

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:

402154253

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: ☒ 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: <input type="checkbox"/>		
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:			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: <input type="checkbox"/>			
Reason why green completion not utilized: _____					
Fracture stimulations must be reported on FracFocus.org					
<u>Test Information:</u>					
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: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>					
Date formation Abandoned: _____	Squeeze: <input type="checkbox"/> Yes <input type="checkbox"/> 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: <input type="checkbox"/>

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: <input type="checkbox"/>		
Completed Depths: 7,237'-7,480'					
This formation is commingled with another formation:		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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: <input type="checkbox"/>			
Reason why green completion not utilized: _____					
Fracture stimulations must be reported on FracFocus.org					
<u>Test Information:</u>					
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: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>					
Date formation Abandoned: _____	Squeeze: <input type="checkbox"/> Yes <input type="checkbox"/> 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

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

Total: 0 comment(s)