



Dissolved Gasses

Case Narrative

COGCC

DCU6-Orphan

Work Order Number: 1007167

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 07/16/2010.

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, laboratory control sample duplicate and sample duplicate. The following is a list of samples used for the matrix QC:

Sample ID	QC Type	Batch ID
1007167-1	DUP	HC100722-9

Similarity of matrix and therefore relevance of the QC results should not be automatically inferred for any sample other than the native sample selected for QC.

All preparation QC were within the acceptance criteria.

4. The sample was associated with one or more of the following analytical QC: initial calibrations, initial calibration verifications (ICV), and continuing calibration verifications (CCV).
5. All analytical QC were within the acceptance criteria.
6. Sample dilutions were not required for the requested analysis.
7. The sample was prepared and analyzed within the established holding time.



8. 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 certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Mindy Norton
Mindy Norton
Organics Primary Data Reviewer

8-5-10
Date

Jia Nore
Organics Final Data Reviewer

8-9-10
Date



ALS
Data Qualifier Flags
Chromatography and Mass Spectrometry

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

ALS Laboratory Group -- FC

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 1007167

Client Name: COGCC

Client Project Name: DCU6-Orphan

Client Project Number:

Client PO Number: OE PHA 11000000014

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
DCU #6	1007167-1		WATER	15-Jul-10	12:00
Trip Blank	1007167-2		WATER	15-Jul-10	

Form 202r7 (5/19/09)



CONDITION OF SAMPLE UPON RECEIPT FORM

Client:

COGCC

Workorder No:

1007167

Project Manager:

ARW

Initials:

LAS

Date:

7/16/10

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	<input checked="" type="radio"/> 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	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: <input checked="" type="checkbox"/> < green pea <input type="checkbox"/> > green pea	N/A	YES	<input checked="" type="radio"/> 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 <input type="radio"/> #4	RAD ONLY	<input checked="" type="radio"/> YES <input type="radio"/> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>2.6</u>			
No. of custody seals on cooler: <u>2</u>			
External µR/hr reading: <u>12</u>			
Background µR/hr reading: <u>10</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

*8 1007167-1-10 (DCU#6) 125ml amber initial pH = 7
 0.4mL H₂SO₄ (Lot #49245) added by LAS @ 1040 7/16/10

Final pH < 2

*14 1007167-1-5, 1-6 40mL vials for GRO have headspace < pea size

If applicable, was the client contacted? ☒ YES / NO / NA

Contact: Linda Sping Drouke

Date/Time: 7/19/10

C. Smith

Project Manager Signature / Date:

C. Smith 7/19/10

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

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

Dissolved Gasses

Method RSK175

Method Blank

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 1007167

Client Name: COGCC

ClientProject ID: DCU6-Orphan

Lab ID: HC100722-9MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 22-Jul-10

Date Analyzed: 22-Jul-10

Prep Method: METHOD

Prep Batch: HC100722-9

QCBatchID: HC100722-9-1

Run ID: HC100722-9A

Cleanup: NONE

Basis: N/A

File Name: 02745.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: MEE1007167-1

Date Printed: Thursday, August 05, 2010

ALS Laboratory Group -- FC

LIMS Version: 6.390A

Page 1 of 1

Dissolved Gasses

Method RSK175

Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 1007167

Client Name: COGCC

ClientProject ID: DCU6-Orphan

Field ID: DCU #6
Lab ID: 1007167-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 15-Jul-10
Date Extracted: 22-Jul-10
Date Analyzed: 22-Jul-10
Prep Method: METHOD

Prep Batch: HC100722-9
QCBatchID: HC100722-9-1
Run ID: HC100722-9A
Cleanup: NONE
Basis: As Received
File Name: 02749.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	5900	1		
74-85-1	ETHENE	1	1	1	U	
74-84-0	ETHANE	1	6	2		

Data Package ID: MEE1007167-1

Date Printed: Thursday, August 05, 2010

ALS Laboratory Group -- FC

LIMS Version: 6.390A

Page 1 of 1

Dissolved Gasses

Method RSK175

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 1007167

Client Name: COGCC

ClientProject ID: DCU6-Orphan

Lab ID: HC100722-9LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 07/22/2010

Date Analyzed: 07/22/2010

Prep Method: METHOD

Prep Batch: HC100722-9

QCBatchID: HC100722-9-1

Run ID: HC100722-9A

Cleanup: NONE

Basis: N/A

File Name: 02742.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	132	1		93	80 - 120%
74-85-1	ETHENE	249	229	1		92	80 - 120%
74-84-0	ETHANE	267	239	2		90	80 - 120%

Lab ID: HC100722-9LCSD

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 07/22/2010

Date Analyzed: 07/22/2010

Prep Method: METHOD

Prep Batch: HC100722-9

QCBatchID: HC100722-9-1

Run ID: HC100722-9A

Cleanup: NONE

Basis: N/A

File Name: 02744.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	127	1		90	25	4
74-85-1	ETHENE	249	222	1		89	25	3
74-84-0	ETHANE	267	230	2		86	25	4

Data Package ID: MEE1007167-1

Dissolved Gasses

Method RSK175

Duplicate Sample Results

Lab Name: ALS Laboratory Group -- FC

Work Order Number: 1007167

Client Name: COGCC

ClientProject ID: DCU6-Orphan

Field ID: DCU #6

Lab ID: 1007167-1D

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 07/15/2010

Date Extracted: 07/22/2010

Date Analyzed: 07/22/2010

Prep Batch: HC100722-9

QCBatchID: HC100722-9-1

Run ID: HC100722-9A

Cleanup: NONE

Basis: As Received

File Name: 02750.dat

Sample Aliquot: 38.5 ml

Final Volume: 38.5 ml

Result Units: UG/L

Clean DF: 1

CASNO	Target Analyte	Sample Result	Samp Qual	Duplicate Result	Dup Qual	Reporting Limit	Dilution Factor	RPD	RPD Limit
74-82-8	METHANE	5900		5940		1	1	1	25
74-85-1	ETHENE	1	U	1	U	1	1		25
74-84-0	ETHANE	6		6.02		2	1	0	25

Data Package ID: MEE1007167-1

Date Printed: Thursday, August 05, 2010

ALS Laboratory Group -- FC

Page 1 of 1

LIMS Version: 6.390A