


<div>FORM 2 Rev 08/16</div>	<div>State of Colorado Oil and Gas Conservation Commission 1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109</div>	<div></div>	<div>Document Number:  401070741</div>
<div>APPLICATION FOR PERMIT TO:</div> <div><input checked="" type="checkbox"/> Drill    <input type="checkbox"/> Deepen    <input type="checkbox"/> Re-enter    <input type="checkbox"/> Recomplete and Operate</div>			<div>Date Received:  07/05/2016</div>
<div>TYPE OF WELL    OIL <input type="checkbox"/>    GAS <input type="checkbox"/>    COALBED <input type="checkbox"/>    OTHER <u>Strat test</u></div> <div>ZONE TYPE    SINGLE ZONE <input checked="" type="checkbox"/>    MULTIPLE ZONES <input type="checkbox"/>    COMMINGLE ZONES <input type="checkbox"/></div>		<div>Refiling <input type="checkbox"/></div> <div>Sidetrack <input type="checkbox"/></div>	
<div>Well Name: <u>Bighorn 0780</u>    Well Number: <u>1-17</u></div> <div>Name of Operator: <u>SANDRIDGE EXPLORATION &amp; PRODUCTION LLC</u>    COGCC Operator Number: <u>10598</u></div> <div>Address: <u>123 ROBERT S KERR AVE</u></div> <div>City: <u>OKLAHOMA CITY</u>    State: <u>OK</u>    Zip: <u>73102</u></div> <div>Contact Name: <u>Laci Bevans</u>    Phone: <u>(405)429-5610</u>    Fax: <u>(    )</u></div> <div>Email: <u>lbevans@sandridgeenergy.com</u></div>			
<div>RECLAMATION FINANCIAL ASSURANCE</div> <div>Plugging and Abandonment Bond Surety ID: <u>20160010</u></div>			
<div>WELL LOCATION INFORMATION</div> <div>QtrQtr: <u>NENW</u>    Sec: <u>17</u>    Twp: <u>7N</u>    Rng: <u>80W</u>    Meridian: <u>6</u></div> <div>Latitude: <u>40.583849</u>    Longitude: <u>-106.400144</u></div> <div>Footage at Surface: <u>325</u> Feet    FNL/FSL <u>FNL</u> <u>1890</u> Feet    FEL/FWL <u>FWL</u></div> <div>Field Name: <u>WILDCAT</u>    Field Number: <u>99999</u></div> <div>Ground Elevation: <u>8144</u>    County: <u>JACKSON</u></div> <div>GPS Data:</div> <div>Date of Measurement: <u>04/14/2016</u>    PDOP Reading: <u>1.3</u>    Instrument Operator's Name: <u>RRM</u></div> <div>If well is    <input type="checkbox"/> Directional    <input type="checkbox"/> Horizontal (highly deviated)    <b>submit deviated drilling plan.</b></div> <div>Footage at Top of Prod Zone:    FNL/FSL    FEL/FWL    Bottom Hole:    FNL/FSL    FEL/FWL</div> <div>Sec:    Twp:    Rng:    Sec:    Twp:    Rng:</div>			
<div>LOCATION SURFACE &amp; MINERALS &amp; RIGHT TO CONSTRUCT</div> <div>Surface Ownership:    <input checked="" type="checkbox"/> Fee    <input type="checkbox"/> State    <input type="checkbox"/> Federal    <input type="checkbox"/> Indian</div> <div>The Surface Owner is:    <input type="checkbox"/> is the mineral owner beneath the location. (check all that apply)    <input type="checkbox"/> is committed to an Oil and Gas Lease.     <input type="checkbox"/> has signed the Oil and Gas Lease.     <input type="checkbox"/> is the applicant.</div> <div>The Mineral Owner beneath this Oil and Gas Location is:    <input checked="" type="checkbox"/> Fee    <input type="checkbox"/> State    <input type="checkbox"/> Federal    <input type="checkbox"/> Indian</div> <div>The Minerals beneath this Oil and Gas Location will be developed by this Well: <u>No</u></div> <div>The right to construct the Oil and Gas Location is granted by: <u>Surface Use Agreement</u></div> <div>Surface damage assurance if no agreement is in place:    Surface Surety ID: </div>			

## LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

17-7N-80W All.

Total Acres in Described Lease: 640 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 325 Feet

## CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 1016 Feet

Building Unit: 2467 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1930 Feet

Above Ground Utility: 556 Feet

Railroad: 5280 Feet

Property Line: 1930 Feet

### INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

## DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone  
☐ Exception Zone  
☐ Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

## SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 5280 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 325 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

Subject formations are unspaced and operator doesn't plan to produce these formations.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
DAKOTA-LAKOTA	DK-LK			
ENTRADA	ENRD			

## DRILLING PROGRAM

Proposed Total Measured Depth: 9000 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: \_\_\_\_\_ Feet ☒ No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? Yes

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Other

Other Disposal Description:

Water-bentonite-based cuttings will be disposed of onsite per attached SandRidge WASTE MANAGEMENT PLAN (approved [06-22-16] Form 4#401062567). Oil-based cuttings will be disposed of offsite at a commercial facility.

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: \_\_\_\_\_ or Document Number: 401062567

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16+1/4	42	0	90	190	90	0
SURF	12+1/4	9+5/8	36	0	2400	393	2400	0
1ST	8+3/4	7	29	0	9000	1350	9000	0

☐ Conductor Casing is NOT planned

## DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

## RULE 502.b VARIANCE REQUEST

☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

## OTHER LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_

☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

## OPERATOR COMMENTS AND SUBMITTAL

Comments \_\_\_\_\_

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 446174

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: \_\_\_\_\_ Print Name: Laci Bevans

Title: Regulatory Analyst Date: 7/5/2016 Email: lbevans@sandridggenergy.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved:  Director of COGCC Date: 9/26/2016

Expiration Date: 09/25/2018

### API NUMBER

05 057 06585 00

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

### COA Type

### Description

	1)Operator shall comply with the most current revision of the Northwest Notification Policy.
	2) Operator shall provide cement coverage from the production casing shoe (7" First String) to a minimum of 200' above the surface casing shoe to provide full isolation of the Coalmont Formation. Verify production casing cement coverage with a cement bond log.

## **Best Management Practices**

<b><u>No</u></b>	<b><u>BMP/COA Type</u></b>	<b><u>Description</u></b>
1	Drilling/Completion Operations	Open-hole Resistivity Log with Gamma Ray Log will be run from TD into the surface casing. A Cement Bond Log with Gamma-Ray will be run on production casing, or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached.

Total: 1 comment(s)

Data retrieval failed for the subreport 'Int+Believ\_NTC' located at: \\DorDonSterling\cFarmReport\believ\_ntc.rdl. Please

## **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
2107928	WASTE MANAGEMENT PLAN
401070741	FORM 2 SUBMITTED
401071204	SURFACE AGRMT/SURETY
401071207	DRILLING PLAN
401071227	WELL LOCATION PLAT

Total Attach: 5 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review is complete. Added waste management comment from 2A and changed Cuttings Disposal Method to OTHER to match 2A.	9/22/2016 10:42:27 AM
Permit	Passes initial permitting review.	9/21/2016 8:45:14 AM
Engineer	<p>Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally-available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 135 feet.</p> <p>The Coalmont Formation is considered a potential freshwater resource in the North Park Basin (CGS Ground Water Atlas of Colorado, 2003). The proposed surface casing setting depth of 2400' will not cover the entire Coalmont Formation, based on the operator's drilling prognosis in the drilling plan. Minimum cement isolation standards are specified in Condition of Approval #2.</p> <p>Removed distance to well owned by another operator and checked no well belonging to another operator within 1,500 feet per operator.</p> <p>Offset Well Evaluation: Existing offset oil and gas wells within 1,500 feet of this wellbore meet standards. No mitigation required. Unchecked "No offset wells within 1500 feet" per operator. Offset well evaluation spreadsheet not required for this vertical well.</p>	8/17/2016 4:13:23 PM
Permit	Passes completeness.	3/5/2016 2:46:20 PM
Permit	<p>Returned to draft.</p> <p>1.) Why is "The minerals beneath this oil &amp; gas location will be developed by this well" marked as "Yes" if this is a strat test?</p> <p>2.) Please list all objective formations. The Spacing order, unit acreage, &amp; Unit Configuration are not required for a strat test well.</p> <p>3.) Was this well included in the approved cuttings disposal sundry# 401062567?</p>	7/27/2016 2:56:33 PM
Permit	<p>1.) Distance to nearest unit boundary from completed portion of the wellbore is incorrect.</p> <p>2.) Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation is incorrect.</p> <p>3.) Is the acreage correct for the signed lease?</p> <p>4.) The approved Form 2A#401033255 was not approved for any wells to be located on the pad. The Surface &amp; Minerals tab on the proposed Form 2 does not match the approved Form 2A .Is there an amended Form 2A in draft?</p> <p>5.) The Drilling Plan denoted the use of OBM but the Drilling &amp; Waste Plans tab indicates "NO".</p> <p>6.) Is the distance from completed portion of wellbore to nearest lease line of described lease correct?</p>	7/11/2016 7:48:23 AM
Permit	<p>Returned to draft:</p> <p>-- missing Rule 317.p Open Hole Logging BMP</p> <p>-- missing total acres in described lease and distance from completed portion of wellbore to nearest lease line</p>	7/6/2016 10:17:59 AM

Total: 7 comment(s)