

MAY 28 2015



Gas Analysis Certificate

GPA Standard 2261-13

30-045-24491

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

Client:	McElvain Energy	Project #:	06039-0058
Site Name:	Farnsworth Gas Com A-1E	Meter ID:	Bradenhead
Sampled by:	Glenn Hise	Date Sampled:	05-07-15
Analysed by:	Logan Richter	Date Received:	05-07-15
Sample Pressure:	40 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	0.033	0.062	0.003
Nitrogen	4.072	6.800	0.448
Carbon Dioxide	0.096	0.251	0.016
Methane	94.675	90.548	16.040
Ethane	0.884	1.585	0.236
Propane	0.144	0.378	0.040
i-Butane	0.062	0.215	0.020
n-Butane	0.011	0.038	0.003
i-Pentane	0.005	0.021	0.002
n-Pentane	0.002	0.010	0.001
C6+	0.017	0.091	0.007
	100.000	100.000	16.817

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99806	C2+	0.310
Density (G) (Dry Gas)	0.57915	C3+	0.073
Component MW Total	16.77	C5+	0.010
Heating Value (Dry Ideal) Total BTU	979.00	Heating Value (Sat Ideal) Total BTU	961.92
Heating Value (Dry Real) Total BTU	980.91	Heating Value (Sat Real) Total BTU	963.73

Reviewed by

05/20/2015
mm/dd/yyyy



Gas Analysis Certificate

GPA Standard 2261-13

Method Name	au_report_150_C6+		
Last calibration date	1/15/2015 1:00:58 PM		
Client:	McElvain Energy	Project #:	06039-0058
Site Name:	Farnsworth Gas Com A-1E	Meter ID:	Production Casing
Sampled by:	Glenn Hise	Date Sampled	05-07-15
Analysed by:	Logan Richter	Date Received:	05-07-15
Sample Pressure:	110 psig	Date Analyzed:	05-14-15
Sample Temperature	N/R	Analysis Time:	Standard

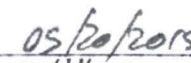
Component Results (14.696)

Name	Qty (Norm) (Mol %)	Wt Percent (%)	GPM
Helium	0.000	0.000	0.000
Oxygen	0.018	0.035	0.002
Nitrogen	1.347	2.263	0.148
Carbon Dioxide	0.073	0.192	0.012
Methane	95.951	92.322	16.259
Ethane	2.307	4.160	0.617
Propane	0.195	0.516	0.054
i-Butane	0.029	0.102	0.010
n-Butane	0.011	0.038	0.003
i-Pentane	0.001	0.003	0.000
n-Pentane	0.010	0.045	0.004
C6+	0.059	0.325	0.026
	100.000	100.000	17.134

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99792	C2+	0.713
Density (G) (Dry Gas)	0.57569	C3+	0.096
Component MW Total	16.67	C5+	0.030
Heating Value (Dry Ideal) Total BTU	1019.59	Heating Value (Sat Ideal) Total BTU	1001.80
Heating Value (Dry Real) Total BTU	1021.72	Heating Value (Sat Real) Total BTU	1003.82


Reviewed by


mm/dd/yyyy