



GCU 263
30-045-20277
Bradenhead
Sample

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

Analysis No: SO180030
Cust No: 15950-10580

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #263; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004520277

NMOC
FEB 13 2019
DISTRICT III

Source: BRADENHEAD
Well Flowing: Y
Pressure: 52 PSIA
Flow Temp: DEG. F
Ambient Temp: 98 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/27/2018
Sample Time: 2.32 PM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	21.0407	0.6049	2.3210	0.00	0.2035
CO2	1.0366	0.0298	0.1770	0.00	0.0158
Methane	68.8754	1.9801	11.7100	695.64	0.3815
Ethane	2.9253	0.0841	0.7850	51.77	0.0304
Propane	0.9461	0.0272	0.2610	23.80	0.0144
Iso-Butane	0.1878	0.0054	0.0620	6.11	0.0038
N-Butane	0.2678	0.0077	0.0850	8.74	0.0054
I-Pentane	0.1044	0.0030	0.0380	4.18	0.0026
N-Pentane	0.0870	0.0025	0.0320	3.49	0.0022
Hexane Plus	4.5289	0.1302	2.0250	238.72	0.1499
Total	100.0000	2.8749	17.4960	1032.44	0.8093

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1034.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1038.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1020.0
DRY BTU @ 15.025: 1058.9
REAL SPECIFIC GRAVITY: 0.8115

CYLINDER #: 7049
CYLINDER PRESSURE: 24 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 11:44:29 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: 07/09/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #263; BHD
Stn. No.: API 3004520277
Mtr. No.:

BRADENHEAD
PC

07/09/2018
15950-10580

Smpl Date: 06/27/2018
Test Date: 07/05/2018
Run No: SO180030

Nitrogen: 21.0407
CO2: 1.0366
Methane: 68.8754
Ethane: 2.9253
Propane: 0.9461
I-Butane: 0.1878
N-Butane: 0.2678
I-Pentane: 0.1044
N-Pentane: 0.0870
Hexane+: 4.5289

BTU: 1038.1
GPM: 17.4960
SPG: 0.8115



GCU 263
30-045-20277
Casing Sample

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

Analysis No: SO180031
Cust No: 15950-10585

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #263; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004520277

Source: CASING
Well Flowing: Y
Pressure: 83 PSIA
Flow Temp: DEG. F
Ambient Temp: 98 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/27/2018
Sample Time: 2.35 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	0.5246	0.4909	0.0580	0.00	0.0051
CO2	1.3826	1.2939	0.2370	0.00	0.0210
Methane	77.3729	72.4092	13.1740	781.47	0.4286
Ethane	8.8328	8.2662	2.3720	156.31	0.0917
Propane	4.7018	4.4002	1.3010	118.30	0.0716
Iso-Butane	0.8777	0.8214	0.2880	28.54	0.0176
N-Butane	1.9009	1.7790	0.6020	62.01	0.0381
I-Pentane	0.9246	0.8653	0.3400	36.99	0.0230
N-Pentane	0.9811	0.9182	0.3570	39.33	0.0244
Hexane Plus	2.5010	2.3406	1.1200	131.83	0.0828
Total	100.0000	93.5849	19.8490	1354.79	0.8039

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0046
BTU/CU.FT IDEAL: 1357.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1364.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1340.5
DRY BTU @ 15.025: 1391.5
REAL SPECIFIC GRAVITY: 0.8073

CYLINDER #: 96846
CYLINDER PRESSURE: 63 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 08:42:05 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 #263; CSG
Stn. No.: API 3004520277
Mtr. No.:

CASING
PC

07/09/2018
15950-10585

Smpl Date: 06/27/2018
Test Date: 07/05/2018
Run No: SO180031

Nitrogen: 0.5246
CO2: 1.3826
Methane: 77.3729
Ethane: 8.8328
Propane: 4.7018
I-Butane: 0.8777
N-Butane: 1.9009
I-Pentane: 0.9246
N-Pentane: 0.9811
Hexane+: 2.5010

BTU: 1364.2
GPM: 19.8490
SPG: 0.8073



GCU 263
30-045-20277
Tubing Sample

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

Analysis No: SO180032
Cust No: 15950-10590

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #263; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004520277

Source: TUBING
Well Flowing: Y
Pressure: 84 PSIA
Flow Temp: DEG. F
Ambient Temp: 98 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/27/2018
Sample Time: 2.40 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	0.3773	0.3795	0.0420	0.00	0.0036
CO2	1.4756	1.4841	0.2530	0.00	0.0224
Methane	81.9488	82.4203	13.9390	827.68	0.4539
Ethane	8.5460	8.5952	2.2930	151.24	0.0887
Propane	3.9030	3.9255	1.0790	98.20	0.0594
Iso-Butane	0.6778	0.6817	0.2230	22.04	0.0136
N-Butane	1.2018	1.2087	0.3800	39.21	0.0241
I-Pentane	0.3966	0.3989	0.1460	15.87	0.0099
N-Pentane	0.3486	0.3506	0.1270	13.97	0.0087
Hexane Plus	1.1245	1.1310	0.5030	59.27	0.0372
Total	100.0000	100.5755	18.9850	1227.49	0.7216

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
BTU/CU.FT IDEAL: 1230.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1234.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1213.1
DRY BTU @ 15.025: 1259.3
REAL SPECIFIC GRAVITY: 0.7239

CYLINDER #: 7023
CYLINDER PRESSURE: 62 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 07:53:01 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 #263; TBG
Stn. No.: API 3004520277
Mtr. No.:

TUBING
PC

07/09/2018
15950-10590

Smpl Date: 06/27/2018
Test Date: 07/05/2018
Run No: SO180032

Nitrogen: 0.3773
CO2: 1.4756
Methane: 81.9488
Ethane: 8.5460
Propane: 3.9030
I-Butane: 0.6778
N-Butane: 1.2018
I-Pentane: 0.3966
N-Pentane: 0.3486
Hexane+: 1.1245

BTU: 1234.6
GPM: 18.9850
SPG: 0.7239