

**State of Colorado**  
**Oil and Gas Conservation Commission**

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Document Number:  
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**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/reg.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: 69175 3. BLM Lease No: \_\_\_\_\_  
2. Name of Operator: PDC ENERGY INC  
4. API Number; 05-123-25074-00 5. Multiple completion? ☐ Yes ☐ No  
6. Well Name: NELSON Number: 31-33  
7. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNE,33,5N,67W,6  
8. County WELD 9. Field Name: WATTENBERG  
10. Minerals: ☐ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 02/24/2023

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: 220 Fm: _____	Tubing: _____ Fm: _____	Prod Csg 263 Fm: _____	Intermediate Csg: _____	Surf. Csg 19
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**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 H<sub>2</sub>O; 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:	Bradenhead Fluid:
Confirmed open? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	00:00	220		263		DOWN TO 0	WATER AND GAS
BRADENHEAD SAMPLE TAKEN?	05:00	224		266		CONTINUOUS	WATER H <sub>2</sub> O
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid	10:00	230		270		CONTINUOUS	WATER H <sub>2</sub> O
Character of Bradenhead fluid:	15:00	239		275		CONTINUOUS	WATER H <sub>2</sub> O
<input type="checkbox"/> Clear <input type="checkbox"/> Fresh	20:00	242		279		CONTINUOUS	WATER H <sub>2</sub> O
<input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black	25:00	246		280		CONTINUOUS	WATER H <sub>2</sub> O
Other:(describe)	30:00	247		281		CONTINUOUS	WATER H <sub>2</sub> O
REQUIRED - Instantaneous Bradenhead Pressure at End of Test: 0 PSIG							

## 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 H<sub>2</sub>O; 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 type="checkbox"/> No Confirmed open? <input type="checkbox"/> Yes <input type="checkbox"/> No	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermediate Csg PSIG	Intermediate Flow:	Intermediate Fluid:
	00:00						
INTERMEDIATE SAMPLE TAKEN? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid	05:00						
	10:00						
	15:00						
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) _____	20:00						
	25:00						
	30:00						
	REQUIRED - Instantaneous Intermediate Casing Pressure at End of Test: _____ PSIG						

Comments: Annual Test. 19 PSI water and gas flow blew down to 0 PSI within first few seconds of test. Steady stream of water at open for 3 minutes, then steady trickle for remainder of test. PDC will continue to monitor monthly.

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

Test Performed By: _____	Title: _____	Phone: ( ) _____
Signed: <u>Jessica Johannsen</u>	Title: <u>Regulatory Analyst</u>	Date: <u>3/20/2023</u>
Witnessed By: _____	Title: _____	Agency: _____