



ALS Paragon



Total Organic Carbon Case Narrative

Colorado Oil & Gas Conservation Commission

Complaint 200206469

Work Order Number: 0903156

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS Paragon on 03/20/09.
3. The sample had been correctly preserved for the requested analysis.
4. The sample was prepared for analysis based on Methods for the Chemical Analysis of Waters and Wastes (MCAWW), May 1994 procedures.

5. The sample was analyzed following MCAWW procedures for the following method:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
TOC (Total Organic Carbon)	415.1	670 Rev 12

6. All standards and solutions were used within their recommended shelf life.
7. The sample was prepared and analyzed within the established hold time for TOC analysis.

All in house quality control procedures were followed, as described below.

8. General quality control procedures.
 - n A preparation (method) blank, laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed with the samples in this preparation batch. There were not more than 20 samples in this preparation batch.
 - n The method blank associated with this batch was below the reporting limit for the requested analyte. This indicates that no contaminants were introduced to the samples during preparation and analysis.
 - n The LCS and LCSD were within the acceptance limits for TOC analysis.

ALS Paragon

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

Client Project Name: Complaint 200206469

Client Project Number:

Client PO Number: OE PHA 09000000004

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Gordon-Ross 090319	0903156-1		WATER	19-Mar-09	10:05

CONDITION OF SAMPLE UPON RECEIPT FORM

Paragon Analytics

Client: COGCC
Project Manager: AW

Workorder No: 0903156
Initials: LJO Date: 3/20/09

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	<input checked="" type="radio"/> NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> 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	<input checked="" type="radio"/> YES	NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> 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.)	<input checked="" type="radio"/> N/A	YES	NO
17. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <input checked="" type="radio"/> #2 #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>2.2</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>13</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> 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 500 ml poly For metals analysis needs to be filtered and preserved in house.

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

Project Manager Signature / Date: [Signature] 3/23/09

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

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



Inorganic Data Reporting Qualifiers

The following qualifiers are used by the laboratory when reporting results of inorganic analyses.

- Concentration qualifier -- If the analyte was analyzed for but not detected a “U” is entered.
- QC qualifier -- Specified entries and their meanings are as follows:
 - N - Spiked sample recovery not within control limits.
 - * - Duplicate analysis (relative percent difference) not within control limits.
 - B - The method blank for the analysis contained the analyte of interest above the reporting limit.

TOTAL ORGANIC CARBON

Method EPA415.1

Sample Results

Lab Name: ALS Paragon

Client Name: Colorado Oil & Gas Conservation Commission

Client Project ID: Complaint 200206469

Work Order Number: 0903156

Final Volume: 40 ml

Reporting Basis: As Received

Matrix: WATER

Prep Method: NONE

Result Units: MG/L

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
Gordon-Ross 090319	0903156-1	03/19/2009	03/24/2009	03/24/2009	N/A	1	1.2	1		40 ml

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: *MO0903156-1*

Date Printed: Wednesday, March 25, 2009

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TOTAL ORGANIC CARBON

Method EPA415.1

Method Blank

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: MO090324-1MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: N/A

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
MO090324-1MB	3/24/2009	03/24/2009	N/A	1	1	1	U

Comments:

1. ND or U = Not Detected at or above the client requested detection limit.

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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Method EPA415.1

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Lab ID: MO090324-1LCS

Sample Matrix: WATER

Prep Batch: MO090324-1

Sample Aliquot: 40 ml

% Moisture: N/A

QCBatchID: MO090324-1-1

Final Volume: 40 ml

Date Collected: N/A

Run ID: MO090324-1A

Result Units: MG/L

Date Extracted: 03/24/2009

Cleanup: NONE

Clean DF: 1

Date Analyzed: 03/24/2009

Basis: N/A

Prep Method: NONE

File Name: 03241037

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
10-35-5	TOTAL ORGANIC CARBON	15	15.3	1		102	85 - 115%

Lab ID: MO090324-1LCSD

Sample Matrix: WATER

Prep Batch: MO090324-1

Sample Aliquot: 40 ml

% Moisture: N/A

QCBatchID: MO090324-1-1

Final Volume: 40 ml

Date Collected: N/A

Run ID: MO090324-1A

Result Units: MG/L

Date Extracted: 03/24/2009

Cleanup: NONE

Clean DF: 1

Date Analyzed: 03/24/2009

Basis: N/A

Prep Method: NONE

File Name: 03241037

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
10-35-5	TOTAL ORGANIC CARBON	15	15.4	1		102	20	0

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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Organic Carbon

Method EPA415.1

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Paragon

Work Order Number: 0903156

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200206469

Field ID: Gordon-Ross 090319

LabID: 0903156-1MS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 24-Mar-09

Prep Method: NONE

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

File Name: 03241037

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
10-35-5	TOTAL ORGANIC CARBON	1.2		11.3		1	10	102	80 - 120%

Field ID: Gordon-Ross 090319

LabID: 0903156-1MSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 19-Mar-09

Date Extracted: 24-Mar-09

Date Analyzed: 24-Mar-09

Prep Method: NONE

Prep Batch: MO090324-1

QCBatchID: MO090324-1-1

Run ID: MO090324-1A

Cleanup: NONE

Basis: As Received

Sample Aliquot: 40 ml

Final Volume: 40 ml

Result Units: MG/L

File Name: 03241037

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
10-35-5	TOTAL ORGANIC CARBON	11.3		10	101	1	20	0

Data Package ID: MO0903156-1

Date Printed: Wednesday, March 25, 2009

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