



ALS Paragon



Dissolved Gasses Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 20026998

Work Order Number: 0903234

1. This report consists of 1 water sample. The sample was received cool and intact by ALS Paragon on 03/31/09. The sample was free of headspace prior to analysis. The sample had a pH > 2 at the time of analysis.
2. The sample was prepared and analyzed according to method RSK-175 procedures and SOP449R0.
3. The preparation batch included a method blank, laboratory control sample, and laboratory control sample duplicate. Per method requirements, matrix QC was performed for this analysis. 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.
4. All preparation QC results were within the acceptance criteria.
5. All samples are associated with one or more of the following analytical QC: initial calibrations, initial calibration verifications (ICV), and continuing calibration verifications (CCV).
6. All analytical QC were within the acceptance criteria.
7. Sample dilutions were not required for the requested analysis.
8. The sample was prepared and analyzed within the established holding times.
9. 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.

Emily Knodel
Emily Knodel
Organics Primary Data Reviewer

04-13-09
Date

Dan Sheneman
Dan Sheneman
Organics Final Data Reviewer

04-13-09
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.

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Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0903234

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 20026998

Client Project Number:

Client PO Number: OE PHA 090000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Meadows 090330	0903234-1		WATER	30-Mar-09	10:15

Report To: Margaret Ash
Phone: 303-894-2100 x 110
Fax: 303-894-2101
E-mail: MARGARET.ASH@STREET.CO.US
Company: Colorado Oil & Gas Council C.O.G.C.
Address: 1120 Lincoln St., Ste 801
Denver, CO 80203

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 (Type...)	BTEX (only)	SVOCs	OC Pesticides	PCBs	Herbicides	Explosives TOC	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 Alkalinity	Inorganic Anions	Solids:	pH	TPH	Gross Alpha / Beta	Actinides by Paragon SOP	Tritium	Total Alpha-Emitting Radium	Radium 226	Radium 228	Strontium 90 (Total RadioSr)	Gamma Isotopes	Radon 222	SAR CMC	Ames/Cancer		
14530002-070530	11/10/15	1	1	CS	HCl	3	X	X	X								X	X	Total Metals	Dissolved Metals	Hexavalent Chromium	Inorganic Anions	Solids:	pH	TPH										X	X	
14530002-070530	11/10/15	1	1	CS	HCl	3	X	X	X								X	X	Total Metals	Dissolved Metals	Hexavalent Chromium	Inorganic Anions	Solids:	pH	TPH										X	X	
14530002-070530	11/10/15	1	1	CS	HCl	3	X	X	X								X	X	Total Metals	Dissolved Metals	Hexavalent Chromium	Inorganic Anions	Solids:	pH	TPH										X	X	
14530002-070530	11/10/15	1	1	CS	HCl	3	X	X	X								X	X	Total Metals	Dissolved Metals	Hexavalent Chromium	Inorganic Anions	Solids:	pH	TPH										X	X	
14530002-070530	11/10/15	1	1	CS	HCl	3	X	X	X								X	X	Total Metals	Dissolved Metals	Hexavalent Chromium	Inorganic Anions	Solids:	pH	TPH										X	X	

[illegible]

Comments:

Answer - R (1E, 3A, 3B, 3C)

200.7 = Ba, Be, Bi, Br, Ca, Co, Cu, Fe, Li, Mg, Mn, Na, K, Nb, Zn, Sr
200.8 = Sb, As, Co, Pb, Mo, Se, Ag, Ti, U
re. Mendelev: 20026998

March 2006

Donnell, James

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

<p>Relinquished By: _____</p> <p>Signature: <u>[Signature]</u></p> <p>Printed Name: <u>ANDREW L. LINDENBERG</u></p> <p>Date: <u>3/30/07</u> Time: <u>13:00</u></p> <p>Company: <u>AMERICAN AIRCRAFT</u></p>	<p>(1)</p>	<p>Relinquished By: _____</p> <p>Signature: _____</p> <p>Printed Name: _____</p> <p>Date: _____ Time: _____</p> <p>Company: _____</p>	<p>(2)</p>
<p>Received By: <u>[Signature]</u></p> <p>Signature: <u>Lara Jordan</u></p> <p>Printed Name: <u>Lara Jordan</u></p> <p>Date: <u>3/31/09</u> Time: <u>1005</u></p> <p>Company: <u>ALSPARSON</u></p>	<p>(1)</p>	<p>Received By: _____</p> <p>Signature: _____</p> <p>Printed Name: _____</p> <p>Date: _____ Time: _____</p> <p>Company: _____</p>	<p>(2)</p>

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCCWorkorder No: 0903234Project Manager: AWInitials: LJODate: 3/3/09

1. Does this project require any special handling in addition to standard Paragon procedures?	YES	<u>NO</u>
2. Are custody seals on shipping containers intact?	NONE	<u>YES</u> NO
3. Are Custody seals on sample containers intact?	<u>NONE</u>	YES NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?	<u>YES</u>	NO
5. Are the COC and bottle labels complete and legible ?	<u>YES</u>	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)	<u>YES</u>	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<u>YES</u> NO
8. Are all aqueous samples requiring preservation preserved correctly ? (excluding volatiles)	N/A	<u>YES</u> <u>NO</u> ★
9. Are all aqueous non-preserved samples pH 4-9 ?	N/A	<u>YES</u> NO
10. Is there sufficient sample for the requested analyses?	<u>YES</u>	NO
11. Were all samples placed in the proper containers for the requested analyses?	<u>YES</u>	NO
12. Are all samples within holding times for the requested analyses?	<u>YES</u>	NO
13. Were all sample containers received intact ? (not broken or leaking, etc.)	<u>YES</u>	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u> </u> < green pea <u> </u> > green pea	N/A	<u>YES</u> NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<u>N/A</u>	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.)	<u>N/A</u>	YES NO
17. Were the samples shipped on ice ?	<u>YES</u>	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4	RAD ONLY	<u>YES</u> NO
Cooler #: <u>1</u>		
Temperature (°C): <u>4.2</u>		
No. of custody seals on cooler: <u>1</u>		
DOT Survey/ Acceptance Information	External µR/hr reading: <u>12</u>	
	Background µR/hr reading: <u>11</u>	
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <u>YES</u> 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 500ml poly for metals analysis was received unpreserved.
COC requests the bottle be filtered and preserved upon receipt.

If applicable, was the client contacted? YES / NO / NA Contact: Date/Time: Project Manager Signature / Date: 3/3/09

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

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

Dissolved Gasses

Method RSK175

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0903234

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 20026998

Lab ID: HC090409-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 09-Apr-09

Date Analyzed: 09-Apr-09

Prep Method: METHOD

Prep Batch: HC090409-1

QCBatchID: HC090409-1-1

Run ID: HC090409-1A

Cleanup: NONE

Basis: N/A

File Name: 01049.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
74-82-8	METHANE	1	1	1	U	
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	2	2	U	

Data Package ID: HC0903234-1

Date Printed: Monday, April 13, 2009

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Dissolved Gasses

Method RSK175

Sample Results

Lab Name: ALS Paragon

Work Order Number: 0903234

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 20026998

Field ID: Meadows 090330

Lab ID: 0903234-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 30-Mar-09

Date Extracted: 09-Apr-09

Date Analyzed: 09-Apr-09

Prep Method: METHOD

Prep Batch: HC090409-1

QCBatchID: HC090409-1-1

Run ID: HC090409-1A

Cleanup: NONE

Basis: As Received

File Name: 01055.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
74-82-8	METHANE	1	2500	1		
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	2	2	U	

Data Package ID: HC0903234-1

Date Printed: Monday, April 13, 2009

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Dissolved Gasses

Method RSK175

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903234

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 20026998

Lab ID: HC090409-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 04/09/2009

Date Analyzed: 04/09/2009

Prep Method: METHOD

Prep Batch: HC090409-1

QCBatchID: HC090409-1-1

Run ID: HC090409-1A

Cleanup: NONE

Basis: N/A

File Name: 01048.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
74-82-8	METHANE	142	137	1		97	80 - 120%
74-85-1	ETHENE	249	239	1		96	80 - 120%
74-84-0	ETHANE	267	259	2		97	80 - 120%

Lab ID: HC090409-1LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 04/09/2009

Date Analyzed: 04/09/2009

Prep Method: METHOD

Prep Batch: HC090409-1

QCBatchID: HC090409-1-1

Run ID: HC090409-1A

Cleanup: NONE

Basis: N/A

File Name: 01058.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
74-82-8	METHANE	142	156	1		110	25	13
74-85-1	ETHENE	249	268	1		108	25	11
74-84-0	ETHANE	267	295	2		111	25	13

Data Package ID: HC0903234-1

Date Printed: Monday, April 13, 2009

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