



GCU 222
30-045-11481
Bradenhead Sample

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

Analysis No: SO180007
Cust No: 15950-10465

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #222; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Str. No.: API 3004511681

Source: BRADENHEAD
Well Flowing: Y
Pressure: 31 PSIA
Flow Temp: DEG. F
Ambient Temp: 82 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/13/2018
Sample Time: 10.28 AM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMCOO
FEB 13 2018
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5086	0.4417	0.0560	0.00	0.0049
CO2	0.0214	0.0186	0.0040	0.00	0.0003
Methane	90.3435	78.4597	15.3520	912.47	0.5004
Ethane	5.5625	4.8308	1.4910	98.44	0.0577
Propane	2.1360	1.8550	0.5900	53.74	0.0325
Iso-Butane	0.3876	0.3366	0.1270	12.60	0.0078
N-Butane	0.4825	0.4190	0.1520	15.74	0.0097
I-Pentane	0.1634	0.1419	0.0600	6.54	0.0041
N-Pentane	0.1085	0.0942	0.0390	4.35	0.0027
Hexane Plus	0.2860	0.2484	0.1280	15.08	0.0095
Total	100.0000	86.8459	17.9990	1118.96	0.6296

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026
BTU/CU.FT IDEAL: 1121.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1124.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1104.9
DRY BTU @ 15.025: 1147.0
REAL SPECIFIC GRAVITY: 0.631

CYLINDER #: 7097
CYLINDER PRESSURE: 18 PSIG
ANALYSIS DATE: 06/19/2018
ANALYSIS TIME: 03:32:54 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: 06/21/2018

GC Method: C6+ Gas

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BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #222; BHD
Stn. No.: API 3004511681
Mtr. No.:

BRADENHEAD
PC

06/21/2018
15950-10465

Smpl Date: 06/13/2018
Test Date: 06/19/2018
Run No: SO180007

Nitrogen: 0.5086
CO2: 0.0214
Methane: 90.3435
Ethane: 5.5625
Propane: 2.1360
I-Butane: 0.3876
N-Butane: 0.4825
I-Pentane: 0.1634
N-Pentane: 0.1085
Hexane+: 0.2860

BTU: 1124.5
GPM: 17.9990
SPG: 0.6310



GCU 222
30-045-11481
Casing Sample

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

Analysis No: SO180008
Cust No: 15950-10470

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #222; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004511681

Source: CASING
Well Flowing: Y
Pressure: 103 PSIA
Flow Temp: DEG. F
Ambient Temp: 82 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/13/2018
Sample Time: 10.45 AM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N

Remarks:

NM000
FEB 13 2013
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5152	0.5061	0.0570	0.00	0.0050
CO2	0.8136	0.7992	0.1400	0.00	0.0124
Methane	66.2388	65.0671	11.2890	669.01	0.3669
Ethane	12.7897	12.5635	3.4390	226.34	0.1328
Propane	10.0439	9.8662	2.7820	252.71	0.1529
Iso-Butane	1.8756	1.8424	0.6170	60.99	0.0376
N-Butane	4.1676	4.0939	1.3210	135.96	0.0836
I-Pentane	1.5064	1.4798	0.5540	60.27	0.0375
N-Pentane	1.3073	1.2842	0.4760	52.41	0.0326
Hexane Plus	0.7419	0.7288	0.3330	39.11	0.0246
Total	100.0000	98.2312	21.0080	1496.80	0.8859

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0056
BTU/CU.FT IDEAL: 1500.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1508.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1482.4
DRY BTU @ 15.025: 1538.9
REAL SPECIFIC GRAVITY: 0.8905

CYLINDER #: 7049
CYLINDER PRESSURE: 65 PSIG
ANALYSIS DATE: 06/19/2018
ANALYSIS TIME: 03:18:00 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: 06/21/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #222; CSG
Stn. No.: API 3004511681
Mtr. No.:

CASING
PC

06/21/2018
15950-10470

Smpl Date: 06/13/2018
Test Date: 06/19/2018
Run No: SO180008

Nitrogen: 0.5152
CO2: 0.8136
Methane: 66.2388
Ethane: 12.7897
Propane: 10.0439
I-Butane: 1.8756
N-Butane: 4.1676
I-Pentane: 1.5064
N-Pentane: 1.3073
Hexane+: 0.7419

BTU: 1508.7
GPM: 21.0080
SPG: 0.8905



GCU 222
30-045-11481
Tubing Sample

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

Analysis No: SO180009
Cust No: 15950-10475

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #222; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004511681

Source: TUBING
Well Flowing: Y
Pressure: 101 PSIA
Flow Temp: DEG. F
Ambient Temp: 82 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/13/2018
Sample Time: 10.38 AM
Sampled By: EUGENIA HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMCOO

FEB 13 2018

DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5004	0.4961	0.0550	0.00	0.0048
CO2	1.1026	1.0930	0.1890	0.00	0.0168
Methane	78.3432	77.6634	13.3290	791.27	0.4339
Ethane	10.5519	10.4603	2.8320	186.74	0.1095
Propane	5.5954	5.5468	1.5470	140.79	0.0852
Iso-Butane	0.8312	0.8240	0.2730	27.03	0.0167
N-Butane	1.5035	1.4905	0.4760	49.05	0.0302
I-Pentane	0.4447	0.4408	0.1630	17.79	0.0111
N-Pentane	0.3541	0.3510	0.1290	14.19	0.0088
Hexane Plus	0.7730	0.7663	0.3460	40.75	0.0256
Total	100.0000	99.1322	19.3390	1267.60	0.7426

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT IDEAL: 1270.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1275.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1253.2
DRY BTU @ 15.025: 1300.9
REAL SPECIFIC GRAVITY: 0.7451

CYLINDER #: 7066
CYLINDER PRESSURE: 92 PSIG
ANALYSIS DATE: 06/19/2018
ANALYSIS TIME: 03:23:16 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

GC Method: C6+ Gas

Last Cal/Verify: 06/21/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #222; TBG
Stn. No.: API 3004511681
Mtr. No.:

TUBING
PC

06/21/2018
15950-10475

Smpl Date: 06/13/2018
Test Date: 06/19/2018
Run No: SO180009

Nitrogen: 0.5004
CO2: 1.1026
Methane: 78.3432
Ethane: 10.5519
Propane: 5.5954
I-Butane: 0.8312
N-Butane: 1.5035
I-Pentane: 0.4447
N-Pentane: 0.3541
Hexane+: 0.7730

BTU: 1275.4
GPM: 19.3390
SPG: 0.7451