



Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Braden Head Project Name / Number: Area 9 Bradenhead samples Project Manager: Bill Eaves	Reported: 07/09/25 12:32
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Harrington 6 3003923871

2507026-01 (Bradenhead Water)

Sampled Date: 06/25/25 00:00

Sampled By:

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

Chloride*	<9.94	20.0	9.94	mg/L	20	07/08/25 22:43	EPA 300.0		AWG
pH*	11.1			pH Units	1	07/03/25 12:50	EPA 150.1/9040C	H	HIC
pH Temperature, degrees C	17.8			pH Units	1	07/03/25 12:50	EPA 150.1/9040C	H	HIC
Sulfate*	527	20.0	11.3	mg/L	20	07/08/25 22:43	EPA 300.0		AWG
Total Dissolved Solids*	1270	10.0		mg/L	1	07/03/25 15:14	EPA 160.1/SM 2540C	H2	AES

Green Analytical Laboratories

Report Station For Jeremy D Allen, Laboratory Director

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Hilcorp 382 CR 3100 Aztec NM, 87410	Project: Formation Comparison Project Name / Number: [none] Project Manager: Bill Eaves	Reported: 08/20/25 14:58
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Harrington 6 3003923871

2508211-02 (Produced Water)

Sampled Date: 08/07/25 08:30

Sampled By:

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

Alkalinity, Total as CaCO3*	161	10.0	5.55	mg/L	1	08/18/25 08:33	2320 B		SCE
Alkalinity, Hydroxide as CaCO3*	<10.0	10.0	5.55	mg/L	1	08/18/25 08:33	2320 B		SCE
Alkalinity, Carbonate as CaCO3*	<10.0	10.0	5.55	mg/L	1	08/18/25 08:33	2320 B		SCE
Alkalinity, Bicarbonate as CaCO3*	161	10.0	5.55	mg/L	1	08/18/25 08:33	2320 B		SCE
Chloride*	9430	100	49.7	mg/L	100	08/16/25 12:31	EPA 300.0		AWG
Sulfate*	<11.3	20.0	11.3	mg/L	20	08/19/25 16:09	EPA 300.0		AWG
Total Dissolved Solids*	15700	80.0		mg/L	8	08/13/25 15:50	EPA 160.1/SM 2540C		SCE

Potentially Dissolved Metals by ICP

Calcium*	53.2	2.00	1.45	mg/L	20	08/19/25 13:00	EPA 200.7		AWG
Iron*	13.5	1.00	0.692	mg/L	20	08/19/25 13:00	EPA 200.7		AWG
Magnesium*	21.4	2.00	1.59	mg/L	20	08/18/25 16:54	EPA 200.7		AWG
Sodium*	5120	20.0	15.1	mg/L	20	08/18/25 16:54	EPA 200.7		AWG

Green Analytical Laboratories

Reporting Station For Jeremy D Allen, Laboratory Director

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Well Name: HARRINGTON 6; CSG
 API #: 3003923871
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20250061
 Cust No: 35825-16390

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)	Source: CASING
Well Name: HARRINGTON 6; CSG	Well Flowing: N
County/State: SAN JUAN NM	Pressure: 99 PSIG
Location:	Flow Temp: DEG. F
Lease/PA/CA: NMSF-080511	Ambient Temp: 80 DEG. F
Formation:	Flow Rate: 0 MCF/D
Cust. Stn. No.: 3003923871	Sample Method: Purge & Fill
95609	Sample Date: 06/27/2025
AREA 9 / RUN 0905	Sample Time: 10.30 AM
Heat Trace:	Sampled By: SHAWN ERRETT
Remarks:	Sampled by (CO): HILCORP

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.9648	0.9635	0.1070	0.00	0.0093
CO2	0.3282	0.3278	0.0560	0.00	0.0050
Methane	77.5304	77.4272	13.1930	783.06	0.4294
Ethane	10.0700	10.0566	2.7030	178.21	0.1045
Propane	6.3319	6.3235	1.7510	159.32	0.0964
Iso-Butane	0.9235	0.9223	0.3030	30.03	0.0185
N-Butane	1.7203	1.7180	0.5440	56.12	0.0345
I-Pentane	0.5898	0.5890	0.2170	23.60	0.0147
N-Pentane	0.4835	0.4829	0.1760	19.38	0.0120
Hexane Plus	1.0576	1.0562	0.4730	55.75	0.0350
Total	100.0000	99.8670	19.5230	1305.46	0.7595

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.004	CYLINDER #:	4123
BTU/CU.FT IDEAL:	1308.5	CYLINDER PRESSURE:	89 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1313.7	ANALYSIS DATE:	07/07/2025
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1290.8	ANALYSIS TIME:	08:58:11 AM
DRY BTU @ 15.025:	1340.0	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.7622		

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500 Last Cal/Verify: 07/14/2025

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HARRINGTON 6; CSG
Stn. No.: 3003923871
Mtr. No.: 95609

CASING

07/14/2025
35825-16390

Smpl Date: 06/27/2025
Test Date: 07/07/2025
Run No: HS20250061

Nitrogen: 0.9648
CO2: 0.3282
Methane: 77.5304
Ethane: 10.0700
Propane: 6.3319
I-Butane: 0.9235
N-Butane: 1.7203
I-Pentane: 0.5898
N-Pentane: 0.4835
Hexane+: 1.0576

BTU: 1313.7
GPM: 19.5230
SPG: 0.7622



Well Name: HARRINGTON 6; TBG
 API #: 3003923871
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS20250062
 Cust No: 35825-16395

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: HARRINGTON 6; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: NMSF-080511
 Formation:
 Cust. Stn. No.: 3003923871

Source: TUBING
 Well Flowing: N
 Pressure: 88 PSIG
 Flow Temp: DEG. F
 Ambient Temp: 80 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 06/27/2025
 Sample Time: 10.25 AM
 Sampled By: SHAWN ERRETT
 Sampled by (CO): HEC

AREA 9 / RUN 0905

Heat Trace:
 Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5843	0.5876	0.0650	0.00	0.0057
CO2	0.5177	0.5206	0.0890	0.00	0.0079
Methane	72.4849	72.8977	12.3390	732.10	0.4015
Ethane	13.0499	13.1242	3.5040	230.94	0.1355
Propane	8.1059	8.1520	2.2420	203.95	0.1234
Iso-Butane	1.2005	1.2073	0.3940	39.04	0.0241
N-Butane	2.2227	2.2354	0.7040	72.51	0.0446
I-Pentane	0.6828	0.6867	0.2510	27.32	0.0170
N-Pentane	0.5324	0.5354	0.1940	21.34	0.0133
Hexane Plus	0.6189	0.6224	0.2770	32.62	0.0205
Total	100.0000	100.5693	20.0590	1359.83	0.7934

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0044
 BTU/CU.FT IDEAL: 1363.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1369.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1345.2
 DRY BTU @ 15.025: 1396.4
 REAL SPECIFIC GRAVITY: 0.7965

CYLINDER #: 5024
 CYLINDER PRESSURE: 88 PSIG
 ANALYSIS DATE: 07/07/2025
 ANALYSIS TIME: 08:44:00 AM
 ANALYSIS RUN BY: ALEXIS MITCHELL

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500 Last Cal/Verify: 07/14/2025

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HARRINGTON 6; TBG
Stn. No.: 3003923871
Mtr. No.:

TUBING

07/14/2025
35825-16395

Smpl Date: 06/27/2025
Test Date: 07/07/2025
Run No: HS20250062
Nitrogen: 0.5843
CO2: 0.5177
Methane: 72.4849
Ethane: 13.0499
Propane: 8.1059
I-Butane: 1.2005
N-Butane: 2.2227
I-Pentane: 0.6828
N-Pentane: 0.5324
Hexane+: 0.6189
BTU: 1369.0
GPM: 20.0590
SPG: 0.7965

Sante Fe Main Office
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General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 498469

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 498469
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	Accepted for record	4/9/2026