



UPI 30-045-07268

Bradenhead

Gas Analysis Certificate

OIL CONS. DIV DIST. 3 GPA Standard 2261-13

Acquisition Method Name au_report_150_C6+
Last calibration date 7/10/2015 10:21:38 AM

DEC 18 2015

Client:	BP	Project #:	03143-0880
Site Name:	GCU 33	Meter ID:	3004507268 (BHD)
Sampled by:	Daniel F.	Date Sampled	07-06-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	26 psig	Date Analyzed:	07-15-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.010	0.002	0.001
Oxygen	0.004	0.007	0.000
Nitrogen	0.271	0.417	0.030
Carbon Dioxide	0.000	0.000	0.000
Methane	90.262	79.717	15.303
Ethane	5.979	9.897	1.599
Propane	2.191	5.318	0.604
i-Butane	0.385	1.233	0.126
n-Butane	0.462	1.478	0.146
i-Pentane	0.154	0.612	0.056
n-Pentane	0.102	0.403	0.037
C6+	0.181	0.916	0.079
	100.000	100.000	17.981

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99738	C2+	2.646
Density (G) (Dry Gas)	0.62726	C3+	1.047
Component MW Total	18.16	C5+	0.172
Heating Value (Dry Ideal) Total BTU	1119.70	Heating Value (Sat Ideal) Total BTU	1100.16
Heating Value (Dry Real) Total BTU	1122.64	Heating Value (Sat Real) Total BTU	1102.95

16.07.2015 14:52:05

10/20/2015

1 of 1

2

API 30-045-07268

Casing

Gas Analysis Certificate

GPA Standard 2261-13



Acquisition Method Name au_report_150_C6+
 Last calibration date 7/10/2015 10:21:38 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 33	Meter ID:	3004507268 (CSG)
Sampled by:	Daniel F.	Date Sampled	07-06-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	16 psig	Date Analyzed:	07-15-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.003	0.001	0.000
Oxygen	0.005	0.010	0.000
Nitrogen	0.352	0.588	0.039
Carbon Dioxide	0.136	0.358	0.023
Methane	97.006	92.838	16.439
Ethane	1.614	2.896	0.432
Propane	0.386	1.016	0.106
i-Butane	0.121	0.419	0.039
n-Butane	0.065	0.225	0.020
i-Pentane	0.027	0.118	0.010
n-Pentane	0.021	0.090	0.008
C6+	0.263	1.441	0.115
	100.000	100.000	17.232

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99783	C2+	0.730
Density (G) (Dry Gas)	0.57888	C3+	0.299
Component MW Total	16.76	C5+	0.132
Heating Value (Dry Ideal) Total BTU	1039.50	Heating Value (Sat Ideal) Total BTU	1021.36
Heating Value (Dry Real) Total BTU	1041.77	Heating Value (Sat Real) Total BTU	1023.51