



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

www.GreenAnalytical.com

Hilcorp
382 CR 3100
Aztec NM, 87410

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

Reported:
06/28/23 14:31

Rock Island 1 - Braden Head**2306188-02 (Produced Water)****Sampled Date: 06/15/23 11:50**

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

General Chemistry

Chloride*	39.6	20.0	1.11	mg/L	20	06/26/23 21:52	EPA300.0		AWG
pH*	8.47			pH Units	1	06/20/23 11:40	EPA150.1	H4	KRW
pH Temperature, degrees C	22.0			pH Units	1	06/20/23 11:40	EPA150.1	H4	KRW
Sulfate*	9630	100	12.4	mg/L	100	06/27/23 10:45	EPA300.0		AWG
Total Dissolved Solids*	13900	20.0		mg/L	2	06/21/23 15:47	EPA160.1		CAI

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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.



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

www.GreenAnalytical.com

Hilcorp
382 CR 3100
Aztec NM, 87410

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

Reported:
06/28/23 14:31

Rock Island 1 - Intermediate**2306188-01 (Produced Water)****Sampled Date: 06/15/23 11:54**

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

General Chemistry

Chloride*	38.1	20.0	1.11	mg/L	20	06/26/23 21:31	EPA300.0		AWG
pH*	10.1			pH Units	1	06/20/23 15:13	EPA150.1	H4	KRW
pH Temperature, degrees C	24.9			pH Units	1	06/20/23 15:13	EPA150.1	H4	KRW
Sulfate*	7460	100	12.4	mg/L	100	06/27/23 10:24	EPA300.0		AWG
Total Dissolved Solids*	12200	20.0		mg/L	2	06/21/23 15:43	EPA160.1		CAI

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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.

Page 3 of 9 2306188 GAL FINAL 06 28 23 1431 06/28/23 14:31:09



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

www.GreenAnalytical.com

Hilcorp
382 CR 3100
Aztec NM, 87410

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

Reported:
08/21/23 16:12

Rock Island 1 Produced water from Separator**2308293-03 (Produced Water)****Sampled Date: 08/15/23 12:00**

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

General Chemistry

Chloride*	386	20.0	1.11	mg/L	20	08/19/23 01:54	EPA300.0		AWG
pH*	6.43			pH Units	1	08/17/23 11:59	EPA150.1		CAI
pH Temperature, degrees C	20.0			pH Units	1	08/17/23 11:59	EPA150.1		CAI
Sulfate*	<2.48	20.0	2.48	mg/L	20	08/19/23 01:54	EPA300.0		AWG
Total Dissolved Solids*	770	10.0		mg/L	1	08/17/23 15:44	EPA160.1		CAI

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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.

Page 5 of 10 2308293 GAL FINAL 08 21 23 1612 08/21/23 16:12:13

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 255765

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 255765
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	bradenhead tds 13900 - bradenhead has produced water	9/15/2023