



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

25 May 2021

David Bounds
Hilcorp
382 Road 3100
Aztec, NM 87410
RE: Braden Head

Enclosed are the results of analyses for samples received by the laboratory on 05/14/21 15:47.
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Debbie Zufelt". The signature is written in a cursive, flowing style.

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.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 05/25/21 13:34
---	---	------------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Linda 1A	2105149-01	Water	05/13/21 00:00	05/14/21 15:47	

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

Released to Imaging: 8/6/2021 3:59:20 PM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 05/25/21 13:34
---	---	-----------------------------

Linda 1A

2105149-01 (Produced Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

General Chemistry

Chloride*	32.2	25.0	1.06	mg/L	25	05/19/21 23:07	EPA300.0		AES
pH*	12.1			pH Units	1	05/20/21 13:40	EPA150.1	H1	LLG
Total Dissolved Solids*	1110	20.0		mg/L	2	05/19/21 17:21	EPA160.1		JDA
Sulfate*	87.3	25.0	3.81	mg/L	25	05/19/21 23:07	EPA300.0		AES

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

Released to Imaging: 8/6/2021 3:59:20 PM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 05/25/21 13:34
---	---	-----------------------------

Notes and Definitions

- M2 Matrix spike recovery was below laboratory acceptance criteria. Recovery possibly affected by a matrix interference in the sample. The method blank spike recovery was acceptable.
- 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

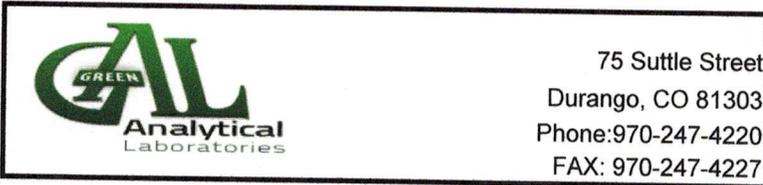
Green Analytical Laboratories

Debbie Zufelt, Reports Manager

Released to Imaging: 8/6/2021 3:59:20 PM

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

Client: Hilcorp	Asset: South	Phone# 505-419-3410	Contact David Bounds
Address: 9A CR# 5793, Farmington NM 87401		E-Mail Address dbounds@hilcorp.com	



CHAIN OF CUSTODY RECORD	
GAL Work Order #	2105149
PO#	
Project Name:	

Sample Location:

- (1) Bumper Spring, (2) Compressor Discharge, (3) Flowline, (4) Meter, (5) Oil Tank
- (6) Pig Launcher, (7) Pig Receiver, (8) Pipeline, (9) Pit Tank, (10) Post Filter, (11) Pre Filter
- (12) Separator Inlet, (13) Separator Outlet, (14) Separator Dump, (15) SWD Inlet
- (16) SWD Outlet, (17) Transfer Pump, (18) Valve Can, (19) Water Tank, (20) Wellhead
- (21) Other

Sample Type:

- (1) Casing, (2) CO2 Gas Tube, (3) Coupon, (4) Water, (5) H2S Gas Tube, (6) Metals
- (7) O2 Gas Tube, (8) Pipe Section, (9) Residual, (10) Sludge, (11) Solid, (12) Tubing, (13) Other

*24.9°C
NOI*

Well Name (Sample Name)	Collection				Preservative				Analyses Required			
	Area	Date	Time	Collected By: (Init.)	Filtered: Y/N	Unpreserved	H2SO4	Other:	Iron and Manganese	Phosphate	Full Water API	Bradenhead
1. SJ 28-7 # 191M	9	5/13		DB	N	Y	N	N	X			
2. SJ 28-7 # 236P	9	5/14										
3. SJ 28-7 # 243M	9	5/14										
4. SJ 28-7 # 215F	9	5/15										
5. SJ 28-7 # 244N	9	5/15										
6. SJ 28-7 # 153N	9	5/15										
7. SJ 28-7 # 216M	9	5/12										
8. SJ 28-7 # 192	9	5/12										
9. SJ 28-7 # 191F	9	5/13										
10. SJ 28-7 # 215M	9	5/13										
11. SJ 28-7 # 214	9	5/14										
12. SJ 28-7 # 192F	9	5/14										
13. SJ 28-7 # 214M	9	5/14										
14. Linda 1A (Bradenhead)	9	5/13										X
15.												
16.												
17.												
18.												
19.												
20.												

Separate Report per Datab 05.17.21 dy

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>Ryan Pritchard</i>	<i>5/14/21</i>	<i>3:47</i>	<i>Christina Clark</i>	<i>5/14/21</i>	<i>1547</i>
<i>Christina Clark</i>	<i>5/17/21</i>	<i>1655</i>	<i>Kangaroo Express</i>	<i>5/17/21</i>	<i>1655</i>
<i>Kangaroo Express</i>	<i>5/18/21</i>	<i>0830</i>	<i>Linda Dunne</i>	<i>5/18/21</i>	<i>0830</i>

5.8°C Laser #3 on Ice

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 35456

COMMENTS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 35456
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

COMMENTS

Created By	Comment	Comment Date
mkuehling	tds 1110	8/6/2021

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS
 Action 35456

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 35456
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	8/6/2021