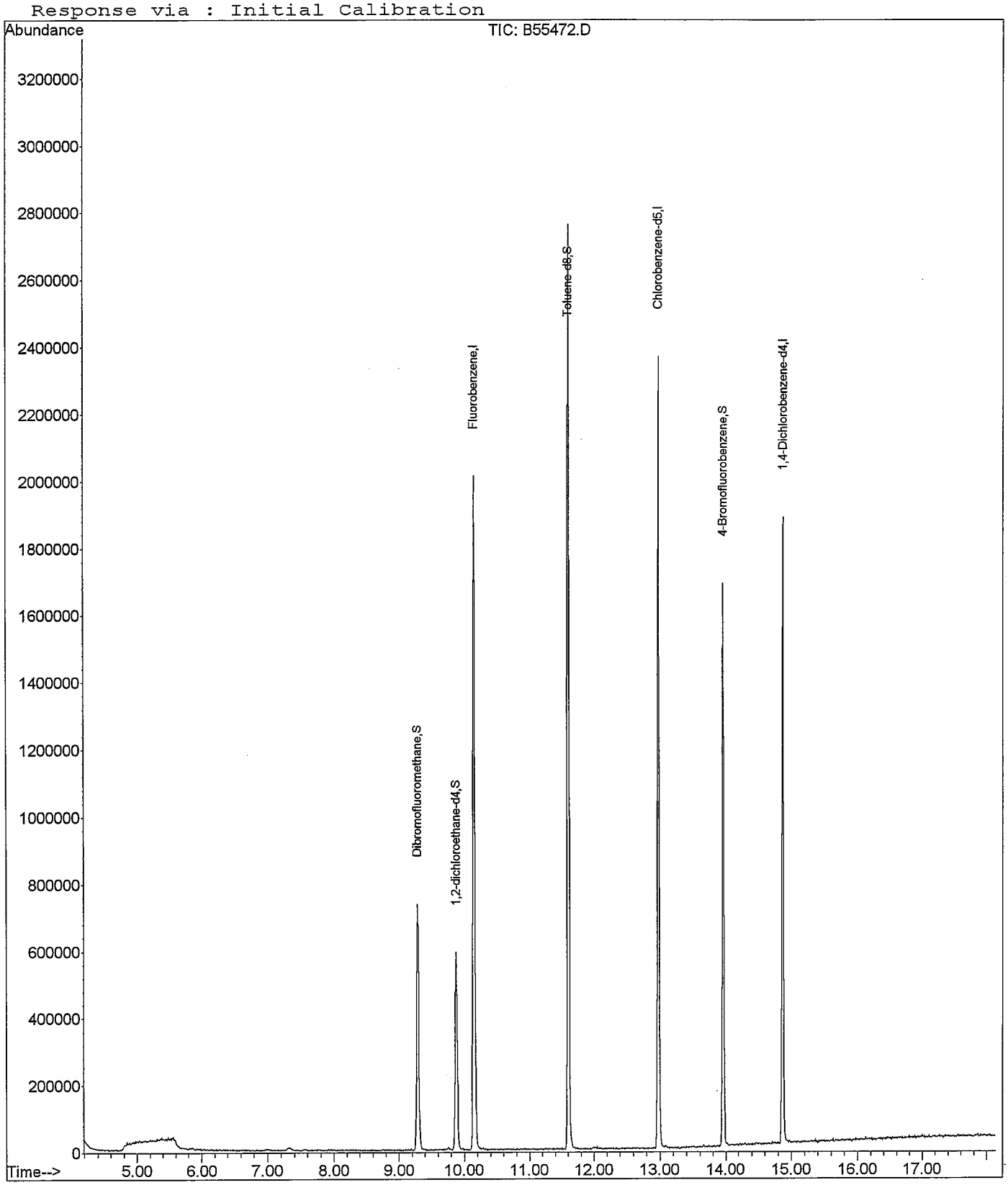
mr 2/27/09

(#) = qualifier out of range (m) = manual integration
B55472.D 021209W.M Wed Feb 25 14:21:03 2009 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\022509\B55472.D Vial: 15
Acq On : 25 Feb 2009 13:36 Operator: TWK-SOP525r12
Sample : 0902200-2 Inst : CSS Instr
Misc : 10mL water - HS>pea Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Feb 25 14:20 2009 Quant Results File: 021209W.RES

Method : C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Feb 25 10:05:16 2009
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: TWK-SOP525r12 Date Acquired: 25 Feb 2009 13:36
Data File: C:\HPCHEM\1\DATA\022509\B55472.D
Name: 0902200-2
Misc: 10mL water - HS>pea
Method: C:\HPCHEM\1\METHODS\021209W.M (RTE Integrator)
Title: GC/MS Volatiles (S.O.P. 525)
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

B55472.D 020509S.M Fri Feb 27 12:02:49 2009