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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 Com 94E	Meter ID:	3004524179 (BHD)
Sampled by:	Daniel F.	Date Sampled	08-17-15
Analyzed by:	Logan Richter	Date Received:	08-27-15
Sample Pressure:	105 psig	Date Analyzed:	09-01-15
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	0.332	0.527	0.037
Carbon Dioxide	0.000	0.000	0.000
Methane	92.176	83.743	15.625
Ethane	4.846	8.252	1.296
Propane	1.743	4.352	0.480
i-Butane	0.337	1.109	0.110
n-Butane	0.381	1.255	0.120
i-Pentane	0.118	0.481	0.043
n-Pentane	0.009	0.036	0.003
C6+	0.045	0.237	0.020
	100.000	100.000	17.735

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99755	C2+	2.072
Density (G) (Dry Gas)	0.60970	C3+	0.777
Component MW Total	17.66	C5+	0.066
Heating Value (Dry Ideal) Total BTU	1091.37	Heating Value (Sat Ideal) Total BTU	1072.32
Heating Value (Dry Real) Total BTU	1094.04	Heating Value (Sat Real) Total BTU	1074.86

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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 Com 94E	Meter ID:	3004524179 (CSG)
Sampled by:	Daniel F.	Date Sampled	08-17-15
Analyzed by:	Logan Richter	Date Received:	08-27-15
Sample Pressure:	52 psig	Date Analyzed:	09-01-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.070	0.012	0.007
Oxygen	0.015	0.021	0.001
Nitrogen	1.052	1.311	0.116
Carbon Dioxide	0.876	1.715	0.150
Methane	76.469	54.558	12.985
Ethane	10.228	13.677	2.740
Propane	5.937	11.642	1.638
i-Butane	0.573	1.481	0.188
n-Butane	1.983	5.125	0.626
i-Pentane	0.493	1.581	0.181
n-Pentane	0.618	1.982	0.224
C6+	1.687	6.893	0.737
	100.000	100.000	19.593

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99581	C2+	6.334
Density (G) (Dry Gas)	0.77711	C3+	3.594
Component MW Total	22.49	C5+	1.142
Heating Value (Dry Ideal) Total BTU	1317.01	Heating Value (Sat Ideal) Total BTU	1294.03
Heating Value (Dry Real) Total BTU	1322.55	Heating Value (Sat Real) Total BTU	1299.28

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