



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

Analysis No: SO170057
Cust No: 15950-10265

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: STATE COM B 3;BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.:
API 3004509534

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: BRADENHEAD
Well Flowing: Y
Pressure: 36 PSIA
Flow Temp: DEG. F
Ambient Temp: 72 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 08/02/2017
Sample Time: 10.31 AM
Sampled By: MATTHEW YAZZIE
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	22.5616	2.4880	0.00	0.2182
CO2	0.0531	0.0090	0.00	0.0008
Methane	64.4175	10.9490	650.62	0.3568
Ethane	5.4483	1.4610	96.42	0.0566
Propane	3.2405	0.8950	81.53	0.0493
Iso-Butane	0.6588	0.2160	21.42	0.0132
N-Butane	1.0138	0.3200	33.07	0.0203
I-Pentane	0.5989	0.2200	23.96	0.0149
N-Pentane	0.4915	0.1790	19.70	0.0122
Hexane Plus	1.5160	0.6780	79.91	0.0502
Total	100.0000	17.4150	1006.64	0.7926

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1009.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1011.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 994.2
DRY BTU @ 15.025: 1032.1
REAL SPECIFIC GRAVITY: 0.7945

CYLINDER #: 7008
CYLINDER PRESSURE: 29 PSIG
DATE RUN: 8/14/17 10:31 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: 10/02/2017

GC Method: C6+ Gas

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BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: STATE COM B 3;BHD
Stn. No.:
Mtr. No.: API 3004509534

BRADENHEAD
MV

10/02/2017
15950-10265

Smpl Date: 08/02/2017
Test Date: 08/14/2017
Run No: SO170057

Nitrogen: 22.5616
CO2: 0.0531
Methane: 64.4175
Ethane: 5.4483
Propane: 3.2405
I-Butane: 0.6588
N-Butane: 1.0138
I-Pentane: 0.5989
N-Pentane: 0.4915
Hexane+: 1.5160

BTU: 1011.8
GPM: 17.4150
SPG: 0.7945



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

Analysis No: SO170058
Cust No: 15950-10285

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: STATE COM B 3;CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.:
API 3004509534

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: CASING
Well Flowing: Y
Pressure: 14 PSIA
Flow Temp: DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 08/02/2017
Sample Time: 10.42 AM
Sampled By: MATTHEW YAZZIE
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1590	0.0180	0.00	0.0015
CO2	1.0280	0.1760	0.00	0.0156
Methane	80.8961	13.7670	817.05	0.4481
Ethane	7.9836	2.1430	141.29	0.0829
Propane	4.2783	1.1830	107.65	0.0651
Iso-Butane	0.8943	0.2940	29.08	0.0179
N-Butane	1.4720	0.4660	48.02	0.0295
I-Pentane	0.6978	0.2560	27.92	0.0174
N-Pentane	0.5519	0.2010	22.12	0.0137
Hexane Plus	2.0390	0.9130	107.48	0.0675
Total	100.0000	19.4170	1300.60	0.7594

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0041
BTU/CU.FT IDEAL: 1303.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1309.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1286.2
DRY BTU @ 15.025: 1335.2
REAL SPECIFIC GRAVITY: 0.7622

CYLINDER #: 7005
CYLINDER PRESSURE: 34 PSIG
DATE RUN: 8/14/17 10:42 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: 10/02/2017

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: STATE COM B 3;CSG
Stn. No.:
Mtr. No.: API 3004509534

CASING
MV

10/02/2017
15950-10285

Smpl Date: 08/02/2017
Test Date: 08/14/2017
Run No: SO170058

Nitrogen: 0.1590
CO2: 1.0280
Methane: 80.8961
Ethane: 7.9836
Propane: 4.2783
I-Butane: 0.8943
N-Butane: 1.4720
I-Pentane: 0.6978
N-Pentane: 0.5519
Hexane+: 2.0390

BTU: 1309.0
GPM: 19.4170
SPG: 0.7622



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

Analysis No: SO170059
Cust No: 15950-10270

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: STATE COM B 3;TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: MV
Cust. Stn. No.:
API 3004509534

Source: TUBING
Well Flowing: Y
Pressure: 14 PSIA
Flow Temp: DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Date Sampled: 08/02/2017
Sample Time: 10.44 AM
Sampled By: MATTHEW YAZZIE
Sampled by (CO): PESCO

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2354	0.0260	0.00	0.0023
CO2	1.5930	0.2730	0.00	0.0242
Methane	80.8315	13.7530	816.40	0.4477
Ethane	8.5787	2.3030	151.82	0.0891
Propane	4.0889	1.1310	102.88	0.0623
Iso-Butane	0.8090	0.2660	26.31	0.0162
N-Butane	1.2847	0.4060	41.91	0.0258
I-Pentane	0.5003	0.1840	20.02	0.0125
N-Pentane	0.3875	0.1410	15.53	0.0097
Hexane Plus	1.6910	0.7570	89.13	0.0560
Total	100.0000	19.2400	1264.00	0.7456

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0039
BTU/CU.FT IDEAL: 1266.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1271.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1249.7
DRY BTU @ 15.025: 1297.3
REAL SPECIFIC GRAVITY: 0.7482

CYLINDER #: 14
CYLINDER PRESSURE: 7013 PSIG
DATE RUN: 8/14/17 10:44 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: 10/02/2017

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: STATE COM B 3;TBG
Stn. No.:
Mtr. No.: API 3004509534

TUBING
MV

10/02/2017
15950-10270

Smpl Date: 08/02/2017
Test Date: 08/14/2017
Run No: SO170059
Nitrogen: 0.2354
CO2: 1.5930
Methane: 80.8315
Ethane: 8.5787
Propane: 4.0889
I-Butane: 0.8090
N-Butane: 1.2847
I-Pentane: 0.5003
N-Pentane: 0.3875
Hexane+: 1.6910
BTU: 1271.8
GPM: 19.2400
SPG: 0.7482