



GCU 224
30-045-11685
Bradenhead Sample

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

Analysis No: SO180025
Cust No: 15950-10555

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #224; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004511685

Source: BRADENHEAD
Well Flowing: Y
Pressure: 32 PSIA
Flow Temp: DEG. F
Ambient Temp: 71 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 8.54 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	0.5988	0.5908	0.0660	0.00	0.0058
CO2	0.0043	0.0042	0.0010	0.00	0.0001
Methane	91.9380	90.7156	15.6210	928.57	0.5092
Ethane	4.3912	4.3328	1.1770	77.71	0.0456
Propane	1.7758	1.7522	0.4900	44.68	0.0270
Iso-Butane	0.4244	0.4188	0.1390	13.80	0.0085
N-Butane	0.4498	0.4438	0.1420	14.67	0.0090
I-Pentane	0.1587	0.1566	0.0580	6.35	0.0040
N-Pentane	0.0881	0.0869	0.0320	3.53	0.0022
Hexane Plus	0.1709	0.1686	0.0760	9.01	0.0057
Total	100.0000	98.6703	17.8020	1098.33	0.6171

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
BTU/CU.FT IDEAL: 1100.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1103.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1084.4
DRY BTU @ 15.025: 1125.7
REAL SPECIFIC GRAVITY: 0.6184

CYLINDER #: 7063
CYLINDER PRESSURE: 26 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 10:12:56 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 #224; BHD
Stn. No.: API 3004511685
Mtr. No.:

BRADENHEAD
PC

07/09/2018
15950-10555

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180025

Nitrogen: 0.5988
CO2: 0.0043
Methane: 91.9380
Ethane: 4.3912
Propane: 1.7758
I-Butane: 0.4244
N-Butane: 0.4498
I-Pentane: 0.1587
N-Pentane: 0.0881
Hexane+: 0.1709

BTU: 1103.6
GPM: 17.8020
SPG: 0.6184



GCU 224
30-045-11685
Casing Sample

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

Analysis No: SO180026
Cust No: 15950-10560

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #224; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004511685

Source: CASING
Well Flowing: Y
Pressure: 59 PSIA
Flow Temp: DEG. F
Ambient Temp: 72 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 9.10 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	0.5783	0.5847	0.0640	0.00	0.0056
CO2	1.0352	1.0467	0.1770	0.00	0.0157
Methane	77.1269	77.9873	13.1240	778.98	0.4272
Ethane	11.0914	11.2151	2.9770	196.28	0.1152
Propane	5.8736	5.9391	1.6240	147.79	0.0894
Iso-Butane	0.8616	0.8712	0.2830	28.02	0.0173
N-Butane	1.5964	1.6142	0.5050	52.08	0.0320
I-Pentane	0.4719	0.4772	0.1730	18.88	0.0118
N-Pentane	0.3793	0.3835	0.1380	15.20	0.0094
Hexane Plus	0.9854	0.9964	0.4410	51.94	0.0326
Total	100.0000	101.1154	19.5060	1289.18	0.7562

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
BTU/CU.FT IDEAL: 1292.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1297.2
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1274.6
DRY BTU @ 15.025: 1323.2
REAL SPECIFIC GRAVITY: 0.7589

CYLINDER #: 7073
CYLINDER PRESSURE: 52 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 09:44:12 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: 07/09/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #224; CSG
Stn. No.: API 3004511685
Mtr. No.:

CASING
PC

07/09/2018
15950-10560

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180026

Nitrogen: 0.5783
CO2: 1.0352
Methane: 77.1269
Ethane: 11.0914
Propane: 5.8736
I-Butane: 0.8616
N-Butane: 1.5964
I-Pentane: 0.4719
N-Pentane: 0.3793
Hexane+: 0.9854

BTU: 1297.2
GPM: 19.5060
SPG: 0.7589