



Well Name: FEDERAL GAS COM 3; BHD
 API #: 3004532873
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20240084
 Cust No: 35825-15835

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	FEDERAL GAS COM 3; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	SF-077383A	Ambient Temp:	DEG. F
Formation:	DK	Flow Rate:	MCF/D
Cust. Stn. No.:	3004532873	Sample Method:	Purge & Fill
	86802	Sample Date:	05/17/2024
		Sample Time:	10.00 AM
	AREA 7 / RUN 0708	Sampled By:	
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:	PRESSURED WITH HELIUM TO 30 LBS.		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2996	0.3640	0.1430	0.00	0.0126
CO2	0.0193	0.0054	0.0030	0.00	0.0003
Methane	85.9795	24.0808	14.6180	868.39	0.4762
Ethane	6.3019	1.7650	1.6900	111.52	0.0654
Propane	3.5069	0.9822	0.9690	88.24	0.0534
Iso-Butane	0.8059	0.2257	0.2640	26.21	0.0162
N-Butane	0.9576	0.2682	0.3030	31.24	0.0192
I-Pentane	0.3385	0.0948	0.1240	13.54	0.0084
N-Pentane	0.2381	0.0667	0.0870	9.54	0.0059
Hexane Plus	0.5527	0.1548	0.2470	29.13	0.0183
Total	100.0000	28.0076	18.4480	1177.82	0.6760

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0031	CYLINDER #:	1395
BTU/CU.FT IDEAL:	1180.5	CYLINDER PRESSURE:	3 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1184.2	ANALYSIS DATE:	05/24/2024
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1163.6	ANALYSIS TIME:	10:09:49 AM
DRY BTU @ 15.025:	1207.9	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.6778		

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: 05/29/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	FEDERAL GAS COM 3; BHD	BRADENHEAD	05/29/2024
Stn. No.:	3004532873	DK	35825-15835
Mtr. No.:	86802		

Smpl Date: 05/17/2024
Test Date: 05/24/2024
Run No: HS20240084

Nitrogen: 1.2996
CO2: 0.0193
Methane: 85.9795
Ethane: 6.3019
Propane: 3.5069
I-Butane: 0.8059
N-Butane: 0.9576
I-Pentane: 0.3385
N-Pentane: 0.2381
Hexane+: 0.5527

BTU: 1184.2
GPM: 18.4480
SPG: 0.6778



Well Name: FEDERAL GAS COM 3; CSG
 API #: 3004532873
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20240085
 Cust No: 35825-14085

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	FEDERAL GAS COM 3; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	SF-077383A	Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	3004532873	Sample Method:	Purge & Fill
	86802	Sample Date:	05/17/2024
		Sample Time:	10.00 AM
	AREA 7 / RUN 0708	Sampled By:	
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4254	0.4131	0.0470	0.00	0.0041
CO2	1.0623	1.0316	0.1820	0.00	0.0161
Methane	78.7270	76.4488	13.3970	795.14	0.4361
Ethane	10.0859	9.7940	2.7070	178.49	0.1047
Propane	4.9188	4.7765	1.3600	123.76	0.0749
Iso-Butane	0.7646	0.7425	0.2510	24.86	0.0153
N-Butane	1.4499	1.4079	0.4590	47.30	0.0291
I-Pentane	0.5341	0.5186	0.1960	21.37	0.0133
N-Pentane	0.4740	0.4603	0.1720	19.00	0.0118
Hexane Plus	1.5580	1.5129	0.6970	82.12	0.0516
Total	100.0000	97.1062	19.4680	1292.05	0.7570

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.004	CYLINDER #:	3510
BTU/CU.FT IDEAL:	1295.0	CYLINDER PRESSURE:	36 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1300.2	ANALYSIS DATE:	05/24/2024
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1277.6	ANALYSIS TIME:	10:21:21 AM
DRY BTU @ 15.025:	1326.2	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.7598		

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: 05/29/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	FEDERAL GAS COM 3; CSG	CASING	05/29/2024
Stn. No.:	3004532873		35825-14085
Mtr. No.:	86802		

Smpl Date:	05/17/2024	09/27/2021
Test Date:	05/24/2024	09/29/2021
Run No:	HS20240085	HS2021249
Nitrogen:	0.4254	0.2519
CO2:	1.0623	0.2534
Methane:	78.7270	87.5787
Ethane:	10.0859	6.6764
Propane:	4.9188	2.9623
I-Butane:	0.7646	0.4860
N-Butane:	1.4499	0.7389
I-Pentane:	0.5341	0.2525
N-Pentane:	0.4740	0.1928
Hexane+:	1.5580	0.6071
BTU:	1300.2	1173.2
GPM:	19.4680	18.3940
SPG:	0.7598	0.6633



Well Name: FEDERAL GAS COM 3; TBG
 API #: 3004532873
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS20240086
 Cust No: 35825-14090

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	FEDERAL GAS COM 3; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	SF-077383A	Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	3004532873	Sample Method:	Purge & Fill
	86802	Sample Date:	05/17/2024
		Sample Time:	10.00 AM
	AREA 7 / RUN 0708	Sampled By:	
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6078	0.5951	0.0670	0.00	0.0059
CO2	1.7726	1.7354	0.3040	0.00	0.0269
Methane	74.4504	72.8890	12.6730	751.95	0.4124
Ethane	12.1087	11.8548	3.2510	214.29	0.1257
Propane	5.9338	5.8094	1.6410	149.30	0.0903
Iso-Butane	0.9065	0.8875	0.2980	29.48	0.0182
N-Butane	1.7636	1.7266	0.5580	57.53	0.0354
I-Pentane	0.6387	0.6253	0.2350	25.55	0.0159
N-Pentane	0.5595	0.5478	0.2040	22.43	0.0139
Hexane Plus	1.2584	1.2320	0.5630	66.33	0.0416
Total	100.0000	97.9029	19.7940	1316.86	0.7863

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0043
BTU/CU.FT IDEAL:	1319.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1325.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1302.5
DRY BTU @ 15.025:	1352.1
REAL SPECIFIC GRAVITY:	0.7894

CYLINDER #:	031
CYLINDER PRESSURE:	30 PSIG
ANALYSIS DATE:	05/24/2024
ANALYSIS TIME:	10:31:19 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: 05/29/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	FEDERAL GAS COM 3; TBG	TUBING	05/29/2024
Stn. No.:	3004532873		35825-14090
Mtr. No.:	86802		

Smpl Date:	05/17/2024	09/27/2021
Test Date:	05/24/2024	09/29/2021
Run No:	HS20240086	HS2021250
Nitrogen:	0.6078	0.4173
CO2:	1.7726	1.2942
Methane:	74.4504	76.5760
Ethane:	12.1087	10.9431
Propane:	5.9338	5.5282
I-Butane:	0.9065	0.8710
N-Butane:	1.7636	1.7047
I-Pentane:	0.6387	0.5875
N-Pentane:	0.5595	0.5143
Hexane+:	1.2584	1.5637
BTU:	1325.6	1325.3
GPM:	19.7940	19.6970
SPG:	0.7894	0.7795

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District III
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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 361454

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 361454
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	7/9/2024