

**FORM**  
17  
Rev  
11/20

**State of Colorado**  
**Energy & Carbon Management Commission**



Document Number:  
403807712

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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://ecmc/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. ECMC Operator Number: 69175      3. BLM Lease No: \_\_\_\_\_  
 2. Name of Operator: PDC ENERGY INC  
 4. API Number; 05-123-51955-00      5. Multiple completion?  Yes  No  
 6. Well Name: Broe      Number: 28NA  
 7. Location (QtrQtr, Sec, Twp, Rng, Meridian): NENW,35,6N,67W,6  
 8. County WELD      9. Field Name: WATTENBERG  
 10. Minerals:  Fee  State  Federal  Indian

11. Date of Test: 05/22/2024  
 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>1060</u> Fm: _____	Tubing: _____ Fm: _____	Prod Csg <u>142</u> Fm: _____	Intermediate Csg: _____	Surf. Csg <u>53</u>
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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 Confirmed open? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 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) _____	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:	Bradenhead Fluid:
	00:00	1060		142		DOWN TO 0	WATER AND LIQUID HYDROCARBON
	05:00	1060		141		NO FLOW	
	10:00	1162		145		NO FLOW	
	15:00	1147		138		NO FLOW	
	20:00	1194		80		NO FLOW	
	25:00	1221		33		NO FLOW	
	30:00	1123		58		NO FLOW	
REQUIRED - Instantaneous Bradenhead Pressure at End of Test: <u>0</u> 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.

	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	00:00							
Confirmed open? <input type="checkbox"/> Yes <input type="checkbox"/> No	05:00							
INTERMEDIATE SAMPLE TAKEN? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid	10:00							
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) _____	15:00							
	20:00							
	25:00							
	30:00							
REQUIRED - Instantaneous Intermediate Casing Pressure at End of Test: _____							PSIG	

Comments: Post-Production within 60 days of first sales. 53 PSI fluid flow blew down to 0 PSI in 30 seconds. No flow or pressure for remainder of test. PDC will schedule a sampling event and submit results via form 43. PDC will monitor pressure and re-test according to bradenhead policy.

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: Jessica Johannsen Title: Regulatory Analyst Date: 5/30/2024

Witnessed By: \_\_\_\_\_ Title: \_\_\_\_\_ Agency: \_\_\_\_\_