



OIL CONS. DIV DIST. 3

DEC 18 2015

API 30-045-24736
Cading

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 Corn 1 181E	Meter ID:	3004524736 (CSG)
Sampled by:	Daniel F.	Date Sampled	06-26-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	67 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	0.044	0.009	0.005
Oxygen	0.006	0.009	0.001
Nitrogen	0.403	0.551	0.044
Carbon Dioxide	1.285	2.754	0.219
Methane	80.650	63.013	13.684
Ethane	10.303	15.088	2.758
Propane	4.678	10.047	1.290
i-Butane	0.642	1.817	0.210
n-Butane	0.993	2.812	0.313
i-Pentane	0.323	1.135	0.118
n-Pentane	0.252	0.885	0.091
C6+	0.420	1.880	0.183
	100.000	100.000	18.917

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99663	C2+	4.964
Density (G) (Dry Gas)	0.70912	C3+	2.207
Component MW Total	20.53	C5+	0.393
Heating Value (Dry Ideal) Total BTU	1212.45	Heating Value (Sat Ideal) Total BTU	1191.29
Heating Value (Dry Real) Total BTU	1216.55	Heating Value (Sat Real) Total BTU	1195.18

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API 30-045-24734
Bradenhead

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 1 181E	Meter ID:	3004524736 (BHD)
Sampled by:	Daniel F.	Date Sampled	06-26-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	98 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	0.027	0.006	0.003
Oxygen	0.023	0.039	0.002
Nitrogen	0.214	0.309	0.024
Carbon Dioxide	0.116	0.263	0.020
Methane	85.836	71.091	14.559
Ethane	8.212	12.749	2.197
Propane	3.261	7.423	0.899
i-Butane	0.579	1.736	0.189
n-Butane	0.728	2.185	0.230
i-Pentane	0.378	1.409	0.138
n-Pentane	0.173	0.644	0.063
C6+	0.453	2.147	0.198
	100.000	100.000	18.521

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99696	C2+	3.914
Density (G) (Dry Gas)	0.66899	C3+	1.716
Component MW Total	19.37	C5+	0.399
Heating Value (Dry Ideal) Total BTU	1182.16	Heating Value (Sat Ideal) Total BTU	1161.53
Heating Value (Dry Real) Total BTU	1185.77	Heating Value (Sat Real) Total BTU	1164.96

RJR

10/20/2015