



NEW MEXICO ENERGY, MINERALS
AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NM 87410
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<http://www.emnrd.state.nm.us/ocd/>

BRADENHEAD TEST REPORT
(Submit 2 copies to above address)

OIL CONS. DIV DIST. 3

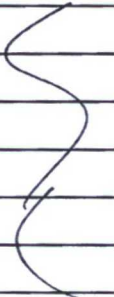
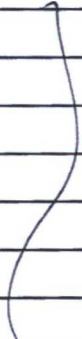
DEC 18 2015

Date of Test 1/8/15 Operator BP America Production Company API # 3004525173

Property Name GCU 193E-FC/DK Location: Unit M Section 30 Township 28 Range 12
(Well Name and Number)

Pressure (Shut-in or Producing) Producing Tubing .4 Intermediate — Casing 10 Bradenhead 45

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate		Bradenhead Flowed	Intermediate Flowed
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor		
5 minutes	<u>W</u>	<u>10</u>				<u>Steady Flow</u>	
10 minutes	<u>0</u>	<u>10</u>				<u>Surges</u>	
15 minutes	<u>0</u>	<u>10</u>				<u>Down to Nothing</u>	
20 minutes	<u>0</u>	<u>10</u>				<u>No Flow</u>	
25 minutes	<u>0</u>					<u>Gas</u>	
30 minutes	<u>0</u>					<u>Gas and Water</u>	
5 minute SI	<u>2</u>	<u>10</u>				<u>Water</u>	

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

Clear — Fresh — Salty — Sulfur — Black —

5 Minute Shut-in Bradenhead 2 Intermediate —

REMARKS:

Blew from 1" valve. BTH blew to a whisper in 2 sec.

By [Signature] Witness —

(Position)



OIL CONS. DIV DIST. 3

DEC 18 2015

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 193E	Meter ID:	3004525173 (BHD)
Sampled by:	Daniel F.	Date Sampled	07-09-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	45 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	0.007	0.001	0.001
Oxygen	0.008	0.014	0.001
Nitrogen	0.450	0.702	0.049
Carbon Dioxide	0.000	0.000	0.000
Methane	90.418	80.864	15.328
Ethane	6.237	10.455	1.668
Propane	2.047	5.033	0.564
i-Butane	0.383	1.242	0.125
n-Butane	0.237	0.768	0.075
i-Pentane	0.140	0.564	0.051
n-Pentane	0.016	0.064	0.006
C6+	0.057	0.293	0.025
	100.000	100.000	17.893

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99747	C2+	2.514
Density (G) (Dry Gas)	0.61937	C3+	0.846
Component MW Total	17.94	C5+	0.082
Heating Value (Dry Ideal) Total BTU	1104.49	Heating Value (Sat Ideal) Total BTU	1085.21
Heating Value (Dry Real) Total BTU	1107.29	Heating Value (Sat Real) Total BTU	1087.87



API 30-045-25173
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 193E	Meter ID:	3004525173 (CSG)
Sampled by:	Daniel F.	Date Sampled	07-09-15
Analyzed by:	Logan Richter	Date Received:	07-13-15
Sample Pressure:	10 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	0.004	0.001	0.000
Oxygen	0.277	0.501	0.025
Nitrogen	1.299	2.056	0.143
Carbon Dioxide	1.942	4.826	0.331
Methane	92.370	83.689	15.655
Ethane	2.884	4.897	0.771
Propane	0.624	1.554	0.172
i-Butane	0.119	0.391	0.039
n-Butane	0.159	0.522	0.050
i-Pentane	0.055	0.224	0.020
n-Pentane	0.042	0.173	0.015
C6+	0.225	1.167	0.098
	100.000	100.000	17.320

Calculations at Pressure Base 14.696

Compressibility (Z) (Dry Gas)	0.99772	C2+	1.165
Density (G) (Dry Gas)	0.61145	C3+	0.394
Component MW Total	17.71	C5+	0.134
Heating Value (Dry Ideal) Total BTU	1024.16	Heating Value (Sat Ideal) Total BTU	1006.29
Heating Value (Dry Real) Total BTU	1026.50	Heating Value (Sat Real) Total BTU	1008.51

API 30-045-25173



Ground Elevation: 5730'

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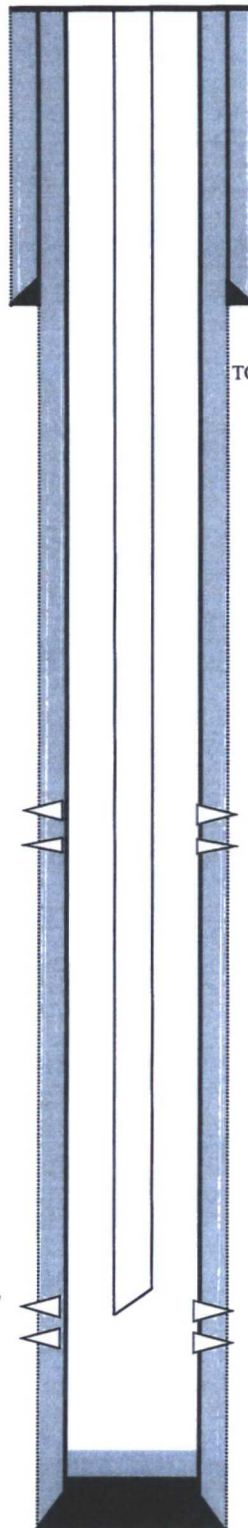
Gallegos Canyon Unit 193E
Fruitland Coal/Dakota
API # 30-045-25173
T-28N, R-12W, Sec. 30
San Juan County, New Mexico

Well History

5/12/83: Spud date
5/27/83: Dakota completion date
7/20/01: Fruitland Coal Completion date
Commingle downhole and installed pump, rods,
and pumping unit.

Formation Tops

Fruitland	800
Pictured Cliffs	1360
Lewis Shale	1500
Mesaverde	2270
Mancos Sh.	4135
Gallup	4994
Mancos Sh.	5585
Greenhorn	5824
Graneros Dakota	5936
Main Dakota	5992



TOC: Unknown

Surface Casing Data

12.25" hole
8.625", 24# K55 @ 351'
cm'd w/ 420 cu ft Class B

TOC: Unknown

Rod Details

	<u>Length</u>
POLISHED ROD 1.25"	22
PONY RODS 0.75"	18
ROD 0.75" D	6000
PONY RODS 0.75"	2
ROD PUMP 2"x1.25"x14' RHAC	14

Tubing Details

	<u>Length</u>
TUBING JOINTS 2.375" J55, 4.7	31.6
TUBING PUP JOINT 2.375", J55, 4.7	14.63
TUBING JOINTS 2.375" J55, 4.7	5981.47
PROFILE NIPPLE 2.375" J55 4.7	1.8
MULE SHOE COLLAR	14

Fruitland Coal Data

1326-1378
Frac'd w/ 119,389# 16/30 AZ sand

Dakota Data

5944-5958'
5976-6034'
Frac'd w/ 100,000 gals 75Q foam w/ 190,000# 20/40 sand
frac'd w/ 36288 gal water, 30k# 20-40 sand, & 10k# 10-20 sand

Production Casing Data

7.875" hole
4.5", 10.5# K55 @ 6165'
Stage 1: cm'd w/ 655 cu ft Class B
Stage 2: cm'd w/ 1981 sx class B

PBTD: 6121'
Total Depth: 6165'

2.375" Tubing landed @ 6060'