

API #3004511995
HUBBELL 3



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

15 June 2017

Bill Eaves
Conoco Phillips-Farmington
3401 30th Street
Farmington, NM 87401
RE: Braden Head

Enclosed are the results of analyses for samples received by the laboratory on 06/06/17 13:15.
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

OIL CONS. DIV DIST. 3
JUL 11 2017

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.

14



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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Braden Head Project Name / Number: [none] Project Manager: Bill Eaves	Reported: 06/15/17 11:35
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Hubble 3 Bradenhead	1706061-01	Water	05/31/17 08:30	06/06/17 13:15

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Braden Head Project Name / Number: [none] Project Manager: Bill Eaves	Reported: 06/15/17 11:35
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Hubble 3 Bradenhead

1706061-01 (Water)

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

Chloride*	169	100	14.3	mg/L	100	06/12/17	EPA300.0		JDA
pH*	12.2			pH Units	1	06/12/17	EPA150.1	H4	BDV
Total Dissolved Solids*	4310	10.0		mg/L	1	06/08/17	EPA160.1	H1, Q1	LLG
Sulfate*	2030	100	15.6	mg/L	100	06/12/17	EPA300.0		JDA

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Debbie Zufelt, Reports Manager

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Braden Head Project Name / Number: [none] Project Manager: Bill Eaves	Reported: 06/15/17 11:35
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Braden Head Project Name / Number: [none] Project Manager: Bill Eaves	Reported: 06/15/17 11:35
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Notes and Definitions

- Q1 Sample received outside of acceptable temperature range for analyses requiring cold storage.
- H4 pH analysis performed more than 48 hours after sampling.
- H1 Sample was received several days after collected and subsequently analyzed past hold time.
- 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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Client: COP Phone# (505) 860-5425 Contact: Bill Eaves
 Address: 3401 E. 30th St. Farmington, NM 87402 E-Mail Address: Bill.Eaves@conocphillips.com



CHAIN OF CUSTODY RECORD
 GAL Work Order # *1706-061-01 re 67*
 PO#
 Project Name:

*24.30
 NOISE*

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

Well Name (Sample Name)	Collection			Preservative				Analyses Required						
	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	Bradenhead
01 Hubble 3 Bradenhead	5/31/2017	8:30 AM	MSO	20	4	1	N							X
2.														
3.														
4.														
5.														
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18.														
19.														
20.														

Relinquished by: *[Signature]* Date: *6-6-17* Time: *1:15 pm*
Christina Clark *6/6/17* *1650* Received By: *Christina Clark* Date: *6/6/17* Time: *1315*
Kangaroo *6-7-17* *0830* *2.9/3.1c* *#1 on ice* *Kangaroo Express* *6/6/17* *1658*

API #3004511995
HUBBELL 3



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23 June 2017

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

OIL CONS. DIV DIST. 3
JUL 11 2017

Enclosed are the results of analyses for samples received by the laboratory on 06/20/17 12:00.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Miller'.

Jacob Miller For 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/>

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Formation Comparison Project Name / Number: Area 2 Project Manager: Darrell Savage	Reported: 06/23/17 17:21
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Hubbell #3	1706181-01	Water	06/20/17 07:30	06/20/17 12:00

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Jacob Miller For Debbie Zufelt, Reports Manager

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Formation Comparison Project Name / Number: Area 2 Project Manager: Darrell Savage	Reported: 06/23/17 17:21
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Hubbell #3

1706181-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate as CaCO3*	335	10.0		mg/L	5	06/22/17	2320 B		JLM
Alkalinity, Carbonate as CaCO3*	<10.0	10.0		mg/L	5	06/22/17	2320 B		JLM
Chloride*	15500	500	71.7	mg/L	500	06/23/17	EPA300.0		JDA
Total Dissolved Solids*	24800	10.0		mg/L	1	06/22/17	EPA160.1		LLG
Sulfate*	170	500	78.2	mg/L	500	06/23/17	EPA300.0		JDA
Potentially Dissolved Metals by ICP									
Calcium*	161	2.00	0.717	mg/L	20	06/23/17	EPA200.7		JDA
Iron*	8.76	1.00	0.281	mg/L	20	06/23/17	EPA200.7		JDA
Magnesium*	37.6	2.00	0.513	mg/L	20	06/23/17	EPA200.7		JDA
Sodium*	8350	20.0	1.74	mg/L	20	06/23/17	EPA200.7		JDA

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Formation Comparison Project Name / Number: Area 2 Project Manager: Darrell Savage	Reported: 06/23/17 17:21
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General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B706171 - General Prep - Wet Chem										
Blank (B706171-BLK1) Prepared: 06/21/17 Analyzed: 06/22/17										
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (B706171-DUP1) Source: 1706154-01 Prepared: 06/21/17 Analyzed: 06/22/17										
Total Dissolved Solids	645	10.0	mg/L		645			0.00	20	
Reference (B706171-SRM1) Prepared: 06/21/17 Analyzed: 06/22/17										
Total Dissolved Solids	415	10.0	mg/L	390		106	85-115			
Batch B706197 - General Prep - Wet Chem										
Blank (B706197-BLK1) Prepared & Analyzed: 06/23/17										
Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							
LCS (B706197-BS1) Prepared & Analyzed: 06/23/17										
Chloride	24.2	1.00	mg/L	25.0		96.8	90-110			
Sulfate	24.0	1.00	mg/L	25.0		95.9	90-110			
LCS Dup (B706197-BSD1) Prepared & Analyzed: 06/23/17										
Chloride	24.0	1.00	mg/L	25.0		96.2	90-110	0.709	20	
Sulfate	23.8	1.00	mg/L	25.0		95.1	90-110	0.804	20	

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Formation Comparison Project Name / Number: Area 2 Project Manager: Darrell Savage	Reported: 06/23/17 17:21
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Potentially Dissolved Metals by ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B706198 - Potentially Dissolved Metals

Blank (B706198-BLK1)

Prepared & Analyzed: 06/23/17

Calcium	ND	0.100	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							

LCS (B706198-BS1)

Prepared & Analyzed: 06/23/17

Calcium	4.94	0.100	mg/L	5.00		98.9	85-115			
Iron	4.98	0.050	mg/L	5.00		99.6	85-115			
Magnesium	25.0	0.100	mg/L	25.0		100	85-115			
Sodium	7.95	1.00	mg/L	8.10		98.1	85-115			

LCS Dup (B706198-BSD1)

Prepared & Analyzed: 06/23/17

Calcium	4.99	0.100	mg/L	5.00		99.8	85-115	0.903	20	
Iron	4.96	0.050	mg/L	5.00		99.1	85-115	0.481	20	
Magnesium	25.2	0.100	mg/L	25.0		101	85-115	1.00	20	
Sodium	8.04	1.00	mg/L	8.10		99.3	85-115	1.21	20	

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Conoco Phillips-Farmington 3401 30th Street Farmington NM, 87401	Project: Formation Comparison Project Name / Number: Area 2 Project Manager: Darrell Savage	Reported: 06/23/17 17:21
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Notes and Definitions

- Q1 Sample received outside of acceptable temperature range for analyses requiring cold storage.
- 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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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



CHAIN OF CUSTODY RECORD
 GAL Work Order # 1706-181-
 PO#
 Project Name: Area 2

91° JH

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/Compar. Son
1. Hubbell #3	6-20-17	7:30	DS	20	4	1	N	Y						✓
2.														
3. "Push Sample"														
4. Send Results To														
5. michelle.E.BENTSON@conocophillips.com														
6.														
7. Tubing Sample														
8.														
9.														
10.														
11.														
12.														
13.														
14.														
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17.														
18.														
19.														
20.														

Relinquished by: Darrell Savage Date: 6-20-17 Time: 12:00
 Vickie Murry Date: 6-20-17 Time: 12:55
 kangaroo Express Date: 6-21-17 Time: 16:55
 Received By: Vickie Murry Date: 6-20-17 Time: 12:00
 kangaroo
 2.8/3.0°C #1
 6-21-17 ABUS
 DG0JE

