

FORM  
2

Rev  
12/20

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:

402608246

(SUBMITTED)

Date Received:

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: North Carracas 32-4 Well Number: 7F-3  
Name of Operator: RED WILLOW PRODUCTION COMPANY COGCC Operator Number: 81295  
Address: P O BOX 369  
City: IGNACIO State: CO Zip: 81137  
Contact Name: Shelly Cowden Phone: (970)442-1554 Fax: ( )  
Email: scowden@rwpc.us

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20090057

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWSW Sec: 7 Twp: 32N Rng: 4W Meridian: N  
Footage at Surface: 96 Feet FSL 411 Feet FWL  
Latitude: 37.025490 Longitude: -107.333200  
GPS Data: GPS Quality Value: 1.8 Type of GPS Quality Value: PDOP Date of Measurement: 10/16/2020  
Ground Elevation: 6174  
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: 32N Rng: 4W Footage at TPZ: 1195 FNL 569 FWL  
Measured Depth of TPZ: 3311 True Vertical Depth of TPZ: 2760 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 18 Twp: 32N Rng: 4W Footage at TPZ: 1615 FNL 678 FWL  
Measured Depth of TPZ: 3794 True Vertical Depth of TPZ: 2964 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 18 Twp: 32N Rng: 4W Footage at BHL: 1615 FNL 678 FWL  
FNL/FSL FEL/FWL

## LOCAL GOVERNMENT PERMITTING INFORMATION

County: ARCHULETA

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 Financial Assurance (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.)

T32N-R4W, N.M.P.M., Sec7: ALL  
And additional acreage

Total Acres in Described Lease: 12327 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # 750082008

### SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 696 Feet  
Building Unit: 696 Feet  
Public Road: 732 Feet  
Above Ground Utility: 5280 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.

Railroad: 5280 Feet  
Property Line: 660 Feet

## OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
FRUITLAND COAL	FRLDC	112-287	7389	See Order

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: 660 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: 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: 331 Feet TVD at Proposed Total Measured Depth 2760 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? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? Yes

Will oil based drilling fluids be used? No

BOP Equipment Type: ☒ Annular Preventor ☒ Double Ram ☒ Rotating Head ☐ None

Beneficial reuse or land application plan submitted?

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>
CONDUCTOR	17+1/2	13+3/8	J-55	54.5	0	140	200	140	0
SURF	12+1/4	9+5/8	J-55	36	0	860	430	860	0
1ST	8+3/4	7	J-55	23	0	3794	365	3794	0

☐ 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>
Confining Layer	San Jose	0	0	884	881	501-1000	USGS	Sands, Silts, Shale, non potable water
Groundwater	Not Present see comments	0	0	100	100	0-500	Other	In the area where we are drilling, Upper Animas or Animas McDermott formations are not present, they have been eroded away and the surface formation is San Jose.
Confining Layer	Nacimiento	884	881	2033	1994	501-1000	USGS	Sands, Silts, Shale, non potable water
Confining Layer	Ojo Alamo	2033	1994	2247	2633	1001-10000	Other	RW Investigation Stateline Sands, Silts, Shale, non potable water
Hydrocarbon	Kirtland Shale	2247	2633	2774	2633	>10000	Other	FCGS - Kutz Gas Field NM Shale, siltstone, sands, low gas saturations
Hydrocarbon	Kirtland Shale lwr	2774	2600	3004	2760	>10000	Other	FCGS - Kutz Gas Field NM Shale, siltstone, sands, low gas saturations
Hydrocarbon	Fruitland Formation	3004	2760	3240	2860	>10000	Other	RMAG Oil and Gas Fields 2014 Shale, siltstone, sands, low gas saturations
Hydrocarbon	Fruitland Coal	3240	2860	3335	2900	>10000	Other	RMAG Oil and Gas Fields 2014 Horizontal Target, CBM Coal
Hydrocarbon	Pictured Cliffs	3335	2900	0	0	>10000	Other	RMAG Oil and Gas Fields 2014 Gas Charged Marine Sandstone

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**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 Type Description**

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**Best Management Practices****No BMP/COA Type Description**

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**Attachment List**

<u>Att Doc Num</u>	<u>Name</u>
402608288	WELLBORE DIAGRAM
402608289	FED. DRILLING PERMIT
402608291	PLAT
402608293	DIRECTIONAL DATA

Total Attach: 4 Files

### General Comments

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

Total: 0 comment(s)



## Public Comments

No public comments were received on this application during the comment period.

