



GCU 187E
30-045-24172
Bradenhead
Sample

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

Analysis No: SO180023
Cust No: 15950-10545

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #187E; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: DK
Cust. Stn. No.: API 3004524172

Source: BRADENHEAD
Well Flowing: Y
Pressure: 43 PSIA
Flow Temp: DEG. F
Ambient Temp: 86 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 2.49 PM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.7248	0.7324	0.0800	0.00	0.0070
CO2	0.0091	0.0092	0.0020	0.00	0.0001
Methane	94.1560	95.1389	15.9950	950.98	0.5215
Ethane	4.0334	4.0755	1.0810	71.38	0.0419
Propane	0.6845	0.6916	0.1890	17.22	0.0104
Iso-Butane	0.1948	0.1968	0.0640	6.33	0.0039
N-Butane	0.0958	0.0968	0.0300	3.13	0.0019
I-Pentane	0.0395	0.0399	0.0140	1.58	0.0010
N-Pentane	0.0149	0.0151	0.0050	0.60	0.0004
Hexane Plus	0.0472	0.0477	0.0210	2.49	0.0016
Total	100.0000	101.0439	17.4810	1053.70	0.5897

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0023
BTU/CU.FT IDEAL: 1056.1
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1058.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1040.1
DRY BTU @ 15.025: 1079.7
REAL SPECIFIC GRAVITY: 0.5908

CYLINDER #: 7085
CYLINDER PRESSURE: 40 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 10:52:51 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

NMOCB

FEB 13 2019

DISTRICT III



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: GCU #187E; BHD
Stn. No.: API 3004524172
Mtr. No.:

BRADENHEAD
DK

07/09/2018
15950-10545

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180023

Nitrogen: 0.7248
CO2: 0.0091
Methane: 94.1560
Ethane: 4.0334
Propane: 0.6845
I-Butane: 0.1948
N-Butane: 0.0958
I-Pentane: 0.0395
N-Pentane: 0.0149
Hexane+: 0.0472

BTU: 1058.5
GPM: 17.4810
SPG: 0.5908



GCU187E
30-045-24172
Casing Sample

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

Analysis No: SO180024
Cust No: 15950-10550

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: GCU #187E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: DK
Cust. Stn. No.: API 3004524172

Source: CASING
Well Flowing: Y
Pressure: 42 PSIA
Flow Temp: DEG. F
Ambient Temp: 86 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/15/2018
Sample Time: 2.58 PM
Sampled By: E. HAMILTON
Sampled by (CO): PESCO

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

NMOC
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.2730	0.7251	0.2520	0.00	0.0220
CO2	0.6410	0.2045	0.1100	0.00	0.0097
Methane	67.1876	21.4335	11.4560	678.59	0.3722
Ethane	10.1962	3.2527	2.7430	180.44	0.1059
Propane	8.4311	2.6896	2.3360	212.13	0.1284
Iso-Butane	1.4084	0.4493	0.4640	45.80	0.0283
N-Butane	3.9083	1.2468	1.2390	127.50	0.0784
I-Pentane	1.6263	0.5188	0.5980	65.07	0.0405
N-Pentane	1.8122	0.5781	0.6610	72.65	0.0451
Hexane Plus	2.5159	0.8026	1.1280	132.61	0.0833
Total	100.0000	31.9010	20.9870	1514.80	0.9137

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.006
BTU/CU.FT IDEAL: 1518.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1527.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1500.9
DRY BTU @ 15.025: 1558.1
REAL SPECIFIC GRAVITY: 0.9189

CYLINDER #: 7000
CYLINDER PRESSURE: 4 PSIG
ANALYSIS DATE: 07/05/2018
ANALYSIS TIME: 09:48:16 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 #187E; CSG
Stn. No.: API 3004524172
Mtr. No.:

CASING
DK

07/09/2018
15950-10550

Smpl Date: 06/15/2018
Test Date: 07/05/2018
Run No: SO180024
Nitrogen: 2.2730
CO2: 0.6410
Methane: 67.1876
Ethane: 10.1962
Propane: 8.4311
I-Butane: 1.4084
N-Butane: 3.9083
I-Pentane: 1.6263
N-Pentane: 1.8122
Hexane+: 2.5159
BTU: 1527.5
GPM: 20.9870
SPG: 0.9189