

FORM  
2  
Rev  
05/22

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:  
403312983  
Date Received:  
02/07/2023

APPLICATION FOR PERMIT TO

Drill     Deepen     Re-enter     Recomplete and Operate    Amend   
TYPE OF WELL    OIL     GAS     COALBED     OTHER: Stratigraphic Well    Refile   
ZONE TYPE    SINGLE ZONE     MULTIPLE ZONES     COMMINGLE ZONES     Sidetrack

Well Name: Denova    Well Number: 1  
Name of Operator: DENOVA SEQUESTRATION LLC    COGCC Operator Number: 10790  
Address: 5525 WEST 56TH AVENUE SUITE 200  
City: ARVADA    State: CO    Zip: 80002  
Contact Name: Sharon Sequera    Phone: (720)452-6665    Fax: ( )  
Email: sharon.sequera@carbonamerica.com

FINANCIAL ASSURANCE FOR PLUGGING, ABANDONMENT, AND RECLAMATION

**COGCC Financial Assurance**  
 The Operator has provided or will provide Financial Assurance to the COGCC for this Well.  
Surety ID Number (if applicable): 20220029

**Federal Financial Assurance**  
 In checking this box, the Operator certifies that it has provided or will provide at least this amount of Financial Assurance to the federal government for this Well. (Per Rule702.a.)  
Amount of Federal Financial Assurance \$ \_\_\_\_\_

WELL LOCATION INFORMATION

**Surface Location**  
QtrQtr: SENE    Sec: 28    Twp: 1N    Rng: 49W    Meridian: 6  
Footage at Surface: 1527 Feet    FNL/FSL    422 Feet    FEL/FWL  
Latitude: 40.027439    Longitude: -102.851636  
GPS Data:    GPS Quality Value: 0.0    Type of GPS Quality Value: Accuracy in Meters    Date of Measurement: 01/06/2022  
Ground Elevation: 4312  
Field Name: WILDCAT    Field Number: 99999  
Well Plan: is  Directional     Horizontal (highly deviated)     Vertical  
If Well plan is Directional or Horizontal attach Deviated Drilling Plan and Directional Data.

**Subsurface Locations**  
Top of Productive Zone (TPZ)  
Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Footage at TPZ: \_\_\_\_\_  
Measured Depth of TPZ: \_\_\_\_\_ True Vertical Depth of TPZ: \_\_\_\_\_ FNL/FSL    FEL/FWL

Base of Productive Zone (BPZ)

Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Footage at BPZ: \_\_\_\_\_  
Measured Depth of BPZ: \_\_\_\_\_ True Vertical Depth of BPZ: \_\_\_\_\_ FNL/FSL \_\_\_\_\_ FEL/FWL \_\_\_\_\_

Bottom Hole Location (BHL)

Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Footage at BHL: \_\_\_\_\_  
FNL/FSL \_\_\_\_\_ FEL/FWL \_\_\_\_\_

**LOCAL GOVERNMENT PERMITTING INFORMATION**

County: WASHINGTON Municipality: N/A

Is the Surface Location of this Well in an area designated as one of State interest and subject to the requirements of § 24-65.1-108 C.R.S.? No

Per § 34-60-106(1)(f)(I)(A) C.R.S., the following questions pertain to the Relevant Local Government approval of the siting of the proposed Oil and Gas Location.

SB 19-181 provides that when "applying for a permit to drill," operators must include proof that they sought a local government siting permit and the disposition of that permit application, or that the local government does not have siting regulations. § 34-60-106(1)(f)(I)(A) C.R.S.

Does the Relevant Local Government regulate the siting of Oil and Gas Locations, with respect to this Location?  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 disposition of the application filed with the Relevant Local Government is: \_\_\_\_\_ Date of Final Disposition: \_\_\_\_\_

Comments: \_\_\_\_\_

**SURFACE AND MINERAL OWNERSHIP AT WELL'S OIL & GAS LOCATION**

Surface Owner of the land at this Well's Oil and Gas Location:  Fee  State  Federal  Indian

Mineral Owner beneath this Well's Oil and Gas Location:  Fee  State  Federal  Indian

Surface Owner Protection Bond (if applicable): \_\_\_\_\_ Surety ID Number (if applicable): \_\_\_\_\_

**MINERALS DEVELOPED BY WELL**

The ownership of all the minerals that will be developed by this Well is (check all that apply):

- Fee
- State
- Federal
- Indian
- N/A

**LEASE INFORMATION**

Using standard QtrQtr, Section, Township, Range format describe one entire mineral lease as follows:

\* If this Well is within a unit, describe a lease that will be developed by the Well.  
\* If this Well is not subject to a unit, describe the lease that will be produced by the Well.  
(Attach a Lease Map or Lease Description or Lease if necessary.)

N/A - no minerals will be developed. SLB Exploration lease (in lieu of SUA) is attached.

Total Acres in Described Lease: \_\_\_\_\_ Described Mineral Lease is:  Fee  State  Federal  Indian

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

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 5280 Feet  
Building Unit: 5280 Feet  
Public Road: 5280 Feet  
Above Ground Utility: 2191 Feet  
Railroad: 5280 Feet  
Property Line: 210 Feet

### INSTRUCTIONS:

- Specify all distances per Rule 308.b.(1).
- 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 – as defined in 100 Series Rules.

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
LAKOTA	LKTA			
LYONS	LYNS			

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

Unit Number: \_\_\_\_\_

## SUBSURFACE MINERAL SETBACKS

Enter 5280 for distance greater than 1 mile.

Is this Well within a unit? No

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: \_\_\_\_\_ Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well within the same unit permitted or completed in the same formation: \_\_\_\_\_ Feet

If NO:

Enter the minimum distance from the Completed Zone of this Well to the Lease Line of the described lease: 2486 Feet

Enter the minimum distance from the Completed Zone of this Well to the Completed Zone of an offset Well producing from the same lease and permitted or completed in the same formation: \_\_\_\_\_ Feet

## Exception Location

If this Well requires the approval of a Rule 401.c Exception Location, enter the Rule or spacing order number and attach the Exception Location Request and Waivers. \_\_\_\_\_

## SPACING & FORMATIONS COMMENTS

No minerals will be developed - minimum distance to lease line is wellhead to SLB Exploration Lease line.

## DRILLING PROGRAM

Proposed Total Measured Depth: 5150 Feet

TVD at Proposed Total Measured Depth 5150 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 Plan unless a plan was already submitted with the Form 2A per Rule 304.c.(10).

Will there be hydraulic fracture treatment at a depth less than 2,000 feet in this well? No

Will salt sections be encountered during drilling? Yes

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

Beneficial reuse or land application plan submitted? No

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



Title: Senior Regulatory Analyst Date: 2/7/2023 Email: sharon.sequera@carbonameric

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: 3/2/2023  
 Expiration Date: 03/01/2026

<b>API NUMBER</b>
05 121 11100 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>
Drilling/Completion Operations	Per Rule 419.c the annual Bradenhead test will be performed within 30 days of rig release and a Form 17 with the results will be submitted in 10 days. This will be followed by monthly monitoring and annual testing and reporting.
Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad. 2) Comply with Rule 408.j. and provide cement coverage from TD to a minimum of 500' above Niobrara. Verify coverage with a cement bond log. 3) Oil based drilling fluid can only be used after all groundwater has been isolated.
2 COAs	

### Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Reference area photos will be taken when vegetation is at its peak and submitted via Form 4 sundry before October 31, 2023 due date per COGCC.
2	Wildlife	• Install avian deterrents on equipment when the equipment is planned to be left inactive for longer periods of time to prevent migratory bird nesting. • Operator will coordinate with the surface owner and CPW to use recommended and approved seed mixes for reclamation. • A pre-construction migratory bird survey will be performed within the approved disturbance area prior to construction activities (if construction is between April 1 to August 31)
3	Wildlife	- A single aerial drone survey will be conducted covering a 0.6 mile buffer from the edge of the Working Pad Surface after March 10, 2023 in compliance with Colorado Parks and Wildlife Greater Prairie Chicken protocol. - Operator will promptly provide written notification to Colorado Parks and Wildlife and COGCC of the results of the Greater Prairie Chicken aerial drone survey. - Should one or more Lek sites be identified within the survey area, Carbon America will deploy sound mitigation such as hay bales in consultation with Colorado Parks and Wildlife and COGCC prior to spudding the stratigraphic well.

4	Storm Water/Erosion Control	Stormwater controls include silt fence, mulch, Curlex erosion control blanket, and filter logs/rolls or straw bales. The sediment barriers will typically be installed at the base of slopes adjacent to ditches, drainage channels, and other excavated material must be placed in such a manner that if a storm event was to occur, the sediment would flow into the excavation. BMPs will be installed on the downslope side of the excavations to contain the sediment within the Project Area.
5	Material Handling and Spill Prevention	Once drilling operations are completed, all debris and waste will be removed from location by the contractor and disposed of properly in commercial waste containers. All excavations unnecessary for operations will be backfilled per industry standards.
6	Dust control	<ul style="list-style-type: none"> <li>• Carbon America may utilize freshwater or flocculants for dust suppressant practices.</li> <li>• Speed restrictions on the access road will be utilized to minimize dust. An average speed of 20 miles per hour is currently anticipated to be used for most vehicles.</li> <li>• Construction activities may be limited or deferred on high-wind days to restrict potential fugitive dust.</li> <li>• Topsoil and stockpiled soils will be stabilized through the use of either tackifiers, seeding practices, or erosion control blankets.</li> </ul>
7	Construction	Topsoil will be segregated during construction to be redistributed during interim reclamation. Topsoil will be segregated in non-impervious areas adjacent to the well pad. Proper site preparation would be ensured by spreading of stored and salvaged topsoil or topsoil replacement to an adequate depth and by ripping, tilling, disking, harrowing, and dozer track imprinting where appropriate.
8	Drilling/Completion Operations	Adequate blowout prevention equipment will be used for all well servicing operations
9	Drilling/Completion Operations	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 will 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 will 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.
10	Drilling/Completion Operations	No reserve pit will be utilized. A closed-loop solids control system will be utilized to capture all drilling operational waste. Generated waste will be transported to the nearest facility permitted to accept the waste.
11	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.
12	Interim Reclamation	After the topsoil has been returned to these areas and prepared for seeding, a landowner-approved weed-free seed mix would be planted to prevent erosion, preserve soil integrity, and resist weeds.
13	Interim Reclamation	The location will be inspected for noxious weeds monthly at a minimum. If invasive plants are identified during an inspection, Carbon America will consult with the local weed control agency and weed control measures will be conducted in compliance with the Colorado Noxious Weed Act.
14	Final Reclamation	If the operator is no longer planning to use the well as a carbon sequestration injection or monitoring well, the well will be plugged and abandoned and the location reclaimed pursuant to COGCC Rules or the operator will transfer the well and location to a subsequent operator pursuant to Rule 218.

Total: 14 comment(s)

### Attachment List

Att Doc Num	Name
403312983	FORM 2 SUBMITTED
403313183	SURFACE OWNER CONSENT
403314944	WELLBORE DIAGRAM
403315023	WELL LOCATION PLAT

Total Attach: 4 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	03/02/2023
OGLA	The variance requested by Denova under docket # 220200036 was approved by Commission hearing on June 22, 2022: Commission Order 1-272. The Oil and Gas Location, its associated Form 2A materials, and the Form 2 Application for Permit to Drill were fully reviewed by COGCC Staff. OGLA task passed.	03/01/2023
Permit	Added open hole logging BMP per operator.	02/17/2023
Engineer	<ul style="list-style-type: none"><li>•Surface Casing Check complete</li><li>•Offset well review complete</li></ul> 408.t - No wells 408.u - No wells <ul style="list-style-type: none"><li>•Engineering review complete</li></ul> Hydraulic fracture stimulation is not planned for this well and will require COGCC approval if performed in the future.	02/15/2023

Total: 4 comment(s)