



75 Suttle Street  
Durango, CO 81303  
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www.greenanalytical.com

27 January 2022

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 01/13/22 15:20. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen 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/>

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. TNI Certificate Number: T104704514-22-13

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. TNI Certificate Number: T104704398-21-14



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Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	<b>Reported:</b> 01/27/22 16:17
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Gerk GasCom B1M	2201104-01	Water	01/07/22 00:00	01/13/22 15:20	

Green Analytical Laboratories

Jeremy D Allen For Debbie Zufelt, Reports Manager

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**Gerk GasCom BIM  
Area 8**

**2201104-01 (Ground Water)**

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

Chloride*	66.4	100	3.04	mg/L	100	01/24/22 13:02	EPA300.0		AES
pH*	7.81			pH Units	1	01/14/22 10:50	EPA150.1	H1	VJW
pH Temperature, degrees C	20.3			pH Units	1	01/14/22 10:50	EPA150.1	H1	VJW
Total Dissolved Solids*	10100	20.0		mg/L	2	01/17/22 09:50	EPA160.1	H1	VJW
Sulfate*	6820	200	24.8	mg/L	200	01/25/22 09:52	EPA300.0		AES

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**General Chemistry - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B220128 - General Prep - Wet Chem</b>										
<b>Blank (B220128-BLK1)</b> Prepared & Analyzed: 01/17/22										
Total Dissolved Solids	ND	10.0	mg/L							
<b>Reference (B220128-SRM1)</b> Prepared & Analyzed: 01/17/22										
Total Dissolved Solids	395	10.0	mg/L	400		98.8	85-115			
<b>Batch B220171 - General Prep - Wet Chem</b>										
<b>Reference (B220171-SRM1)</b> Prepared & Analyzed: 01/14/22										
pH	6.97		pH Units	7.00		99.6	98.57-101.42			
<b>Batch B220205 - IC- Ion Chromatograph</b>										
<b>Blank (B220205-BLK1)</b> Prepared: 01/21/22 Analyzed: 01/24/22										
Chloride	ND	1.00	mg/L							
Sulfate	ND	1.00	mg/L							
<b>LCS (B220205-BS1)</b> Prepared: 01/21/22 Analyzed: 01/24/22										
Chloride	25.3	1.00	mg/L	25.0		101	90-110			
Sulfate	24.1	1.00	mg/L	25.0		96.5	90-110			
<b>LCS Dup (B220205-BSD1)</b> Prepared: 01/21/22 Analyzed: 01/24/22										
Chloride	25.0	1.00	mg/L	25.0		100	90-110	0.986	20	
Sulfate	24.1	1.00	mg/L	25.0		96.5	90-110	0.00830	20	

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Notes and Definitions

- HI 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

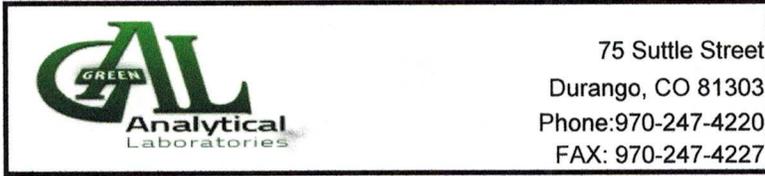
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Client: <b>Hilcorp</b>	Asset: <b>South</b>	Phone# <b>505-419-3410</b>	Contact <b>David Bounds</b>
Address: 9A CR# 5793, Farmington NM 87401		E-Mail Address: <a href="mailto:dbounds@hilcorp.com">dbounds@hilcorp.com</a>	



CHAIN OF CUSTODY RECORD	
GAL Work Order #	2201-104
PO#	
Project Name:	

17.90  
NO7 u u

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						
	Area	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	Barium/Sulf
1. GerK Gas Com B 2M	8	1/7		CM	20	4	1	N	Y	N	N				X
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
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16.															
17.															
18.															
19.															
20.															

Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>Chris Peterson</i>	1/13/22	3:20	<i>Christa Chan</i>	1/13/22	1520
<i>Christa Chan</i>	1/13/22	16:55	<i>Kangaroo Express</i>	1/13/22	1655
<i>Kangaroo Express</i>	1/14/22	0830	<i>Junda Jumper</i>	1/14/22	0830

5.5/5.4 on deck case #3

**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 76430

**COMMENTS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 76430
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

**COMMENTS**

Created By	Comment	Comment Date
mkuehling	for record only	9/13/2022

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CONDITIONS  
 Action 76430

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**CONDITIONS**

Created By	Condition	Condition Date
mkuehling	HIGH tds 10100 -	8/3/2022