

FORM

17

Rev  
11/20

## State 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/reg.htm#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: 10724 3. BLM Lease No: \_\_\_\_\_

2. Name of Operator: NORTH SHORE EXPLORATION AND PRODUCTION LLC

4. API Number: 05-081-07196-00 5. Multiple completion? ☐ Yes ☐ No

6. Well Name: FEDERAL Number: 33-21

7. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWSE, SEC 21, 11N, 93W, 6

8. County MOFFAT 9. Field Name: TEARDROP

10. Minerals: ☐ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 3-18-24

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: 69.5 Fm: LWIS	Tubing: _____ Fm: _____	Prod Csg 289 Fm: LWIS	Intermediate Csg: _____	Surf. Csg 0
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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 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	00:00	D 69.5	D	D 289		0	0
BRADENHEAD SAMPLE TAKEN?	5:12	D 69.5	D	D 289		0	0
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid	10:16	D 69.5	D	D 289		0	0
Character of Bradenhead fluid:	15:22	D 69.5	D	D 289		0	0
<input type="checkbox"/> Clear <input type="checkbox"/> Fresh	20:19	D 69.5	D	D 289		0	0
<input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black	25:21	D 69.5	D	D 289		0	0
Other:(describe)	30:24	D 69.5	D	D 289		0	0
Instantaneous Bradenhead PSIG at end of test: > 0							

## 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No Confirmed open? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermediate Csg PSIG	Intermediate Flow:	Intermediate Fluid:
		D	D	D			
INTERMEDIATE SAMPLE TAKEN? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid		D	D	D			
		D	D	D			
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) _____		D	D	D			
		D	D	D			
		D	D	D			
		D	D	D			
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: OLIVER WILLE

Title: PUMPER

Phone: (1) 307-321-1299

Signed: *Oliver Wille*

Title: Pumper

Date: 3-18-24

Witnessed By: \_\_\_\_\_

Title: \_\_\_\_\_

Agency: \_\_\_\_\_

# North Shore Exploration & Production, LLC

Date: 9/12/2008 WI 100.000%  
 Prepared by: PMN NRI  
 Lease Federal  
 Well Number 33-21  
 API 05-081-07198  
 Location NWSE 21 11N 83W  
 BHL 2,000' FSL 2,145' FEL  
 Field TEARDROP - #80950  
 Unit PILGRIM UNIT  
 County MOFFAT  
 State CO  
 GL 6,648'  
 KB  
 Spud Date 8/24/2005  
 Completion date 9/4/2005  
 First gas sales October-05

## Geological tops

### Surface

Tertiary surface  
 Fort Union 3,889'  
 Ft Union Coal 4541'  
 Lance 5,531'  
 Fox Hills 6,286'  
 Lewis shale 6,345'  
 TD 7,580'

Rotary Hours 8.5  
 Hole Size 12 1/4"  
 Surf Casing 9 5/8" 36#/ J-55 ST&C

Cement  
 Lead-155 sk 35/55 poz G+6% d20+0 125 pps d130+3%  
 S1 @ 5.2 bpm

## Producing Zone

wt-12.7 ppg 1.88 yield

Tell- 155 sks Class G +0.125 pps  
 D130+2% S1 4.6 bpm 19 bbls return

Surface Fed  
 Mineral Fed

wt-15.8 ppg 1.16 yield  
 Shoe 812'  
 121/4" depth 811'

Hole Size 7 7/8"

## FMC Wellhead

A-sect 9 5/8" SOW x 11" 5M C-22  
 B-sect 11" 5M x 7 1/16" 5M w/ 2-2 1/16" 5M wings  
 Tree 2-2 1/16" 5M master w/ 1 wing same

Separator 3 phase 500 BTU 3M 1440 WP

TOC 3080'  
 good bond to 5690'

## Cement design

Lead- 198 sk TXI Lite 118 bbls 21.82 gps  
 H2O D066 0.2 lbs/sk + D048 0.15 lbs/sk + D112 0.28 lbs/sk +  
 D154 11 lbs/sk + D065 0.1 lbs/sk + D167 0.25 lbs/sk + D013 0.4 lbs/sk

wt 10.5 ppg 3.39 yield

Tell- 210 sks Camcrete 7.5 gps H2O

10.5 ppg, 2.1 yield

Perforations 6 spt 60 degree phasing  
 7,212-7,214 3 3/8" power pack  
 7,180-7,186 prospecter charge  
 48 total holes 0.43" dia 40' penetration  
 OWP

P8TD 7,424  
 Csg shoe 7,479  
 TD 7,500

## Stimulation Treatment

Frac-Schlumberger  
 70Q CO2 Foam, YF830 Lph, 903bbl, 3% KCL sub H2O, 1300bbl CO2  
 238,820# prop, 188,960 # 20/40 Jordan sand, 48,960 # Econoprop  
 ISIP-2,012 psi, ATP-3,407 psi, ATR-23 bpm

## Production csg 5 1/2" 17# I-80 LTC

Csg set w/ 100,000 lbs  
 hrs rotating 110.75  
 hrs total rotar 120.25

## 2 3/8" 4 7# N-80 8rd EUE

tubing detail  
 kb corr 13.00 13.00  
 228 fts tbg 7,131.08 7,144.08  
 x nipple 1.675" profile 1.20 7,145.28  
 jt 31.25 7,176.53  
 on nipple 1.875" w/ 1 791" nogo 1.26 7,177.79  
 jt 31.29 7,209.08  
 notched collar 0.41 7,209.49  
 7,209.49