



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

Analysis No: HS190194
Cust No: 35825-11720

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: JICARILLA APACHE 16; CSG
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA:
Formation: CH/MV/DK
Cust. Stn. No.: API # 3003920529

Source: CASING
Well Flowing:
Pressure: 69 PSIG
Flow Temp: DEG. F
Ambient Temp: 64 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/23/2019
Sample Time: 9.05 AM
Sampled By: CHRIS HARRISON
Sampled by (CO): HILCORP

AREA 14 / RUN 1408

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5338	0.5310	0.0590	0.00	0.0052
CO2	0.5399	0.5371	0.0920	0.00	0.0082
Methane	79.0842	78.6733	13.4530	798.75	0.4380
Ethane	10.3512	10.2974	2.7780	183.19	0.1075
Propane	5.4708	5.4424	1.5120	137.65	0.0833
Iso-Butane	0.9803	0.9752	0.3220	31.88	0.0197
N-Butane	1.5422	1.5342	0.4880	50.31	0.0309
I-Pentane	0.5347	0.5319	0.1960	21.39	0.0133
N-Pentane	0.3731	0.3712	0.1360	14.96	0.0093
Hexane Plus	0.5898	0.5867	0.2640	31.09	0.0195
Total	100.0000	99.4804	19.3000	1269.21	0.7349

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1272.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1276.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1254.7
DRY BTU @ 15.025: 1302.5
REAL SPECIFIC GRAVITY: 0.7374

CYLINDER #: 4199
CYLINDER PRESSURE: 69 PSIG
ANALYSIS DATE: 08/02/2019
ANALYSIS TIME: 03:04:23 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: 08/07/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: JICARILLA APACHE 16; CSG
Stn. No.: API # 3003920529
Mtr. No.:

CASING
CH/MV/DK

08/07/2019
35825-11720

Smpl Date: 07/23/2019
Test Date: 08/02/2019
Run No: HS190194
Nitrogen: 0.5338
CO2: 0.5399
Methane: 79.0842
Ethane: 10.3512
Propane: 5.4708
I-Butane: 0.9803
N-Butane: 1.5422
I-Pentane: 0.5347
N-Pentane: 0.3731
Hexane+: 0.5898
BTU: 1276.9
GPM: 19.3000
SPG: 0.7374



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

Analysis No: HS190195
Cust No: 35825-11725

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: JICARILLA APACHE 16; INT
County/State: RIO ARRIBA NM
Location:
Lease/PA/CA:
Formation: CH/MV/DK
Cust. Stn. No.: API # 3003920529

Source: INTERMEDIATE
Well Flowing: Y
Pressure: 66 PSIG

Heat Trace: AREA 14 / RUN 1408
Remarks: N

Analysis

Component:	Mole%:	Unnormalized %:			Gravity:
Nitrogen	0.4964	0.4918			0.0048
CO2	0.5393	0.5343			0.0082
Methane	79.4387	78.6960	13.5140	802.33	0.4400
Ethane	10.3701	10.2732	2.7830	183.52	0.1077
Propane	5.4059	5.3554	1.4940	136.02	0.0823
Iso-Butane	0.9435	0.9347	0.3100	30.68	0.0189
N-Butane	1.4554	1.4418	0.4600	47.48	0.0292
I-Pentane	0.4726	0.4682	0.1730	18.91	0.0118
N-Pentane	0.3213	0.3183	0.1170	12.88	0.0080
Hexane Plus	0.5568	0.5516	0.2490	29.35	0.0184
Total	100.0000	99.0653	19.2470	1261.17	0.7293

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1264.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1268.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1246.7
DRY BTU @ 15.025: 1294.2
REAL SPECIFIC GRAVITY: 0.7317

CYLINDER #: 4061
CYLINDER PRESSURE: 66 PSIG
ANALYSIS DATE: 08/02/2019
ANALYSIS TIME: 03:21:12 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: 08/07/2019

NMOC

SEP 05 2019

DISTRICT III



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: JICARILLA APACHE 16; INT
Stn. No.: API # 3003920529
Mtr. No.:

INTERMEDIATE
CH/MV/DK

08/07/2019
35825-11725

Smpl Date: 07/23/2019
Test Date: 08/02/2019
Run No: HS190195

Nitrogen: 0.4964
CO2: 0.5393
Methane: 79.4387
Ethane: 10.3701
Propane: 5.4059
I-Butane: 0.9435
N-Butane: 1.4554
I-Pentane: 0.4726
N-Pentane: 0.3213
Hexane+: 0.5568

BTU: 1268.8
GPM: 19.2470
SPG: 0.7317