



30-045-23264
Bradenhead

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

Analysis No: SO170010
Cust No: 15950-10045

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: MUDGE LS 7A; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.: API 3004523064

Source: BRADENHEAD
Pressure: PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 05/17/2017
Sampled By: EUGENIA HAMILTON
Foreman/Engr.: SABRE BEEBE

OIL CONS. DIV DIST. 3
AUG 09 2017

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.766	0.0850	0.00	0.0074
CO2	0.271	0.0460	0.00	0.0041
Methane	77.141	13.1310	779.12	0.4273
Ethane	9.665	2.5950	171.04	0.1003
Propane	6.012	1.6630	151.27	0.0915
Iso-Butane	1.441	0.4730	46.86	0.0289
N-Butane	1.793	0.5680	58.49	0.0360
I-Pentane	0.680	0.2500	27.21	0.0169
N-Pentane	0.556	0.2020	22.29	0.0139
Hexane Plus	1.675	0.7500	88.29	0.0554
Total	100.000	19.7630	1344.57	0.7818

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0043
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1353.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1329.9
REAL SPECIFIC GRAVITY: 0.7849

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1346.1
DRY BTU @ 14.696: 1350.4
DRY BTU @ 14.730: 1353.5
DRY BTU @ 15.025: 1380.6

CYLINDER #: 7077
CYLINDER PRESSURE: 37 PSIG
DATE RUN: 6/2/17 11:10 AM
ANALYSIS RUN BY: PATRICIA KING



30-045-23064
Bradenhead

BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: MUDGE LS 7A; BHD
Stn. No.: API 3004523064
Mtr. No.:

BRADENHEAD
MV

06/27/2017
15950-10045

Smpl Date: 05/17/2017
Test Date: 06/02/2017
Run No: SO170010

Nitrogen: 0.766
CO2: 0.271
Methane: 77.141
Ethane: 9.665
Propane: 6.012
I-Butane: 1.441
N-Butane: 1.793
I-Pentane: 0.680
N-Pentane: 0.556
Hexane+: 1.675

BTU: 1353.5
GPM: 19.7630
SPG: 0.7849



30-045-23064
Casing

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

Analysis No: SO170011
Cust No: 15950-10050

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: MUDGE LS 7A; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.: API 3004523064

Source: CASING
Pressure: PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 05/17/2017
Sampled By: EUGENIA HAMILTON
Foreman/Engr.: SABRE BEEBE

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.663	0.0730	0.00	0.0064
CO2	0.290	0.0500	0.00	0.0044
Methane	77.163	13.1360	779.35	0.4274
Ethane	9.676	2.5980	171.24	0.1005
Propane	6.019	1.6650	151.44	0.0916
Iso-Butane	1.447	0.4750	47.05	0.0290
N-Butane	1.793	0.5680	58.49	0.0360
I-Pentane	0.680	0.2500	27.21	0.0169
N-Pentane	0.563	0.2050	22.57	0.0140
Hexane Plus	1.706	0.7640	89.92	0.0565
Total	100.000	19.7840	1347.27	0.7828

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0044
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1356.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1332.6
REAL SPECIFIC GRAVITY: 0.7858

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1348.8
DRY BTU @ 14.696: 1353.1
DRY BTU @ 14.730: 1356.2
DRY BTU @ 15.025: 1383.4

CYLINDER #: 75904
CYLINDER PRESSURE: 39 PSIG
DATE RUN: 6/2/17 11:11 AM
ANALYSIS RUN BY: PATRICIA KING



30-045-23064
Casing

BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: MUDGE LS 7A; CSG
Stn. No.: API 3004523064
Mtr. No.:

CASING
MV

06/27/2017
15950-10050

Smpl Date: 05/17/2017
Test Date: 06/02/2017
Run No: SO170011
Nitrogen: 0.663
CO2: 0.290
Methane: 77.163
Ethane: 9.676
Propane: 6.019
I-Butane: 1.447
N-Butane: 1.793
I-Pentane: 0.680
N-Pentane: 0.563
Hexane+: 1.706
BTU: 1356.2
GPM: 19.7840
SPG: 0.7858



30-045-23064
tubing

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

Analysis No: SO170012
Cust No: 15950-10055

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: MUDGE LS 7A; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.: API 3004523064

Source: TUBING
Pressure: PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 05/17/2017
Sampled By: EUGENIA HAMILTON
Foreman/Engr.: SABRE BEEBE

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.173	0.0190	0.00	0.0017
CO2	1.328	0.2270	0.00	0.0202
Methane	80.337	13.6680	811.40	0.4450
Ethane	9.380	2.5170	166.00	0.0974
Propane	4.405	1.2180	110.83	0.0671
Iso-Butane	0.885	0.2910	28.78	0.0178
N-Butane	1.396	0.4420	45.54	0.0280
I-Pentane	0.535	0.1960	21.40	0.0133
N-Pentane	0.423	0.1540	16.96	0.0105
Hexane Plus	1.138	0.5090	59.98	0.0377
Total	100.000	19.2410	1260.90	0.7386

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1268.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1246.5
REAL SPECIFIC GRAVITY: 0.7411

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1261.7
DRY BTU @ 14.696: 1265.7
DRY BTU @ 14.730: 1268.6
DRY BTU @ 15.025: 1294.0

CYLINDER #: 7084
CYLINDER PRESSURE: 38 PSIG
DATE RUN: 6/2/17 11:12 AM
ANALYSIS RUN BY: PATRICIA KING



30 045 23064
tubing

BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: MUDGE LS 7A; TBG
Stn. No.: API 3004523064
Mtr. No.:

TUBING
MV

06/27/2017
15950-10055

Smpl Date: 05/17/2017
Test Date: 06/02/2017
Run No: SO170012

Nitrogen: 0.173
CO2: 1.328
Methane: 80.337
Ethane: 9.380
Propane: 4.405
I-Butane: 0.885
N-Butane: 1.396
I-Pentane: 0.535
N-Pentane: 0.423
Hexane+: 1.138

BTU: 1268.6
GPM: 19.2410
SPG: 0.7411