



GCU 040
30-045-07182
Bradenhead Sample

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

Analysis No: SO180066
Cust No: 15950-10760

Well/Lease Information

Customer Name:	BP - SOUTH BHD PROJECT	Source:	BRADENHEAD
Well Name:	GCU 40; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	52 PSIA
Location:		Flow Temp:	DEG. F
Field:		Ambient Temp:	85 DEG. F
Formation:	FC	Flow Rate:	MCF/D
Cust. Stn. No.:	API 3004507182	Sample Method:	Purge & Fill
		Sample Date:	07/09/2018
		Sample Time:	1.16 PM
		Sampled By:	EUGENIA HAMILTON
		Sampled by (CO):	PESCO
Heat Trace:	N		
Remarks:	PRESSURED WITH HELIUM TO 30LBS.		

HNOCD
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	6.7680	2.0857	0.7460	0.00	0.0655
CO2	4.2268	1.3026	0.7230	0.00	0.0642
Methane	84.4438	26.0233	14.3440	852.88	0.4677
Ethane	3.4189	1.0536	0.9160	60.50	0.0355
Propane	0.6350	0.1957	0.1750	15.98	0.0097
Iso-Butane	0.0561	0.0173	0.0180	1.82	0.0011
N-Butane	0.0691	0.0213	0.0220	2.25	0.0014
I-Pentane	0.0165	0.0051	0.0060	0.66	0.0004
N-Pentane	0.0140	0.0043	0.0050	0.56	0.0003
Hexane Plus	0.3518	0.1084	0.1570	18.54	0.0116
Total	100.0000	30.8173	17.1120	953.21	0.6575

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0022	CYLINDER #:	7054
BTU/CU.FT IDEAL:	955.4	CYLINDER PRESSURE:	1 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	957.5	ANALYSIS DATE:	07/17/2018
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	940.8	ANALYSIS TIME:	01:48:44 AM
DRY BTU @ 15.025:	976.7	ANALYSIS RUN BY:	SHYANN ELLEDGE
REAL SPECIFIC GRAVITY:	0.6587		

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: 07/19/2018

GC Method: C6+ Gas

b



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 40; BHD
Stn. No.: API 3004507182
Mtr. No.:

BRADENHEAD
FC

07/19/2018
15950-10760

Smpl Date: 07/09/2018
Test Date: 07/17/2018
Run No: SO180066

Nitrogen: 6.7680
CO2: 4.2268
Methane: 84.4438
Ethane: 3.4189
Propane: 0.6350
I-Butane: 0.0561
N-Butane: 0.0691
I-Pentane: 0.0165
N-Pentane: 0.0140
Hexane+: 0.3518

BTU: 957.5
GPM: 17.1120
SPG: 0.6587



GCU 40
30-045-07182
Casing Sample

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

Analysis No: SO180067
Cust No: 15950-10765

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU 40; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: FC
Cust. Str. No.: API 3004507182

NMOCB
FEB 13 2019
DISTRICT III

Source: CASING
Well Flowing: N
Pressure: 24 PSIA
Flow Temp: DEG. F
Ambient Temp: 85 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/09/2018
Sample Time: 1.29 PM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2266	0.2265	0.0250	0.00	0.0022
CO2	0.4183	0.4181	0.0720	0.00	0.0064
Methane	93.2634	93.2288	15.8460	941.96	0.5166
Ethane	3.6459	3.6446	0.9770	64.52	0.0379
Propane	1.0760	1.0756	0.2970	27.07	0.0164
Iso-Butane	0.2442	0.2441	0.0800	7.94	0.0049
N-Butane	0.2570	0.2569	0.0810	8.38	0.0052
I-Pentane	0.1318	0.1318	0.0480	5.27	0.0033
N-Pentane	0.0998	0.0998	0.0360	4.00	0.0025
Hexane Plus	0.6370	0.6368	0.2850	33.58	0.0211
Total	100.0000	99.9630	17.7470	1092.73	0.6163

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
BTU/CU.FT IDEAL: 1095.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1098.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1078.9
DRY BTU @ 15.025: 1120.0
REAL SPECIFIC GRAVITY: 0.6176

CYLINDER #: 7078
CYLINDER PRESSURE: 22 PSIG
ANALYSIS DATE: 07/17/2018
ANALYSIS TIME: 01:30:06 PM
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: 07/19/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 40; CSG
Stn. No.: API 3004507182
Mtr. No.:

CASING
FC

07/19/2018
15950-10765

Smpl Date: 07/09/2018
Test Date: 07/17/2018
Run No: SO180067

Nitrogen: 0.2266
CO2: 0.4183
Methane: 93.2634
Ethane: 3.6459
Propane: 1.0760
I-Butane: 0.2442
N-Butane: 0.2570
I-Pentane: 0.1318
N-Pentane: 0.0998
Hexane+: 0.6370

BTU: 1098.0
GPM: 17.7470
SPG: 0.6176



GCU 40
30-045-07182
Tubing Sample

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

Analysis No: SO180068
Cust No: 15950-10770

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU 40; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: FC
Cust. Stn. No.: API 3004507182

NMOCG
FEB 13 2019
DISTRICT III

Source: TUBING
Well Flowing: N
Pressure: 2 PSIA
Flow Temp: DEG. F
Ambient Temp: 85 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/09/2018
Sample Time: 1.22 PM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks: PRESSURED WITH HELIUM TO 30LBS.

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3102	0.3045	0.0340	0.00	0.0030
CO2	0.0355	0.0348	0.0060	0.00	0.0005
Methane	90.3805	88.7096	15.3580	912.84	0.5006
Ethane	5.8871	5.7783	1.5780	104.18	0.0611
Propane	2.1103	2.0713	0.5830	53.10	0.0321
Iso-Butane	0.3884	0.3812	0.1270	12.63	0.0078
N-Butane	0.4640	0.4554	0.1470	15.14	0.0093
I-Pentane	0.1680	0.1649	0.0620	6.72	0.0042
N-Pentane	0.1051	0.1032	0.0380	4.21	0.0026
Hexane Plus	0.1509	0.1481	0.0670	7.95	0.0050
Total	100.0000	98.1513	18.0000	1116.78	0.6263

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0026	CYLINDER #:	7073
BTU/CU.FT IDEAL:	1119.4	CYLINDER PRESSURE:	PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1122.3	ANALYSIS DATE:	07/17/2018
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1102.8	ANALYSIS TIME:	01:41:49 PM
DRY BTU @ 15.025:	1144.8	ANALYSIS RUN BY:	SHYANN ELLEDGE
REAL SPECIFIC GRAVITY:	0.6277		

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: 07/19/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU 40; TBG
Stn. No.: API 3004507182
Mtr. No.:

TUBING
FC

07/19/2018
15950-10770

Smpl Date: 07/09/2018
Test Date: 07/17/2018
Run No: SO180068
Nitrogen: 0.3102
CO2: 0.0355
Methane: 90.3805
Ethane: 5.8871
Propane: 2.1103
I-Butane: 0.3884
N-Butane: 0.4640
I-Pentane: 0.1680
N-Pentane: 0.1051
Hexane+: 0.1509
BTU: 1122.3
GPM: 18.0000
SPG: 0.6277