



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HS190240
Cust No: 35825-11955

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: UTE MOUNTAIN UTE 107; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA: I-22-IND-2772
Formation:
Cust. Stn. No.: 91901189
API # 3004535307

AREA 2 / RUN 200
Heat Trace: N
Remarks:

Source: BRADENHEAD
Well Flowing: N
Pressure: 470 PSIG
Flow Temp: 60 DEG. F
Ambient Temp: 60 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 08/23/2019
Sample Time: 7.00 AM
Sampled By: CASEY NICHOLS
Sampled by (CO): HILCORP

NMOCD

AUG 28 2019

DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.6751	1.6511	0.1850	0.00	0.0162
CO2	0.0132	0.0130	0.0020	0.00	0.0002
Methane	84.4027	83.1919	14.3470	852.47	0.4675
Ethane	8.5077	8.3856	2.2810	150.56	0.0883
Propane	3.4641	3.4144	0.9570	87.16	0.0527
Iso-Butane	0.5143	0.5069	0.1690	16.72	0.0103
N-Butane	0.8495	0.8373	0.2690	27.71	0.0170
I-Pentane	0.2330	0.2297	0.0850	9.32	0.0058
N-Pentane	0.1823	0.1797	0.0660	7.31	0.0045
Hexane Plus	0.1581	0.1558	0.0710	8.33	0.0052
Total	100.0000	98.5654	18.4320	1159.59	0.6679

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1162.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1165.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1145.4
DRY BTU @ 15.025: 1189.0
REAL SPECIFIC GRAVITY: 0.6696

CYLINDER #: 4067
CYLINDER PRESSURE: 38 PSIG
ANALYSIS DATE: 08/23/2019
ANALYSIS TIME: 10:43:32 AM
ANALYSIS RUN BY: RICHARD WILSON

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 08/23/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE MOUNTAIN UTE 107; BHD
Stn. No.: 91901189
Mtr. No.: API # 3004535307

BRADENHEAD

08/23/2019
35825-11955

Smpl Date: 08/23/2019
Test Date: 08/23/2019
Run No: HS190240

Nitrogen: 1.6751
CO2: 0.0132
Methane: 84.4027
Ethane: 8.5077
Propane: 3.4641
I-Butane: 0.5143
N-Butane: 0.8495
I-Pentane: 0.2330
N-Pentane: 0.1823
Hexane+: 0.1581

BTU: 1165.7
GPM: 18.4320
SPG: 0.6696



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HS190242
Cust No: 35825-11965

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	INTERMEDIATE
Well Name:	UTE MOUNTAIN UTE 107; INT	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	470 PSIG
Location:		Flow Temp:	60 DEG. F
Lease/PA/CA:	I-22-IND-2772	Ambient Temp:	60 DEG. F
Formation:		Flow Rate:	0 MCF/D
Cust. Stn. No.:	91901189	Sample Method:	Purge & Fill
	API # 3004535307	Sample Date:	08/23/2019
		Sample Time:	7.00 AM
	AREA 2 / RUN 200	Sampled By:	CASEY NICHOLS
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:	PRESSURED WITH HELIUM TO 30LBS.		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	88.3984	11.5496	9.7280	0.00	0.8550
CO2	0.0911	0.0119	0.0160	0.00	0.0014
Methane	9.9919	1.3055	1.6940	100.92	0.0553
Ethane	0.3873	0.0506	0.1040	6.85	0.0040
Propane	0.2128	0.0278	0.0590	5.35	0.0032
Iso-Butane	0.0873	0.0114	0.0290	2.84	0.0018
N-Butane	0.1217	0.0159	0.0380	3.97	0.0024
I-Pentane	0.0918	0.0120	0.0340	3.67	0.0023
N-Pentane	0.0551	0.0072	0.0200	2.21	0.0014
Hexane Plus	0.5626	0.0735	0.2510	29.66	0.0186
Total	100.0000	13.0654	11.9730	155.47	0.9455

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0005	CYLINDER #:	4222
BTU/CU.FT IDEAL:	155.8	CYLINDER PRESSURE:	0 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	155.9	ANALYSIS DATE:	08/23/2019
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	153.2	ANALYSIS TIME:	10:35:46 AM
DRY BTU @ 15.025:	159.0	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.9455		

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 08/23/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE MOUNTAIN UTE 107; INT
Stn. No.: 91901189
Mtr. No.: API # 3004535307

INTERMEDIATE

08/23/2019
35825-11965

Smpl Date: 08/23/2019
Test Date: 08/23/2019
Run No: HS190242

Nitrogen: 88.3984
CO2: 0.0911
Methane: 9.9919
Ethane: 0.3873
Propane: 0.2128
I-Butane: 0.0873
N-Butane: 0.1217
I-Pentane: 0.0918
N-Pentane: 0.0551
Hexane+: 0.5626

BTU: 155.9
GPM: 11.9730
SPG: 0.9455



2030 Afton Place
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Analysis No: HS190243
Cust No: 35825-11970

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: UTE MOUNTAIN UTE 107; TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA: I-22-IND-2772
Formation:
Cust. Stn. No.: 91901189
API # 3004535307

AREA 2 / RUN 200
Heat Trace: N
Remarks:

Source: TUBING
Well Flowing: N
Pressure: 470 PSIG
Flow Temp: 60 DEG. F
Ambient Temp: 60 DEG. F
Flow Rate: 0 MCF/D
Sample Method:
Sample Date: 08/23/2019
Sample Time: 7.00 AM
Sampled By: CASEY NICHOLS
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.0593	1.0498	0.1170	0.00	0.0102
CO2	1.7190	1.7035	0.2940	0.00	0.0261
Methane	96.6348	95.7652	16.4130	976.01	0.5353
Ethane	0.3201	0.3172	0.0860	5.66	0.0033
Propane	0.0619	0.0613	0.0170	1.56	0.0009
Iso-Butane	0.0136	0.0135	0.0040	0.44	0.0003
N-Butane	0.0214	0.0212	0.0070	0.70	0.0004
I-Pentane	0.0112	0.0111	0.0040	0.45	0.0003
N-Pentane	0.0105	0.0104	0.0040	0.42	0.0003
Hexane Plus	0.1482	0.1469	0.0660	7.81	0.0049
Total	100.0000	99.1001	17.0120	993.05	0.5820

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
BTU/CU.FT IDEAL: 995.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 997.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 980.0
DRY BTU @ 15.025: 1017.4
REAL SPECIFIC GRAVITY: 0.583

CYLINDER #: 5036
CYLINDER PRESSURE: 484 PSIG
ANALYSIS DATE: 08/23/2019
ANALYSIS TIME: 10:18:06 AM
ANALYSIS RUN BY: RICHARD WILSON

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

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 08/23/2019



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE MOUNTAIN UTE 107; TBG
Stn. No.: 91901189
Mtr. No.: API # 3004535307

TUBING

08/23/2019
35825-11970

Smpl Date: 08/23/2019
Test Date: 08/23/2019
Run No: HS190243

Nitrogen: 1.0593
CO2: 1.7190
Methane: 96.6348
Ethane: 0.3201
Propane: 0.0619
I-Butane: 0.0136
N-Butane: 0.0214
I-Pentane: 0.0112
N-Pentane: 0.0105
Hexane+: 0.1482

BTU: 997.4
GPM: 17.0120
SPG: 0.5830



2030 Afton Place
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Analysis No: HS190241
Cust No: 35825-11960

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: UTE MOUNTAIN UTE 107; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA: I-22-IND-2772
Formation:
Cust. Stn. No.: 91901189
API # 3004535307

AREA 2 / RUN 200
Heat Trace: N
Remarks:

Source: CASING
Well Flowing: N
Pressure: 470 PSIG
Flow Temp: 60 DEG. F
Ambient Temp: 60 DEG. F
Flow Rate: 0 MCF/D
Sample Method:
Sample Date: 08/23/2019
Sample Time: 7.00 AM
Sampled By: CASEY NICHOLS
Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2840	1.2544	0.1420	0.00	0.0124
CO2	0.0071	0.0069	0.0010	0.00	0.0001
Methane	91.3354	89.2293	15.5220	922.49	0.5059
Ethane	3.3368	3.2599	0.8950	59.05	0.0346
Propane	1.4677	1.4339	0.4050	36.93	0.0223
Iso-Butane	0.6090	0.5950	0.2000	19.80	0.0122
N-Butane	0.6877	0.6718	0.2170	22.43	0.0138
I-Pentane	0.3994	0.3902	0.1460	15.98	0.0099
N-Pentane	0.2511	0.2453	0.0910	10.07	0.0063
Hexane Plus	0.6218	0.6075	0.2780	32.78	0.0206
Total	100.0000	97.6942	17.8970	1119.53	0.6382

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
BTU/CU.FT IDEAL: 1122.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1125.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1105.6
DRY BTU @ 15.025: 1147.7
REAL SPECIFIC GRAVITY: 0.6397

CYLINDER #: 6075
CYLINDER PRESSURE: 148 PSIG
ANALYSIS DATE: 08/23/2019
ANALYSIS TIME: 10:25:09 AM
ANALYSIS RUN BY: RICHARD WILSON

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: 08/23/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: UTE MOUNTAIN UTE 107; CSG
Stn. No.: 91901189
Mtr. No.: API # 3004535307

CASING

08/23/2019
35825-11960

Smpl Date: 08/23/2019
Test Date: 08/23/2019
Run No: HS190241

Nitrogen: 1.2840
CO2: 0.0071
Methane: 91.3354
Ethane: 3.3368
Propane: 1.4677
I-Butane: 0.6090
N-Butane: 0.6877
I-Pentane: 0.3994
N-Pentane: 0.2511
Hexane+: 0.6218

BTU: 1125.2
GPM: 17.8970
SPG: 0.6397