

# Inorganics

## Case Narrative

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### Colorado Oil & Gas Conservation Commission

#### Complaint 200339399

Work Order Number: 1202195

1. This report consists of 1 water sample.
2. The sample was received cool and intact by ALS on 02/16/12.
3. The sample was prepared for analysis based on Methods for the Chemical Analysis of Waters and Wastes (MCAWW), May 1994 procedures and Environmental Monitoring Systems Laboratory (EMSL) Rev 2.1 procedures.
4. The sample was analyzed following MCAWW and EMSL procedures for the following methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	310.1	1106 Rev 10
Bicarbonate	310.1	1106 Rev 10
Carbonate	310.1	1106 Rev 10
pH	150.1	1126 Rev 18
Specific conductance	120.1	1128 Rev 10
TDS	160.1	1101 Rev 11
Bromide	300.0 Revision 2.1	1113 Rev 12
Chloride	300.0 Revision 2.1	1113 Rev 12
Fluoride	300.0 Revision 2.1	1113 Rev 12
Nitrate as N	300.0 Revision 2.1	1113 Rev 12
Nitrite as N	300.0 Revision 2.1	1113 Rev 12
Orthophosphate as P	300.0 Revision 2.1	1113 Rev 12
Sulfate	300.0 Revision 2.1	1113 Rev 12

5. All standards and solutions were used within their recommended shelf life.
6. The sample was prepared and analyzed within the established hold time for each analysis with the exception of nitrate as N, nitrite as N, and orthophosphate as P. The sample was received by ALS with little hold time remaining.

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



7. General quality control procedures.

- A preparation (method) blank and laboratory control sample (LCS) were prepared and analyzed with the samples in each applicable preparation batch. There were not more than 20 samples in each preparation batch.
- The method blank associated with each applicable batch was below the reporting limit for the requested analytes. This indicates that no contaminants were introduced to the samples during preparation and analysis.
- The LCS was within the acceptance limits for each applicable analysis.
- All initial and continuing calibration blanks (ICB/CCB) associated with each applicable analytical batch were below the reporting limit for the requested analytes.
- All initial and continuing calibration verifications (ICV/CCV) associated with each applicable analytical batch were within the acceptance criteria for the requested analytes.

8. Matrix specific quality control procedures.

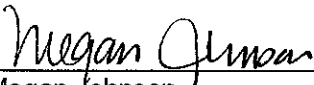
Per method requirements, matrix QC was performed for each analysis. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

9. It was necessary to dilute the sample in order to bring the sulfate concentration into the analytical range of the ion chromatograph (IC).

Reduced aliquots were taken of the sample for the alkalinity, bicarbonate, and carbonate analysis. Reporting limits were elevated accordingly.

10. 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.

  
Megan Johnson  
Inorganics Primary Data Reviewer

2/24/12  
Date

  
Inorganics Final Data Reviewer

2/24/12  
Date



### **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.
  - Z - Calibration spike recovery not within control limits.

# ALS Environmental -- FC

## Sample Number(s) Cross-Reference Table

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**OrderNum:** 1202195

**Client Name:** Colorado Oil & Gas Conservation Commission

**Client Project Name:** Complaint 200339399

**Client Project Number:**

**Client PO Number:** PHA 12-10

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
705325 Nosaka WW	1202195-1		WATER	14-Feb-12	14:17

# ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524  
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

PROJECT NAME		PROJECT NO.		COMPANY NAME		SEND REPORT TO		ADDRESS		CITY / STATE / ZIP		PHONE		FAX		E-MAIL	
Complaints 200339399		200339402		Peter Gintantus		60 Box 108		Trinidad CO 81062		719-846-3091						peter.gintantus@state.cas	
Lab ID		Field ID		Matrix		Sample Date		Sample Time		Bottles		Pres		QC			
707183 Steiner WW		Complaint 200339402		W		14Feb		14:47		3		1		X			
Trip Blank				W		14Feb		06:30		2		1		X			
707183 Steiner WW				W		14Feb		14:47		1		3		X			
707183 Steiner WW				W		14Feb		14:47		6		8		X			
Complaint 200339399				W		14Feb											
705325 Nosaka WW				W		14Feb		14:17		3		1		Y			
705325 Nosaka WW				W		14Feb		14:17		1		3		X			
705325 Nosaka WW				W		14Feb		14:17		6		8		X			

Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:	QC PACKAGE (check below)
upn Rec 101	LEVEL II (Standard QC) X
ANALYS = Br, Cl, F, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	LEVEL III (Std QC + forms)
20033-6000-11, Br, 20033-6000	LEVEL IV (Std QC + forms + raw data)
20033-6000-16 N <sub>4</sub> 20033, Th-200, B	

Preservative Key: 1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-NaHSO<sub>4</sub> 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	Peter Gintantus	Peter Gintantus	15Feb2003	12:15
RELINQUISHED BY	Lauren Schmitz	Lauren Schmitz	2/16/12	0925
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



## CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC  
Project Manager: ARWWorkorder No: 1202195  
Initials: LAS Date: 2/16/12

1. Does this project require any <b>special handling</b> in addition to standard Paragon procedures?		YES	<u>NO</u>
2. Are custody seals on <b>shipping containers</b> intact?	NONE	<u>YES</u>	NO
3. Are Custody seals on <b>sample containers</b> intact?	<u>NONE</u>	YES	NO
4. Is there a <b>COC (Chain-of-Custody)</b> present or other representative documents?		<u>YES</u>	NO
5. Are the <b>COC and bottle labels complete and legible</b> ?		<u>YES</u>	NO
6. Is the <b>COC in agreement</b> with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<u>YES</u>	NO
7. Were <b>airbills / shipping documents</b> present and/or removable?	DROP OFF	<u>YES</u>	NO
8. Are all <b>aqueous samples requiring preservation preserved correctly</b> ? (excluding volatiles)	N/A	<u>YES</u>	NO
9. Are all aqueous <b>non-preserved samples pH 4-9</b> ?	N/A	<u>YES</u>	NO
10. Is there <b>sufficient sample</b> for the requested analyses?		<u>YES</u>	NO
11. Were all samples placed in the <b>proper containers</b> for the requested analyses?		<u>YES</u>	NO
12. Are all samples within <b>holding times</b> for the requested analyses?		<u>YES</u>	NO
13. Were all sample containers received <b>intact</b> ? (not broken or leaking, etc.)		<u>YES</u>	NO
14. Are all samples requiring <b>no headspace</b> (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: <u>X</u> < green pea _____ > green pea	N/A	YES	<u>NO</u> *
15. Do perchlorate LCMS-MS samples <b>have headspace</b> ? (at least 1/3 of container required)	<u>N/A</u>	YES	NO
16. Were samples checked for and free from the presence of <b>residual chlorine</b> ? (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 <b>shipped on ice</b> ?		<u>YES</u>	NO
18. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <u>#2</u> #4		<u>YES</u>	NO
Cooler #: <u>1</u>			
Temperature (°C): <u>1.6</u>			
No. of custody seals on cooler: <u>1</u>			
External µR/hr reading: <u>14</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.

\*14 1202195-1-6(705325 Ndsqka) for DISS. Gases arrived with headspace ≤ pea-size.If applicable, was the client contacted? YES / NO / NA Contact: \_\_\_\_\_ Date/Time: \_\_\_\_\_Project Manager Signature / Date: [Signature] 2/16/12

1202195

From: (719) 846-3091  
Peter Gintautas  
Colo. Oil & Gas Cons. Comm.  
213 Conundrum RD  
Trinidad, CO 81082

Origin ID: PUBA



J1210112190225

SHIP TO: (970) 490-1511

Amy Wolf  
ALS Laboratory Group  
225 COMMERCE DR

FORT COLLINS, CO 80524

BILL SENDER

Ship Date: 15FEB12  
ActWgt: 34.0 LB  
CAD: 4076443/NET3250

Delivery Address Bar Code



Ref # Complaint 200339399  
Invoice #  
PO #  
Dept #

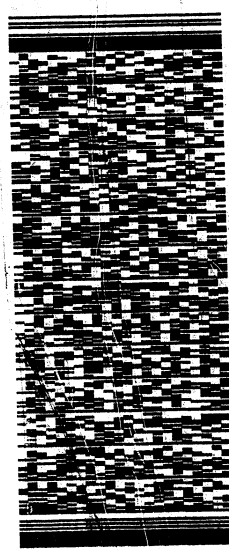
14

THU - 16 FEB A2  
PRIORITY OVERNIGHT

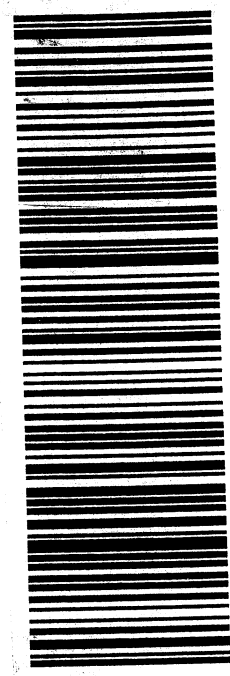
TRK# 7932 3213 0507  
0201

80524  
CO-US  
DEN

72 FTCA



1.9



512G18F58A278

# BICARBONATE AS CaCO<sub>3</sub>

## Method EPA310.1

### Sample Results

**Lab Name:** ALS Environmental -- FC  
**Client Name:** Colorado Oil & Gas Conservation Commission  
**Client Project ID:** Complaint 200339399  
**Work Order Number:** 1202195 **Final Volume:** 100 ml  
**Reporting Basis:** As Received **Matrix:** WATER  
**Prep Method:** NONE **Result Units:** MG/L  
**Analyst:** Jason McNall

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
705325 Nosaka WW	1202195-1	02/14/2012	02/17/2012	02/17/2012	N/A	1	170	20		25 ml

#### Comments:

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

**Data Package ID:** ak1202195-1



# CARBONATE AS CaCO<sub>3</sub>

Method EPA310.1

## Sample Results

**Lab Name:** ALS Environmental -- FC  
**Client Name:** Colorado Oil & Gas Conservation Commission  
**Client Project ID:** Complaint 200339399  
**Work Order Number:** 1202195 **Final Volume:** 100 ml  
**Reporting Basis:** As Received **Matrix:** WATER  
**Prep Method:** NONE **Result Units:** MG/L  
**Analyst:** Jason McNall

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
705325 Nosaka WW	1202195-1	02/14/2012	02/17/2012	02/17/2012	N/A	1	20	20	U	25 ml

### Comments:

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

**Data Package ID:** ak1202195-1

**Date Printed:** Friday, February 24, 2012

**ALS Environmental -- FC**

LIMS Version: 6.566

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# TOTAL ALKALINITY AS CaCO3

Method EPA310.1

## Sample Results

**Lab Name:** ALS Environmental -- FC  
**Client Name:** Colorado Oil & Gas Conservation Commission  
**Client Project ID:** Complaint 200339399  
**Work Order Number:** 1202195 **Final Volume:** 100 ml  
**Reporting Basis:** As Received **Matrix:** WATER  
**Prep Method:** NONE **Result Units:** MG/L  
**Analyst:** Jason McNall

Client Sample ID	Lab ID	Date Collected	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag	Sample Aliquot
705325 Nosaka WW	1202195-1	02/14/2012	02/17/2012	02/17/2012	N/A	1	170	20		25 ml

### Comments:

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

**Data Package ID:** ak1202195-1

**Date Printed:** Friday, February 24, 2012

**ALS Environmental -- FC**

LIMS Version: 6.566

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# pH

## Method EPA150.1

### Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Field ID:	705325 Nosaka WW
Lab ID:	1202195-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Feb-12

Date Extracted: 17-Feb-12

Date Analyzed: 17-Feb-12

Prep Method: METHOD

Prep Batch: PH120217-1

QCBatchID: PH120217-1-2

Run ID: pH120217-1a

Cleanup: NONE

Basis: As Received

File Name:

Analyst: Jason McNal

Sample Aliquot: 20 ML

Final Volume: 20 ML

Result Units: pH

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-29-7	PH AnalysisTime: 11:15	1	8.23	0.1		

Data Package ID: *ph1202195-1*

# Specific Conductance in Water

## Method EPA120.1

### Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Field ID:	705325 Nosaka WW	Sample Matrix:	WATER	Prep Batch:	SC120217-1	Analyst:	Jason McNal
Lab ID:	1202195-1	% Moisture:	N/A	QCBatchID:	SC120217-1-1	Sample Aliquot:	45 ML
		Date Collected:	14-Feb-12	Run ID:	sc120217-1a	Final Volume:	45 ML
		Date Extracted:	17-Feb-12	Cleanup:	NONE	Result Units:	umhos/cm
		Date Analyzed:	17-Feb-12	Basis:	As Received	Clean DF:	1
		Prep Method:	NONE	File Name:			

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-34-4	SPECIFIC CONDUCTIVITY AnalysisTime: 10:45	1	623	1		

Data Package ID: sc1202195-1

# Total Dissolved Solids

Method EPA160.1

## Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Field ID:	705325 Nosaka WW	Sample Matrix:	WATER	Prep Batch:	TD120217-1	Analyst:	Jason McNal
Lab ID:	1202195-1	% Moisture:	N/A	QCBatchID:	TD120217-1-1	Sample Aliquot:	100 ML
		Date Collected:	14-Feb-12	Run ID:	td120220-1a	Final Volume:	100 ML
		Date Extracted:	17-Feb-12	Cleanup:	NONE	Result Units:	MG/L
		Date Analyzed:	20-Feb-12	Basis:	As Received	Clean DF:	1
		Prep Method:	METHOD	File Name:	Manual Entry		

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-33-3	TOTAL DISSOLVED SOLIDS	1	380	20		

Data Package ID: *td1202195-1*

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

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LIMS Version: 6.566

# Ion Chromatography

Method EPA300.0 Revision 2.1

## Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Field ID:	705325 Nosaka WW
Lab ID:	1202195-1

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 14-Feb-12

Date Extracted: 16-Feb-12

Date Analyzed: 16-Feb-12

Prep Method: NONE

Prep Batch: IC120216-1

QCBatchID: IC120216-1-1

Run ID: IC120216-1A1

Cleanup: NONE

Basis: As Received

File Name: 20216\_018.DXD

Analyst: Eric Allen Lin

Sample Aliquot: 5 ML

Final Volume: 5 ML

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE AnalysisTime: 18:23	1	1.5	0.1		
16887-00-6	CHLORIDE AnalysisTime: 18:23	1	11	0.2		
14797-65-0	NITRITE AS N AnalysisTime: 18:23	1	0.1	0.1	U	
24959-67-9	BROMIDE AnalysisTime: 18:23	1	0.2	0.2	U	
14797-55-8	NITRATE AS N AnalysisTime: 18:23	1	0.2	0.2	U	
14265-44-2	ORTHOPHOSPHATE AS P AnalysisTime: 18:23	1	0.5	0.5	U	
14808-79-8	SULFATE AnalysisTime: 18:49	5	120	5		

Data Package ID: *ic1202195-1*

# BICARBONATE AS CaCO<sub>3</sub>

Method EPA310.1

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: AK120217-2MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK120217-2

QCBatchID: AK120217-2-1

Run ID: ak120217-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK120217-2MB	2/17/2012	02/17/2012	N/A	1	5	5	U

## Comments:

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

Data Package ID: *ak1202195-1*

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

LIMS Version: 6.566

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# CARBONATE AS CaCO<sub>3</sub>

Method EPA310.1

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: AK120217-2MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK120217-2

QCBatchID: AK120217-2-1

Run ID: ak120217-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK120217-2MB	2/17/2012	02/17/2012	N/A	1	5	5	U

## Comments:

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

Data Package ID: *ak1202195-1*

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

LIMS Version: 6.566

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# TOTAL ALKALINITY AS CaCO3

Method EPA310.1

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: AK120217-2MB

Sample Matrix: WATER

% Moisture: N/A

Prep Batch: AK120217-2

QCBatchID: AK120217-2-1

Run ID: ak120217-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Lab ID	Date Prepared	Date Analyzed	Percent Moisture	Dilution Factor	Result	Reporting Limit	Flag
AK120217-2MB	2/17/2012	02/17/2012	N/A	1	5	5	U

## Comments:

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

Data Package ID: ak1202195-1

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

LIMS Version: 6.566

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# TOTAL ALKALINITY AS CaCO<sub>3</sub>

Method EPA310.1

## Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: AK120217-2LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 02/17/2012

Date Analyzed: 02/17/2012

Prep Batch: AK120217-2

QCBatchID: AK120217-2-1

Run ID: ak120217-1a

Cleanup: NONE

Basis: N/A

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
	TOTAL ALKALINITY AS CaCO <sub>3</sub>	100	99.5	5		99	85 - 115

Data Package ID: ak1202195-1

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

LIMS Version: 6.566

Page 1 of 1

# Total Dissolved Solids

Method EPA160.1

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: TD120217-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 17-Feb-12

Date Analyzed: 20-Feb-12

Prep Method: METHOD

Prep Batch: TD120217-1

QCBatchID: TD120217-1-1

Run ID: td120220-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
10-33-3	TOTAL DISSOLVED SOLIDS	1	20	20	U	

Data Package ID: *td1202195-1*

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

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LIMS Version: 6.566

# Total Dissolved Solids

Method EPA160.1

## Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: TD120217-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 02/17/2012

Date Analyzed: 02/20/2012

Prep Method: METHOD

Prep Batch: TD120217-1

QCBatchID: TD120217-1-1

Run ID: td120220-1a

Cleanup: NONE

Basis: N/A

File Name: Manual Entry

Sample Aliquot: 100 ml

Final Volume: 100 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
10-33-3	TOTAL DISSOLVED SOLIDS	400	410	20		103	85 - 115%

Data Package ID: *td1202195-1*

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

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LIMS Version: 6.566

# Ion Chromatography

Method EPA300.0 Revision 2.1

## Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: IC120216-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 16-Feb-12

Date Analyzed: 16-Feb-12

Prep Method: NONE

Prep Batch: IC120216-1

QCBatchID: IC120216-1-1

Run ID: IC120216-1A1

Cleanup: NONE

Basis: N/A

File Name: 20216\_012.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	Result Qualifier	EPA Qualifier
16984-48-8	FLUORIDE	1	0.1	0.1	U	
16887-00-6	CHLORIDE	1	0.2	0.2	U	
14797-65-0	NITRITE AS N	1	0.1	0.1	U	
24959-67-9	BROMIDE	1	0.2	0.2	U	
14797-55-8	NITRATE AS N	1	0.2	0.2	U	
14265-44-2	ORTHOPHOSPHATE AS P	1	0.5	0.5	U	
14808-79-8	SULFATE	1	1	1	U	

Data Package ID: ic1202195-1

Date Printed: Friday, February 24, 2012

ALS Environmental -- FC

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LIMS Version: 6.566

# Ion Chromatography

Method EPA300.0 Revision 2.1

## Laboratory Control Sample

Lab Name: ALS Environmental -- FC

Work Order Number: 1202195

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200339399

Lab ID: IC120216-1LCS

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 02/16/2012

Date Analyzed: 02/16/2012

Prep Method: NONE

Prep Batch: IC120216-1

QCBatchID: IC120216-1-1

Run ID: IC120216-1A1

Cleanup: NONE

Basis: N/A

File Name: 20216\_013.DXD

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
16984-48-8	FLUORIDE	2.5	2.37	0.1		95	90 - 110%
16887-00-6	CHLORIDE	5	4.77	0.2		95	90 - 110%
14797-65-0	NITRITE AS N	2	1.91	0.1		96	90 - 110%
24959-67-9	BROMIDE	5	4.84	0.2		97	90 - 110%
14797-55-8	NITRATE AS N	5	4.76	0.2		95	90 - 110%
14265-44-2	ORTHOPHOSPHATE AS P	5	4.82	0.5		96	90 - 110%
14808-79-8	SULFATE	25	24.2	1		97	90 - 110%

Data Package ID: *ic1202195-1*

Date Printed: Friday, February 24, 2012

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