



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

API 30-045-35455

Analysis No: HS180152  
Cust No: 35825-10585

36.73/2965

108.3094406

**Well/Lease Information**

Customer Name: HILCORP (BHD PROJECT)  
Well Name: **ROPCO 16-1H; CSG**  
County/State: SAN JUAN NM  
Location:  
Field:  
Formation:  
Cust. Stn. No.:

Source: CASING  
Well Flowing: Y  
Pressure: 27 PSIG  
Flow Temp: DEG. F  
Ambient Temp: DEG. F  
Flow Rate: MCF/D  
Sample Method:  
Sample Date: 08/23/2018  
Sample Time: 2.45 PM  
Sampled By: LARRY BINGHAM  
Sampled by (CO): HILCORP

Heat Trace: N  
Remarks:

**Analysis**

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.5320	1.5498	0.1690	0.00	0.0148
CO2	0.9819	0.9933	0.1680	0.00	0.0149
Methane	71.7432	72.5767	12.2260	724.61	0.3974
Ethane	8.9385	9.0423	2.4030	158.18	0.0928
Propane	7.3029	7.3877	2.0220	183.75	0.1112
Iso-Butane	0.8653	0.8754	0.2850	28.14	0.0174
N-Butane	3.4078	3.4474	1.0800	111.17	0.0684
I-Pentane	1.0062	1.0179	0.3700	40.26	0.0251
N-Pentane	1.2273	1.2416	0.4470	49.20	0.0306
Hexane Plus	2.9949	3.0297	1.3430	157.86	0.0991
<b>Total</b>	<b>100.0000</b>	<b>101.1618</b>	<b>20.5130</b>	<b>1453.17</b>	<b>0.8716</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0055  
BTU/CU.FT IDEAL: 1456.5  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1464.6  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1439.1  
DRY BTU @ 15.025: 1493.9  
REAL SPECIFIC GRAVITY: 0.8761

CYLINDER #: 6164  
CYLINDER PRESSURE: 27 PSIG  
ANALYSIS DATE: 08/29/2018  
ANALYSIS TIME: 11:20:38 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: 08/30/2018

GC Method: C6+ Gas

NMOC

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DISTRICT III

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API 30-045-35455

HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

Lease: ROPCO 16-1H; CSG  
Stn. No.:  
Mtr. No.:

CASING

08/30/2018  
35825-10585

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Smpl Date: 08/23/2018  
Test Date: 08/29/2018  
Run No: HS180152  
Nitrogen: 1.5320  
CO2: 0.9819  
Methane: 71.7432  
Ethane: 8.9385  
Propane: 7.3029  
I-Butane: 0.8653  
N-Butane: 3.4078  
I-Pentane: 1.0062  
N-Pentane: 1.2273  
Hexane+: 2.9949  
BTU: 1464.6  
GPM: 20.5130  
SPG: 0.8761



2030 Afton Place  
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API 30-045-35455

Analysis No: HS180151  
Cust No: 35825-10580

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)	Source: BRADENHEAD
Well Name: ROPCO 16-1H; BHD	Well Flowing: Y
County/State: SAN JUAN NM	Pressure: 27 PSIG
Location:	Flow Temp: DEG. F
Field:	Ambient Temp: DEG. F
Formation:	Flow Rate: MCF/D
Cust. Stn. No.:	Sample Method:
	Sample Date: 08/23/2018
	Sample Time: 3.00 PM
	Sampled By: LARRY BINGHAM
	Sampled by (CO): HILCORP

Heat Trace: N

Remarks:

### Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	4.3794	4.4159	0.4830	0.00	0.0424
CO2	0.0190	0.0192	0.0030	0.00	0.0003
Methane	94.4890	95.2769	16.0450	954.34	0.5234
Ethane	0.9096	0.9172	0.2440	16.10	0.0094
Propane	0.1418	0.1430	0.0390	3.57	0.0022
Iso-Butane	0.0297	0.0299	0.0100	0.97	0.0006
N-Butane	0.0083	0.0084	0.0030	0.27	0.0002
I-Pentane	0.0043	0.0043	0.0020	0.17	0.0001
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0189	0.0191	0.0080	1.00	0.0006
<b>Total</b>	<b>100.0000</b>	<b>100.8339</b>	<b>16.8370</b>	<b>976.41</b>	<b>0.5791</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0019	CYLINDER #:	4009
BTU/CU.FT IDEAL:	978.7	CYLINDER PRESSURE:	44 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	980.5	ANALYSIS DATE:	08/29/2018
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	963.4	ANALYSIS TIME:	11:36:33 AM
DRY BTU @ 15.025:	1000.1	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.58		

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: 08/30/2018

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

*API 30-045-35755*

Lease: ROPCO 16-1H; BHD  
Stn. No.:  
Mtr. No.:

BRADENHEAD

08/30/2018  
35825-10580

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Smpl Date: 08/23/2018  
Test Date: 08/29/2018  
Run No: HS180151  
Nitrogen: 4.3794  
CO2: 0.0190  
Methane: 94.4890  
Ethane: 0.9096  
Propane: 0.1418  
I-Butane: 0.0297  
N-Butane: 0.0083  
I-Pentane: 0.0043  
N-Pentane: 0.0000  
Hexane+: 0.0189  
BTU: 980.5  
GPM: 16.8370  
SPG: 0.5800