



GCU 263 E
30-045-25210
Bradenhead Sample

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

Analysis No: SO180033
Cust No: 15950-10595

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #263E; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004525210

Source: BRADENHEAD
Well Flowing: Y
Pressure: 24 PSIA
Flow Temp: DEG. F
Ambient Temp: 95 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/26/2018
Sample Time: 1.10 PM
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	0.3840	0.3770	0.0420	0.00	0.0037
CO2	0.0256	0.0251	0.0040	0.00	0.0004
Methane	87.2559	85.6659	14.8350	881.28	0.4833
Ethane	6.4239	6.3068	1.7230	113.68	0.0667
Propane	2.9736	2.9194	0.8220	74.82	0.0453
Iso-Butane	0.6053	0.5943	0.1990	19.68	0.0121
N-Butane	0.9131	0.8965	0.2890	29.79	0.0183
I-Pentane	0.3515	0.3451	0.1290	14.06	0.0088
N-Pentane	0.2684	0.2635	0.0980	10.76	0.0067
Hexane Plus	0.7987	0.7841	0.3570	42.10	0.0264
Total	100.0000	98.1777	18.4980	1186.18	0.6717

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1188.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1192.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1171.8
DRY BTU @ 15.025: 1216.5
REAL SPECIFIC GRAVITY: 0.6735

CYLINDER #: 7027
CYLINDER PRESSURE: 18 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 10:33:16 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: 07/09/2018

GC Method: C6+ Gas

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BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #263E; BHD
Stn. No.: API 3004525210
Mtr. No.:

BRADENHEAD
PC

07/09/2018
15950-10595

Smpl Date: 06/26/2018
Test Date: 07/05/2018
Run No: SO180033

Nitrogen: 0.3840
CO2: 0.0256
Methane: 87.2559
Ethane: 6.4239
Propane: 2.9736
I-Butane: 0.6053
N-Butane: 0.9131
I-Pentane: 0.3515
N-Pentane: 0.2684
Hexane+: 0.7987

BTU: 1192.6
GPM: 18.4980
SPG: 0.6735



GCU 263 E
30-045-25210
Casing Sample

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

Analysis No: SO180034
Cust No: 15950-10600

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #263E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004525210

Source: CASING
Well Flowing: Y
Pressure: 66 PSIA
Flow Temp: DEG. F
Ambient Temp: 95 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/26/2018
Sample Time: 1.30 PM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOCB
FEB 13 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6706	0.6790	0.0740	0.00	0.0065
CO2	0.2211	0.2239	0.0380	0.00	0.0034
Methane	79.4553	80.4505	13.5220	802.50	0.4401
Ethane	8.6893	8.7981	2.3330	153.77	0.0902
Propane	5.3223	5.3890	1.4720	133.91	0.0810
Iso-Butane	1.3158	1.3323	0.4320	42.79	0.0264
N-Butane	1.5121	1.5310	0.4790	49.33	0.0303
I-Pentane	0.6566	0.6648	0.2410	26.27	0.0164
N-Pentane	0.4910	0.4971	0.1790	19.68	0.0122
Hexane Plus	1.6659	1.6868	0.7460	87.81	0.0551
Total	100.0000	101.2525	19.5160	1316.07	0.7617

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0041
BTU/CU.FT IDEAL: 1319.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1324.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1301.5
DRY BTU @ 15.025: 1351.0
REAL SPECIFIC GRAVITY: 0.7645

CYLINDER #: 7010
CYLINDER PRESSURE: 48 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 09:10:52 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: 07/09/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #263E; CSG
Stn. No.: API 3004525210
Mtr. No.:

CASING
PC

07/09/2018
15950-10600

Smpl Date: 06/26/2018
Test Date: 07/05/2018
Run No: SO180034

Nitrogen: 0.6706
CO2: 0.2211
Methane: 79.4553
Ethane: 8.6893
Propane: 5.3223
I-Butane: 1.3158
N-Butane: 1.5121
I-Pentane: 0.6566
N-Pentane: 0.4910
Hexane+: 1.6659

BTU: 1324.5
GPM: 19.5160
SPG: 0.7645



GCU 263E
30-045-25210
Tubing Sample

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

Analysis No: SO180035
Cust No: 15950-10605

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #263E; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004525210

Source: TUBING
Well Flowing: Y
Pressure: 65 PSIA
Flow Temp: DEG. F
Ambient Temp: 95 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/26/2018
Sample Time: 1.18 PM
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	0.3477	0.3498	0.0380	0.00	0.0034
CO2	1.5338	1.5429	0.2630	0.00	0.0233
Methane	82.5029	82.9914	14.0310	833.28	0.4570
Ethane	8.6778	8.7292	2.3280	153.57	0.0901
Propane	3.6037	3.6250	0.9960	90.67	0.0549
Iso-Butane	0.6024	0.6060	0.1980	19.59	0.0121
N-Butane	1.0491	1.0553	0.3320	34.22	0.0211
I-Pentane	0.3616	0.3637	0.1330	14.47	0.0090
N-Pentane	0.3001	0.3019	0.1090	12.03	0.0075
Hexane Plus	1.0209	1.0269	0.4570	53.81	0.0338
Total	100.0000	100.5921	18.8850	1211.65	0.7120

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1214.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1218.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1197.4
DRY BTU @ 15.025: 1243.0
REAL SPECIFIC GRAVITY: 0.7142

CYLINDER #: 7029
CYLINDER PRESSURE: 61 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 08:08:22 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: 07/09/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #263E; TBG
Stn. No.: API 3004525210
Mtr. No.:

TUBING
PC

07/09/2018
15950-10605

Smpl Date: 06/26/2018
Test Date: 07/05/2018
Run No: SO180035

Nitrogen: 0.3477
CO2: 1.5338
Methane: 82.5029
Ethane: 8.6778
Propane: 3.6037
I-Butane: 0.6024
N-Butane: 1.0491
I-Pentane: 0.3616
N-Pentane: 0.3001
Hexane+: 1.0209

BTU: 1218.6
GPM: 18.8850
SPG: 0.7142