

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

(SUBMITTED)

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 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

Qtr/Qtr: SE NE Sec: 28 Twp: 1N Rng: 49W Meridian: 6

FNL/FSL

FEL/FWL

Footage at Surface: 1527 Feet FNL 422 Feet FEL

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: _____ Field Number: _____

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 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 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: _____



CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	20	N/A	65	0	80	115	80	0
SURF	17+1/2	13+3/8	J55	54.5	0	700	440	700	0
1ST	12+1/4	9+5/8	J55	43.5	0	4222	983	4222	0
2ND	8+3/4	7	L80	23/35	0	5150	1109	5150	0

Conductor Casing is NOT planned

POTENTIAL FLOW AND CONFINING FORMATIONS

Zone Type	Formation /Hazard	Top M.D.	Top T.V.D.	Bottom M.D.	Bottom T.V.D.	TDS (mg/L)	Data Source	Comment
Groundwater	Ogallala	0	0	150	150	0-500	USGS	
Confining Layer	Pierre Shale	150	150	2928	2928			
Hydrocarbon	Niobrara	2928	2928	3315	3315			
Hydrocarbon	Ft Hays	3315	3315	3375	3375			
Confining Layer	Carlile	3375	3375	3430	3430			
Confining Layer	Greenhorn	3430	3430	3499	3499			
Confining Layer	Grenaros	3499	3499	3781	3781			
Hydrocarbon	D Sand	3781	3781	3836	3836			
Confining Layer	Huntsman Shale	3836	3836	3857	3857			
Hydrocarbon	J Sand	3857	3857	3993	3993			
Confining Layer	Skull Creek Shale	3993	3993	4120	4120			
Hydrocarbon	Lakota	4120	4120	4239	4239			
Confining Layer	Morrison	4239	4239	4549	4549			
Hydrocarbon	Minnekathta	4549	4549	4569	4569			
Confining Layer	Opeche	4569	4569	4613	4613			
Confining Layer	Day Creek Anhydrite	4613	4613	4738	4738			
Confining Layer	Flowerpot Shale	4738	4738	4788	4788			
Disposal	Lyons	4788	4788	4828	4828			
Confining Layer	Summer Satanka	4828	4828	4872	4872			
Confining Layer	Stone Corral	4872	4872	5038	5038			
Hydrocarbon	Wolfcamp	5038	5038	5150	5150			

OPERATOR COMMENTS AND SUBMITTAL

Comments

This application is in a Comprehensive Area Plan CAP #:

Oil and Gas Development Plan Name OGDID#:

Location ID:

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

Signed: Print Name:

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

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: _____
 Expiration Date: _____

API NUMBER
 05

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>
0 COA	

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	<ul style="list-style-type: none"> • 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"> • Carbon America may utilize freshwater or flocculants for dust suppressant practices. • 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. • Construction activities may be limited or deferred on high-wind days to restrict potential fugitive dust. • Topsoil and stockpiled soils will be stabilized through the use of either tackifiers, seeding practices, or erosion control blankets.
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	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.
12	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.
13	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: 13 comment(s)

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403313183	SURFACE OWNER CONSENT
403314944	WELLBORE DIAGRAM
403315023	WELL LOCATION PLAT

Total Attach: 3 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)