

FORM
2
Rev
08/16

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:
401255325

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL GAS COALBED OTHER _____
ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Refiling
Sidetrack

Date Received:
10/26/2017

Well Name: Boomerang Well Number: 28N-3A-L
Name of Operator: SRC ENERGY INC COGCC Operator Number: 10311
Address: 1675 BROADWAY SUITE 2600
City: DENVER State: CO Zip: 80202
Contact Name: Erin Ekblad Phone: (720)616.4319 Fax: (720)616.4301
Email: eekblad@syrginfo.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20090043

WELL LOCATION INFORMATION

QtrQtr: SENW Sec: 5 Twp: 5N Rng: 66W Meridian: 6
Latitude: 40.432962 Longitude: -104.803603

Footage at Surface: 1526 Feet FNL/FSL FNL 2327 Feet FEL/FWL FWL

Field Name: WATTENBERG Field Number: 90750
Ground Elevation: 4770 County: WELD

GPS Data:
Date of Measurement: 03/01/2017 PDOP Reading: 2.2 Instrument Operator's Name: Rob Wilson

If well is Directional Horizontal (highly deviated) **submit deviated drilling plan.**

Footage at Top of Prod Zone: FNL/FSL FEL/FWL Bottom Hole: FNL/FSL FEL/FWL
2577 FNL 2487 FEL 2593 FNL 2416 FWL
Sec: 5 Twp: 5N Rng: 66W Sec: 3 Twp: 5N Rng: 66W

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: Fee State Federal Indian

The Surface Owner is: is the mineral owner beneath the location.
(check all that apply) is committed to an Oil and Gas Lease.
 has signed the Oil and Gas Lease.
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

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.)

See attached Mineral Lease Map.

Below is the description:

Township 4 North, Range 66 West, 6th P.M.
Section 3: SW/4NW/4; S/2SW/4; NE/4SW/4; S/2SE/4
Section 5: W/2 Lot 1 (NW/4NE/4); Lot 2 (N/2NW/4)
Section 7: S/2NE/4
Section 9: NW/4; N/2SW/4; SE/4SW/4; SE/4
Section 17: SE/4SE/4; S/2NE/4SE/4
Township 5 North, Range 66 West, 6th P.M.
Section 3: SW/4: S/2NE/4
Section 5: Lot 2 (N/2NW/4); S/2NW/4; S/2SW/4SE/4
Section 7: Lots 1 and 2 (W/2W/2); E/2W/2; SE/4
Section 9: SE/4SE/4; S/2NE/4SE/4
Section 15: NW/4; SE/4; SW/4NE/4
Section 17: W/2NW/4; SW/4
Section 19: Lots 1 and 2 (W/2W/2); E/2W/2; SE/4
Section 21: S/2SW/4; NW/4SW/4
Section 23: S/2; SW/4NE/4
Section 27: NW/4; S/2
Section 29: SE/4; S/2NE/4
Section 31: Lots 1 and 2 (W/2W/2); E/2W/2; SE/4
Township 5 North, Range 67 West, 6th P.M.
Section 1: Lot 2 (N/2NE/4); S/2NW/4SW/4; SW/4NE/4
Section 25: NW/4; S/2

Total Acres in Described Lease: 5681 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: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building:	<u>1087</u> Feet
Building Unit:	<u>1267</u> Feet
High Occupancy Building Unit:	<u>3366</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>1389</u> Feet
Above Ground Utility:	<u>260</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>311</u> 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: 03/27/2017

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: 190 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 1089 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Spacing Unit: 5N-66W, Sec 3: S2NW, SWNE, N2SW; NWSE, Sec: 4: S2N2; N2S2; Sec 5: S2NE, SENW, N2SE, NESW

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
NIOBRARA	NBRR		875	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 17639 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: 115 Feet No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H₂S 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 318A

DRILLING WASTE MANAGEMENT PROGRAM

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

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	24	16	65	0	40	35	40	0
SURF	13+1/2	9+5/8	36	0	1750	531	1750	0
1ST	8+1/2	5+1/2	20	0	17639	2163	17639	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

SRC has obtained written permission from the surface owner by way of Surface Use Agreement (SUA). The Surface Use Agreement has waivers for Rule 318A.a & 318A.c. See page 6, Section 9 (a).

This location has an Approved Location ID 438622.

In Spacing Tab, distance proposed wellbore to offset same formation is 190 feet to Boomerang 28C-3-L using Plan View Map Measurement. In Drilling Tab distance proposed wellbore to another operator is 115 feet to the WIEDEMAN #22-5 using Anti Collision Report.

The acreage was calculated using Title Opinions from our Attorneys. They take into account all official surveys that become record which may add or, in some cases, reduce a quarter/quarter from the standard 40.00 acres.

The Wiedeman 6-5 and Wiedeman 22-5 that are Noble's well, they have received anti-collision notice at time of permit submission. They are further than 150 feet away at productive interval based on anti-collision, attached. No waiver required.

This application is in a Comprehensive Drilling Plan No CDP #: _____

Location ID: 438622

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: Erin Ekblad

Title: Manager Regulatory Affair Date: 10/26/2017 Email: eekblad@syrinfo.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: Matthew Lee Director of COGCC Date: 11/30/2017

Expiration Date: 11/29/2019

API NUMBER
05 123 45998 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.

<u>COA Type</u>	<u>Description</u>
	<p>Bradenhead tests shall be performed and reported according to the following schedule and Form 17 submitted within 10 days of each test:</p> <ol style="list-style-type: none"> 1) Within 60 days of rig release and prior to stimulation or 2) If a delayed completion, 6-7 months after rig release and prior to stimulation. 3) Within 30 days after first production, as reported on Form 5A.
	<ol style="list-style-type: none"> 1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (Spud Notice), for the first well/activity on the pad and provide 48 hour spud notice for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j and provide cement coverage from the end of production casing to a minimum of 200' above Niobrara. Verify coverage with cement bond log.
	<p>Operator acknowledges the proximity of the following non-operated listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of these wells.</p> <p>PSC J 5-11 (API NO 123-19579)FRAKER 1 (API NO 123-11873) ROTHE 1-11 (API NO 123-18428)</p>
	<p>Operator acknowledges the proximity of the listed wells: Operator agrees to: provide mitigation option 1 or 2 (per the DJ Basin Horizontal Offset Policy) to mitigate the situation, ensure all applicable documentation is submitted based on the selected mitigation option chosen, and submit a Form 42 ("OFFSET MITIGATION COMPLETED") for the remediated wells, referencing the API number of the proposed horizontal well(s) stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well.</p> <p>DAVIS 33-16 (API NO 123-17152)STEVENS 34-14 (API NO 123-17122) DUKE J 4-33 (API NO 123-27303)DUKE USX J 05-16 (API NO 123-27304) DUKE USX J 5-9 (API NO 123-27305)DUKE J4-25 (API NO 123-27326) DUKE J4-14 (API NO 123-27328)</p>
	<p>If location is not built by 2A expiration 9/06/20, Operator must Refile Form 2A for approval prior to location construction.</p>

Best Management Practices

No	BMP/COA Type	Description
1	Planning	604.c.(2)J.i Blowout Prevention Equipment (“BOPE”): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.
2	Planning	604.c.(2)J.ii Backup stabbing valves be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.
3	Drilling/Completion Operations	RULE 604.c.I: Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.
4	Drilling/Completion Operations	604.c.(2)L. Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director. None planned for this well.
5	Drilling/Completion Operations	One of the first wells drilled on the pad will be logged with Cased hole Pulsed Neutron Log with Gamma Ray Log from the kick-off point to into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run in that well and have those logs attached. The Form 5 for each well shall clearly state “No open-hole logs were run” and shall reference the Rule 317.p Exception granted for the well.
6	Drilling/Completion Operations	Operator will comply with COGCC policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg area dated May 29, 2012.
7	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.

Total: 7 comment(s)

Applicable Policies and Notices to Operators

Policy
Notice Concerning Operating Requirements for Wildlife Protection. http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf
Policy for Bradenhead Monitoring During Hydraulic Fracturing Treatments in the Greater Wattenberg Area. http://cogcc.state.co.us/documents/reg/Policies/PolicyGwaBradenheadMonitoringFinal.pdf

Attachment Check List

Att Doc Num	Name
401255325	FORM 2 SUBMITTED
401255368	DIRECTIONAL DATA
401255379	DEVIATED DRILLING PLAN
401255382	OTHER
401255391	WELL LOCATION PLAT
401301793	SURFACE AGRMT/SURETY
401440506	OffsetWellEvaluations Data
401440528	EXCEPTION LOC REQUEST
401441281	MINERAL LEASE MAP
401441469	PROPOSED SPACING UNIT
401449927	OPEN HOLE LOGGING EXCEPTION

401451096	OffsetWellEvaluations Data
401451098	OffsetWellEvaluations Data
401472688	OFFSET WELL EVALUATION

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Checked Buffer Zone and added date. Final Review Completed.	11/27/2017
Engineer	Offset Wells Evaluated	11/16/2017
Permit	The Surface Use Agreement has waivers for Rule 318A.a & 318A.c. See page 6, Section 9 (a). Operator requested Exception to Open Hole Logging Rule 317.p. See attached. Permitting Review Complete.	11/15/2017
Permit	Passed Completeness.	11/03/2017
Permit	Returned to draft for: - "OPEN HOLE LOGGING EXCEPTION" attachment is missing the correct document number	11/03/2017
Permit	Returned to draft for: - "OPEN HOLE LOGGING EXCEPTION" attachment is missing the document number for the log referenced	11/03/2017

Total: 6 comment(s)