



Well Name: WOOD 2R; BHD
 API #: API # 3004529753
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021082
 Cust No: 35825-13615

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: WOOD 2R; BHD
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF079962
 Formation:
 Cust. Stn. No.: API # 3004529753

Source: BRADENHEAD
 Well Flowing: N
 Pressure: 26.1 PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/27/2021
 Sample Time: 10.30 AM
 Sampled By: LUKAS ARMENTA
 Sampled by (CO): HILCORP

Heat Trace: N
 Remarks: AREA 7 / RUN 0701

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2212	1.1994	0.1350	0.00	0.0118
CO2	0.0223	0.0219	0.0040	0.00	0.0003
Methane	86.5091	84.9622	14.7050	873.74	0.4792
Ethane	7.4941	7.3601	2.0100	132.62	0.0778
Propane	2.8345	2.7838	0.7830	71.32	0.0432
Iso-Butane	0.5025	0.4935	0.1650	16.34	0.0101
N-Butane	0.7129	0.7002	0.2250	23.26	0.0143
I-Pentane	0.2450	0.2406	0.0900	9.80	0.0061
N-Pentane	0.1645	0.1616	0.0600	6.59	0.0041
Hexane Plus	0.2939	0.2886	0.1310	15.49	0.0097
Total	100.0000	98.2119	18.3080	1149.17	0.6566

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
 BTU/CU.FT IDEAL: 1151.8
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1155.2
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1135.1
 DRY BTU @ 15.025: 1178.3
 REAL SPECIFIC GRAVITY: 0.6582

CYLINDER #: 6045
 CYLINDER PRESSURE: 18 PSIG
 ANALYSIS DATE: 05/05/2021
 ANALYSIS TIME: 09:49:55 AM
 ANALYSIS RUN BY: SHYANN GALLEGOS

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: 05/06/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	WOOD 2R; BHD	BRADENHEAD	05/06/2021
Stn. No.:	API # 3004529753		35825-13615
Mtr. No.:			

Smpl Date: 04/27/2021
Test Date: 05/05/2021
Run No: HS2021082

Nitrogen: 1.2212
CO2: 0.0223
Methane: 86.5091
Ethane: 7.4941
Propane: 2.8345
I-Butane: 0.5025
N-Butane: 0.7129
I-Pentane: 0.2450
N-Pentane: 0.1645
Hexane+: 0.2939

BTU: 1155.2
GPM: 18.3080
SPG: 0.6582



Well Name: WOOD 2R; CSG
 API #: API # 3004529753
 Source: CASING
 Sample Type: GAS
 Analysis No: HS2021083
 Cust No: 35825-13620

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: WOOD 2R; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF079962
 Formation:
 Cust. Stn. No.: API # 3004529753

Source: CASING
 Well Flowing:
 Pressure: 36 PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/27/2021
 Sample Time: 10.30 AM
 Sampled By: LUKAS ARMENTA
 Sampled by (CO): HILCORP

AREA 7 / RUN 0701

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2029	0.2013	0.0220	0.00	0.0020
CO2	0.6570	0.6519	0.1120	0.00	0.0100
Methane	87.0448	86.3726	14.8020	879.15	0.4821
Ethane	5.9897	5.9434	1.6070	106.00	0.0622
Propane	2.5833	2.5634	0.7140	65.00	0.0393
Iso-Butane	0.5238	0.5198	0.1720	17.03	0.0105
N-Butane	0.8200	0.8137	0.2590	26.75	0.0165
I-Pentane	0.3843	0.3813	0.1410	15.38	0.0096
N-Pentane	0.3142	0.3118	0.1140	12.60	0.0078
Hexane Plus	1.4800	1.4686	0.6620	78.01	0.0490
Total	100.0000	99.2278	18.6050	1199.92	0.6890

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
 BTU/CU.FT IDEAL: 1202.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1206.7
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1185.7
 DRY BTU @ 15.025: 1230.9
 REAL SPECIFIC GRAVITY: 0.691

CYLINDER #: 6243
 CYLINDER PRESSURE: 30 PSIG
 ANALYSIS DATE: 05/05/2021
 ANALYSIS TIME: 10:06:28 AM
 ANALYSIS RUN BY: SHYANN GALLEGOS

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: 05/06/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	WOOD 2R; CSG	CASING	05/06/2021
Stn. No.:	API # 3004529753		35825-13620
Mtr. No.:			

Smpl Date: 04/27/2021
Test Date: 05/05/2021
Run No: HS2021083

Nitrogen: 0.2029
CO2: 0.6570
Methane: 87.0448
Ethane: 5.9897
Propane: 2.5833
I-Butane: 0.5238
N-Butane: 0.8200
I-Pentane: 0.3843
N-Pentane: 0.3142
Hexane+: 1.4800

BTU: 1206.7
GPM: 18.6050
SPG: 0.6910

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

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

COMMENTS

Action 28359

COMMENTS

Operator:				OGRID:	Action Number:	Action Type:
	HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	372171	28359	GAS ANALYSIS

Created By	Comment	Comment Date
mkuehling	appears to be same gas on bradenhead and production casing	05/19/2021

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Oil Conservation Division
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CONDITIONS

Action 28359

CONDITIONS OF APPROVAL

Operator:	HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	OGRID:	372171	Action Number:	28359	Action Type:	GAS ANALYSIS
OCD Reviewer	Condition								
mkuehling	None								