



Williams Well
1-mile west
of Nelson Well

Report page total including this page:



May 04, 2007

John Axelson
Colorado Oil & Gas Conservation Comm.
9203 E. 155th Dr
Brighton, CO 80602

Lab Work Order: 07-2455
Client Project ID: Lewis Creek Well

Dear John Axelson:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary. The invoice is included with this report or has been mailed to another party as indicated on the chain of custody.

The enclosed data for testing performed at Evergreen Analytical Laboratory (EAL) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

EAL will dispose of all samples one month from the date of this letter. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Evergreen Analytical. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,


Carl Smits / Kaprie Hollman
Technical Director of Chemical Analysis

WORK ORDER Summary**Evergreen Analytical, Inc.****07-2455****Rpt To:** John Axelson**Fax To:** John Axelson**FX:** (303) 637-7179Colorado Oil & Gas Conservation
Comm.9203 E. 155th Dr
Brighton, CO 80602
(303) 637-7178

4/20/07 5:00:28 PM

Client Project ID: Lewis Creek Well**QC Level:** LEVEL I**Comments:**

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
07-2455-01A	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	4/26/07
07-2455-01B	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	6020_D *	6020: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	10/16/07
07-2455-01C	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	ALK_WGRP *	Alkalinity	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	5/03/07
07-2455-01C	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	ANIONS_W *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	4/21/07
07-2455-01C	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	COND_W	Specific Conductance @ 25°C	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	5/17/07
07-2455-01C	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	F_W	Fluoride	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	5/17/07
07-2455-01C	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	PH_DW	150.1: Drinking Water pH	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	4/20/07
07-2455-01C	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	TDS_W	Total Dissolved Solids (TDS)	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	4/26/07
07-2455-01D	Lewis Creek Well	Groundwater	4/19/07 1045	4/20/07	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	5/04/07	4/26/07

Evergreen Analytical, Inc.

Date: 04-May-07

Client Project ID: Lewis Creek Well

Lab Order: 07-2455

CASE NARRATIVE

SAMPLE RECEIVING

Sample(s) were hand delivered to the laboratory by the client.

Custody seals were not present.

The temperature of the sample(s) upon arrival was 4.0 °C.

Sample(s) were received in good condition and in the proper container.

The sample for pH was received out of holding time.

VOC sample(s) were received with no headspace present. NJO

QUALITY ASSURANCE

Analyses performed on samples in this work order meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. CMS

CLIENT SERVICES

There are no anomalies to report. SG

GENERAL CHEMISTRY

The pH required analysis out of holding time (H). There are no other anomalies to report. MM/CMS

METALS ANALYSIS

There are no anomalies to report. WKH

GAS CHROMATOGRAPHY

Method 8021_W: There are no anomalies to report. JT

Method RSK175: There are no anomalies to report. JT

CS
CS
-B.

Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: Lewis Creek Well
Client Project ID: Lewis Creek Well
Date Collected: 4/19/07
Date Received: 4/20/07

Lab Work Order 07-2455
Lab Sample ID: 07-2455-01A
Sample Matrix: Groundwater

AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 4/23/07

Lab File ID: TVB20423\020R

Dilution Factor: 1

Date Analyzed: 4/23/07

Method Blank: MB2042307

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	77	QC Limits: 60-140	%REC



Analyst



Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 4/24/07

154
154
154

Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: Lewis Creek Well
Client Project ID: Lewis Creek Well
Date Collected: 4/19/07
Date Received: 4/20/07

Lab Work Order: 07-2455
Lab Sample ID: 07-2455-01
Sample Matrix: Groundwater

DISSOLVED METALS

Method: SW6020

Prep Method: SW6020

Date Prepared: 4/24/07
Date Analyzed: 4/25/07

Lab File ID: 070425A.B\040SMPL.D
Method Blank: MB-12377

Dilution Factor: 1
Lab Fraction ID: 07-2455-01B

Analytes	CAS Number	Result	LQL	Units
Calcium	7440-70-2	4.8	0.40	mg/L
Iron	7439-89-6	U	0.20	mg/L
Manganese	7439-96-5	U	0.010	mg/L
Potassium	7440-09-7	4.8	0.13	mg/L

Date Prepared: 4/24/07
Date Analyzed: 4/26/07

Lab File ID: 070426A.B\030SMPL.D
Method Blank: MB-12377

Dilution Factor: 20
Lab Fraction ID: 07-2455-01B

Analytes	CAS Number	Result	LQL	Units
Magnesium	7439-95-4	1.8	1.0	mg/L
Sodium	7440-23-5	230	10	mg/L



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 4/27/07

Evergreen Analytical, Inc.4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021Client Sample ID: Lewis Creek Well
Client Project ID: Lewis Creek Well
Date Collected: 4/19/07 1045
Date Received: 4/20/07Lab Work Order: 07-2455
Lab Sample ID: 07-2455-01
Sample Matrix: Groundwater**ALKALINITY**

Method: SM2320B

Prep Method:

Date Prepared: 5/1/07
Date Analyzed: 5/1/07Lab File ID: 11
Method Blank: MBLKDilution Factor: 1
Lab Fraction ID: 07-2455-01C

Analytes	CAS Number	Result	LQL	Units
Total Alkalinity		441	5.0	mg/L CaCO ₃
Bicarbonate		441	5.0	mg/L CaCO ₃
Carbonate		U	5.0	mg/L CaCO ₃

SPECIFIC CONDUCTANCE @ 25°C

Method: SM2510 B

Prep Method:

Date Prepared: 4/23/07
Date Analyzed: 4/23/07

Lab File ID: 67

Dilution Factor: 1
Lab Fraction ID: 07-2455-01C

Analytes	CAS Number	Result	LQL	Units
Specific Conductance		855	1.00	µmhos/cm

FLUORIDE

Method: SM 4500-F C

Prep Method:

Date Prepared: 4/26/07
Date Analyzed: 4/26/07Lab File ID: 14
Method Blank: MBLKDilution Factor: 1
Lab Fraction ID: 07-2455-01C

Analytes	CAS Number	Result	LQL	Units
Fluoride	16984-48-8	2.5	0.20	mg/L

E150.1 PH

Method: E150.1

Prep Method:

Date Prepared: 4/23/07
Date Analyzed: 4/23/07 1035Dilution Factor: 1
Lab Fraction ID: 07-2455-01C

Analytes	CAS Number	Result	LQL	Units
pH		8.35 H	1.00	pH Units


Analyst
Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 5/1/07

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: Lewis Creek Well
Client Project ID: Lewis Creek Well
Date Collected: 4/19/07 1045
Date Received: 4/20/07

Lab Work Order: 07-2455
Lab Sample ID: 07-2455-01
Sample Matrix: Groundwater

TOTAL DISSOLVED SOLIDS (TDS)

Method: SM 2540C

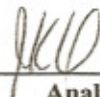
Prep Method:

Date Prepared: 4/24/07
Date Analyzed: 4/25/07 0000

Lab File ID: 4
Method Blank: MBLK

Dilution Factor: 1
Lab Fraction ID: 07-2455-01C

Analytes	CAS Number	Result	LQL	Units
Total Dissolved Solids		579	10.0	mg/L



Analyst



Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 5/1/07

61
51
41

Evergreen Analytical, Inc.
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862
(303) 425-6021

Client Sample ID: Lewis Creek Well
Client Project ID: Lewis Creek Well
Date Collected: 4/19/07 1045
Date Received: 4/20/07

Lab Work Order 07-2455
Lab Sample ID: 07-2455-01
Sample Matrix: Groundwater

ANIONS BY IC

Method: E300.0

Prep Method:

Date Prepared: 4/20/07
Date Analyzed: 4/20/07 1923

Method Blank: METHOD BLANK

Dilution Factor: 1
Lab Fraction ID: 07-2455-01C

Analytes	CAS Number	Result	LQL	Units
Chloride	7647-14-5	33.0	0.50	mg/L
Nitrite-N		U	0.076	mg/L
Bromide	7647-15-6	0.510	0.050	mg/L
Nitrate-N		U	0.056	mg/L
Sulfate	7778-80-2	30.2	0.50	mg/L


Analyst


Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result
E - Extrapolated value. Value exceeds calibration range
H - Sample analysis exceeded analytical holding time
J - Indicates an estimated value when the compound is detected, but is below the LQL
S - Spike Recovery outside accepted limits
U - Compound analyzed for but not detected
X - See case narrative
* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable
LQL - Lower Quantitation Limit
Surr - Surrogate

Print Date: 4/24/07

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Project ID Lewis Creek Well

Lab Order: 07-2455

Units: mg/L

RSKSOP-175M Headspace

Methane

Method: RSKSOP175M

Prep Method: RSKSOP175M

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
07-2455-01D	Lewis Creek Well	Groundwater	4/20/07	4/19/07	4/25/07	4/25/07	0.62	0.0080	10

Comments:


Analyst
Approved

Qualifiers: J - Indicates an estimated value when the compound is detected, but is below the LQL
H - Sample analysis exceeded analytical holding time
U - Compound analyzed for but not detected
X - See case narrative
*-Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: DF - Dilution Factor
LQL - Lower Quantitation Limit

Print Date: 4/26/07