



GCU 226 E
30-045-24948
Bradenhead
Sample

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

Analysis No: SO180027
Cust No: 15950-10565

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #226E; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524948

Source: BRADENHEAD
Well Flowing: Y
Pressure: 130 PSIA
Flow Temp: DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 9.58 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

NMOC
FEB 13 2019
DISTRICT III

Heat Trace: N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2945	1.3058	0.1430	0.00	0.0125
CO2	0.0042	0.0042	0.0010	0.00	0.0001
Methane	91.3522	92.1507	15.5220	922.66	0.5060
Ethane	4.5056	4.5450	1.2080	79.74	0.0468
Propane	1.7298	1.7449	0.4780	43.52	0.0263
Iso-Butane	0.3458	0.3488	0.1130	11.25	0.0069
N-Butane	0.3921	0.3955	0.1240	12.79	0.0079
I-Pentane	0.1433	0.1446	0.0530	5.73	0.0036
N-Pentane	0.0923	0.0931	0.0340	3.70	0.0023
Hexane Plus	0.1402	0.1414	0.0630	7.39	0.0046
Total	100.0000	100.8740	17.7390	1086.78	0.6170

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
BTU/CU.FT IDEAL: 1089.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1092.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1073.0
DRY BTU @ 15.025: 1113.9
REAL SPECIFIC GRAVITY: 0.6183

CYLINDER #: 7051
CYLINDER PRESSURE: 118 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 10:22:18 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 #226E; BHD
Stn. No.: API 3004524948
Mtr. No.:

BRADENHEAD
PC

07/09/2018
15950-10565

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180027

Nitrogen: 1.2945
CO2: 0.0042
Methane: 91.3522
Ethane: 4.5056
Propane: 1.7298
I-Butane: 0.3458
N-Butane: 0.3921
I-Pentane: 0.1433
N-Pentane: 0.0923
Hexane+: 0.1402

BTU: 1092.0
GPM: 17.7390
SPG: 0.6183



GCU 226 E
30-045-24948
Casing Sample

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

Analysis No: SO180029
Cust No: 15950-10575

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #226E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524948

Source: CASING
Well Flowing: Y
Pressure: 54 PSIA
Flow Temp: DEG. F
Ambient Temp: 75 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 10.40 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	0.7692	0.7730	0.0850	0.00	0.0074
CO2	0.7011	0.7045	0.1200	0.00	0.0107
Methane	73.7886	74.1517	12.5710	745.26	0.4087
Ethane	8.3565	8.3976	2.2460	147.88	0.0868
Propane	6.6373	6.6699	1.8380	167.00	0.1011
Iso-Butane	1.5135	1.5209	0.4980	49.22	0.0304
N-Butane	3.5300	3.5474	1.1180	115.16	0.0708
I-Pentane	1.5544	1.5620	0.5710	62.19	0.0387
N-Pentane	1.4316	1.4386	0.5220	57.39	0.0357
Hexane Plus	1.7178	1.7262	0.7700	90.55	0.0569
Total	100.0000	100.4918	20.3390	1434.65	0.8471

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0052
BTU/CU.FT IDEAL: 1438.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1445.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1420.2
DRY BTU @ 15.025: 1474.2
REAL SPECIFIC GRAVITY: 0.8511

CYLINDER #: 7078
CYLINDER PRESSURE: 48 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 10:00:30 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 #226E; CSG
Stn. No.: API 3004524948
Mtr. No.:

CASING
PC

07/09/2018
15950-10575

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180029

Nitrogen: 0.7692
CO2: 0.7011
Methane: 73.7886
Ethane: 8.3565
Propane: 6.6373
I-Butane: 1.5135
N-Butane: 3.5300
I-Pentane: 1.5544
N-Pentane: 1.4316
Hexane+: 1.7178

BTU: 1445.3
GPM: 20.3390
SPG: 0.8511



GCU 226 E
30-045-24948
Tubing Sample

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

Analysis No: SO180028
Cust No: 15950-10570

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #226E; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524948

Source: TUBING
Well Flowing: Y
Pressure: 53 PSIA
Flow Temp: DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 10.11 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

NMOC

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DISTRICT III

Heat Trace: N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5213	0.5148	0.0580	0.00	0.0050
CO2	1.0971	1.0834	0.1880	0.00	0.0167
Methane	76.5394	75.5841	13.0240	773.05	0.4240
Ethane	11.4263	11.2837	3.0670	202.21	0.1186
Propane	6.2742	6.1959	1.7350	157.87	0.0955
Iso-Butane	0.8757	0.8648	0.2880	28.48	0.0176
N-Butane	1.5353	1.5161	0.4860	50.09	0.0308
I-Pentane	0.3984	0.3934	0.1460	15.94	0.0099
N-Pentane	0.3197	0.3157	0.1160	12.82	0.0080
Hexane Plus	1.0126	1.0000	0.4530	53.37	0.0335
Total	100.0000	98.7519	19.5610	1293.82	0.7596

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
BTU/CU.FT IDEAL: 1296.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1302.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1279.3
DRY BTU @ 15.025: 1328.1
REAL SPECIFIC GRAVITY: 0.7623

CYLINDER #: 7075
CYLINDER PRESSURE: 40 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 08:18:47 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



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #226E; TBG
Stn. No.: API 3004524948
Mtr. No.:

TUBING
PC

07/09/2018
15950-10570

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180028

Nitrogen: 0.5213
CO2: 1.0971
Methane: 76.5394
Ethane: 11.4263
Propane: 6.2742
I-Butane: 0.8757
N-Butane: 1.5353
I-Pentane: 0.3984
N-Pentane: 0.3197
Hexane+: 1.0126

BTU: 1302.0
GPM: 19.5610
SPG: 0.7623