



BRADENHEAD TEST REPORT

Step 1. Record all tubing and casing pressures as found. Step 2. Sample now. If intermediate or surface casing pressure > 25 psi. In sensitive areas, 1 psi.
Step 3. Conduct Bradenhead test. Step 4. Conduct intermediate casing test. Step 5. Send report to BLM within 3 days and to OGCC within 10 days. Include wellbore diagram if not previously submitted or if wellbore configuration has changed since prior program. Attach gas and liquid analyses if sampled.

1. OGCC Operator Number: 47120 3. BLM Lease No: _____
2. Name of Operator: KERR MCGEE OIL & GAS ONSHORE LP
4. API Number; 05-123-23362-00 5. Multiple completion? ☐ Yes ☐ No
6. Well Name: CROWDER Number: 1-18
7. Location (QtrQtr, Sec, Twp, Rng, Meridian): NENE,18,2N,65W,6
8. County WELD 9. Field Name: WATTENBERG
10. Minerals: ☐ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 02/24/2015
12. Well Status: ☐ Flowing
☐ Shut In ☐ Gas Lift
☐ Pumping ☐ Injection
☐ Clock/Intermitter
☒ Plunger Lift
13. Number of Casing Strings:
☐ Two ☐ Three ☐ Liner?

14. EXISTING PRESSURES

Record all pressures as found	Tubing: <u>2406</u> Fm: _____	Tubing: _____ Fm: _____	Prod Csg <u>2406</u> Fm: _____	Intermediate Csg: _____	Surf. Csg <u>37</u>
-------------------------------	----------------------------------	----------------------------	-----------------------------------	----------------------------	------------------------

BRADENHEAD TEST

Buried valve? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Confirmed open? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No With gauges monitoring production, intermediate casing and tubing pressures, open surface casing (bradenhead) valve (if no intermediate casing, monitor only the production casing and tubing pressures.) Record pressures at five minute intervals Define characteristics of flow in "Bradenhead Flow" column using letter designations below: O = No Flow; C = Continuous; D = Down to 0; V = Vapor H = Water H2O; M = Mud; W = Whisper; S = Surge; G = Gas	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:
	00:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		G
	05:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		D
	10:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		D
	15:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		D
	20:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		D
	25:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		D
BRADENHEAD SAMPLE TAKEN? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid Character of Bradenhead fluid: <input type="checkbox"/> Clear <input type="checkbox"/> Fresh <input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black Other:(describe) Sample cylinder number: _____	30:00	<input type="checkbox"/> 2406	<input type="checkbox"/>	<input type="checkbox"/> 2406		D
Instantaneous Bradenhead PSIG at end of test: > <u>0</u>						

INTERMEDIATE CASING TEST

Buried valve? <input type="checkbox"/> Yes <input type="checkbox"/> No Confirmed open? <input type="checkbox"/> Yes <input type="checkbox"/> No With gauges monitoring production, intermediate casing and tubing pressures, open the intermediate casing valve. Record pressures at five minute intervals Characterize flow in "Intermediate Flow" column using letter designations below: O = No Flow; C = Continuous; D = Down to 0; V = Vapor H = Water H2O; M = Mud; W = Whisper; S = Surge; G = Gas	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
INTERMEDIATE SAMPLE TAKEN? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid Character of Intermediate fluid: <input type="checkbox"/> Clear <input type="checkbox"/> Fresh <input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black Other:(describe) Sample cylinder number: _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Instantaneous Intermediate Casing PSIG at end of test: >						

Comments:

SURFACE CASING PRODUCED NO FLUIDS DURING TEST. SHUT THE SURFACE CASING IN FOR 15 MINUTES. PRESSURE BUILT BACK UP TO A WHISPER. WELL SHUT-IN UPON ARRIVAL.

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Test Performed By: ROCKY BLAKE Title: NON-EMPLOYEE Phone: (970) 989-0242

Signed: JEANINE JONES Title: NON-EMPLOYEE Date: 3/10/2015

Witnessed By: JEANINE JONES Title: NON-EMPLOYEE Agency: KERR-MCGEE