

4-1

FORM
17
Rev
11/20State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

Document Number:

BRADENHEAD TEST REPORT

Step 1. Before opening any valves, record all tubing and casing pressures as found.
 Step 2. Collect liquid and gas samples as required; consult Bradenhead Testing and Reporting Instructions and Guidance for field specific Orders at <http://cogcc.org/html/opguidance>
 Step 3. Conduct Bradenhead test.
 Step 4. Submit Form 17 within 10 days of test. Attach a wellbore diagram if not previously submitted or if wellbore configuration has changed since last wellbore diagram was submitted.
 Step 5. Submit sample analytical results via Form 43.

1. OGCC Operator Number: 51130 3. BLM Lease No: C-7679
 2. Name of Operator: Logic Oil Corporation
 4. API Number: 0510308719 5. Multiple completion? ☐ Yes ☒ No
 6. Well Name: Rangel South Fed. Number: 4-1-1-102
 7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW ... 11S102W
 8. County: RIO BLANCO 9. Field Name: FORK UNIT
 10. Minerals: ☐ Fee ☐ State ☒ Federal ☐ Indian

11. Date of Test: 10/28/23

12. Well Status: ☐ Flowing
☒ Shut In ☐ Gas Lift
☐ Pumping ☐ Injection
☐ Clock/Intermittent
☐ Plunger Lift

13. Number of Casing Strings:
☒ Two ☐ Three ☐ Liner?

14. EXISTING PRESSURES

Record all pressures as found
 Tubing: 33 Tubing: _____ Prod Csg: 33 Intermediate _____ Surf. Csg: _____
 Fm: _____ Fm: _____ Fm: _____ Csg: _____

BRADENHEAD TEST

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.
 Describe character of flow in "Bradenhead Flow" column: O = No Flow; C = Continuous; D = Down to 0; S = Surge; W = Whisper
 Describe fluid type in "Bradenhead Fluid" column: H = Water H₂O; M = Mud; G = Gas; V = Vapor; L = Liquid Hydrocarbon; H & M = Water & Mud; H & G = Water & Gas; H & V = Water & Vapor; M & G = Mud & Gas; M & V = Mud & Vapor; G & V = Gas & Vapor; H & L = Water & Liquid Hydrocarbon; M & L = Mud & Liquid Hydrocarbon; G & L = Gas & Liquid Hydrocarbon; V & L = Vapor & Liquid Hydrocarbon; N = None

Buried valve? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing	Prod Csg PSIG	Intermediate Csg PSIG	Bradenhead Flow:	Bradenhead Fluid:
Confirmed open? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	415	<input type="checkbox"/> 33	<input type="checkbox"/>	<input checked="" type="checkbox"/> 33		O	N
BRADENHEAD SAMPLE TAKEN?	420	<input type="checkbox"/> 33	<input type="checkbox"/>	<input type="checkbox"/> 33		O	N
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid	425	<input type="checkbox"/> 33	<input type="checkbox"/>	<input type="checkbox"/> 33		O	N
Character of Bradenhead fluid:	430	<input type="checkbox"/> 33	<input type="checkbox"/>	<input type="checkbox"/> 33		O	N
<input type="checkbox"/> Clear <input type="checkbox"/> Fresh	435	<input type="checkbox"/> 33	<input type="checkbox"/>	<input type="checkbox"/> 33		O	N
<input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black	440	<input type="checkbox"/> 33	<input type="checkbox"/>	<input type="checkbox"/> 33		O	N
Other:(describe)	445	<input type="checkbox"/> 33	<input type="checkbox"/>	<input type="checkbox"/> 33		O	N
<u>NA</u>	Instantaneous Bradenhead PSIG at end of test: > <u>0</u>						

INTERMEDIATE CASING TEST

With gauges monitoring production, intermediate casing and tubing pressures, open the intermediate casing valve. Record pressures at five minute intervals.

Describe character of flow in "Intermediate Flow" column: O = No Flow; C = Continuous; D = Down to 0; S = Surge; W = Whisper

Describe fluid type in "Intermediate Fluid" column: H = Water H₂O; M = Mud; G = Gas; V = Vapor; L = Liquid Hydrocarbon; H & M = Water & Mud; H & G = Water & Gas; H & V = Water & Vapor; M & G = Mud & Gas; M & V = Mud & Vapor; G & V = Gas & Vapor; H & L = Water & Liquid Hydrocarbon; M & L = Mud & Liquid Hydrocarbon; G & L = Gas & Liquid Hydrocarbon; V & L = Vapor & Liquid Hydrocarbon; N = None.

Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermediate Csg PSIG	Intermediate Flow:	Intermediate Fluid:
Buried valve? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Confirmed open? <input type="checkbox"/> Yes <input type="checkbox"/> No						
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)						
Instantaneous Intermediate Casing PSIG at end of test: > _____						

Comments:

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

Test Performed By: LARRY CHRISTIAN Title: Pumper Phone: () 970 675 8451
 Signed: Larry W. Christian Title: Pumper Date: 10/26/23
 Witnessed By: _____ Title: _____ Agency: _____