



Well Name: ZACHRY 55; BHD

API #: 3004525650

Source: BRADENHEAD

Sample Type: GAS

Analysis No: HS20240158

Cust No: 35825-10575

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: ZACHRY 55; BHD

County/State: SAN JUAN NM

Location:

Lease/PA/CA: NMSF-08072A

Formation: GALLUP

Cust. Stn. No.: 3004525650
14633099

AREA 7 / RUN 0707

Heat Trace: N

Remarks:

Source: BRADENHEAD

Well Flowing: Y

Pressure: 33 PSIG

Flow Temp: 105 DEG. F

Ambient Temp: 97 DEG. F

Flow Rate: 33 MCF/D

Sample Method: Purge & Fill

Sample Date: 07/02/2024

Sample Time: 4.20 PM

Sampled By: LT WATSON

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5799	0.5642	0.0640	0.00	0.0056
CO2	0.0060	0.0058	0.0010	0.00	0.0001
Methane	80.9517	78.7563	13.7700	817.61	0.4484
Ethane	10.3148	10.0351	2.7680	182.54	0.1071
Propane	4.6034	4.4786	1.2720	115.83	0.0701
Iso-Butane	0.4902	0.4769	0.1610	15.94	0.0098
N-Butane	1.4175	1.3791	0.4480	46.24	0.0284
I-Pentane	0.3990	0.3882	0.1460	15.96	0.0099
N-Pentane	0.4149	0.4036	0.1510	16.63	0.0103
Hexane Plus	0.8226	0.8003	0.3680	43.36	0.0272
Total	100.0000	97.2881	19.1490	1254.12	0.7170

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
 BTU/CU.FT IDEAL: 1257.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1261.6
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1239.6
 DRY BTU @ 15.025: 1286.9
 REAL SPECIFIC GRAVITY: 0.7194

CYLINDER #: 820
 CYLINDER PRESSURE: 77 PSIG
 ANALYSIS DATE: 07/09/2024
 ANALYSIS TIME: 12:15:04 AM
 ANALYSIS RUN BY: SARAH BALLARD

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: 07/10/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	ZACHRY 55; BHD	BRADENHEAD	07/10/2024
Stn. No.:	3004525650	GALLUP	35825-10575
Mtr. No.:	14633099		

Smpl Date:	07/02/2024	01/05/2022	09/28/2021	08/28/2018
Test Date:	07/09/2024	01/07/2022	10/01/2021	08/29/2018
Run No:	HS20240158	HS20220002	HS2021251	HS180150
Nitrogen:	0.5799	0.5751	0.4762	0.6979
CO2:	0.0060	0.2478	0.9568	0.0148
Methane:	80.9517	81.9028	79.7272	81.6895
Ethane:	10.3148	9.7514	10.8731	9.5223
Propane:	4.6034	4.2671	4.5292	4.1837
I-Butane:	0.4902	0.4991	0.4745	0.4709
N-Butane:	1.4175	1.2732	1.3084	1.3171
I-Pentane:	0.3990	0.3756	0.3814	0.3908
N-Pentane:	0.4149	0.3133	0.3822	0.4295
Hexane+:	0.8226	0.7946	0.8910	1.2835
BTU:	1261.6	1241.6	1254.7	1265.1
GPM:	19.1490	19.0050	19.1960	19.1310
SPG:	0.7194	0.7104	0.7292	0.7231



Well Name: ZACHRY 55; CSG
 API #: 3004525650
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20240160
 Cust No: 35825-14095

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	ZACHRY 55; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	33 PSIG
Location:		Flow Temp:	104 DEG. F
Lease/PA/CA:	NMSF-08072A	Ambient Temp:	97 DEG. F
Formation:	GALLUP	Flow Rate:	33 MCF/D
Cust. Stn. No.:	3004525650	Sample Method:	Purge & Fill
	14633099	Sample Date:	07/02/2024
	AREA 7 / RUN 0707	Sample Time:	4.15 PM
Heat Trace:	N	Sampled By:	LT WATSON
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5602	0.5445	0.0620	0.00	0.0054
CO2	0.0072	0.0070	0.0010	0.00	0.0001
Methane	80.6641	78.4086	13.7220	814.71	0.4468
Ethane	10.3574	10.0678	2.7790	183.29	0.1075
Propane	4.6608	4.5305	1.2880	117.27	0.0710
Iso-Butane	0.5017	0.4877	0.1650	16.31	0.0101
N-Butane	1.4580	1.4172	0.4610	47.56	0.0293
I-Pentane	0.4176	0.4059	0.1530	16.71	0.0104
N-Pentane	0.4391	0.4268	0.1600	17.60	0.0109
Hexane Plus	0.9339	0.9078	0.4180	49.23	0.0309
Total	100.0000	97.2038	19.2090	1262.69	0.7224

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0037
BTU/CU.FT IDEAL:	1265.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1270.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1248.1
DRY BTU @ 15.025:	1295.6
REAL SPECIFIC GRAVITY:	0.7247

CYLINDER #:	1877
CYLINDER PRESSURE:	76 PSIG
ANALYSIS DATE:	07/09/2024
ANALYSIS TIME:	12:22:18 AM
ANALYSIS RUN BY:	SARAH BALLARD

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: 07/10/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	ZACHRY 55; CSG	CASING	07/10/2024
Stn. No.:	3004525650	GALLUP	35825-14095
Mtr. No.:	14633099		

Smpl Date:	07/02/2024	01/05/2022	09/28/2021
Test Date:	07/09/2024	01/07/2022	10/01/2021
Run No:	HS20240160	HS20220003	HS2021255
Nitrogen:	0.5602	0.5845	0.4901
CO2:	0.0072	0.2474	0.9661
Methane:	80.6641	81.8675	79.7127
Ethane:	10.3574	9.7570	10.8798
Propane:	4.6608	4.2699	4.5335
I-Butane:	0.5017	0.5010	0.4741
N-Butane:	1.4580	1.2852	1.3087
I-Pentane:	0.4176	0.3839	0.3822
N-Pentane:	0.4391	0.3197	0.3840
Hexane+:	0.9339	0.7839	0.8688
BTU:	1270.2	1241.9	1253.7
GPM:	19.2090	19.0070	19.1890
SPG:	0.7247	0.7107	0.7289



Well Name: ZACHRY 55; TBG
 API #: 3004525650
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS20240159
 Cust No: 35825-14115

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	ZACHRY 55; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	33 PSIG
Location:		Flow Temp:	104 DEG. F
Lease/PA/CA:	NMSF-08072A	Ambient Temp:	99 DEG. F
Formation:	GALLUP	Flow Rate:	35 MCF/D
Cust. Stn. No.:	3004525650	Sample Method:	Purge & Fill
	14633099	Sample Date:	07/02/2024
	AREA 7 / RUN 0707	Sample Time:	3.50 PM
Heat Trace:	N	Sampled By:	LT WATSON
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4857	0.4790	0.0540	0.00	0.0047
CO2	1.2421	1.2251	0.2130	0.00	0.0189
Methane	79.0389	77.9561	13.4440	798.29	0.4378
Ethane	11.6318	11.4724	3.1210	205.85	0.1208
Propane	4.5744	4.5117	1.2640	115.10	0.0696
Iso-Butane	0.4743	0.4678	0.1560	15.42	0.0095
N-Butane	1.1739	1.1578	0.3710	38.30	0.0236
I-Pentane	0.3262	0.3217	0.1200	13.05	0.0081
N-Pentane	0.3066	0.3024	0.1120	12.29	0.0076
Hexane Plus	0.7461	0.7359	0.3340	39.33	0.0247
Total	100.0000	98.6299	19.1890	1237.63	0.7253

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0036
BTU/CU.FT IDEAL:	1240.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1245.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1223.3
DRY BTU @ 15.025:	1269.9
REAL SPECIFIC GRAVITY:	0.7276

CYLINDER #:	2034
CYLINDER PRESSURE:	70 PSIG
ANALYSIS DATE:	07/09/2024
ANALYSIS TIME:	12:30:45 AM
ANALYSIS RUN BY:	SARAH BALLARD

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: 07/10/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	ZACHRY 55; TBG	TUBING	07/10/2024
Stn. No.:	3004525650	GALLUP	35825-14115
Mtr. No.:	14633099		

Smpl Date:	07/02/2024	01/05/2022	09/29/2021
Test Date:	07/09/2024	01/07/2022	10/01/2021
Run No:	HS20240159	HS20220001	HS2021256
Nitrogen:	0.4857	0.3968	0.3970
CO2:	1.2421	1.3440	1.3314
Methane:	79.0389	78.1438	78.1087
Ethane:	11.6318	11.4486	11.7223
Propane:	4.5744	4.7670	4.7654
I-Butane:	0.4743	0.5435	0.5231
N-Butane:	1.1739	1.3998	1.3353
I-Pentane:	0.3262	0.4245	0.3676
N-Pentane:	0.3066	0.3503	0.3499
Hexane+:	0.7461	1.1817	1.0993
BTU:	1245.0	1276.2	1271.3
GPM:	19.1890	19.3950	19.3730
SPG:	0.7276	0.7485	0.7451

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District II
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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 365846

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 365846
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	same gas all strings	7/22/2024