

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:

400380939

Date Received:

02/21/2013

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: 100322

2. Name of Operator: NOBLE ENERGY INC

3. Address: 1625 BROADWAY STE 2200

City: DENVER

State: CO

Zip: 80202

4. Contact Name: JEAN MUSE-REYNOLDS

Phone: (303) 228-4316

Fax: (303) 228-4286

5. API Number 05-123-31701-00

7. Well Name: KERN L

8. Location: QtrQtr: SWNW

Section: 4

Township: 3N

Range: 66W

Meridian: 6

9. Field Name: WATTENBERG

Field Code: 90750

6. County: WELD

Well Number: 04-20D

Completed Interval

| | | | | | |
|-----------------------------------|------------------|-----------------------------|----------------------|--|--|
| FORMATION: <u>CODELL</u> | | Status: <u>COMMINGLED</u> | | Treatment Type: <u>FRACTURE STIMULATION</u> | |
| Treatment Date: <u>04/11/2012</u> | | End Date: <u>04/11/2012</u> | | Date of First Production this formation: <u>04/25/2012</u> | |
| Perforations | Top: <u>7413</u> | Bottom: <u>7429</u> | No. Holes: <u>64</u> | Hole size: <u>0.44</u> | |

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

PUMPED 250638# OTTAWA SAND DOWNHOLE in gals of 15% HCL/SilverStim/GELLED/SLICK/RECYCLED/FRESH WATER
 CODELL AND J-SAND ARE PRODUCING THROUGH COMPOSITE FLOW-THROUGH PLUGS
 FLOWBACK REPORTED ON THE NIOBRARA COMPLETION PANEL

| | | |
|--|---|--|
| This formation is commingled with another formation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Total fluid used in treatment (bbl): <u>3082</u> | Max pressure during treatment (psi): <u>4489</u> | |
| Total gas used in treatment (mcf): _____ | Fluid density at initial fracture (lbs/gal): <u>8.34</u> | |
| Type of gas used in treatment: _____ | Min frac gradient (psi/ft): <u>0.84</u> | |
| Total acid used in treatment (bbl): <u>12</u> | Number of staged intervals: <u>7</u> | |
| Recycled water used in treatment (bbl): <u>272</u> | Flowback volume recovered (bbl): <u>0</u> | |
| Fresh water used in treatment (bbl): <u>2800</u> | Disposition method for flowback: <u>RECYCLE</u> | |
| Total proppant used (lbs): <u>250638</u> | Rule 805 green completion techniques were utilized: <input checked="" 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: <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: J-NIOBRARA-CODELL Status: COMMINGLED Treatment Type: _____
Treatment Date: _____ End Date: _____ Date of First Production this formation: 04/25/2012
Perforations Top: 7188 Bottom: 7913 No. Holes: 232 Hole size: 0.4
Provide a brief summary of the formation treatment: _____ Open Hole: ☐

CODELL AND J-SAND ARE PRODUCING THROUGH COMPOSITE FLOW-THROUGH PLUGS
FLOWBACK REPORTED ON THE NIOBRARA COMPLETION PANEL

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: 05/11/2012 Hours: 24 Bbl oil: 120 Mcf Gas: 1338 Bbl H2O: 111
Calculated 24 hour rate: Bbl oil: 120 Mcf Gas: 1338 Bbl H2O: 111 GOR: 11150
Test Method: FLOWING Casing PSI: _____ Tubing PSI: _____ Choke Size: 16/64
Gas Disposition: SOLD Gas Type: WET Btu Gas: 1200 API Gravity Oil: 40
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: <u>J SAND</u> | | Status: <u>PRODUCING</u> | | Treatment Type: <u>FRACTURE STIMULATION</u> | |
| Treatment Date: <u>04/11/2012</u> | | End Date: <u>04/11/2012</u> | | Date of First Production this formation: <u>04/25/2012</u> | |
| Perforations | Top: <u>7884</u> | Bottom: <u>7913</u> | No. Holes: <u>120</u> | Hole size: <u>0.4</u> | |

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

PUMPED 257817# OTTAWA SAND and 19075#SB Excel DOWNHOLE in 167700gals of
 PermStim/GELLED/GLICK/RECYCLED/FRESH WATER
 CODELL AND J-SAND ARE PRODUCING THROUGH COMPOSITE FLOW-THROUGH PLUGS
 FLOWBACK REPORTED ON THE NIOBRARA COMPLETION PANEL

| | |
|--|---|
| This formation is commingled with another formation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| Total fluid used in treatment (bbl): <u>3993</u> | Max pressure during treatment (psi): <u>4398</u> |
| Total gas used in treatment (mcf): _____ | Fluid density at initial fracture (lbs/gal): <u>8.34</u> |
| Type of gas used in treatment: _____ | Min frac gradient (psi/ft): <u>0.74</u> |
| Total acid used in treatment (bbl): _____ | Number of staged intervals: <u>10</u> |
| Recycled water used in treatment (bbl): <u>300</u> | Flowback volume recovered (bbl): <u>0</u> |
| Fresh water used in treatment (bbl): <u>3693</u> | Disposition method for flowback: <u>RECYCLE</u> |
| Total proppant used (lbs): <u>276892</u> | Rule 805 green completion techniques were utilized: <input checked="" 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-CODELL Status: PRODUCING Treatment Type: _____

Treatment Date: _____ End Date: _____ Date of First Production this formation: 04/25/2012

Perforations Top: 7188 Bottom: 7429 No. Holes: 112 Hole size: 0.44

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

CODELL AND J-SAND ARE PRODUCING THROUGH COMPOSITE FLOW-THROUGH PLUGS
FLOWBACK REPORTED ON THE NIOBRARA COMPLETION PANEL

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: FRACTURE STIMULATION
Treatment Date: 04/11/2012 End Date: 04/11/2012 Date of First Production this formation: 04/25/2012
Perforations Top: 7188 Bottom: 7303 No. Holes: 48 Hole size: 0.69

Provide a brief summary of the formation treatment:

Open Hole: ☐

PUMPED 260864# OTTAWA SAND DOWNHOLE in 167879gals of SilverStim/GELLED/SLICK/RECYCLED/FRESH WATER
CODELL AND J-SAND ARE PRODUCING THROUGH COMPOSITE FLOW-THROUGH PLUGS
FLOWBACK REPORTED ON THE NIOBRARA COMPLETION PANEL

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

Total fluid used in treatment (bbl): 3997

Max pressure during treatment (psi): 5323

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): 0.93

Total acid used in treatment (bbl):

Number of staged intervals: 7

Recycled water used in treatment (bbl): 282

Flowback volume recovered (bbl): 892

Fresh water used in treatment (bbl): 3715

Disposition method for flowback: RECYCLE

Total proppant used (lbs): 260864

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.

Comment:

CODELL AND J-SAND ARE PRODUCING THROUGH COMPOSITE FLOW-THROUGH PLUGS
FLOWBACK VOLUMES REPORTED ON NIOBRARA PANEL

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

Signed: Print Name: JEAN MUSE-REYNOLDS

Title: REGULATORY COMPLIANCE Date: 2/21/2013 Email: jmuse@nobleenergyinc.com

Attachment Check List

| Att Doc Num | Name |
|-------------|-------------------|
| 400380939 | FORM 5A SUBMITTED |

Total Attach: 1 Files

General Comments

| User Group | Comment | Comment Date |
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| | | |

Total: 0 comment(s)