

30-045-11630



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 232	Meter ID:	3004511630 (BHD)
Sampled by:	Brandon K.	Date Sampled:	052815
Analyzed by:	Logan Richter	Date Received:	060215
Sample Pressure:	93 psig	Date Analyzed:	060315
Sample Temperature:	NA	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.474	0.109	0.048
Oxygen	0.007	0.013	0.001
Nitrogen	0.727	1.173	0.080
Carbon Dioxide	0.069	0.176	0.012
Methane	91.571	84.598	15.520
Ethane	5.418	9.382	1.449
Propane	1.577	4.004	0.434
i-Butane	0.073	0.244	0.024
n-Butane	0.056	0.188	0.018
i-Pentane	0.019	0.081	0.007
n-Pentane	0.007	0.031	0.003
C6+	0.000	0.000	0.000
	100.000	100.000	17.595

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99767	C2+	1.934
Density (G) (Dry Gas)	0.59956	C3+	0.486
Component MW Total	17.36	C5+	0.010
Heating Value (Dry Ideal) Total BTU	1065.71	Heating Value (Sat Ideal) Total BTU	1047.11
Heating Value (Dry Real) Total BTU	1068.19	Heating Value (Sat Real) Total BTU	1049.47

Reviewed by

07/01/2015
mm/dd/yyyy



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

Client	BP	Project #:	03143-0880
Site Name:	GCU 232	Meter ID:	3004511630 (CSG)
Sampled by:	Brandon K.	Date Sampled	052815
Analyzed by:	Logan Richter	Date Received:	060215
Sample Pressure:	24 psig	Date Analyzed:	060315
Sample Temperature	NA	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.434	0.097	0.044
Oxygen	0.003	0.005	0.000
Nitrogen	0.126	0.198	0.014
Carbon Dioxide	2.816	6.939	0.480
Methane	90.740	81.513	15.380
Ethane	4.759	8.012	1.272
Propane	0.671	1.656	0.185
i-Butane	0.148	0.482	0.048
n-Butane	0.168	0.546	0.053
i-Pentane	0.078	0.314	0.028
n-Pentane	0.059	0.237	0.021
C6+	0.000	0.002	0.000
	100.000	100.000	17.527

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99764	C2+	1.608
Density (G) (Dry Gas)	0.61660	C3+	0.336
Component MW Total	17.86	C5+	0.050
Heating Value (Dry Ideal) Total BTU	1033.32	Heating Value (Sat Ideal) Total BTU	1015.29
Heating Value (Dry Real) Total BTU	1035.76	Heating Value (Sat Real) Total BTU	1017.60

Reviewed by

07/01/2015
mm dd/yyyy