

**Gas Analysis Certificate**

30-045-08225

GPA Standard 2261-13

Method Name C6+ Excel Recalc2
Last calibration date 6/19/2015 8:47:52 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 134	Meter ID:	3004508225 (BHD)
Sampled by:	Daniel F.	Date Sampled	052715
Analyzed by:	Logan Richter	Date Received:	060215
Sample Pressure:	84 psig	Date Analyzed:	060415
Sample Temperature	NA	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.917	0.217	0.093
Oxygen	0.030	0.057	0.003
Nitrogen	0.721	1.191	0.079
Carbon Dioxide	0.000	0.000	0.000
Methane	92.924	87.959	15.748
Ethane	4.421	7.844	1.182
Propane	0.819	2.130	0.225
i-Butane	0.067	0.229	0.022
n-Butane	0.067	0.228	0.021
i-Pentane	0.017	0.074	0.006
n-Pentane	0.017	0.071	0.006
C6+	0.000	0.000	0.000
	100.000	100.000	17.385

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99780	C2+	1.463
Density (G) (Dry Gas)	0.58517	C3+	0.281
Component MW Total	16.95	C5+	0.012
Heating Value (Dry Ideal) Total BTU	1043.08	Heating Value (Sat Ideal) Total BTU	1024.88
Heating Value (Dry Real) Total BTU	1045.38	Heating Value (Sat Real) Total BTU	1027.06


Reviewed by

07/01/2015
mm/dd/yyyy



Gas Analysis Certificate

GPA Standard 2261-13

Method Name C6+ Excel Recalc2
Last calibration date 6/19/2015 8:47:52 AM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 134	Meter ID:	3004508225 (CSG)
Sampled by:	Daniel F.	Date Sampled:	052715
Analyzed by:	Logan Richter	Date Received:	060215
Sample Pressure:	178 psig	Date Analyzed:	060415
Sample Temperature:	NA	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	1.200	0.251	0.122
Oxygen	0.054	0.090	0.005
Nitrogen	0.720	1.053	0.079
Carbon Dioxide	1.290	2.966	0.220
Methane	84.487	70.792	14.327
Ethane	7.253	11.390	1.940
Propane	2.944	6.781	0.811
i-Butane	0.521	1.581	0.171
n-Butane	0.925	2.808	0.292
i-Pentane	0.325	1.223	0.119
n-Pentane	0.282	1.063	0.102
C6+	0.000	0.001	0.000
	100.000	100.000	18.188

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99718	C2+	3.435
Density (G) (Dry Gas)	0.66105	C3+	1.495
Component MW Total	19.15	C5+	0.221
Heating Value (Dry Ideal) Total BTU	1127.16	Heating Value (Sat Ideal) Total BTU	1107.49
Heating Value (Dry Real) Total BTU	1130.35	Heating Value (Sat Real) Total BTU	1110.52

BGB
Reviewed by

6/7/01/2015
mm dd/yyyy