



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

Analysis No: HS170008
Cust No: 35825-10035

30-045-33387

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: NEWBERRY 1F; INT
County/State: SAN JUAN NM
Location:
Field:
Formation: MV/DK
Cust. Stn. No.: 88076

Source: INTERMEDIATE
Well Flowing: N
Pressure: PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 10/18/2017
Sample Time: 8.40 AM
Sampled By: BRIAN EVERETT
Sampled by (CO): HILCORP

OIL CONS. DIV DIST. 3
NOV 13 2017

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1912	0.1915	0.0210	0.00	0.0018
CO2	0.2957	0.2962	0.0510	0.00	0.0045
Methane	76.7611	76.8975	13.0660	775.29	0.4252
Ethane	10.2832	10.3015	2.7610	181.98	0.1068
Propane	6.6565	6.6683	1.8410	167.48	0.1013
Iso-Butane	1.5617	1.5645	0.5130	50.78	0.0313
N-Butane	1.7968	1.8000	0.5690	58.62	0.0361
I-Pentane	0.6994	0.7006	0.2570	27.98	0.0174
N-Pentane	0.5609	0.5619	0.2040	22.48	0.0140
Hexane Plus	1.1935	1.1956	0.5340	62.91	0.0395
Total	100.0000	100.1776	19.8170	1347.53	0.7779

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0043
BTU/CU.FT IDEAL: 1350.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1356.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1332.9
DRY BTU @ 15.025: 1383.7
REAL SPECIFIC GRAVITY: 0.781

CYLINDER #: 6110
CYLINDER PRESSURE: 204 PSIG
DATE RUN: 10/25/17 8:40 AM
ANALYSIS RUN BY: CAMERON MANGAN

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: 10/27/2017

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: NEWBERRY 1F; INT
Stn. No.: 88076
Mtr. No.:

INTERMEDIATE
MV/DK

10/27/2017
35825-10035

Smpl Date: 10/18/2017
Test Date: 10/25/2017
Run No: HS170008

Nitrogen: 0.1912
CO2: 0.2957
Methane: 76.7611
Ethane: 10.2832
Propane: 6.6565
I-Butane: 1.5617
N-Butane: 1.7968
I-Pentane: 0.6994
N-Pentane: 0.5609
Hexane+: 1.1935

BTU: 1356.5
GPM: 19.8170
SPG: 0.7810



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

Analysis No: HS170011
Cust No: 35825-10050

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: NEWBERRY LS 1F; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV/DK
Cust. Stn. No.: 88076

Source: CASING
Well Flowing: N
Pressure: PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 10/18/2017
Sample Time: 8.35 AM
Sampled By: BRIAN EVERETT
Sampled by (CO): HILCORP

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4286	0.4249	0.0470	0.00	0.0041
CO2	0.1279	0.1268	0.0220	0.00	0.0019
Methane	79.1749	78.4860	13.4690	799.67	0.4385
Ethane	10.2489	10.1597	2.7500	181.37	0.1064
Propane	6.2178	6.1637	1.7190	156.45	0.0947
Iso-Butane	1.2317	1.2210	0.4040	40.05	0.0247
N-Butane	1.4297	1.4173	0.4520	46.64	0.0287
I-Pentane	0.4315	0.4277	0.1580	17.26	0.0107
N-Pentane	0.3095	0.3068	0.1130	12.41	0.0077
Hexane Plus	0.3995	0.3960	0.1790	21.06	0.0132
Total	100.0000	99.1299	19.3130	1274.91	0.7308

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1277.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1282.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1260.3
DRY BTU @ 15.025: 1308.3
REAL SPECIFIC GRAVITY: 0.7332

CYLINDER #: 6053
CYLINDER PRESSURE: 53 PSIG
DATE RUN: 10/25/17 8:35 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: 10/27/2017

OIL CONS. DIV DIST. 3
NOV 13 2017



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: NEWBERRY LS 1F; CSG
Stn. No.: 88076
Mtr. No.:

CASING
MV/DK

10/27/2017
35825-10050

Smpl Date: 10/18/2017
Test Date: 10/25/2017
Run No: HS170011
Nitrogen: 0.4286
CO2: 0.1279
Methane: 79.1749
Ethane: 10.2489
Propane: 6.2178
I-Butane: 1.2317
N-Butane: 1.4297
I-Pentane: 0.4315
N-Pentane: 0.3095
Hexane+: 0.3995
BTU: 1282.6
GPM: 19.3130
SPG: 0.7332