



San Juan 27-5 Unit 107M

API #3003925930

30-039-25930

75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

25 May 2016

OIL CONS. DIV DIST. 3

JUN 22 2016

Darrell Savage
Conoco Phillips-Farmington
3401 30th Street
Farmington, NM 87401
RE: Formation Comparison

Enclosed are the results of analyses for samples received by the laboratory on 05/17/16 16:20.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads 'Debbie Zufelt'.

Debbie Zufelt
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8.



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Conoco Phillips-Farmington
3401 30th Street
Farmington NM, 87401

Project: Formation Comparison
Project Name / Number: Area 9
Project Manager: Darrell Savage

Reported:
05/25/16 12:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
San Juan 27-5 Unit 107M Tubing Sample	1605191-01	Water	05/16/16 14:08	05/17/16 16:20
San Juan 27-5 Unit 107M Braden Head Sample	1605191-02	Water	05/16/16 14:08	05/17/16 16:20

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Debbie Zufelt, Reports Manager

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05/25/16 12:21

San Juan 27-5 Unit 107M Tubing Sample

1605191-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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General Chemistry

Alkalinity, Bicarbonate*	160	10.0		mg/L	10	05/24/16	2320 B		KDG
Alkalinity, Carbonate*	<10.0	10.0		mg/L	10	05/24/16	2320 B		KDG
Chloride	85.2	50.0	2.60	mg/L	50	05/19/16	EPA300.0		JDA
Total Dissolved Solids	200	10.0		mg/L	1	05/25/16	EPA160.1		KDG
Sulfate	26.0	50.0	3.07	mg/L	50	05/19/16	EPA300.0	J	JDA

Potentially Dissolved Metals by ICP

Calcium*	2.66	0.400	0.055	mg/L	20	05/24/16	EPA200.7		LLG
Iron*	14.1	1.00	0.070	mg/L	20	05/24/16	EPA200.7		LLG
Magnesium*	<2.00	2.00	0.648	mg/L	20	05/24/16	EPA200.7		LLG
Sodium*	47.8	20.0	6.11	mg/L	20	05/24/16	EPA200.7		LLG

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Project: Formation Comparison
Project Name / Number: Area 9
Project Manager: Darrell Savage

Reported:
05/25/16 12:21

San Juan 27-5 Unit 107M Braden Head Sample

1605191-02 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate*	<10.0	10.0		mg/L	10	05/24/16	2320 B		KDG
Alkalinity, Carbonate*	520	10.0		mg/L	10	05/24/16	2320 B		KDG
Chloride	25.3	50.0	2.60	mg/L	50	05/19/16	EPA300.0	J	JDA
Total Dissolved Solids	595	10.0		mg/L	1	05/25/16	EPA160.1		KDG
Sulfate	57.7	50.0	3.07	mg/L	50	05/19/16	EPA300.0		JDA
Potentially Dissolved Metals by ICP									
Calcium*	<0.400	0.400	0.055	mg/L	20	05/24/16	EPA200.7		LLG
Iron*	<1.00	1.00	0.070	mg/L	20	05/24/16	EPA200.7		LLG
Magnesium*	<2.00	2.00	0.648	mg/L	20	05/24/16	EPA200.7		LLG
Sodium*	245	20.0	6.11	mg/L	20	05/24/16	EPA200.7		LLG

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Farmington NM, 87401

Project: Formation Comparison
Project Name / Number: Area 9
Project Manager: Darrell Savage

Reported:
05/25/16 12:21

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Debbie Zufelt, Reports Manager

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Notes and Definitions

J	Estimated concentration. Analyte concentration between MDL and RL.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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Page 6 of 8

KUSH!

Client: COP	Phone# (505) 320-2634	Contact: Darrell Savage
Address: 3401 E. 30th St. Farmington, NM 87402	E-Mail Address: darrell.q.savage@conocophillips.com	



75 Suttle Street
Durango, CO 81303
Phone: 970-247-4220
FAX: 970-247-4227

CHAIN OF CUSTODY RECORD
GAL Work Order # <u>1605-191</u>
PO#
Project Name: <u>Area 9</u>

28.3°C
NO₂⁻ ✓
3°C
on ice Dyo

Sample Location:	(1)BumperSpring, (2)CompressorDischarge, (3)Flowline, (4)Meter, (5)Oil Tank (6)PigLauncher, (7)PigReceiver, (8)Pipeline, (9)Pit Tank, (10)PostFilter, (11)PreFilter (12)SeparatorInlet, (13)SeparatorOutlet, (14)SeparatorDump, (15)SWDInlet (16)SWDOutlet, (17)TransferPump, (18)ValveCan, (19)WaterTank, (20)Wellhead (21)Other
	Sample Type: (1)Casing, (2)CO2GasTube, (3)Coupon, (4)Water, (5)H2SGasTube, (6)Metals (7)O2GasTube, (8)PipeSection, (9)Residual, (10)Sludge, (11)Solid, (12)Tubing, (13)Other

Collection								Preservative			Analyses Required				
Well Name (Sample Name)	Date	Time	Collected By: (Init.)	Sample Location	Sample Type	No. of Containers	Filtered: Y / N	Unpreserved	H2SO4	Other:	Iron and Manganese	Phosphate	Full Water API	Formation/Comparisons	
51. San Juan 27-S unit 107m	5-16-16	14:08	DS	20	4	1	N	Y						X	
2. Tubing sample															
3.															
52. San Juan 27-S unit 107m	5-16-16	14:08	DS	13	4	1	N	Y						X	
5. Braden Head sample															
6.															
7. API No. 30-039-25930															
8.															
9. Send results to:															
10. Nathan.Bloomfield@conocophillips.com															
11.															
12.															
13.															
14.															
15.															
16.															
17.															
18.															
19.															
20.															

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>[Signature]</i>	5-17-16	16:20	<i>[Signature]</i>	5/17/16	16:20
Charitra Park	5/17/16	16:55	Kangaroo Express	5/17/16	16:55

Kangaroo → Michael Valentini

[illegible]

Busse, Dollie L

From: Bloomfield, Nathan
Sent: Saturday, June 18, 2016 8:06 PM
To: Busse, Dollie L
Subject: SJ 27-5 Unit 107M water sample
Attachments: SJ 27-5 Unit 107 M BH and Prod Csg water samples.pdf

OIL CONS. DIV DIST. 3

JUN 22 2016

Dollie,

The SJ 27-5 Unit 107M made water during the bradenhead test. Please see the attached water analysis for submittal to NMOCD.

Thanks,

Nathan Bloomfield

 **ConocoPhillips**

Area 9 Production Engineer
Office: 505-324-5155
Cell: 505-801-4719
Email: nathan.bloomfield@conocophillips.com