



30-045-23905

API 30-045-23905
Casing

OIL CONS. DIV DIST. 3

Gas Analysis Certificate

GPA Standard 2261-13

DEC 18 2015

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 110E	Meter ID:	3004523905 (CSG)
Sampled by:	Sawyer M.	Date Sampled	07-14-15
Analyzed by:	Logan Richter	Date Received:	07-14-15
Sample Pressure:	36 psig	Date Analyzed:	07-16-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.031	0.005	0.003
Oxygen	0.885	1.224	0.079
Nitrogen	3.720	4.504	0.410
Carbon Dioxide	1.010	1.921	0.173
Methane	71.721	49.721	12.178
Ethane	10.492	13.633	2.810
Propane	6.450	12.291	1.780
i-Butane	1.121	2.816	0.367
n-Butane	2.140	5.375	0.676
i-Pentane	0.698	2.177	0.256
n-Pentane	0.638	1.990	0.232
C6+	1.094	4.343	0.478
	100.000	100.000	19.441

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99590	C2+	6.598
Density (G) (Dry Gas)	0.79946	C3+	3.788
Component MW Total	23.14	C5+	0.965
Heating Value (Dry Ideal) Total BTU	1288.22	Heating Value (Sat Ideal) Total BTU	1265.74
Heating Value (Dry Real) Total BTU	1293.53	Heating Value (Sat Real) Total BTU	1270.77

16.07.2015 14:28:05

10/20/2015

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API 30-045-25700
 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 110E	Meter ID:	3004523905 (BHD)
Sampled by:	Sawyer M.	Date Sampled	07-14-15
Analyzed by:	Logan Richter	Date Received:	07-14-15
Sample Pressure:	115 psig	Date Analyzed:	07-16-15
Sample Temperature	N/R	Analysis Time:	Standard

Component Results (14.696)

Name	Qty (Norm) [Mol %]	Wt Percent (%)	GPM
Helium	0.014	0.003	0.001
Oxygen	0.103	0.183	0.009
Nitrogen	0.833	1.299	0.092
Carbon Dioxide	0.067	0.165	0.011
Methane	90.659	80.979	15.368
Ethane	5.328	8.920	1.425
Propane	1.956	4.803	0.539
i-Butane	0.368	1.192	0.120
n-Butane	0.427	1.382	0.135
i-Pentane	0.146	0.587	0.053
n-Pentane	0.018	0.071	0.006
C6+	0.081	0.417	0.036
	100.000	100.000	17.796

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99750	C2+	2.314
Density (G) (Dry Gas)	0.62015	C3+	0.889
Component MW Total	17.96	C5+	0.095
Heating Value (Dry Ideal) Total BTU	1095.79	Heating Value (Sat Ideal) Total BTU	1076.67
Heating Value (Dry Real) Total BTU	1098.54	Heating Value (Sat Real) Total BTU	1079.28

Logan Richter

10/20/2015



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/>

OIL CONS. DIV DIST. 3

BRADENHEAD TEST REPORT

(Submit 2 copies to above address)

DEC 18 2015

Date of Test 5/28/15 Operator BP America Production Company API # 3004523905

Property Name GCU 110E-DK Location: Unit I Section 19 Township 29 Range 12
(Well Name and Number)

Pressure (Shut-in or Producing) Tubing 55 Intermediate N/A Casing 57 Bradenhead 102

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate			Bradenhead Intermediate	
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor		Flowed	Flowed
5 minutes	<u>W</u>	<u>58</u>				Steady Flow		
10 minutes	<u>W</u>	<u>57</u>				Surges		
15 minutes	<u>W</u>	<u>56</u>				Down to Nothing		
20 minutes	<u>W</u>	<u>55</u>				No Flow		
25 minutes	<u>W</u>	<u>50</u>				Gas		
30 minutes	<u>W</u>	<u>43</u>				Gas and Water		
5 minute SI	<u>2</u>	<u>37</u>				Water		

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

Clear ☐ Fresh ☐ Salty ☐ Sulfur ☐ Black ☐

5 Minute Shut-in Bradenhead 2 Intermediate N/A

REMARKS:

BH blew to a whisper in 1 min. Casing pressure dropped
due to plunger arrival. Blew through 1" valve

Unable to sample

By [Signature] Witness _____

(Position)