ALS Paragon

GC/MS Semivolatiles

Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200206880

Work Order Number: 0904002

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 04/01/09.

2. The sample was prepared and analyzed according to SW-846, 3rd Edition protocol utilizing SOP. Specifically, the water sample was extracted using continuous liquid-liquid extractors, according to SW-846 Method 3520C utilizing SOP 617 Revision 13.

3. The extracts were analyzed using GC/MS with a DB-5.625 capillary column according to SOP 506 Revision 15 based on SW-846 Method 8270D. 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 calibration standards are verified by comparing a second source standard initial calibration verification (ICV) against the calibration curve. All target compounds in the second source verification had a %D of less than 25%.

6. All SPCC and CCC criteria were met in each of the daily (continuing) calibration verifications.

7. 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 sample was extracted and analyzed within the established holding time.

11. All surrogate recoveries were within acceptance criteria.

12. All internal standard recoveries were within acceptance criteria.

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.

Sharon L. Jobes
Organics Primary Data Reviewer

4-9-09
Date

Organics Final Data Reviewer

4/9/09
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: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200206880
Client Project Number:
Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Ross WW	0904002-1		WATER	31-Mar-09	10:18
Trip Blank	0904002-2		WATER	31-Mar-09	

Paragon Analytics
LIMS Version: 6.254A

Date Printed: Tuesday, April 07, 2009

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) 0904002

Chain-of-Custody

Date 3/March/09 Page 1 of 1

Originator: Retain pink copy!

Project Name/No.: _____ Sampler(s): Gintautas/Ukhanova Turnaround (circle one): **Standard** or **Rush** (Due 14 days) Dispose: Date 3 day or Return to Client

Report To: Peter Gintautas
Phone: 719-846-3091
Fax:
E-mail: peter.gintautas@state.co.us
Company: Colo. Oil & Gas Cons. Comm.
Address:

Complaint 200206880

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)~~ SW8021B Ethanol, Methanol, Ethylene Glycol	SVOCs SW8270C	~~GC Pesticides~~ SW8081A TCL	~~PCBs~~ SW8082 Sulfide	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 Alkalinity HCO3 CO3 OH	Inorganic Anions E300.0 (specify in comments) SW9056	Solids: Total E160.3 TDS E160.1 TSS E160.2	(pH) SW9040B SW9045C	TPH SW8015B GRO DRO (circle one or both) Diesel Range Organics	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 E904.0	Strontium 90 (Total RadioSr) D5811-00	Gamma Isotopes E901.1	Radon 222 SM7510Rn	SAR Calc	Anion-Cation Balance	Conductivity
Ross (W)	3/March	10:15	①	W					X								X		X	X	X	X	X	X								X	X	X
↓	↓	↓	②	W	HCl		X	X																X										
			③	W	H_2SO_4					X																									
			④	W	ZnAcetate NaOH						X																									
Trip Blank			②																															

* 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, Co, Cu, Fe, Li, Mg, Mn, Ni, K, Na, Sr, Zn
200.8 = Sb, As, Cd, Pb, Mo, Se, Ag, Tl, U

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

Relinquished By: (1)	Relinquished By: (2)
Signature [signature]	Signature
Printed Name Peter Gintautas	Printed Name
Date 3/March/09 Time 15:30	Date Time
Company Colo. Oil & Gas Cons. Comm.	Company

Received By: (1)	Received By: (2)
Signature Cheryl Trimble	Signature
Printed Name Cheryl Trimble	Printed Name
Date 4-1-09 Time 0945	Date Time
Company ALS	Company

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

Client: COGCC Workorder No: 0904002

Project Manager: AW Initials: COT Date: 4-1-09

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.)		AW 4/1/09 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	AW 4/1/09 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):	3.8							
No. of custody seals on cooler:	1							
DOT Survey/ Acceptance Information — External µR/hr reading:	13							
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.

- Headspace: 0904002-2-1 < green pea (Trip Blank - not listed on COC)
- Metals bottle received unpreserved. Filter + preserve prior to analysis.

If applicable, was the client contacted? (YES) / NO / NA Contact: Peter Cantamas Date/Time: e-mail 4/1/09

Project Manager Signature / Date: AW 4/1/09

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

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09
Prep Method: SW3520 Rev C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0093

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	10	10	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	10	10	U	
62-53-3	ANILINE	1	10	10	U	
108-95-2	PHENOL	1	10	10	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	10	10	U	
95-57-8	2-CHLOROPHENOL	1	10	10	U	
541-73-1	1,3-DICHLOROBENZENE	1	10	10	U	
106-46-7	1,4-DICHLOROBENZENE	1	10	10	U	
95-50-1	1,2-DICHLOROBENZENE	1	10	10	U	
100-51-6	BENZYL ALCOHOL	1	10	10	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	10	10	U	
95-48-7	2-METHYLPHENOL	1	10	10	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	10	10	U	
108-39-4	3+4-METHYLPHENOL	1	10	10	U	
67-72-1	HEXACHLOROETHANE	1	10	10	U	
98-95-3	NITROBENZENE	1	10	10	U	
78-59-1	ISOPHORONE	1	10	10	U	
88-75-5	2-NITROPHENOL	1	10	10	U	
105-67-9	2,4-DIMETHYLPHENOL	1	10	10	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	10	10	U	
120-83-2	2,4-DICHLOROPHENOL	1	10	10	U	
65-85-0	BENZOIC ACID	1	50	50	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	10	10	U	
91-20-3	NAPHTHALENE	1	10	10	U	
106-47-8	4-CHLOROANILINE	1	10	10	U	
87-68-3	HEXACHLOROBUTADIENE	1	10	10	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	1	10	10	U	

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0904002

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206880

Lab ID: EX090401-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09
Prep Method: SW3520 Rev C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0093

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

91-57-6	2-METHYLNAPHTHALENE	1	10	10	U	
90-12-0	1-METHYLNAPHTHALENE	1	10	10	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	10	10	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	10	10	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	10	10	U	
91-58-7	2-CHLORONAPHTHALENE	1	10	10	U	
88-74-4	2-NITROANILINE	1	20	20	U	
131-11-3	DIMETHYL PHTHALATE	1	10	10	U	
606-20-2	2,6-DINITROTOLUENE	1	10	10	U	
208-96-8	ACENAPHTHYLENE	1	10	10	U	
99-09-2	3-NITROANILINE	1	20	20	U	
83-32-9	ACENAPHTHENE	1	10	10	U	
51-28-5	2,4-DINITROPHENOL	1	20	20	U	
100-02-7	4-NITROPHENOL	1	20	20	U	
132-64-9	DIBENZOFURAN	1	10	10	U	
121-14-2	2,4-DINITROTOLUENE	1	10	10	U	
84-66-2	DIETHYL PHTHALATE	1	10	10	U	
86-73-7	FLUORENE	1	10	10	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	10	10	U	
100-01-6	4-NITROANILINE	1	20	20	U	
103-33-3	AZOBENZENE	1	10	10	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	20	20	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	10	10	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	10	10	U	
118-74-1	HEXACHLOROBENZENE	1	10	10	U	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	10	10	U	
87-86-5	PENTACHLOROPHENOL	1	20	20	U	
85-01-8	PHENANTHRENE	1	10	10	U	
120-12-7	ANTHRACENE	1	10	10	U	

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Method Blank

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09
Prep Method: SW3520 Rev C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0093

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

86-74-8	CARBAZOLE	1	10	10	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	10	10	U	
206-44-0	FLUORANTHENE	1	10	10	U	
129-00-0	PYRENE	1	10	10	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	10	10	U	
56-55-3	BENZO(A)ANTHRACENE	1	10	10	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	10	10	U	
218-01-9	CHRYSENE	1	10	10	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	10	10	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	10	10	U	
205-99-2	BENZO(B)FLUORANTHENE	1	10	10	U	
207-08-9	BENZO(K)FLUORANTHENE	1	10	10	U	
50-32-8	BENZO(A)PYRENE	1	10	10	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	10	10	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	10	10	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	10	10	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	51.5		75	69	23 - 100
321-60-8	2-FLUOROBIPHENYL	41.2		50	82	21 - 106
367-12-4	2-FLUOROPHENOL	52.9		75	71	21 - 100
4165-60-0	NITROBENZENE-D5	42.2		50	84	34 - 111
4165-62-2	PHENOL-D5	54.4		75	73	15 - 104
1718-51-0	TERPHENYL-D14	43.3		50	87	33 - 111

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0904002

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206880

Field ID:

Lab ID: EX090401-3MB

Sample Matrix: WATER
%Moisture: N/A
Date Collected: N/A
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: As Received

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Clean DF: 1
File Name: R0093

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
	3.66	OXYGENATED HYDROCARBON1	1	5	UG/L	J

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Field ID: Ross WW
Lab ID: 0904002-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 31-Mar-09
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09
Prep Method: SW3520 Rev C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: As Received
File Name: R0097

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
110-86-1	PYRIDINE	1	9.3	9.3	U	
62-75-9	N-NITROSODIMETHYLAMINE	1	9.3	9.3	U	
62-53-3	ANILINE	1	9.3	9.3	U	
108-95-2	PHENOL	1	9.3	9.3	U	
111-44-4	BIS(2-CHLOROETHYL)ETHER	1	9.3	9.3	U	
95-57-8	2-CHLOROPHENOL	1	9.3	9.3	U	
541-73-1	1,3-DICHLOROBENZENE	1	9.3	9.3	U	
106-46-7	1,4-DICHLOROBENZENE	1	9.3	9.3	U	
95-50-1	1,2-DICHLOROBENZENE	1	9.3	9.3	U	
100-51-6	BENZYL ALCOHOL	1	9.3	9.3	U	
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	1	9.3	9.3	U	
95-48-7	2-METHYLPHENOL	1	9.3	9.3	U	
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	1	9.3	9.3	U	
108-39-4	3+4-METHYLPHENOL	1	9.3	9.3	U	
67-72-1	HEXACHLOROETHANE	1	9.3	9.3	U	
98-95-3	NITROBENZENE	1	9.3	9.3	U	
78-59-1	ISOPHORONE	1	9.3	9.3	U	
88-75-5	2-NITROPHENOL	1	9.3	9.3	U	
105-67-9	2,4-DIMETHYLPHENOL	1	9.3	9.3	U	
111-91-1	BIS(2-CHLOROETHOXY)METHANE	1	9.3	9.3	U	
120-83-2	2,4-DICHLOROPHENOL	1	9.3	9.3	U	
65-85-0	BENZOIC ACID	1	47	47	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	9.3	9.3	U	
91-20-3	NAPHTHALENE	1	9.3	9.3	U	
106-47-8	4-CHLOROANILINE	1	9.3	9.3	U	
87-68-3	HEXACHLOROBUTADIENE	1	9.3	9.3	U	
59-50-7	4-CHLORO-3-METHYLPHENOL	1	9.3	9.3	U	

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Field ID: Ross WW
Lab ID: 0904002-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 31-Mar-09
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09
Prep Method: SW3520 Rev C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: As Received
File Name: R0097

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

91-57-6	2-METHYLNAPHTHALENE	1	9.3	9.3	U	
90-12-0	1-METHYLNAPHTHALENE	1	9.3	9.3	U	
77-47-4	HEXACHLOROCYCLOPENTADIENE	1	9.3	9.3	U	
88-06-2	2,4,6-TRICHLOROPHENOL	1	9.3	9.3	U	
95-95-4	2,4,5-TRICHLOROPHENOL	1	9.3	9.3	U	
91-58-7	2-CHLORONAPHTHALENE	1	9.3	9.3	U	
88-74-4	2-NITROANILINE	1	19	19	U	
131-11-3	DIMETHYL PHTHALATE	1	9.3	9.3	U	
606-20-2	2,6-DINITROTOLUENE	1	9.3	9.3	U	
208-96-8	ACENAPHTHYLENE	1	9.3	9.3	U	
99-09-2	3-NITROANILINE	1	19	19	U	
83-32-9	ACENAPHTHENE	1	9.3	9.3	U	
51-28-5	2,4-DINITROPHENOL	1	19	19	U	
100-02-7	4-NITROPHENOL	1	19	19	U	
132-64-9	DIBENZOFURAN	1	9.3	9.3	U	
121-14-2	2,4-DINITROTOLUENE	1	9.3	9.3	U	
84-66-2	DIETHYL PHTHALATE	1	9.3	9.3	U	
86-73-7	FLUORENE	1	9.3	9.3	U	
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	1	9.3	9.3	U	
100-01-6	4-NITROANILINE	1	19	19	U	
103-33-3	AZOBENZENE	1	9.3	9.3	U	
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1	19	19	U	
86-30-6	N-NITROSODIPHENYLAMINE	1	9.3	9.3	U	
101-55-3	4-BROMOPHENYL PHENYL ETHER	1	9.3	9.3	U	
118-74-1	HEXACHLOROBENZENE	1	9.3	9.3	U	
58-90-2	2,3,4,6-TETRACHLOROPHENOL	1	9.3	9.3	U	
87-86-5	PENTACHLOROPHENOL	1	19	19	U	
85-01-8	PHENANTHRENE	1	9.3	9.3	U	
120-12-7	ANTHRACENE	1	9.3	9.3	U	

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Sample Results

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Field ID: Ross WW
Lab ID: 0904002-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 31-Mar-09
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09
Prep Method: SW3520 Rev C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: As Received
File Name: R0097

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

86-74-8	CARBAZOLE	1	9.3	9.3	U	
84-74-2	DI-N-BUTYL PHTHALATE	1	9.3	9.3	U	
206-44-0	FLUORANTHENE	1	9.3	9.3	U	
129-00-0	PYRENE	1	9.3	9.3	U	
85-68-7	BUTYL BENZYL PHTHALATE	1	9.3	9.3	U	
56-55-3	BENZO(A)ANTHRACENE	1	9.3	9.3	U	
91-94-1	3,3'-DICHLOROBENZIDINE	1	9.3	9.3	U	
218-01-9	CHRYSENE	1	9.3	9.3	U	
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1	9.3	9.3	U	
117-84-0	DI-N-OCTYL PHTHALATE	1	9.3	9.3	U	
205-99-2	BENZO(B)FLUORANTHENE	1	9.3	9.3	U	
207-08-9	BENZO(K)FLUORANTHENE	1	9.3	9.3	U	
50-32-8	BENZO(A)PYRENE	1	9.3	9.3	U	
193-39-5	INDENO(1,2,3-CD)PYRENE	1	9.3	9.3	U	
53-70-3	DIBENZO(A,H)ANTHRACENE	1	9.3	9.3	U	
191-24-2	BENZO(G,H,I)PERYLENE	1	9.3	9.3	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	45.4		70.1	65	23 - 100
321-60-8	2-FLUOROBIPHENYL	36.8		46.7	79	21 - 106
367-12-4	2-FLUOROPHENOL	47.3		70.1	67	21 - 100
4165-60-0	NITROBENZENE-D5	38.4		46.7	82	34 - 111
4165-62-2	PHENOL-D5	48.9		70.1	70	15 - 104
1718-51-0	TERPHENYL-D14	37.9		46.7	81	33 - 111

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270

Tentatively Identified Compounds

Lab Name: ALS Paragon

Work Order Number: 0904002

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206880

Field ID: Ross WW
Lab ID: 0904002-1

Sample Matrix: WATER
%Moisture: N/A
Date Collected: 31-Mar-09
Date Extracted: 01-Apr-09
Date Analyzed: 05-Apr-09

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: As Received

Sample Aliquot: 1070 ml
Final Volume: 1 ml
Clean DF: 1
File Name: R0097

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
	3.66	OXYGENATED HYDROCARBON1	1	4.1	UG/L	B,J

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04/01/2009
Date Analyzed: 04/05/2009
Prep Method: SW3520C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0094

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
110-86-1	PYRIDINE	60	40.4	10		67	10 - 108%
62-75-9	N-NITROSODIMETHYLAMINE	60	51.7	10		86	26 - 110%
62-53-3	ANILINE	60	49.8	10		83	25 - 125%
108-95-2	PHENOL	60	48.8	10		81	49 - 101%
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	48.2	10		80	37 - 110%
95-57-8	2-CHLOROPHENOL	60	44.7	10		74	37 - 106%
541-73-1	1,3-DICHLOROBENZENE	60	44.8	10		75	32 - 98%
106-46-7	1,4-DICHLOROBENZENE	60	45.5	10		76	32 - 98%
95-50-1	1,2-DICHLOROBENZENE	60	46.7	10		78	33 - 102%
100-51-6	BENZYL ALCOHOL	60	49.2	10		82	30 - 112%
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	49.4	10		82	26 - 131%
95-48-7	2-METHYLPHENOL	60	48.9	10		81	38 - 109%
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	52	10		87	34 - 128%
108-39-4	3+4-METHYLPHENOL	60	47.6	10		79	32 - 110%
67-72-1	HEXACHLOROETHANE	60	45.3	10		75	28 - 94%
98-95-3	NITROBENZENE	60	51.9	10		86	44 - 109%
78-59-1	ISOPHORONE	60	50	10		83	50 - 112%
88-75-5	2-NITROPHENOL	60	52.2	10		87	39 - 113%
105-67-9	2,4-DIMETHYLPHENOL	60	46	10		77	28 - 109%
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	49.3	10		82	46 - 107%
120-83-2	2,4-DICHLOROPHENOL	60	50.4	10		84	48 - 105%
65-85-0	BENZOIC ACID	100	59.6	50		60	10 - 125%
120-82-1	1,2,4-TRICHLOROBENZENE	60	45.9	10		76	37 - 107%
91-20-3	NAPHTHALENE	60	46.2	10		77	39 - 102%
106-47-8	4-CHLOROANILINE	60	49.7	10		83	15 - 109%
87-68-3	HEXACHLOROBUTADIENE	60	43.8	10		73	27 - 103%

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04/01/2009
Date Analyzed: 04/05/2009
Prep Method: SW3520C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0094

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
59-50-7	4-CHLORO-3-METHYLPHENOL	60	51.8	10		86	47 - 111%
91-57-6	2-METHYLNAPHTHALENE	60	47.8	10		80	46 - 104%
90-12-0	1-METHYLNAPHTHALENE	60	48.5	10		81	46 - 104%
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	11.5	10		19	10 - 125%
88-06-2	2,4,6-TRICHLOROPHENOL	60	51.7	10		86	49 - 113%
95-95-4	2,4,5-TRICHLOROPHENOL	60	53	10		88	49 - 111%
91-58-7	2-CHLORONAPHTHALENE	60	49.8	10		83	36 - 137%
88-74-4	2-NITROANILINE	60	58	20		97	48 - 115%
131-11-3	DIMETHYL PHTHALATE	60	50.9	10		85	25 - 127%
606-20-2	2,6-DINITROTOLUENE	60	54.1	10		90	49 - 117%
208-96-8	ACENAPHTHYLENE	60	51.1	10		85	50 - 107%
99-09-2	3-NITROANILINE	60	57.9	20		97	19 - 126%
83-32-9	ACENAPHTHENE	60	51.9	10		87	47 - 108%
51-28-5	2,4-DINITROPHENOL	60	56.7	20		94	14 - 138%
100-02-7	4-NITROPHENOL	60	57.3	20		95	21 - 119%
132-64-9	DIBENZOFURAN	60	51.6	10		86	54 - 107%
121-14-2	2,4-DINITROTOLUENE	60	56.1	10		93	51 - 118%
84-66-2	DIETHYL PHTHALATE	60	50.7	10		84	41 - 118%
86-73-7	FLUORENE	60	50.8	10		85	50 - 112%
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	51.3	10		85	50 - 111%
100-01-6	4-NITROANILINE	60	58.2	20		97	36 - 118%
103-33-3	AZOBENZENE	60	52.2	10		87	21 - 137%
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	57.1	20		95	40 - 130%
86-30-6	N-NITROSODIPHENYLAMINE	60	45.1	10		75	48 - 111%
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	51.1	10		85	52 - 113%
118-74-1	HEXACHLOROBENZENE	60	50.2	10		84	52 - 112%
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	85.4	10		85	23 - 112%

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04/01/2009
Date Analyzed: 04/05/2009
Prep Method: SW3520C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0094

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
87-86-5	PENTACHLOROPHENOL	60	51	20		85	38 - 117%
85-01-8	PHENANTHRENE	60	51.8	10		86	51 - 117%
120-12-7	ANTHRACENE	60	52.2	10		87	54 - 112%
86-74-8	CARBAZOLE	60	55.3	10		92	48 - 117%
84-74-2	DI-N-BUTYL PHTHALATE	60	53.4	10		89	54 - 116%
206-44-0	FLUORANTHENE	60	53.1	10		88	54 - 116%
129-00-0	PYRENE	60	48	10		80	49 - 128%
85-68-7	BUTYL BENZYL PHTHALATE	60	51.7	10		86	46 - 116%
56-55-3	BENZO(A)ANTHRACENE	60	51.5	10		86	56 - 109%
91-94-1	3,3'-DICHLOROBENZIDINE	60	56.5	10		94	19 - 111%
218-01-9	CHRYSENE	60	52.2	10		87	55 - 109%
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	50.6	10		84	42 - 126%
117-84-0	DI-N-OCTYL PHTHALATE	60	53.6	10		89	37 - 137%
205-99-2	BENZO(B)FLUORANTHENE	60	48.7	10		81	45 - 118%
207-08-9	BENZO(K)FLUORANTHENE	60	48.5	10		81	45 - 124%
50-32-8	BENZO(A)PYRENE	60	47	10		78	53 - 110%
193-39-5	INDENO(1,2,3-CD)PYRENE	60	50.7	10		85	43 - 125%
53-70-3	DIBENZO(A,H)ANTHRACENE	60	54.2	10		90	42 - 127%
191-24-2	BENZO(G,H,I)PERYLENE	60	51.3	10		86	38 - 123%

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04/01/2009
Date Analyzed: 04/05/2009
Prep Method: SW3520C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0095

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
110-86-1	PYRIDINE	60	41	10		68	20	1
62-75-9	N-NITROSODIMETHYLAMINE	60	54.3	10		90	20	5
62-53-3	ANILINE	60	51.7	10		86	20	4
108-95-2	PHENOL	60	51.5	10		86	20	5
111-44-4	BIS(2-CHLOROETHYL)ETHER	60	51.1	10		85	20	6
95-57-8	2-CHLOROPHENOL	60	48.1	10		80	20	7
541-73-1	1,3-DICHLOROBENZENE	60	47.7	10		79	20	6
106-46-7	1,4-DICHLOROBENZENE	60	48.4	10		81	20	6
95-50-1	1,2-DICHLOROBENZENE	60	49.3	10		82	20	5
100-51-6	BENZYL ALCOHOL	60	52.2	10		87	20	6
108-60-1	BIS(2-CHLOROISOPROPYL)ETHER	60	52.8	10		88	20	7
95-48-7	2-METHYLPHENOL	60	50.5	10		84	20	3
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	60	56	10		93	20	7
108-39-4	3+4-METHYLPHENOL	60	49.5	10		83	20	4
67-72-1	HEXACHLOROETHANE	60	47.8	10		80	20	5
98-95-3	NITROBENZENE	60	55.3	10		92	20	6
78-59-1	ISOPHORONE	60	53.7	10		89	20	7
88-75-5	2-NITROPHENOL	60	55.6	10		93	20	6
105-67-9	2,4-DIMETHYLPHENOL	60	45.4	10		76	20	1
111-91-1	BIS(2-CHLOROETHOXY)METHANE	60	52.4	10		87	20	6
120-83-2	2,4-DICHLOROPHENOL	60	52	10		87	20	3
65-85-0	BENZOIC ACID	100	56.7	50		57	20	5
120-82-1	1,2,4-TRICHLOROBENZENE	60	47.8	10		80	20	4
91-20-3	NAPHTHALENE	60	49.1	10		82	20	6
106-47-8	4-CHLOROANILINE	60	51.5	10		86	20	4
87-68-3	HEXACHLOROBUTADIENE	60	46.8	10		78	20	7
59-50-7	4-CHLORO-3-METHYLPHENOL	60	53.8	10		90	20	4

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04/01/2009
Date Analyzed: 04/05/2009
Prep Method: SW3520C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0095

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
91-57-6	2-METHYLNAPHTHALENE	60	49.8	10		83	20	4
90-12-0	1-METHYLNAPHTHALENE	60	51.4	10		86	20	6
77-47-4	HEXACHLOROCYCLOPENTADIENE	60	10.7	10		18	20	7
88-06-2	2,4,6-TRICHLOROPHENOL	60	54.5	10		91	20	5
95-95-4	2,4,5-TRICHLOROPHENOL	60	56.1	10		94	20	6
91-58-7	2-CHLORONAPHTHALENE	60	54.7	10		91	20	9
88-74-4	2-NITROANILINE	60	60.5	20		101	20	4
131-11-3	DIMETHYL PHTHALATE	60	55.7	10		93	20	9
606-20-2	2,6-DINITROTOLUENE	60	59.3	10		99	20	9
208-96-8	ACENAPHTHYLENE	60	55.8	10		93	20	9
99-09-2	3-NITROANILINE	60	60.5	20		101	20	4
83-32-9	ACENAPHTHENE	60	56.2	10		94	20	8
51-28-5	2,4-DINITROPHENOL	60	56.7	20		95	20	0
100-02-7	4-NITROPHENOL	60	55.8	20		93	20	3
132-64-9	DIBENZOFURAN	60	55.5	10		93	20	7
121-14-2	2,4-DINITROTOLUENE	60	61.2	10		102	20	9
84-66-2	DIETHYL PHTHALATE	60	56.3	10		94	20	11
86-73-7	FLUORENE	60	55.7	10		93	20	9
7005-72-3	4-CHLOROPHENYL PHENYL ETHER	60	55.8	10		93	20	8
100-01-6	4-NITROANILINE	60	61.4	20		102	20	5
103-33-3	AZOBENZENE	60	56.9	10		95	20	9
534-52-1	4,6-DINITRO-2-METHYLPHENOL	60	60.8	20		101	20	6
86-30-6	N-NITROSODIPHENYLAMINE	60	48.7	10		81	20	8
101-55-3	4-BROMOPHENYL PHENYL ETHER	60	55.5	10		92	20	8
118-74-1	HEXACHLOROBENZENE	60	54.8	10		91	20	9
58-90-2	2,3,4,6-TETRACHLOROPHENOL	100	93	10		93	20	9
87-86-5	PENTACHLOROPHENOL	60	52.7	20		88	20	3

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Lab ID: EX090401-3LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 04/01/2009
Date Analyzed: 04/05/2009
Prep Method: SW3520C

Prep Batch: EX090401-3
QCBatchID: EX090401-3-1
Run ID: SV090405-3
Cleanup: NONE
Basis: N/A
File Name: R0095

Sample Aliquot: 1000 ml
Final Volume: 1 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
85-01-8	PHENANTHRENE	60	55.5	10		92	20	7
120-12-7	ANTHRACENE	60	55.8	10		93	20	7
86-74-8	CARBAZOLE	60	58.6	10		98	20	6
84-74-2	DI-N-BUTYL PHTHALATE	60	58.4	10		97	20	9
206-44-0	FLUORANTHENE	60	58.6	10		98	20	10
129-00-0	PYRENE	60	53.9	10		90	20	12
85-68-7	BUTYL BENZYL PHTHALATE	60	56.9	10		95	20	9
56-55-3	BENZO(A)ANTHRACENE	60	55.6	10		93	20	8
91-94-1	3,3'-DICHLOROBENZIDINE	60	55.4	10		92	20	2
218-01-9	CHRYSENE	60	55.4	10		92	20	6
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60	55.8	10		93	20	10
117-84-0	DI-N-OCTYL PHTHALATE	60	57	10		95	20	6
205-99-2	BENZO(B)FLUORANTHENE	60	54.2	10		90	20	11
207-08-9	BENZO(K)FLUORANTHENE	60	54.7	10		91	20	12
50-32-8	BENZO(A)PYRENE	60	50.5	10		84	20	7
193-39-5	INDENO(1,2,3-CD)PYRENE	60	53.5	10		89	20	5
53-70-3	DIBENZO(A,H)ANTHRACENE	60	56.4	10		94	20	4
191-24-2	BENZO(G,H,I)PERYLENE	60	54.7	10		91	20	6

Data Package ID: *SV0904002-1*

GC/MS Semi-volatiles

Method SW8270D

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: **ALS Paragon**
Work Order Number: 0904002
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200206880

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
118-79-6	2,4,6-TRIBROMOPHENOL	75	86		93		23 - 100
321-60-8	2-FLUOROBIPHENYL	50	83		90		21 - 106
367-12-4	2-FLUOROPHENOL	75	78		83		21 - 100
4165-60-0	NITROBENZENE-D5	50	87		92		34 - 111
4165-62-2	PHENOL-D5	75	83		86		15 - 104
1718-51-0	TERPHENYL-D14	50	82		90		33 - 111

Data Package ID: *SV0904002-1*

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\040509\R0093.D Vial: 3
Acq On : 5 Apr 2009 4:03 pm Operator: jk SOP 506 Rev
Sample : EX090401-3MB Inst : HPSV-3
Misc : WATER EX090401-3 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 6 7:54 2009 Quant Results File: 040409S3.RES

Quant Method : C:\HPCHEM\1\METHODS\040409S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Sun Apr 05 16:09:45 2009
Response via : Initial Calibration
DataAcq Meth : 040409S3

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.65	152	350359	40.00	ng/uL	0.00
25) Naphthalene-d8	6.84	136	1254380	40.00	ng/uL	0.00
42) Acenaphthene-d10	8.40	164	653618	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.70	188	871632	40.00	ng/uL	0.00
80) Chrysene-d12	11.99	240	787469	40.00	ng/uL	0.00
91) Perylene-d12	13.61	264	725130	40.00	ng/uL	0.00
System Monitoring Compounds						
5) 2-Fluorophenol	4.28	112	661668	52.92	ng/uL	0.00
Spiked Amount 75.000	Range 21 - 100		Recovery = 70.56%			
6) 2-Chlorophenol-d4	5.43	132	603404	58.01	ng/uL	0.00
Spiked Amount 75.000	Range 33 - 110		Recovery = 77.35%			
8) Phenol-d5	5.23	99	825694	54.40	ng/uL	0.00
Spiked Amount 75.000	Range 15 - 104		Recovery = 72.53%			
15) 1,2-Dichlorobenzene-d4	5.80	152	279220	38.20	ng/uL	0.00
Spiked Amount 50.000	Range 16 - 110		Recovery = 76.40%			
26) Nitrobenzene-d5	6.17	82	460115	42.18	ng/uL	0.00
Spiked Amount 50.000	Range 34 - 111		Recovery = 84.36%			
46) 2-Fluorobiphenyl	7.78	172	868910	41.16	ng/uL	0.00
Spiked Amount 50.000	Range 21 - 106		Recovery = 82.32%			
68) 2,4,6-Tribromophenol	9.08	330	129359	51.52	ng/uL	0.00
Spiked Amount 75.000	Range 23 - 100		Recovery = 68.69%			
83) p-Terphenyl-d14	11.03	244	739968	43.33	ng/uL	0.00
Spiked Amount 50.000	Range 33 - 111		Recovery = 86.66%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
R0093.D 040409S3.M Mon Apr 06 07:54:41 2009 4-7-09

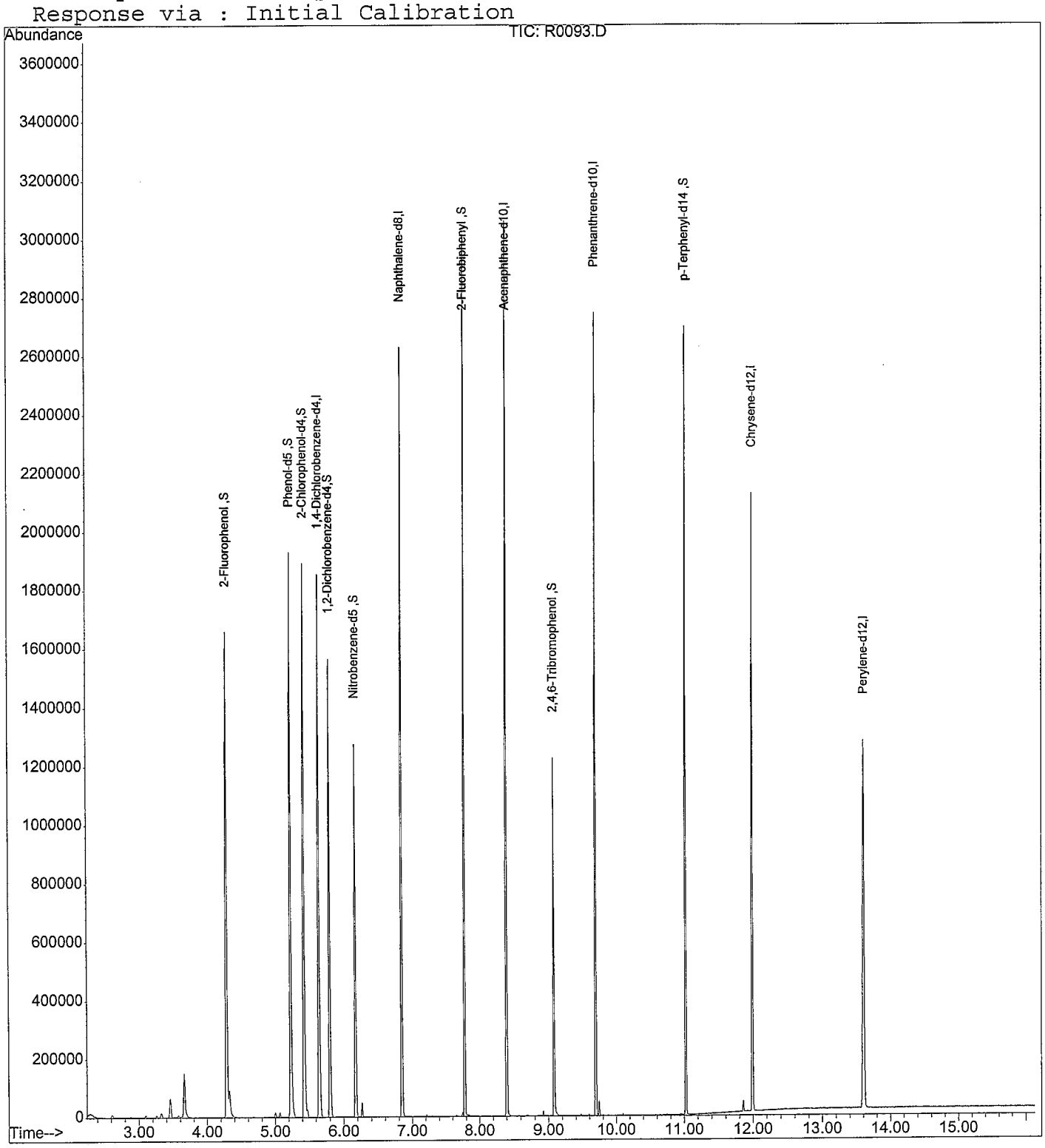
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040509\R0093.D
Acq On : 5 Apr 2009 4:03 pm
Sample : EX090401-3MB
Misc : WATER EX090401-3
MS Integration Params: LSCINT.P
Quant Time: Apr 6 7:54 2009

Vial: 3
Operator: jk SOP 506
Inst : HPSV-3
Multiplr: 1.00

Quant Results File: 040409S3.RES

Method : C:\HPCHEM\1\METHODS\040409S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Sun Apr 05 16:09:45 2009
Response via : Initial Calibration



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\040509\R0093.D
Acq On : 5 Apr 2009 4:03 pm
Sample : EX090401-3MB
Misc : WATER EX090401-3
MS Integration Params: LSCINT.P

Vial: 3
Operator: jk SOP 50
Inst : HPSV-3
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\040409S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : C:\DATABASE\nist98.l

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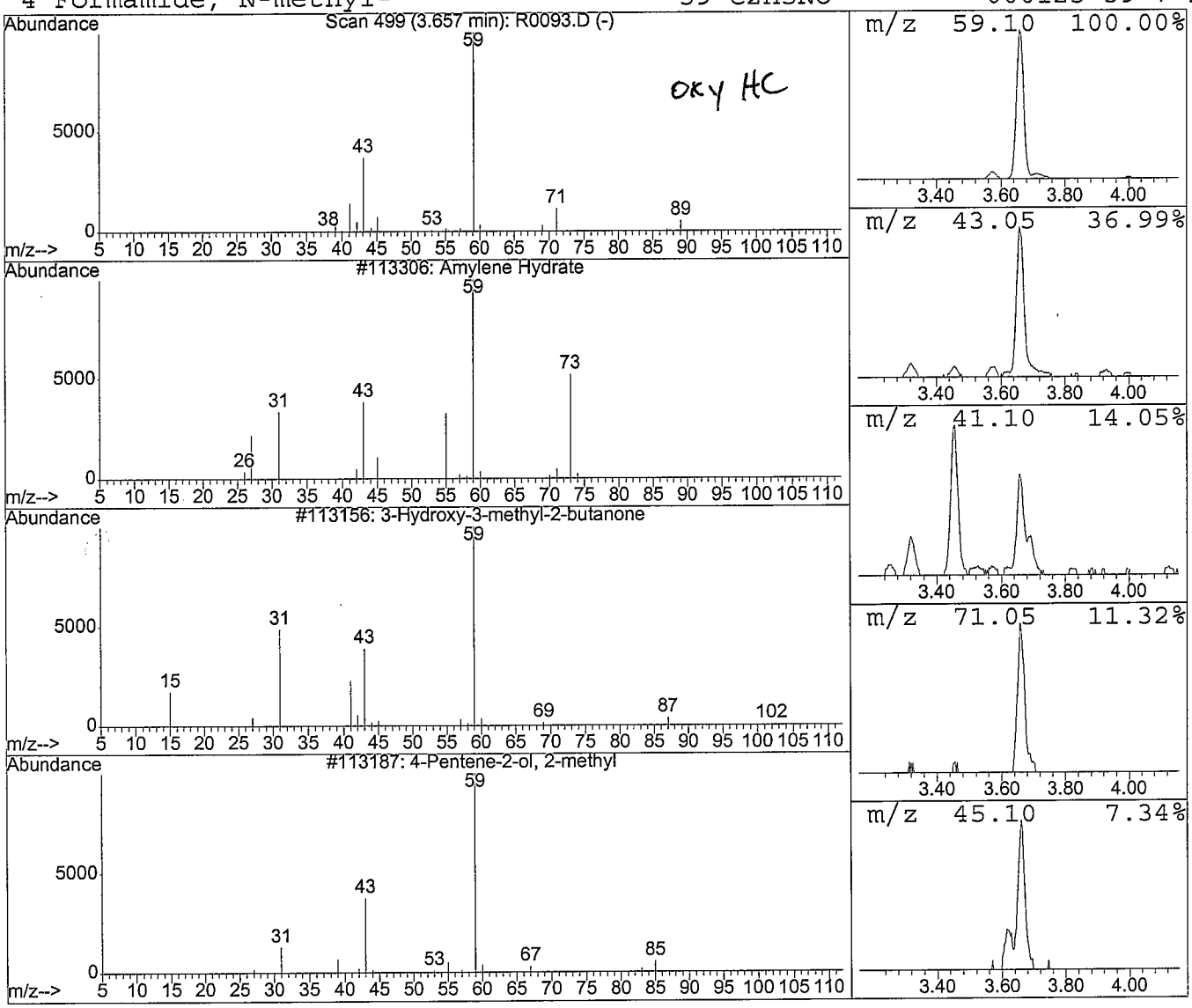
Peak Number 1 Amylene Hydrate Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.66	5.00 ng/uL	264688	1,4-Dichlorobenzene-d4	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Amylene Hydrate	88	C5H12O	000075-85-4	39
2	3-Hydroxy-3-methyl-2-butanone	102	C5H10O2	000115-22-0	38
3	4-Pentene-2-ol, 2-methyl	100	C6H12O	000624-97-5	38
4	Formamide, N-methyl-	59	C2H5NO	000123-39-7	9



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\040509\R0097.D Vial: 7
Acq On : 5 Apr 2009 5:36 pm Operator: jk SOP 506 Rev
Sample : 0904002-1 Inst : HPSV-3
Misc : WATER EX090401-3 Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Apr 6 7:59 2009 Quant Results File: 040409S3.RES

Quant Method : C:\HPCHEM\1\METHODS\040409S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Sun Apr 05 16:09:45 2009
Response via : Initial Calibration
DataAcq Meth : 040409S3

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-d4	5.65	152	357765	40.00	ng/uL	0.00
25) Naphthalene-d8	6.84	136	1274152	40.00	ng/uL	0.00
42) Acenaphthene-d10	8.40	164	665000	40.00	ng/uL	0.00
69) Phenanthrene-d10	9.69	188	876562	40.00	ng/uL	0.00
80) Chrysene-d12	11.99	240	796097	40.00	ng/uL	-0.01
91) Perylene-d12	13.60	264	686110	40.00	ng/uL	-0.01
System Monitoring Compounds						
5) 2-Fluorophenol	4.28	112	645697	50.57	ng/uL	0.00
Spiked Amount 75.000	Range 21 - 100		Recovery = 67.43%			
6) 2-Chlorophenol-d4	5.42	132	592017	55.73	ng/uL	0.00
Spiked Amount 75.000	Range 33 - 110		Recovery = 74.31%			
8) Phenol-d5	5.23	99	811146	52.33	ng/uL	0.00
Spiked Amount 75.000	Range 15 - 104		Recovery = 69.77%			
15) 1,2-Dichlorobenzene-d4	5.80	152	281316	37.69	ng/uL	0.00
Spiked Amount 50.000	Range 16 - 110		Recovery = 75.38%			
26) Nitrobenzene-d5	6.17	82	454678	41.04	ng/uL	0.00
Spiked Amount 50.000	Range 34 - 111		Recovery = 82.08%			
46) 2-Fluorobiphenyl	7.78	172	846290	39.40	ng/uL	0.00
Spiked Amount 50.000	Range 21 - 106		Recovery = 78.80%			
68) 2,4,6-Tribromophenol	9.08	330	124236	48.63	ng/uL	0.00
Spiked Amount 75.000	Range 23 - 100		Recovery = 64.84%			
83) p-Terphenyl-d14	11.02	244	699277	40.50	ng/uL	0.00
Spiked Amount 50.000	Range 33 - 111		Recovery = 81.00%			

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
R0097.D 040409S3.M Mon Apr 06 07:59:08 2009 4-7-09 Page 1

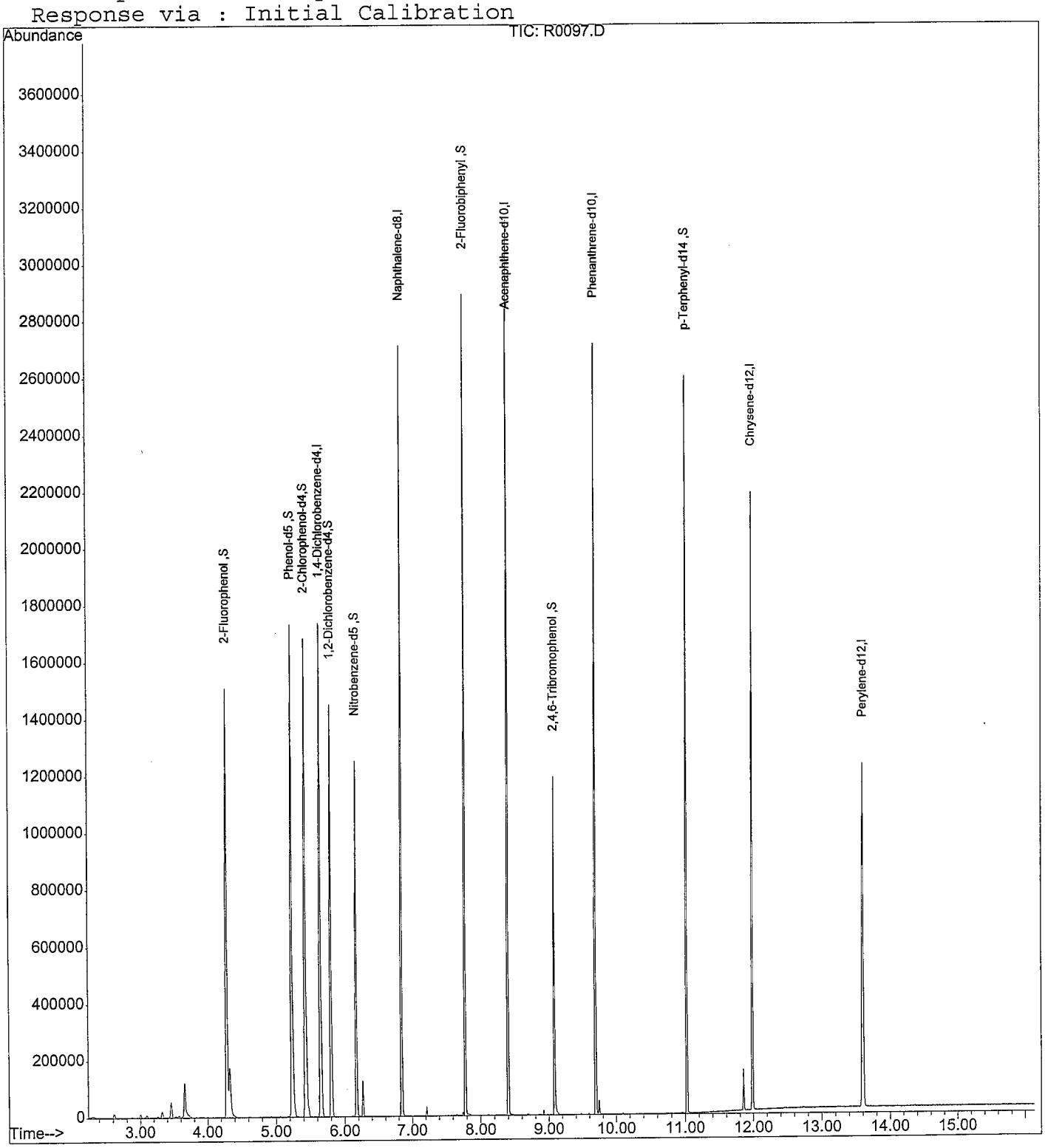
Quantitation Report

Data File : C:\HPCHEM\1\DATA\040509\R0097.D
Acq On : 5 Apr 2009 5:36 pm
Sample : 0904002-1
Misc : WATER EX090401-3
MS Integration Params: LSCINT.P
Quant Time: Apr 6 7:59 2009

Vial: 7
Operator: jk SOP 506
Inst : HPSV-3
Multiplr: 1.00

Quant Results File: 040409S3.RES

Method : C:\HPCHEM\1\METHODS\040409S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Last Update : Sun Apr 05 16:09:45 2009
Response via : Initial Calibration



Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\040509\R0097.D
Acq On : 5 Apr 2009 5:36 pm
Sample : 0904002-1
Misc : WATER EX090401-3
MS Integration Params: LSCINT.P

Vial: 7
Operator: jk SOP 50
Inst : HPSV-3
Multiplr: 1.00

Quant Method : C:\HPCHEM\1\METHODS\040409S3.M (RTE Integrator)
Title : GC-MS Semivolatiles SOP no. 506
Library : C:\DATABASE\nist98.l

****

Peak Number 1 Amylene Hydrate Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.66	4.40 ng/uL	239132	1,4-Dichlorobenzene-d4	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Amylene Hydrate	88	C5H12O	000075-85-4	39
2	Oxirane, 3-ethyl-2,2-dimethyl-	100	C6H12O	001192-22-9	9
3	1,2-Butanediol	90	C4H10O2	000584-03-2	9
4	3-Hydroxy-3-methyl-2-butanone	102	C5H10O2	000115-22-0	9