

FORM  
5A

Rev  
06/12

State of Colorado

Oil and Gas Conservation Commission

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



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Document Number:

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Date Received:

COMPLETED INTERVAL REPORT

The completed interval Report, Form 5A, shall be submitted within thirty (30) days of completing a formation (successful or not), when a formation is temporarily abandoned or permanently abandoned, for a recompletion, reperforation or restimulation, or when a formation is commingled. Fill out a section for each formation. Attach as many pages as required to fully describe the work. List in order of completion.

1. OGCC Operator Number: 69175

2. Name of Operator: PDC ENERGY INC

3. Address: 1775 SHERMAN STREET - STE 3000

City: DENVER State: CO Zip: 80203

4. Contact Name: Cassie Gonzalez

Phone: (303) 860-5800

Fax:

Email: Cassie.Gonzalez@pdce.com

5. API Number 05-123-45260-00

7. Well Name: Thistle Down

8. Location: QtrQtr: NESW Section: 31 Township: 5N Range: 64W Meridian: 6

9. Field Name: WATTENBERG Field Code: 90750

6. County: WELD

Well Number: 31H-312

## Completed Interval

FORMATION: NIOBRARA Status: PRODUCING Treatment Type: FRACTURE STIMULATION  
Treatment Date: 06/27/2019 End Date: 07/06/2019 Date of First Production this formation: 08/08/2019  
Perforations Top: 7281 Bottom: 12885 No. Holes: 1122 Hole size: 42/100

Provide a brief summary of the formation treatment:

Open Hole: ☐

32 Stage Plug and Perf  
Total Fluid: 106,679 bbls  
Gel Fluid: 72,003 bbls  
Slickwater Fluid: 33,962 bbls  
15% HCl Acid: 714 bbls  
Total Proppant: 6,224,080 lbs  
Silica Proppant: 6,224,080 lbs  
Method for determining flowback: measuring flowback tank volumes.

This formation is commingled with another formation: ☐ Yes ☒ No

Total fluid used in treatment (bbl): 106679

Max pressure during treatment (psi): 4275

Total gas used in treatment (mcf):

Fluid density at initial fracture (lbs/gal): 8.34

Type of gas used in treatment:

Min frac gradient (psi/ft): 0.94

Total acid used in treatment (bbl): 714

Number of staged intervals: 32

Recycled water used in treatment (bbl):

Flowback volume recovered (bbl): 6256

Fresh water used in treatment (bbl): 105965

Disposition method for flowback: DISPOSAL

Total proppant used (lbs): 6224080

Rule 805 green completion techniques were utilized: ☒

Reason why green completion not utilized:

**Fracture stimulations must be reported on FracFocus.org**

### Test Information:

Date: 08/23/2019 Hours: 24 Bbl oil: 388 Mcf Gas: 1739 Bbl H2O: 227  
Calculated 24 hour rate: Bbl oil: 388 Mcf Gas: 1739 Bbl H2O: 227 GOR: 4482  
Test Method: Flowing Casing PSI: 2221 Tubing PSI: 1713 Choke Size: 16/64  
Gas Disposition: SOLD Gas Type: WET Btu Gas: 1302 API Gravity Oil: 53  
Tubing Size: 2 + 3/8 Tubing Setting Depth: 7206 Tbg setting date: 08/02/2019 Packer Depth:

Reason for Non-Production:

Date formation Abandoned: Squeeze: ☐ Yes ☐ No If yes, number of sacks cmt

\*\* Bridge Plug Depth: \*\* Sacks cement on top: \*\* Wireline and Cement Job Summary must be attached.

Comment:

Actual Top of Productive Zone Footage: 1,724' FSL & 478' FWL Sec: 31 Twp: 5N Rng: 64W  
TPZ calculated by Ensign due to uneven section lines.

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

Signed: Print Name: Cassie Gonzalez  
Title: Regulatory Technician Date: Email: Cassie.Gonzalez@pdce.com

## Attachment Check List

**Att Doc Num** **Name**

Total Attach: 0 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)