



Cornell A 1
30-045-08601
Bradenhead Sample

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

Analysis No: SO180116
Cust No: 15950-11010

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CORNELL A #1; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Str. No.: API 3004508601

Source: BRADENHEAD
Well Flowing: Y
Pressure: 23 PSIA
Flow Temp: DEG. F
Ambient Temp: 73 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/18/2018
Sample Time: 9.51 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOC
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3177	0.3111	0.0350	0.00	0.0031
CO2	0.0687	0.0673	0.0120	0.00	0.0010
Methane	87.3274	85.5215	14.8450	882.01	0.4837
Ethane	7.1771	7.0287	1.9250	127.01	0.0745
Propane	2.8427	2.7839	0.7850	71.53	0.0433
Iso-Butane	0.4929	0.4827	0.1620	16.03	0.0099
N-Butane	0.7513	0.7358	0.2380	24.51	0.0151
I-Pentane	0.2674	0.2619	0.0980	10.70	0.0067
N-Pentane	0.2012	0.1970	0.0730	8.07	0.0050
Hexane Plus	0.5536	0.5422	0.2480	29.18	0.0183
Total	100.0000	97.9321	18.4210	1169.03	0.6606

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1171.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1175.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1154.8
DRY BTU @ 15.025: 1198.8
REAL SPECIFIC GRAVITY: 0.6623

CYLINDER #: 7083
CYLINDER PRESSURE: 25 PSIG
ANALYSIS DATE: 07/31/2018
ANALYSIS TIME: 08:14:56 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

Last Cal/Verify: 08/02/2018

GC Method: C6+ Gas

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BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CORNELL A #1; BHD
Stn. No.: API 3004508601
Mtr. No.:

BRADENHEAD
PC

08/02/2018
15950-11010

Smpl Date: 07/18/2018
Test Date: 07/31/2018
Run No: SO180116

Nitrogen: 0.3177
CO2: 0.0687
Methane: 87.3274
Ethane: 7.1771
Propane: 2.8427
I-Butane: 0.4929
N-Butane: 0.7513
I-Pentane: 0.2674
N-Pentane: 0.2012
Hexane+: 0.5536

BTU: 1175.3
GPM: 18.4210
SPG: 0.6623



Cornell A1
30-045-08601
Casing Sample

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

Analysis No: SO180117
Cust No: 15950-11015

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CORNELL A #1; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Str. No.: API 3004508601

Source: CASING
Well Flowing: Y
Pressure: 143 PSIA
Flow Temp: DEG. F
Ambient Temp: 73 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/18/2018
Sample Time: 10.04 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOC
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6893	0.6947	0.0760	0.00	0.0067
CO2	0.5043	0.5083	0.0860	0.00	0.0077
Methane	77.8835	78.4965	13.2530	786.62	0.4314
Ethane	9.8754	9.9531	2.6510	174.76	0.1025
Propane	5.8915	5.9379	1.6290	148.24	0.0897
Iso-Butane	1.1988	1.2082	0.3940	38.98	0.0241
N-Butane	1.6985	1.7119	0.5370	55.41	0.0341
I-Pentane	0.6240	0.6289	0.2290	24.97	0.0155
N-Pentane	0.5697	0.5742	0.2070	22.84	0.0142
Hexane Plus	1.0650	1.0734	0.4770	56.14	0.0352
Total	100.0000	100.7871	19.5390	1307.96	0.7611

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
BTU/CU.FT IDEAL: 1311.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1316.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1293.3
DRY BTU @ 15.025: 1342.6
REAL SPECIFIC GRAVITY: 0.7638

CYLINDER #: 7028
CYLINDER PRESSURE: 63 PSIG
ANALYSIS DATE: 07/30/2018
ANALYSIS TIME: 02:47:28 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 A #1; CSG
Stn. No.: API 3004508601
Mtr. No.:

CASING
PC

08/02/2018
15950-11015

Smpl Date: 07/18/2018
Test Date: 07/30/2018
Run No: SO180117

Nitrogen: 0.6893
CO2: 0.5043
Methane: 77.8835
Ethane: 9.8754
Propane: 5.8915
I-Butane: 1.1988
N-Butane: 1.6985
I-Pentane: 0.6240
N-Pentane: 0.5697
Hexane+: 1.0650

BTU: 1316.2
GPM: 19.5390
SPG: 0.7638



Cornell A1
30-245-08601
Tubing Sample

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

Analysis No: SO180118
Cust No: 15950-11020

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CORNELL A #1; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004508601

Source: TUBING
Well Flowing: Y
Pressure: 141 PSIG
Flow Temp: DEG. F
Ambient Temp: 73 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/18/2018
Sample Time: 10.00 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N

Remarks:

NMOC
FEB 13 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.7831	0.7955	0.0860	0.00	0.0076
CO2	1.4158	1.4382	0.2420	0.00	0.0215
Methane	77.1396	78.3616	13.1240	779.11	0.4273
Ethane	11.5730	11.7563	3.1060	204.81	0.1202
Propane	5.4320	5.5180	1.5020	136.67	0.0827
Iso-Butane	0.7669	0.7790	0.2520	24.94	0.0154
N-Butane	1.4512	1.4742	0.4590	47.34	0.0291
I-Pentane	0.3912	0.3974	0.1440	15.65	0.0097
N-Pentane	0.3484	0.3539	0.1270	13.97	0.0087
Hexane Plus	0.6988	0.7099	0.3130	36.83	0.0231
Total	100.0000	101.5840	19.3550	1259.33	0.7453

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT IDEAL: 1262.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1267.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1245.1
DRY BTU @ 15.025: 1292.5
REAL SPECIFIC GRAVITY: 0.7478

CYLINDER #: 7053
CYLINDER PRESSURE: 140 PSIG
ANALYSIS DATE: 07/31/2018
ANALYSIS TIME: 10:36:31 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

GC Method: C6+ Gas

Last Cal/Verify: 08/02/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CORNELL A #1; TBG
Stn. No.: API 3004508601
Mtr. No.:

TUBING
PC

08/02/2018
15950-11020

Smpl Date: 07/18/2018
Test Date: 07/31/2018
Run No: SO180118

Nitrogen: 0.7831
CO2: 1.4158
Methane: 77.1396
Ethane: 11.5730
Propane: 5.4320
I-Butane: 0.7669
N-Butane: 1.4512
I-Pentane: 0.3912
N-Pentane: 0.3484
Hexane+: 0.6988

BTU: 1267.1
GPM: 19.3550
SPG: 0.7478