



Well Name: SHIPP GAS COM 21H; BHD
 API #: API# 3004534903
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021028
 Cust No: 35825-13520

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: SHIPP GAS COM 21H; BHD
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API# 3004534903

Source: BRADENHEAD
 Well Flowing: Y
 Pressure: 27 PSIG
 Flow Temp: 43 DEG. F
 Ambient Temp: 43 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/21/2021
 Sample Time: 9.00 AM
 Sampled By: CHORINA R.
 Sampled by (CO): HILCORP

Heat Trace: ARE 06 / 0600
 N
 Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.0457	2.0379	0.2260	0.00	0.0198
CO2	0.0167	0.0166	0.0030	0.00	0.0003
Methane	89.7295	89.3875	15.2460	906.27	0.4970
Ethane	4.9462	4.9273	1.3260	87.53	0.0514
Propane	1.9837	1.9761	0.5480	49.91	0.0302
Iso-Butane	0.4696	0.4678	0.1540	15.27	0.0094
N-Butane	0.4664	0.4646	0.1470	15.22	0.0094
I-Pentane	0.1571	0.1565	0.0580	6.29	0.0039
N-Pentane	0.0931	0.0927	0.0340	3.73	0.0023
Hexane Plus	0.0920	0.0916	0.0410	4.85	0.0030
Total	100.0000	99.6186	17.7830	1089.07	0.6267

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
 BTU/CU.FT IDEAL: 1091.6
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1094.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1075.3
 DRY BTU @ 15.025: 1116.2
 REAL SPECIFIC GRAVITY: 0.628

CYLINDER #: 4151
 CYLINDER PRESSURE: 18 PSIG
 ANALYSIS DATE: 04/27/2021
 ANALYSIS TIME: 02:17:05 PM
 ANALYSIS RUN BY: PATRICIA KING

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: 05/04/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: SHIPP GAS COM 21H; BHD
Stn. No.: API# 3004534903
Mtr. No.:

BRADENHEAD

05/04/2021
35825-13520

Smpl Date: 04/21/2021
Test Date: 04/27/2021
Run No: HS2021028

Nitrogen: 2.0457
CO2: 0.0167
Methane: 89.7295
Ethane: 4.9462
Propane: 1.9837
I-Butane: 0.4696
N-Butane: 0.4664
I-Pentane: 0.1571
N-Pentane: 0.0931
Hexane+: 0.0920

BTU: 1094.3
GPM: 17.7830
SPG: 0.6280



Well Name: SHIPP GAS COM 21H; CSG

API #: API# 3004534903

Source: CASING

Sample Type: GAS

Analysis No: HS2021029

Cust No: 35825-13525

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: SHIPP GAS COM 21H; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API# 3004534903

Source: CASING
 Well Flowing: Y
 Pressure: 5 PSIG
 Flow Temp: 43 DEG. F
 Ambient Temp: 43 DEG. F
 Flow Rate: 20 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/21/2021
 Sample Time: 9.00 AM
 Sampled By: CHORINA R.
 Sampled by (CO): HILCORP

Heat Trace: N
 AREA 06 / 0600

Remarks: PRESSURED WITH HELIUM TO 30LBS

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1262	0.0698	0.0140	0.00	0.0012
CO2	2.1751	1.2034	0.3720	0.00	0.0331
Methane	95.8577	53.0338	16.2810	968.16	0.5310
Ethane	1.7466	0.9663	0.4680	30.91	0.0181
Propane	0.0121	0.0067	0.0030	0.30	0.0002
Iso-Butane	0.0022	0.0012	0.0010	0.07	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0801	0.0443	0.0360	4.22	0.0027
Total	100.0000	55.3255	17.1750	1003.67	0.5862

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
 BTU/CU.FT IDEAL: 1006.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1008.1
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 990.6
 DRY BTU @ 15.025: 1028.3
 REAL SPECIFIC GRAVITY: 0.5872

CYLINDER #: 4060
 CYLINDER PRESSURE: PSIG
 ANALYSIS DATE: 04/27/2021
 ANALYSIS TIME: 02:17:21 PM
 ANALYSIS RUN BY: PATRICIA KING

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: 05/04/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: SHIPP GAS COM 21H; CSG
Stn. No.: API# 3004534903
Mtr. No.:

CASING

05/04/2021
35825-13525

Smpl Date: 04/21/2021
Test Date: 04/27/2021
Run No: HS2021029

Nitrogen: 0.1262
CO2: 2.1751
Methane: 95.8577
Ethane: 1.7466
Propane: 0.0121
I-Butane: 0.0022
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0801

BTU: 1008.1
GPM: 17.1750
SPG: 0.5872



Well Name: SHIPP GAS COM 21H; TBG

API #: API# 3004534903

Source: TUBING

Sample Type: GAS

Analysis No: HS2021030

Cust No: 35825-13530

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: SHIPP GAS COM 21H; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA:
 Formation:
 Cust. Stn. No.: API# 3004534903

Source: TUBING
 Well Flowing: Y
 Pressure: 0 PSIG
 Flow Temp: 43 DEG. F
 Ambient Temp: 43 DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/21/2021
 Sample Time: 9.00 AM
 Sampled By: CHORINA R.
 Sampled by (CO): HILCORP

Heat Trace: N
 AREA 06 / 0600

Remarks: PRESSURED WITH HELIUM TO 30LBS

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	99.4918	28.5425	10.9460	0.00	0.9623
CO2	0.0854	0.0245	0.0150	0.00	0.0013
Methane	0.3127	0.0897	0.0530	3.16	0.0017
Ethane	0.0000	0.0000	0.0000	0.00	0.0000
Propane	0.0000	0.0000	0.0000	0.00	0.0000
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.1101	0.0316	0.0490	5.80	0.0036
Total	100.0000	28.6883	11.0630	8.96	0.9690

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0003
 BTU/CU.FT IDEAL: 9.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 9.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 8.8
 DRY BTU @ 15.025: 9.2
 REAL SPECIFIC GRAVITY: 0.9689

CYLINDER #: 6038
 CYLINDER PRESSURE: PSIG
 ANALYSIS DATE: 04/27/2021
 ANALYSIS TIME: 02:35:31 PM
 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: 05/04/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: SHIPP GAS COM 21H; TBG
Stn. No.: API# 3004534903
Mtr. No.:

TUBING

05/04/2021
35825-13530

Smpl Date: 04/21/2021
Test Date: 04/27/2021
Run No: HS2021030

Nitrogen: 99.4918
CO2: 0.0854
Methane: 0.3127
Ethane: 0.0000
Propane: 0.0000
I-Butane: 0.0000
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.1101

BTU: 9.0
GPM: 11.0630
SPG: 0.9689

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

CONDITIONS

Action 28363

CONDITIONS OF APPROVAL

Operator:	HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	OGRID:	372171	Action Number:	28363	Action Type:	GAS ANALYSIS
OCD Reviewer	Condition								
mkuehling	None								