



75 Suttle Street  
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07 October 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 09/23/21 15:22.  
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink 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.  
TNI Certificate Number: T104704514-21-12.

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> 10/07/21 11:09
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
Florance 1 (Bradenhead)	2109266-01	Water	09/22/21 00:00	09/23/21 15:22	Q1, Q3

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

Released to Imaging: 12/21/2021 8:14:10 AM

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.



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Hilcorp 382 Road 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: South Project Manager: David Bounds	Reported: 10/07/21 11:09
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**Florance 1 (Bradenhead)  
Area 9**

**2109266-01 (Ground Water)**

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

Chloride*	59.8	100	4.22	mg/L	100	10/04/21 19:59	EPA300.0		AES
pH*	8.36			pH Units	1	09/24/21 14:00	EPA150.1	H1	VJW
pH Temperature, degrees C	23.8			pH Units	1	09/24/21 14:00	EPA150.1	H1	VJW
Total Dissolved Solids*	5540	10.0		mg/L	1	09/29/21 10:55	EPA160.1		VJW
Sulfate*	4050	100	15.2	mg/L	100	10/04/21 19:59	EPA300.0		AES

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Hilcorp  
382 Road 3100  
Aztec NM, 87410

Project: Braden Head  
Project Name / Number: South  
Project Manager: David Bounds

**Reported:**  
10/07/21 11:09

### Notes and Definitions

Q3	Sample received without proper chemical preservation as requested by the method of analysis.
Q1	Sample received outside of acceptable temperature range for analyses requiring cold storage.
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

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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>	



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FAX: 970-247-4227

CHAIN OF CUSTODY RECORD	
GAL Work Order #	<i>2109266</i>
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

*27.40  
Noise u*

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	Bradenhead
1. <i>Florance 1 (Bradenhead)</i>	<i>9</i>	<i>9/22</i>		<i>CR</i>	<i>20</i>	<i>4</i>	<i>1</i>	<i>N</i>	<i>Y</i>	<i>N</i>	<i>N</i>				<i>+</i>
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Relinquished by:	Date:	Time:	Received By:	Date:	Time:
<i>Ryan Paltchard</i>	<i>9/23/21</i>	<i>3:22</i>	<i>Matthew Clark</i>	<i>9/23/21</i>	<i>1532</i>
<i>Matthew Clark</i>	<i>9/23/21</i>	<i>16:55</i>	<i>Kangaroo Express</i>	<i>9/23/21</i>	<i>1655</i>
<i>Kangaroo Express</i>	<i>9/24/21</i>	<i>0830</i>	<i>Quinta Dumper</i>	<i>9/24/21</i>	<i>0830</i>

*Temp 3 on Ice  
4.4/4.3°C*

**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 56312

**CONDITIONS**

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 56312
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

**CONDITIONS**

Created By	Condition	Condition Date
mkuehling	tds 5540	12/21/2021