



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

Analysis No: HS2021253
Cust No: 35825-14105

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: DAVIDSON A1; INT
County/State: SAN JUAN NM
Location:
Lease/PA/CA: AREA 7 / RUN 0707
Formation:
Cust. Stn. No.: 3004507365

Source: INTERMEDIATE
Well Flowing: N
Pressure: 23 PSIG
Flow Temp: 73 DEG. F
Ambient Temp: 55 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 09/28/2021
Sample Time: 1.19 PM
Sampled By: ANDREW HARRIS
Sampled by (CO): HILCORP

Heat Trace: N
Remarks: Pressured with Helium to 30 lbs.

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1151	0.0432	0.0130	0.00	0.0011
CO2	1.2152	0.4559	0.2080	0.00	0.0185
Methane	85.8571	32.2111	14.5940	867.16	0.4756
Ethane	8.7869	3.2966	2.3560	155.50	0.0912
Propane	2.5178	0.9446	0.6950	63.35	0.0383
Iso-Butane	0.3852	0.1445	0.1260	12.53	0.0077
N-Butane	0.4353	0.1633	0.1380	14.20	0.0087
I-Pentane	0.1573	0.0590	0.0580	6.29	0.0039
N-Pentane	0.1050	0.0394	0.0380	4.21	0.0026
Hexane Plus	0.4251	0.1595	0.1900	22.41	0.0141
Total	100.0000	37.5171	18.4160	1145.65	0.6618

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1148.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1151.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1131.6
DRY BTU @ 15.025: 1174.7
REAL SPECIFIC GRAVITY: 0.6634

CYLINDER #: 6098
CYLINDER PRESSURE: 20 PSIG
ANALYSIS DATE: 10/01/2021
ANALYSIS TIME: 11:22:38 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: 10/05/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	DAVIDSON A1; INT	INTERMEDIATE	10/05/2021
Stn. No.:	3004507365		35825-14105
Mtr. No.:			

Smpl Date: 09/28/2021
Test Date: 10/01/2021
Run No: HS2021253

Nitrogen: 0.1151
CO2: 1.2152
Methane: 85.8571
Ethane: 8.7869
Propane: 2.5178
I-Butane: 0.3852
N-Butane: 0.4353
I-Pentane: 0.1573
N-Pentane: 0.1050
Hexane+: 0.4251

BTU: 1151.6
GPM: 18.4160
SPG: 0.6634



Well Name: DAVIDSON A1; CSG

API #: 3004507365

Source: CASING

Sample Type: GAS

Analysis No: HS2021252

Cust No: 35825-14100

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: DAVIDSON A1; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: AREA 7 / RUN 0707
 Formation:
 Cust. Stn. No.: 3004507365

Source: CASING
 Well Flowing: N
 Pressure: 23 PSIG
 Flow Temp: 73 DEG. F
 Ambient Temp: 55 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 09/28/2021
 Sample Time: 1.12 PM
 Sampled By: ANDREW HARRIS
 Sampled by (CO): HILCORP

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1253	0.1240	0.0140	0.00	0.0012
CO2	1.3340	1.3204	0.2280	0.00	0.0203
Methane	84.7397	83.8778	14.4050	855.87	0.4694
Ethane	9.4725	9.3762	2.5400	167.63	0.0983
Propane	2.7512	2.7232	0.7600	69.22	0.0419
Iso-Butane	0.4161	0.4119	0.1370	13.53	0.0084
N-Butane	0.4913	0.4863	0.1550	16.03	0.0099
I-Pentane	0.1701	0.1684	0.0620	6.81	0.0042
N-Pentane	0.1140	0.1128	0.0410	4.57	0.0028
Hexane Plus	0.3858	0.3819	0.1730	20.34	0.0128
Total	100.0000	98.9829	18.5150	1154.00	0.6691

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
 BTU/CU.FT IDEAL: 1156.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1160.1
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1139.9
 DRY BTU @ 15.025: 1183.3
 REAL SPECIFIC GRAVITY: 0.6709

CYLINDER #: 4043
 CYLINDER PRESSURE: 23 PSIG
 ANALYSIS DATE: 10/01/2021
 ANALYSIS TIME: 11:05:10 AM
 ANALYSIS RUN BY: KERRA GONZALEZ

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: 10/05/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	DAVIDSON A1; CSG	CASING	10/05/2021
Stn. No.:	3004507365		35825-14100
Mtr. No.:			

Smpl Date: 09/28/2021
Test Date: 10/01/2021
Run No: HS2021252

Nitrogen: 0.1253
CO2: 1.3340
Methane: 84.7397
Ethane: 9.4725
Propane: 2.7512
I-Butane: 0.4161
N-Butane: 0.4913
I-Pentane: 0.1701
N-Pentane: 0.1140
Hexane+: 0.3858

BTU: 1160.1
GPM: 18.5150
SPG: 0.6709



Well Name: DAVIDSON A1; TBG

API #: 3004507365

Source: TUBING

Sample Type: GAS

Analysis No: HS2021254

Cust No: 35825-14110

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: DAVIDSON A1; TBG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: AREA 7 / RUN 0707

Formation:

Cust. Stn. No.: 3004507365

Source: TUBING

Well Flowing: N

Pressure: 22 PSIG

Flow Temp: 73 DEG. F

Ambient Temp: 55 DEG. F

Flow Rate: 0 MCF/D

Sample Method: Purge & Fill

Sample Date: 09/28/2021

Sample Time: 12.56 AM

Sampled By: ANDREW HARRIS

Sampled by (CO): HILCORP

Heat Trace: N

Remarks: Pressured with Helium to 30 lbs.

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	9.0019	2.3602	0.9930	0.00	0.0871
CO2	1.3341	0.3498	0.2280	0.00	0.0203
Methane	77.2468	20.2533	13.1280	780.19	0.4279
Ethane	7.8851	2.0674	2.1140	139.54	0.0819
Propane	2.5306	0.6635	0.6990	63.67	0.0385
Iso-Butane	0.4153	0.1089	0.1360	13.51	0.0083
N-Butane	0.5290	0.1387	0.1670	17.26	0.0106
I-Pentane	0.2090	0.0548	0.0770	8.36	0.0052
N-Pentane	0.1487	0.0390	0.0540	5.96	0.0037
Hexane Plus	0.6995	0.1834	0.3130	36.87	0.0232
Total	100.0000	26.2190	17.9090	1065.36	0.7066

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
 BTU/CU.FT IDEAL: 1067.8
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1070.7
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1052.1
 DRY BTU @ 15.025: 1092.1
 REAL SPECIFIC GRAVITY: 0.7082

CYLINDER #: 4019
 CYLINDER PRESSURE: 0 PSIG
 ANALYSIS DATE: 10/01/2021
 ANALYSIS TIME: 11:08:47 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: 10/05/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	DAVIDSON A1; TBG	TUBING	10/05/2021
Stn. No.:	3004507365		35825-14110
Mtr. No.:			

Smpl Date: 09/28/2021
Test Date: 10/01/2021
Run No: HS2021254

Nitrogen: 9.0019
CO2: 1.3341
Methane: 77.2468
Ethane: 7.8851
Propane: 2.5306
I-Butane: 0.4153
N-Butane: 0.5290
I-Pentane: 0.2090
N-Pentane: 0.1487
Hexane+: 0.6995

BTU: 1070.7
GPM: 17.9090
SPG: 0.7082

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 56343

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 56343
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	12/21/2021