

Base of Productive Zone (BPZ)

Sec: 11 Twp: 7N Rng: 66W Footage at BPZ: 2275 FNL 470 FWL
Measured Depth of BPZ: 18036 True Vertical Depth of BPZ: 7428 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 11 Twp: 7N Rng: 66W Footage at BHL: 2275 FNL 470 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: WELD 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.? Yes

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? [X] Yes [] No

[X] 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: 01/07/2021

Comments: 1041WOGLA20-0073 submitted 10/1/2020, approved 1/7/2021

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

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

Mineral Owner beneath this Well's Oil and Gas Location: [X] 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):

- [X] Fee
[] State
[X] 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.)

Lease description is unchanged.

Total Acres in Described Lease: 292 Described Mineral Lease is: [X] Fee [] State [] Federal [] Indian

Federal or State Lease #

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2021 Feet
Building Unit: 2261 Feet
Public Road: 2418 Feet
Above Ground Utility: 139 Feet
Railroad: 5280 Feet
Property Line: 139 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.)
CODELL	CODL	407-3330	1280	All: 12, 11

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: 470 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: 440 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: 18036 Feet

TVD at Proposed Total Measured Depth 7428 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: 320 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? 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

Casing Type	Size of Hole	Size of Casing	Grade	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	N/A	42	0	80	400	80	0
SURF	13+1/2	9+5/8	J55	36	0	1500	660	1500	0
1ST	8+1/2	5+1/2	HCP110	20	0	18048	2484	18048	2500

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	Quaternary Alluvium	0	0	42	42	501-1000	Groundwater Sample	Sample Site ID 753695, 750020
Groundwater	Laramie/Fox Hills	42	42	440	440	501-1000	Groundwater Sample	Sample Site ID 766369, 753716
Groundwater	Upper Pierre	440	440	1682	1682	501-1000	Other	Area Report Microsoft PowerPoint - UPWQ_PPT_01-29Hearing
Confining Layer	Pierre Shale	1682	1682	4073	3943			
Hydrocarbon	Parkman	4073	3943	4573	4317			
Hydrocarbon	Sussex	4673	4469	5073	4802			
Hydrocarbon	Shannon	5373	5054	5773	5382			
Confining Layer	Pierre Shale	5773	5382	7654	7101			
Confining Layer	Sharon Springs	7654	7101	7673	7137			
Hydrocarbon	Niobrara	7673	7137	7973	7326			
Confining Layer	Ft Hays	7973	7326	8073	7378			Not Productive
Hydrocarbon	Codell	8073	7378	18048	7420			Potential Flow Formation Table: The TVD of the deepest hydrocarbon zone is the bottom of the well and not the bottom of the formation. The formation is not planned to be exited.

OPERATOR COMMENTS AND SUBMITTAL

Comments Sidetrack due to fish in hole. Objective formation is unchanged as Codell.
 This is a planned monobore so no liner or production casing has been run yet. Surface casing is set at 1,571.34 ft.
 Description of fish in the hole (if any) – including top and bottom measured depths
 Total Length of Fish = 20.25”
 Top of Fish @ ~15,578’ MD
 Bottom of Fish @ 15,580’ MD
 Fish: Ultrerra RPS516 bit (20.25”)
 Description of proposed plugs: setting measured depths, heights, and cement volumes
 No plugs are being proposed. A sidetrack/trough point has been identified at 15,000’ MD that meets the criteria for redirecting the wellbore. Oil based mud with density of ~10.9 ppg will be left in the abandoned lateral section.
 Type of cement to be used for all plugs, including slurry weight (ppg) and yield (cf/sk): N/A
 Proposed sidetrack KOP = 15500’ TMD.
 Verbal approval for sidetrack by Diana Burn on 9/29/22 submitted as correspondence.
 COGCC Sidetrack Contact = Sam Champlin.

This application is in a Comprehensive Area Plan _____ No _____ CAP #: _____
 Oil and Gas Development Plan Name Ruby 7-J Pad OGD ID#: 481736
 Location ID: 482392

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.
 Signed: _____ Print Name: Jordan Lukasik
 Title: Regulatory Analyst Date: 9/30/2022 Email: regulatory@ascentgeomatics.c

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
05 123 51756 01

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>

Best Management Practices

<u>No BMP/COA Type</u>	<u>Description</u>

Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403183517	OffsetWellEvaluations Data
403183589	CORRESPONDENCE
403183591	WELL LOCATION PLAT

Total Attach: 4 Files

General Comments

User Group

Comment

Comment Date

		Stamp Upon Approval
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Total: 0 comment(s)



Public Comments

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

