



30-045-07909

Gas Analysis Certificate

GPA Standard 2261-13

Method Name au_report_150_C6+
Last calibration date 1/15/2015 1:00:58 PM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 145	Meter ID:	Bradenhead
Sampled by:	Daniel T.	Date Sampled	05-12-15
Analysed by:	Logan Richter	Date Received:	05-14-15
Sample Pressure:	27 psig	Date Analyzed:	05-14-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.007	0.013	0.001
Nitrogen	0.585	0.899	0.064
Carbon Dioxide	0.073	0.176	0.012
Methane	90.237	79.404	15.299
Ethane	5.505	9.080	1.472
Propane	2.167	5.241	0.597
i-Butane	0.419	1.335	0.137
n-Butane	0.495	1.577	0.156
i-Pentane	0.172	0.681	0.063
n-Pentane	0.114	0.451	0.041
C6+	0.227	1.144	0.099
	100.000	100.000	17.942

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99738	C2+	2.566
Density (G) (Dry Gas)	0.62956	C3+	1.093
Component MW Total	18.23	C5+	0.203
Heating Value (Dry Ideal) Total BTU	1116.18	Heating Value (Sat Ideal) Total BTU	1096.70
Heating Value (Dry Real) Total BTU	1119.11	Heating Value (Sat Real) Total BTU	1099.48

Reviewed by

mm/dd/yyyy



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GPA Standard 2261-13

Method Name au_report_150_C6+
Last calibration date 1/15/2015 1:00:58 PM

Client:	BP	Project #:	03143-0880
Site Name:	GCU 145	Meter ID:	Production Casing
Sampled by:	Daniel T.	Date Sampled	05-12-15
Analysed by:	Logan Richter	Date Received:	05-14-15
Sample Pressure:	139 psig	Date Analyzed:	05-14-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.006	0.009	0.001
Nitrogen	0.360	0.493	0.040
Carbon Dioxide	1.628	3.505	0.278
Methane	82.043	64.377	13.920
Ethane	9.202	13.533	2.463
Propane	3.854	8.312	1.063
i-Butane	0.657	1.867	0.215
n-Butane	1.016	2.888	0.320
i-Pentane	0.334	1.179	0.122
n-Pentane	0.221	0.779	0.080
C6+	0.680	3.059	0.297
	100.000	100.000	18.798

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99667	C2+	4.560
Density (G) (Dry Gas)	0.70621	C3+	2.098
Component MW Total	20.44	C5+	0.500
Heating Value (Dry Ideal) Total BTU	1200.06	Heating Value (Sat Ideal) Total BTU	1179.12
Heating Value (Dry Real) Total BTU	1204.07	Heating Value (Sat Real) Total BTU	1182.92


Reviewed by

05/22/2015
mm/dd/yyyy