

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:

403306419

Date Received:

05/19/2023

APPLICATION FOR PERMIT TO

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and Operate

Amend ☐

TYPE OF WELL OIL ☐ GAS ☒ COALBED ☐ OTHER: \_\_\_\_\_

Refill ☐

ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐

Sidetrack ☐

Well Name: Ardourel 33081718

Well Number: 4HU

Name of Operator: NUEVIDA RESOURCES LLC

COGCC Operator Number: 10764

Address: 5950 CEDAR SPRINGS RD STE #100

City: DALLAS

State: TX

Zip: 75235

Contact Name: Richard Pate

Phone: (303)550-4880

Fax: ( )

Email: dpate@nuevidaresources.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): 20200199

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: Lot 3 Sec: 18 Twp: 33N Rng: 8W Meridian: N

Footage at Surface: 1793 Feet FNL/FSL FSL 289 Feet FEL/FWL FWL

Latitude: 37.101247 Longitude: -107.767606

GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP

Date of Measurement: 12/22/2020

Ground Elevation: 6719

Field Name: IGNACIO BLANCO

Field Number: 38300

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: 18 Twp: 33N Rng: 8W

Footage at TPZ: 2532 FNL 600 FWL

Measured Depth of TPZ: 7328

True Vertical Depth of TPZ: 6889 FNL/FSL FEL/FWL

**Base of Productive Zone (BPZ)**Sec: 17 Twp: 33N Rng: 8WFootage at BPZ: 2532 FNL 600 FELMeasured Depth of BPZ: 16921True Vertical Depth of BPZ: 6839 FNL/FSL FEL/FWL**Bottom Hole Location (BHL)**Sec: 17 Twp: 33N Rng: 8WFootage at BHL: 2531 FNL 491 FELFNL/FSLFEL/FWL**LOCAL GOVERNMENT PERMITTING INFORMATION**County: LA PLATA 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: Approved Date of Final Disposition: 07/21/2022

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 ☐ IndianMineral 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.)

Township 33 North, Range 8 West, N.M.P.M.

Section 17: All

Section 18: Lots 1(39.49), 2(40.12), 3(40.23), 4(39.68), E/2W/2, E/2 (a/k/a All)

Total Acres in Described Lease: 1280

Described Mineral Lease is: ☒ Fee

☐ State

☐ Federal

☐ Indian

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

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2657 Feet

Building Unit: 2657 Feet

Public Road: 1793 Feet

Above Ground Utility: 1270 Feet

Railroad: 5280 Feet

Property Line: 289 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.)
MANCOS	MNCS	112-299	1280	T33N, R8W, Sec. 17: All; Section 18: Lots 1, 2, 3, 4, E½W½, E½ (a.k.a. All)

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? Yes

If YES:

Enter the minimum distance from the Completed Zone of this Well to the Unit Boundary: 600 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: 5280 Feet

If NO:

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

## DRILLING PROGRAM

Proposed Total Measured Depth: 17030 Feet

TVD at Proposed Total Measured Depth 6839 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: 613 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? 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

Beneficial reuse or land application plan submitted? No

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

**CASING PROGRAM**

<u>Casing Type</u>	<u>Size of Hole</u>	<u>Size of Casing</u>	<u>Grade</u>	<u>Wt/Ft</u>	<u>Csg/Liner Top</u>	<u>Setting Depth</u>	<u>Sacks Cmt</u>	<u>Cmt Btm</u>	<u>Cmt Top</u>
SURF	17+1/2	13+3/8	J-55	54.5	0	500	509	500	0
1ST	12+1/4	9+5/8	L-80HC	40	0	6356	2778	6356	0
2ND	8+1/2	5+1/2	P-110	20	0	16951	3605	16951	5356

☒ Conductor Casing is NOT planned

**POTENTIAL FLOW AND CONFINING FORMATIONS**

<u>Zone Type</u>	<u>Formation /Hazard</u>	<u>Top M.D.</u>	<u>Top T.V.D.</u>	<u>Bottom M.D.</u>	<u>Bottom T.V.D.</u>	<u>TDS (mg/L)</u>	<u>Data Source</u>	<u>Comment</u>
Groundwater	ANIMAS	10	10	1570	1570	0-500	Groundwater Sample	
Groundwater	LOWER ANIMAS	1570	1570	1780	1780	1001-10000	USGS	WRI 4188
Confining Layer	KIRTLAND	1780	1780	1960	1960		USGS	WRI 95-4190
Hydrocarbon	FARMINGTON SAND	1960	1960	2503	2499		USGS	WRI 95-4190
Confining Layer	KIRTLAND SHALE (LOWER)	2503	2499	2675	2669		USGS	WRI 95-4190
Hydrocarbon	FRUITLAND COAL	2675	2669	3122	3106		USGS	WRI 4188
Hydrocarbon	PICTURED CLIFFS	3122	3106	3388	3382		USGS	WRI 4188
Confining Layer	LEWIS SHALE	3388	3382	4919	4859		USGS	WRI 4188
Hydrocarbon	CLIFF HOUSE	4919	4859	5366	5295		USGS	WRI 4188
Hydrocarbon	MENEFEE (MV)	5366	5295	5635	5558		USGS	WRI 4188
Hydrocarbon	POINT LOOKOUT (MV)	5635	5558	6040	5953		USGS	WRI 95-4190
Confining Layer	MANCOS SHALE	6040	5953	6804	6673		USGS	WRI 95-4190
Hydrocarbon	MANCOS-MIDDLE	6804	6673	7314	7274		USGS	WRI 95-4190

**OPERATOR COMMENTS AND SUBMITTAL****Comments**

- This well has a bottom hole location beyond the unit boundary setback for operational/cementing purposes. The bottom of the completed interval will be within the unit boundary of 600' FEL x 2532' FSL. The wellbore beyond the boundary set back will be isolated and will not be completed.
- NueVida Resources has no operated wells in the unit.
- There are no producing wells in the Mancos formation located in the unit.
- The Mancos TVD in the Ardourel #4U lateral wellbore is 6889'.
- The nearest well (non-operated) in the unit penetrating through the Mancos (per manual calculation) is at 730'. Harmon DK-MV GU #1 (API: 05-067-05418), Status: P&A 1/16/2023.
- Wells within 150': NONE
- Wellbore to wellbore distances populated from attached anti-collision report unless otherwise indicated.
- NueVida Resources will isolate the Animas/Ojo Alamo formation (potential fresh water source) with surface casing set at 500' and intermediate casing set at 6300', both strings cemented to surface. Deepest water well (SESW 13-T33N-R9W) is approximately 3500 ' from Ardourel #4HU wellbore and has a TD=320'.

This application is in a Comprehensive Area Plan \_\_\_\_\_

CAP #: \_\_\_\_\_

Oil and Gas Development Plan Name Ardourel OGD

OGDP ID#: 483343

Location ID: 484496

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

Signed: \_\_\_\_\_

Print Name: RICHARD PATE

Title: CHIEF OPERATING OFFICER

Date: 5/19/2023

Email: dpate@nuevidaresources.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: 7/10/2023

Expiration Date: 05/16/2026

## API NUMBER

05 067 10038 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 TypeDescription

- 1) The First String (9 5/8" casing) shall be cemented from the casing shoe to the surface by circulation methods. Verify production casing cement coverage with a cement bond log.
- 2) The two closest water wells within 1/4 mile radius of the proposed lateral shall be sampled & analyzed (Cause 112 Orders 156-157 and rule 615) if not done previously.
- 3) Oil based drilling fluid can only be used after all groundwater has been isolated.
- 4) If borehole problems occur while drilling and an unplanned sidetrack is required, the following shall apply:
  - a.) Before proceeding, contact the COGCC Engineer for verbal approval and provide an explanation as to what happened to the original borehole and what the plan is for the sidetrack.  
Contact Information:  
Alicia Duran – Area Engineer  
303-548-7396 cell  
alicia.duran@state.co.us
  - b.) Adhere to the instructions provided in the “UNPLANNED Sidetrack While Drilling: Approval and Reporting Process – Statewide” that can be found on the COGCC website at:  
Go to COGCC Web Site for more details if necessary  
Regulation, Forms, Form 2-Permit to Drill, Instructions
- 4) Contact COGCC Engineer – Alicia Duran when encountering kicks requiring a mud weight increase of 0.5 ppg to control the kick, unexpected water flows, and unexpected Hydrogen Sulfide.

1 COA

## Best Management Practices

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Wildlife	If new oil and gas operations must occur within CPW-mapped mule deer and elk severe winter range and/or winter concentration areas, the operator agrees to conduct new oil and gas operations outside the time period from December 1 through April 30.
2	Material Handling and Spill Prevention	Operator will use leak detection and monitoring during completions operations.
3	Material Handling and Spill Prevention	Operator will ensure that a fueling contractor is present during the entire fueling process to prevent overfilling, leaks and drips from improper connections.
4	Emissions mitigation	Operator will not use fracturing fluids which contain PFAS compounds.
5	Emissions mitigation	Venting/Flaring: Operator will not flare or vent gas during completion or flowback, except in upset or emergency conditions, or with prior written approval from the Director for necessary maintenance operations
6	Odor mitigation	Operator will ensure that all drilling fluid is removed from pipes before storage.
7	Odor mitigation	Operator will use a squeegee or other device to remove drilling fluids from pipes as they exit the wellbore.
8	Odor mitigation	Operator will cover trucks transporting drill cuttings.
9	Drilling/Completion Operations	One of the initial wells on the Ardourel 33081718 Pad (#3HL or #4HU) will be logged with an OH gamma-ray and resistivity from the base of the intermediate string to the surface casing. The wells will have a cement bond log and gamma ray ran on both the intermediate and production casing strings into the bottom of the surface casing. The horizontal portion (including the base of the intermediate string to the kick-off point) of the of the wells will be logged with a MWD-LWD drilling system. The LWD tools will consist of a gamma-ray (GR) and resistivity (Rt). The Form 5, Completion Report, for each well will list all the logs run and will be attached to the report. In the well that no OH logs will be run, a statement in the Form 5 will include: Alternative Logging Program (i.e. alternative well): No OH logs were run on this well and the OH logs (list of OH logs) were ran on the "alternate well"(identifying the specific well and API #).

Total: 9 comment(s)

## Attachment List

<b>Att Doc Num</b>	<b>Name</b>
403306419	FORM 2 SUBMITTED
403307730	OffsetWellEvaluations Data
403307813	DIRECTIONAL DATA
403307821	DEVIATED DRILLING PLAN
403307834	WELL LOCATION PLAT
403316712	WELLBORE DIAGRAM
403458804	OFFSET WELL EVALUATION

Total Attach: 7 Files

### General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	07/10/2023
Engineer	The potential flow and confining formation table lists groundwater below the depth of the planned surface casing. That groundwater will be isolated by fully cementing the production casing as required by commission order.	07/05/2023
Engineer	A one mile radius of investigation of all offsetting fresh water wells has determined that the deepest surface casing required to protect the aquifers is a depth of 458' (includes a 50' margin of additional protection corrected for elevation differences). The operator proposed a depth of 500' which is adequate.	07/05/2023
Engineer	Offset Well Evaluation: Existing offset wells within 1500' meet standards. No mitigation required.	07/05/2023
Permit	Updated deviated drilling plan has been attached and TD values updated where necessary to reflect this change.  Operator supplied unit information, updated Safety Setbacks, and well logging BMP, which have all been input into this form.	06/16/2023
Permit	Deviated drilling plan TD values on each attachment do not match.  Missing unit information. Please confirm. Check Safety Setbacks for accuracy. Missing well logging BMP (see guidance document on COGCC website).	06/15/2023
OGLA	The Commission approved OGDG #483343 on May 17, 2023 for the Oil and Gas Location related to this Form 2. OGLA task passed.	05/31/2023

Total: 7 comment(s)