

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Date Received: 02/21/2019

TYPE OF WELL OIL GAS COALBED OTHER _____ Refilling

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES Sidetrack

Well Name: Bost Farm Well Number: 34N-11C-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@srcenergy.com

RECLAMATION FINANCIAL ASSURANCE
Plugging and Abandonment Bond Surety ID: 20090043

WELL LOCATION INFORMATION

QtrQtr: NWSW Sec: 7 Twp: 5N Rng: 66W Meridian: 6

Latitude: 40.414148 Longitude: -104.827862

Footage at Surface: 2666 Feet FSL 1254 Feet FWL

Field Name: WATTENBERG Field Number: 90750

Ground Elevation: 4872 County: WELD

GPS Data:
Date of Measurement: 08/09/2018 PDOP Reading: 1.5 Instrument Operator's Name: Ryan Desmond

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

345 FSL 150 FEL 274 FSL 360 FWL

Sec: 12 Twp: 5N Rng: 67W Sec: 11 Twp: 5N Rng: 67W

LOCAL GOVERNMENT INFORMATION

County: WELD Municipality: GREELEY

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: Municipality

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" below. Yes No

If yes, in checking this box, I hereby certify that an application has been filed with the local government with jurisdiction to approve the siting of the proposed oil and gas location.

The local government siting permit type is: USR

The local government siting permit was filed on: 12/11/2017

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

SRC worked extensively with the City of Greeley planning department through Greeley's Use by Special Review process to ensure that the Bost 5-7 Well Pad met all necessary requirements of Oil and Gas development within Greeley City Limits. The City of Greeley approved the Use by Special Review Proposal (USR 17:17) on September 9, 2018.

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: applicant is owner

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.)

5N-67W
11: NW/4, S/2 and other lands

See attached Mineral Lease Map as well.

Total Acres in Described Lease: 5758 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>1459</u> Feet
Building Unit:	<u>1459</u> Feet
High Occupancy Building Unit:	<u>5280</u> Feet
Designated Outside Activity Area:	<u>5280</u> Feet
Public Road:	<u>1246</u> Feet
Above Ground Utility:	<u>1278</u> Feet
Railroad:	<u>5280</u> Feet
Property Line:	<u>388</u> Feet
School Facility:	<u>5280</u> Feet
School Property Line:	<u>5280</u> Feet
Child Care Center:	<u>5280</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, Designated Outside Activity Area, School Facility, and Child Care Center – 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: 10/30/2018

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: 218 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

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

SPACING & FORMATIONS COMMENTS

5N-66W, Sec 7: SWSW, Sec 18: NWNW;
5N-67W, Sec. 11: S2S2; Sec 12: S2S2; Sec 13:N2N2; Sec. 14: N2N2
Niobrara C

See attached PSU letter.

OBJECTIVE FORMATIONS

<u>Objective Formation(s)</u>	<u>Formation Code</u>	<u>Spacing Order Number(s)</u>	<u>Unit Acreage Assigned to Well</u>	<u>Unit Configuration (N/2, SE/4, etc.)</u>
NIOBRARA	NBRR		720	GWA

DRILLING PROGRAM

Proposed Total Measured Depth: 17951 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: 339 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	17951	2030	17951	

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 well has a bottom-hole location beyond the unit boundary setback. The bottom of the completed interval will be within the unit boundary setback at 277' FSL and 460' FWL of Section 11-5N-67W. The wellbore beyond the unit boundary setback will be physically isolated and will not be completed.

Also, since SRC Energy is the Surface owner of this location, we are waiving ourselves from 318A.a. and 318A.c. Also no SUA needed since SRC Energy is the surface owner.

No Stimulation Consent required for this proposed well.

Lot 2 in the NW 1/4 is greater than 40 acres, so the SHL is listed as if the Qtr were divided into QtrQtr.

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.

In Spacing Tab, distance proposed wellbore to offset same formation is 218 feet to Bost Farm 34C-11-L using Plan View Map Measurement. In Drilling Tab, distance proposed wellbore to another operator is 339 feet to ARIEL J 7-12 (05.123.18077) using Anti-Collision Report.

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

Location ID: 456832

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: 2/21/2019 Email: eekblad@srcenergy.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, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 7/1/2019

Expiration Date: 06/30/2021

API NUMBER
05 123 50260 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>
	Operator will ensure the wellbore beyond the unit boundary setback is physically isolated and is not completed. In the Operator Comments on the Form 5A the operator will (1) report the footages from the section lines of the bottom of the completed interval (2) describe how the wellbore beyond the unit boundary setback is physically isolated and (3) certify that none of the wellbore beyond the setback was completed.
	<p>Operator acknowledges the proximity of the listed well. 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") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. 05-123-18078, ARIEL J 7-13</p> <p>Operator acknowledges the proximity of the 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") stating that appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. 05-123-18153, UPRC 7-5H6 05-123-11483, WARREN 10-1 05-123-11972, BORESEN 1 05-123-17356, LUNDVALL 13-12 05-123-23317, RAGAN N 14-1</p>
	<p>Per COGCC Order 1-232, Bradenhead tests shall be performed 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, prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 2) If a delayed completion, 6 months after rig release and prior to stimulation. If any pressure greater than 200 psi, must contact COGCC engineer prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance. <p>1) Submit Form 42 electronically to COGCC 48 hours prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 48 hour spud notice via Form 42 for all subsequent wells drilled on the pad. 2) Comply with Rule 317.j. and provide cement coverage from TD to a minimum of 200' above Niobrara. Verify coverage with cement bond log. 3) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.</p>

Best Management Practices

No	BMP/COA Type	Description
1	Drilling/Completion Operations	Alternative Logging Program: One of the first wells on this pad will be logged with open-hole resistivity log with gamma-ray log from the kick-off point 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 and have those logs attached. The Form 5 for a well without open-hole logs shall state "Alternative Logging Program - No open-hole logs were run", and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.
2	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.
3	Drilling/Completion Operations	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: 3 comment(s)

Applicable Policies and Notices to Operators

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
2316556	CORRESPONDENCE
2479098	DIRECTOR CRITERIA REVIEW SUMMARY
401929058	FORM 2 SUBMITTED
401936489	OffsetWellEvaluations Data
401938181	DIRECTIONAL DATA
401938187	OTHER
401938205	DEVIATED DRILLING PLAN
401945916	MINERAL LEASE MAP
401947651	EXCEPTION LOC REQUEST
401952565	WELL LOCATION PLAT
401952574	PROPOSED SPACING UNIT
402093426	OFFSET WELL EVALUATION

Total Attach: 12 Files

General Comments

User Group	Comment	Comment Date
OGLA	COGCC requested additional information regarding proximate Child Care Centers from operator. Although there are 2 licensed facilities within 1 mile of the proposed well, neither meet the statutory definition of Child Care Center. Based on COGCC's review of the permit application, no additional BMPs or COAs are necessary to avoid health, safety, and welfare impacts to those facilities. Updated distance to Building and Building Unit from 1593' to 1459'. attached correspondence	06/28/2019

Permit	The Director Objective Criteria Review Summary (Doc# 247335) has been deleted from this APD. An updated Director Objective Criteria Review Summary (Doc# 2479098) has been attached to this Form 2 Application for Permit to Drill (APD). Following additional analysis of the Director Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	06/25/2019
Permit	The Director Objective Criteria Review Summary (Doc# 247335) is attached to this Form 2 Application for Permit to Drill (APD). Following additional analysis of the Director Objective Criteria, the Director determined that this application meets the standard for the protection of public health, safety, welfare, the environment and wildlife resources set by SB 19-181.	06/17/2019
Permit	With operator concurrence, the Local Government disposition was updated.	05/30/2019
Permit	Permitting review complete, passed Final Review.	05/07/2019
Permit	Corrected QtrQtr Designation from SWNW to NWSW to reflect Well Location Plat.	05/07/2019
LGD	<p>On September 11, 2018, the City of Greeley Planning Commission approved the Use by Special Review associated with the Bost Farm oil and gas facility (Planning File No. USR 17:17), with the following Conditions of Approval:</p> <p>A.The Roadway Maintenance Agreement must be finalized, with appropriate recording fees obtained, prior to being issued a Notice to Proceed.</p> <p>B.All final reports and plans must be revised so as to be acceptable and approvable by the city, prior to issuance of any permits or a Notice to Proceed, including:</p> <ol style="list-style-type: none"> 1.Operations Plan, including revised Emergency Response and Fire Protection Plan (ERFPP), to updated Greeley Fire Department standards 2. Construction plans 3.Drainage report 4.Traffic plan, as discussed in Section G.5 of this report 5.Any minor changes to the Site and Landscape plans that may result from the impact of other noted plan and report modifications (i.e., revised detention pond or grading, modified access road, or similar minor modifications as determined appropriate by the Director of Community Development) <p>C.Preliminary Subdivision for the Bost OG Development (SUB2018-0010) shall be approved by the Planning Commission prior to any drilling operations occurring on-site.</p> <p>a.As a note, the preliminary subdivision was approved on September 25, 2018.</p> <p>The City of Greeley requests that the 2A state permit be amended to include the conditions of approval listed above as sundry comments.Please contact City staff with any questions on this matter.</p> <p>City of Greeley LGD Comments</p> <p>Brad Mueller</p> <p>Brad.Mueller@greeleygov.com</p> <p>(970)350-9786</p>	03/18/2019
Permit	Passed completeness.	02/27/2019
Permit	Returned to draft: The captioned form was submitted on or after the effective date (February 14, 2019) of the	02/22/2019

<p>school setback rules. The form has been updated to include the school data fields. The new fields must be completed prior to resubmitting.</p> <p>The open hole logging BMP must be updated per the guidance published February 19, 2019.</p>	
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Total: 9 comment(s)