API 30-045-11687
Bradenhead

envirotech

Gas Analysis Certificate

OIL CONS. DIV DIST. 3

DEC 18 2015

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 241	Meter ID:	3004511687 (BHD)
Sampled by:	Daniel F.	Date Sampled	07-07-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	48 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	0.011	0.002	0.001
Oxygen	0.004	0.007	0.000
Nitrogen	0.293	0.443	0.032
Carbon Dioxide	0.000	0.000	0.000
Methane	89.169	77.374	15.119
Ethane	6.327	10.290	1.692
Propane	2.503	5.971	0.690
i-Butane	0.547	1.719	0.179
n-Butane	0.609	1.915	0.192
i-Pentane	0.224	0.875	0.082
n-Pentane	0.143	0.560	0.052
C6+	0.170	0.845	0.074
	100.000	100.000	18.114

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99727	C2+	2.961
Density (G) (Dry Gas)	0.63842	C3+	1.269
Component MW Total	18.49	C5+	0.208
Heating Value (Dry Ideal) Total BTU	1136.65	Heating Value (Sat Ideal) Total BTU	1116.82
Heating Value (Dry Real) Total BTU	1139.76	Heating Value (Sat Real) Total BTU	1119.77

10/19/2015

16.07.2015 14:51:40

3

API 30-045-11687
Casing

envirotech

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 241	Meter ID:	3004511687 (CSG)
Sampled by:	Daniel F.	Date Sampled	07-07-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	12 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	0.011	0.002	0.001
Oxygen	0.004	0.006	0.000
Nitrogen	0.158	0.251	0.017
Carbon Dioxide	2.016	5.025	0.344
Methane	92.889	84.408	15.744
Ethane	3.612	6.152	0.966
Propane	0.727	1.815	0.200
i-Butane	0.186	0.611	0.061
n-Butane	0.145	0.477	0.046
i-Pentane	0.062	0.253	0.023
n-Pentane	0.001	0.005	0.000
C6+	0.191	0.994	0.083
	100.000	100.000	17.485

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99765	C2+	1.379
Density (G) (Dry Gas)	0.60964	C3+	0.413
Component MW Total	17.65	C5+	0.106
Heating Value (Dry Ideal) Total BTU	1043.46	Heating Value (Sat Ideal) Total BTU	1025.25
Heating Value (Dry Real) Total BTU	1045.92	Heating Value (Sat Real) Total BTU	1027.58

10/19/2015

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NM 87410
(505 334-6178 FAX: (505) 334-6170
http://www.emnrd.state.nm.us/ocd/

BRADENHEAD TEST REPORT

(Submit 2 copies to above address)

Date of Test 7/2/15 **Operator** BP America Production Company **API #** 3004511687

Property Name GCU 241-PC **Location:** Unit E Section 29 Township 28 Range 12

(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 245 Intermediate – Casing 12 Bradenhead 48

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead: BH Blowdown	Bradenhead: Casing Monitor	Bradenhead: Intermediate Monitor	Intermediate: Intermediate Blowdown	Intermediate: Casing Monitor
5 minutes	0	12			
10 minutes	0	12			
15 minutes	0	12			
20 minutes					
25 minutes					
30 minutes					
5 minute SI	0	12			

	Bradenhead Flowed	Intermediate Flowed
Steady Flow		
Surges		
Down to Nothing	✓	
No Flow		
Gas		
Gas and Water		
Water		

If bradenhead flowed water, check all of the descriptions that apply below:

Clear _____ Fresh _____ Salty _____ Sulfur _____ Black _____

5 Minute Shut-in Bradenhead 0 Intermediate –

REMARKS:

Blew from 1" valve. BH blew down to nothing in 3 minutes

By _____ **Witness** _____

_____

(Position)

NMOCD Test Area: B 277