



Cornell D 1E
30-045-21086
Bradenhead Sample

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

Analysis No: SO180119
Cust No: 15950-11025

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CORNELL D #1E; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Str. No.: API 3004524086

NMOC
FEB 13 2013
DISTRICT III

Source: BRADENHEAD
Well Flowing: Y
Pressure: 46 PSIG
Flow Temp: DEG. F
Ambient Temp: 84 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/18/2018
Sample Time: 11.50 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6576	0.6511	0.0730	0.00	0.0064
CO2	0.0225	0.0223	0.0040	0.00	0.0003
Methane	87.0506	86.1884	14.7970	879.21	0.4822
Ethane	7.2945	7.2223	1.9560	129.09	0.0757
Propane	2.8782	2.8497	0.7950	72.42	0.0438
Iso-Butane	0.4994	0.4945	0.1640	16.24	0.0100
N-Butane	0.7496	0.7422	0.2370	24.45	0.0150
I-Pentane	0.2716	0.2689	0.1000	10.87	0.0068
N-Pentane	0.1945	0.1926	0.0710	7.80	0.0048
Hexane Plus	0.3815	0.3777	0.1710	20.11	0.0126
Total	100.0000	99.0097	18.3680	1160.19	0.6577

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1162.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1166.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1146.0
DRY BTU @ 15.025: 1189.7
REAL SPECIFIC GRAVITY: 0.6594

CYLINDER #: 7094
CYLINDER PRESSURE: 46 PSIG
ANALYSIS DATE: 07/31/2018
ANALYSIS TIME: 09:07:26 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: 08/02/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CORNELL D #1E; BHD
Stn. No.: API 3004524086
Mtr. No.:

BRADENHEAD
PC

08/02/2018
15950-11025

Smpl Date: 07/18/2018
Test Date: 07/31/2018
Run No: SO180119
Nitrogen: 0.6576
CO2: 0.0225
Methane: 87.0506
Ethane: 7.2945
Propane: 2.8782
I-Butane: 0.4994
N-Butane: 0.7496
I-Pentane: 0.2716
N-Pentane: 0.1945
Hexane+: 0.3815
BTU: 1166.3
GPM: 18.3680
SPG: 0.6594



Cornell D 1E
30-045-24086
Casing Sample

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

Analysis No: SO180120
Cust No: 15950-11030

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CORNELL D #1E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Str. No.: API 3004524086

NMOCD
FEB 13 2019
DISTRICT III

Source: CASING
Well Flowing: Y
Pressure: 106 PSIA
Flow Temp: DEG. F
Ambient Temp: 84 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/18/2018
Sample Time: 11.56 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5107	0.4999	0.0560	0.00	0.0049
CO2	0.3274	0.3205	0.0560	0.00	0.0050
Methane	78.7850	77.1239	13.4090	795.73	0.4364
Ethane	9.1286	8.9361	2.4510	161.55	0.0948
Propane	4.9443	4.8401	1.3680	124.40	0.0753
Iso-Butane	0.9387	0.9189	0.3080	30.53	0.0188
N-Butane	2.1156	2.0710	0.6700	69.02	0.0425
I-Pentane	1.0110	0.9897	0.3710	40.45	0.0252
N-Pentane	1.0147	0.9933	0.3690	40.68	0.0253
Hexane Plus	1.2240	1.1982	0.5480	64.52	0.0405
Total	100.0000	97.8916	19.6060	1326.87	0.7686

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0042
BTU/CU.FT IDEAL: 1329.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1335.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1312.3
DRY BTU @ 15.025: 1362.2
REAL SPECIFIC GRAVITY: 0.7716

CYLINDER #: 7985
CYLINDER PRESSURE: 96 PSIG
ANALYSIS DATE: 07/30/2018
ANALYSIS TIME: 03:04:18 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: 08/02/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CORNELL D #1E; CSG
Stn. No.: API 3004524086
Mtr. No.:

CASING
PC

08/02/2018
15950-11030

Smpl Date: 07/18/2018
Test Date: 07/30/2018
Run No: SO180120

Nitrogen: 0.5107
CO2: 0.3274
Methane: 78.7850
Ethane: 9.1286
Propane: 4.9443
I-Butane: 0.9387
N-Butane: 2.1156
I-Pentane: 1.0110
N-Pentane: 1.0147
Hexane+: 1.2240

BTU: 1335.5
GPM: 19.6060
SPG: 0.7716



Cornell D 1E
30-045-24086
Tubing Sample

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

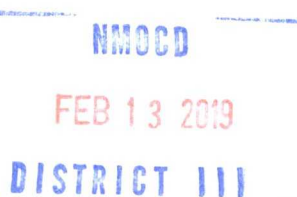
Analysis No: SO180121
Cust No: 15950-11035

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CORNELL D #1E; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524086

Source: TUBING
Well Flowing: Y
Pressure: 103 PSIA
Flow Temp: DEG. F
Ambient Temp: 84 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/18/2018
Sample Time: 12.04 PM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:



Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3002	0.2982	0.0330	0.00	0.0029
CO2	1.6314	1.6205	0.2790	0.00	0.0248
Methane	82.2754	81.7274	13.9930	830.98	0.4557
Ethane	8.5179	8.4612	2.2850	150.74	0.0884
Propane	3.7961	3.7708	1.0490	95.51	0.0578
Iso-Butane	0.6276	0.6234	0.2060	20.41	0.0126
N-Butane	1.2076	1.1996	0.3820	39.40	0.0242
I-Pentane	0.4093	0.4066	0.1500	16.38	0.0102
N-Pentane	0.3686	0.3661	0.1340	14.78	0.0092
Hexane Plus	0.8659	0.8601	0.3870	45.64	0.0287
Total	100.0000	99.3339	18.8980	1213.83	0.7145

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1216.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1220.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1199.6
DRY BTU @ 15.025: 1245.2
REAL SPECIFIC GRAVITY: 0.7167

CYLINDER #: 7084
CYLINDER PRESSURE: 98 PSIG
ANALYSIS DATE: 07/31/2018
ANALYSIS TIME: 10:56:50 AM
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

GC Method: C6+ Gas

Last Cal/Verify: 08/02/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CORNELL D #1E; TBG
Stn. No.: API 3004524086
Mtr. No.:

TUBING
PC

08/02/2018
15950-11035

Smpl Date: 07/18/2018
Test Date: 07/31/2018
Run No: SO180121
Nitrogen: 0.3002
CO2: 1.6314
Methane: 82.2754
Ethane: 8.5179
Propane: 3.7961
I-Butane: 0.6276
N-Butane: 1.2076
I-Pentane: 0.4093
N-Pentane: 0.3686
Hexane+: 0.8659
BTU: 1220.8
GPM: 18.8980
SPG: 0.7167