



Well Name: CAIN 11E; BHD
 API #: 3004523972
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20240148
 Cust No: 35825-15965

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	CAIN 11E; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	111 PSIG
Location:		Flow Temp:	1 DEG. F
Lease/PA/CA:	NMSF - 080781	Ambient Temp:	100 DEG. F
Formation:	DK/CH	Flow Rate:	MCF/D
Cust. Stn. No.:	3004523972	Sample Method:	PURGE & FILL
	34770-30	Sample Date:	06/25/2024
	AREA 7 / RUN 0707	Sample Time:	4.05 PM
Heat Trace:	N	Sampled By:	LT WATSON
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.7992	1.7918	0.1980	0.00	0.0174
CO2	0.0102	0.0102	0.0020	0.00	0.0002
Methane	83.5608	83.2177	14.2040	843.96	0.4628
Ethane	10.0995	10.0580	2.7080	178.73	0.1049
Propane	3.1672	3.1542	0.8750	79.69	0.0482
Iso-Butane	0.4490	0.4472	0.1470	14.60	0.0090
N-Butane	0.4776	0.4756	0.1510	15.58	0.0096
I-Pentane	0.2203	0.2194	0.0810	8.81	0.0055
N-Pentane	0.0533	0.0531	0.0190	2.14	0.0013
Hexane Plus	0.1629	0.1622	0.0730	8.59	0.0054
Total	100.0000	99.5894	18.4580	1152.10	0.6643

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0029	CYLINDER #:	1854
BTU/CU.FT IDEAL:	1154.8	CYLINDER PRESSURE:	23 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1158.1	ANALYSIS DATE:	06/27/2024
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1137.9	ANALYSIS TIME:	03:40:11 AM
DRY BTU @ 15.025:	1181.3	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.6659		

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: 07/02/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CAIN 11E; BHD	BRADENHEAD	07/02/2024
Stn. No.:	3004523972	DK/CH	35825-15965
Mtr. No.:	34770-30		

Smpl Date: 06/25/2024
Test Date: 06/27/2024
Run No: HS20240148

Nitrogen: 1.7992
CO2: 0.0102
Methane: 83.5608
Ethane: 10.0995
Propane: 3.1672
I-Butane: 0.4490
N-Butane: 0.4776
I-Pentane: 0.2203
N-Pentane: 0.0533
Hexane+: 0.1629

BTU: 1158.1
GPM: 18.4580
SPG: 0.6659



Well Name: CAIN 11E; CSG
 API #: 3004523972
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20240149
 Cust No: 35825-15970

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	CAIN 11E; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	111 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	NMSF - 080781	Ambient Temp:	100 DEG. F
Formation:	DK/CH	Flow Rate:	MCF/D
Cust. Stn. No.:	3004523972	Sample Method:	Purge & Fill
	34970-30	Sample Date:	06/25/2024
		Sample Time:	3.55 PM
	AREA 7 / RUN 0707	Sampled By:	LT WATSON
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4717	0.4737	0.0520	0.00	0.0046
CO2	0.9942	0.9984	0.1700	0.00	0.0151
Methane	81.3596	81.7016	13.8390	821.73	0.4507
Ethane	8.8157	8.8528	2.3660	156.01	0.0915
Propane	4.4749	4.4937	1.2370	112.59	0.0681
Iso-Butane	0.7713	0.7745	0.2530	25.08	0.0155
N-Butane	1.2995	1.3050	0.4110	42.39	0.0261
I-Pentane	0.4735	0.4755	0.1740	18.94	0.0118
N-Pentane	0.4219	0.4237	0.1530	16.91	0.0105
Hexane Plus	0.9177	0.9216	0.4110	48.37	0.0304
Total	100.0000	100.4205	19.0660	1242.04	0.7242

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0036
BTU/CU.FT IDEAL:	1244.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1249.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1227.7
DRY BTU @ 15.025:	1274.4
REAL SPECIFIC GRAVITY:	0.7265

CYLINDER #:	1881
CYLINDER PRESSURE:	105 PSIG
ANALYSIS DATE:	06/27/2024
ANALYSIS TIME:	03:32:00 PM
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: 07/02/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CAIN 11E; CSG	CASING	07/02/2024
Stn. No.:	3004523972	DK/CH	35825-15970
Mtr. No.:	34970-30		

Smpl Date: 06/25/2024
Test Date: 06/27/2024
Run No: HS20240149

Nitrogen: 0.4717
CO2: 0.9942
Methane: 81.3596
Ethane: 8.8157
Propane: 4.4749
I-Butane: 0.7713
N-Butane: 1.2995
I-Pentane: 0.4735
N-Pentane: 0.4219
Hexane+: 0.9177

BTU: 1249.4
GPM: 19.0660
SPG: 0.7265



Well Name: CAIN 11E; TBG
 API #: 3004523972
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS20240150
 Cust No: 35825-15975

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	CAIN 11E; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	111 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	NMSF - 080781	Ambient Temp:	100 DEG. F
Formation:	DK/CH	Flow Rate:	MCF/D
Cust. Stn. No.:	3004523972	Sample Method:	Purge & Fill
	34770-30	Sample Date:	06/25/2024
	AREA 7 / RUN 0707	Sample Time:	3.40 PM
Heat Trace:	N	Sampled By:	LT WATSON
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4165	0.4180	0.0460	0.00	0.0040
CO2	1.0053	1.0090	0.1720	0.00	0.0153
Methane	82.1271	82.4263	13.9680	829.48	0.4549
Ethane	8.7432	8.7750	2.3460	154.73	0.0908
Propane	4.2478	4.2633	1.1740	106.88	0.0647
Iso-Butane	0.7507	0.7534	0.2460	24.41	0.0151
N-Butane	1.2666	1.2712	0.4010	41.32	0.0254
I-Pentane	0.4108	0.4123	0.1510	16.44	0.0102
N-Pentane	0.3409	0.3421	0.1240	13.67	0.0085
Hexane Plus	0.6911	0.6936	0.3090	36.43	0.0229
Total	100.0000	100.3642	18.9370	1223.35	0.7117

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0035	CYLINDER #:	054
BTU/CU.FT IDEAL:	1226.2	CYLINDER PRESSURE:	106 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1230.4	ANALYSIS DATE:	06/27/2024
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1209.0	ANALYSIS TIME:	03:22:19 PM
DRY BTU @ 15.025:	1255.0	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.7139		

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: 07/02/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CAIN 11E; TBG	TUBING	07/02/2024
Stn. No.:	3004523972	DK/CH	35825-15975
Mtr. No.:	34770-30		

Smpl Date:	06/25/2024
Test Date:	06/27/2024
Run No:	HS20240150
Nitrogen:	0.4165
CO2:	1.0053
Methane:	82.1271
Ethane:	8.7432
Propane:	4.2478
I-Butane:	0.7507
N-Butane:	1.2666
I-Pentane:	0.4108
N-Pentane:	0.3409
Hexane+:	0.6911
BTU:	1230.4
GPM:	18.9370
SPG:	0.7139

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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 360868

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 360868
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	BH = 111 at time of sampling - same gas all strings	8/27/2024