

FORM 5A Rev 06/12

State of Colorado Oil and Gas Conservation Commission

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Table with columns DE, ET, OE, ES

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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 05-123-45746-00 6. County: WELD 7. Well Name: Thistle Down Well Number: 31G-402 8. Location: QtrQtr: NESW Section: 31 Township: 5N Range: 64W Meridian: 6 9. Field Name: WATTENBERG Field Code: 90750

Completed Interval

FORMATION: CARLILE Status: COMMINGLED Treatment Type:

Treatment Date: End Date: Date of First Production this formation: Perforations Top: 7693 Bottom: 8565 No. Holes: 1122 Hole size: 42/100

Provide a brief summary of the formation treatment: Open Hole: Completed Depths: 7,693'-7,889' 7,890'-7,990' 8,005'-8,481' 8,559'-8,565'

This formation is commingled with another formation: [X] Yes [ ] No Total fluid used in treatment (bbl): Max pressure during treatment (psi): Total gas used in treatment (mcf): Fluid density at initial fracture (lbs/gal): Type of gas used in treatment: Min frac gradient (psi/ft): Total acid used in treatment (bbl): Number of staged intervals: Recycled water used in treatment (bbl): Flowback volume recovered (bbl): Fresh water used in treatment (bbl): Disposition method for flowback: Total proppant used (lbs): Rule 805 green completion techniques were utilized: [ ] Reason why green completion not utilized:

Fracture stimulations must be reported on FracFocus.org

Test Information:

Date: Hours: Bbl oil: Mcf Gas: Bbl H2O: Calculated 24 hour rate: Bbl oil: Mcf Gas: Bbl H2O: GOR: Test Method: Casing PSI: Tubing PSI: Choke Size: Gas Disposition: Gas Type: Btu Gas: API Gravity Oil: Tubing Size: Tubing Setting Depth: Tbg setting date: 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.

FORMATION: CODELL Status: COMMINGLED Treatment Type: \_\_\_\_\_

Treatment Date: \_\_\_\_\_ End Date: \_\_\_\_\_ Date of First Production this formation: \_\_\_\_\_

Perforations Top: 7555 Bottom: 12856 No. Holes: 1122 Hole size: 42/100

Provide a brief summary of the formation treatment: \_\_\_\_\_ Open Hole:

Completed Depths: 7,555'-7,693' 7,889'-7,890' 7,990'-8,005' 8,481'-8,559' 8,565'-12,856'

This formation is commingled with another formation:  Yes  No

Total fluid used in treatment (bbl): \_\_\_\_\_ Max pressure during treatment (psi): \_\_\_\_\_

Total gas used in treatment (mcf): \_\_\_\_\_ Fluid density at initial fracture (lbs/gal): \_\_\_\_\_

Type of gas used in treatment: \_\_\_\_\_ Min frac gradient (psi/ft): \_\_\_\_\_

Total acid used in treatment (bbl): \_\_\_\_\_ Number of staged intervals: \_\_\_\_\_

Recycled water used in treatment (bbl): \_\_\_\_\_ Flowback volume recovered (bbl): \_\_\_\_\_

Fresh water used in treatment (bbl): \_\_\_\_\_ Disposition method for flowback: \_\_\_\_\_

Total proppant used (lbs): \_\_\_\_\_ Rule 805 green completion techniques were utilized:

Reason why green completion not utilized: \_\_\_\_\_

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

**Test Information:**

Date: \_\_\_\_\_ Hours: \_\_\_\_\_ Bbl oil: \_\_\_\_\_ Mcf Gas: \_\_\_\_\_ Bbl H2O: \_\_\_\_\_

Calculated 24 hour rate: \_\_\_\_\_ Bbl oil: \_\_\_\_\_ Mcf Gas: \_\_\_\_\_ Bbl H2O: \_\_\_\_\_ GOR: \_\_\_\_\_

Test Method: \_\_\_\_\_ Casing PSI: \_\_\_\_\_ Tubing PSI: \_\_\_\_\_ Choke Size: \_\_\_\_\_

Gas Disposition: \_\_\_\_\_ Gas Type: \_\_\_\_\_ Btu Gas: \_\_\_\_\_ API Gravity Oil: \_\_\_\_\_

Tubing Size: \_\_\_\_\_ Tubing Setting Depth: \_\_\_\_\_ Tbg setting date: \_\_\_\_\_ 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.

FORMATION: FORT HAYS Status: COMMINGLED Treatment Type: \_\_\_\_\_

Treatment Date: \_\_\_\_\_ End Date: \_\_\_\_\_ Date of First Production this formation: \_\_\_\_\_

Perforations Top: 7480 Bottom: 7555 No. Holes: 1122 Hole size: 42/100

Provide a brief summary of the formation treatment: \_\_\_\_\_ Open Hole:

Completed Depths: 7,480'-7,555'

This formation is commingled with another formation:  Yes  No

Total fluid used in treatment (bbl): \_\_\_\_\_ Max pressure during treatment (psi): \_\_\_\_\_

Total gas used in treatment (mcf): \_\_\_\_\_ Fluid density at initial fracture (lbs/gal): \_\_\_\_\_

Type of gas used in treatment: \_\_\_\_\_ Min frac gradient (psi/ft): \_\_\_\_\_

Total acid used in treatment (bbl): \_\_\_\_\_ Number of staged intervals: \_\_\_\_\_

Recycled water used in treatment (bbl): \_\_\_\_\_ Flowback volume recovered (bbl): \_\_\_\_\_

Fresh water used in treatment (bbl): \_\_\_\_\_ Disposition method for flowback: \_\_\_\_\_

Total proppant used (lbs): \_\_\_\_\_ Rule 805 green completion techniques were utilized:

Reason why green completion not utilized: \_\_\_\_\_

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

**Test Information:**

Date: \_\_\_\_\_ Hours: \_\_\_\_\_ Bbl oil: \_\_\_\_\_ Mcf Gas: \_\_\_\_\_ Bbl H2O: \_\_\_\_\_

Calculated 24 hour rate: Bbl oil: \_\_\_\_\_ Mcf Gas: \_\_\_\_\_ Bbl H2O: \_\_\_\_\_ GOR: \_\_\_\_\_

Test Method: \_\_\_\_\_ Casing PSI: \_\_\_\_\_ Tubing PSI: \_\_\_\_\_ Choke Size: \_\_\_\_\_

Gas Disposition: \_\_\_\_\_ Gas Type: \_\_\_\_\_ Btu Gas: \_\_\_\_\_ API Gravity Oil: \_\_\_\_\_

Tubing Size: \_\_\_\_\_ Tubing Setting Depth: \_\_\_\_\_ Tbg setting date: \_\_\_\_\_ 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.

FORMATION: NIOBRARA Status: COMMINGLED Treatment Type: \_\_\_\_\_

Treatment Date: \_\_\_\_\_ End Date: \_\_\_\_\_ Date of First Production this formation: \_\_\_\_\_

Perforations Top: 7237 Bottom: 7480 No. Holes: 1122 Hole size: 42/100

Provide a brief summary of the formation treatment: \_\_\_\_\_ Open Hole:

Completed Depths: 7,237'-7,480'

This formation is commingled with another formation:  Yes  No

Total fluid used in treatment (bbl): \_\_\_\_\_ Max pressure during treatment (psi): \_\_\_\_\_

Total gas used in treatment (mcf): \_\_\_\_\_ Fluid density at initial fracture (lbs/gal): \_\_\_\_\_

Type of gas used in treatment: \_\_\_\_\_ Min frac gradient (psi/ft): \_\_\_\_\_

Total acid used in treatment (bbl): \_\_\_\_\_ Number of staged intervals: \_\_\_\_\_

Recycled water used in treatment (bbl): \_\_\_\_\_ Flowback volume recovered (bbl): \_\_\_\_\_

Fresh water used in treatment (bbl): \_\_\_\_\_ Disposition method for flowback: \_\_\_\_\_

Total proppant used (lbs): \_\_\_\_\_ Rule 805 green completion techniques were utilized:

Reason why green completion not utilized: \_\_\_\_\_

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

**Test Information:**

Date: \_\_\_\_\_ Hours: \_\_\_\_\_ Bbl oil: \_\_\_\_\_ Mcf Gas: \_\_\_\_\_ Bbl H2O: \_\_\_\_\_

Calculated 24 hour rate: \_\_\_\_\_ Bbl oil: \_\_\_\_\_ Mcf Gas: \_\_\_\_\_ Bbl H2O: \_\_\_\_\_ GOR: \_\_\_\_\_

Test Method: \_\_\_\_\_ Casing PSI: \_\_\_\_\_ Tubing PSI: \_\_\_\_\_ Choke Size: \_\_\_\_\_

Gas Disposition: \_\_\_\_\_ Gas Type: \_\_\_\_\_ Btu Gas: \_\_\_\_\_ API Gravity Oil: \_\_\_\_\_

Tubing Size: \_\_\_\_\_ Tubing Setting Depth: \_\_\_\_\_ Tbg setting date: \_\_\_\_\_ 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.

FORMATION: NIOBRARA-FORT HAYS-CODELL-CARLILE Status: PRODUCING Treatment Type: FRACTURE STIMULATION

Treatment Date: 06/27/2019 End Date: 07/05/2019 Date of First Production this formation: 08/01/2019  
Perforations Top: 7237 Bottom: 12856 No. Holes: 1122 Hole size: 42/100

Provide a brief summary of the formation treatment: Open Hole:

32 Stage Plug and Perf  
Total Fluid: 123,678 bbls  
Gel Fluid: 80,778 bbls  
Slickwater Fluid: 41,951 bbls  
15% HCl Acid: 949 bbls  
Total Proppant: 5,522,600 lbs  
Silica Proppant: 5,522,600 lbs  
Method for determining flowback: measuring flowback tank volumes.

This formation is commingled with another formation:  Yes  No  
Total fluid used in treatment (bbl): 123678 Max pressure during treatment (psi): 4283  
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): 0.92  
Total acid used in treatment (bbl): 949 Number of staged intervals: 32  
Recycled water used in treatment (bbl): Flowback volume recovered (bbl): 7363  
Fresh water used in treatment (bbl): 122729 Disposition method for flowback: DISPOSAL  
Total proppant used (lbs): 5522600 Rule 805 green completion techniques were utilized:   
Reason why green completion not utilized:

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

**Test Information:**

Date: 08/11/2019 Hours: 24 Bbl oil: 306 Mcf Gas: 1346 Bbl H2O: 225  
Calculated 24 hour rate: Bbl oil: 306 Mcf Gas: 1346 Bbl H2O: 225 GOR: 4399  
Test Method: Flowing Casing PSI: 2618 Tubing PSI: 1778 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: 7358 Tbg setting date: 07/25/2019 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: 2,519' FSL & 487' FWL Sec: 31 Twp: 5N Rng: 64W  
The permitted objective formation is Codell; however, all actual producing formations are considered common source.

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**

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**Comment Date**

Stamp Upon  
Approval

Total: 0 comment(s)