

Base of Productive Zone (BPZ)

Sec: 34 Twp: 6N Rng: 61W Footage at BPZ: 100 FNL 475 FWL
Measured Depth of BPZ: 17139 True Vertical Depth of BPZ: 6048 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 34 Twp: 6N Rng: 61W Footage at BHL: 100 FNL 475 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: 04/07/2022

Comments: Pad location was part of the approved 1041WOGLA21-0017 CDP. The individual 1041WOGLA application was submitted to Weld County on 7/31/2024 and is still in process.

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
- [] 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.)

T5N R61W
 Section 1: NW4;
 Section 2: NE4; W2
 Section 3: W2
 Section 9: SW4
 Section 10: All
 Section 12: W2
 Section 14: NE4
 Recorded with Weld County, Record # 3313827

Total Acres in Described Lease: 2240 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: 3962 Feet
 Above Ground Utility: 5280 Feet
 Railroad: 5280 Feet
 Property Line: 284 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.)
NIOBRARA	NBRR	407-3614	1280	T5N-R61W SEC 3 ALL; T6N-R61W SEC 34 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: 100 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: 883 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: 17139 Feet

TVD at Proposed Total Measured Depth 6048 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: 634 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? 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	16	A53B	36.95	0	80	105	80	0
SURF	13+1/2	9+5/8	J-55	36	0	1575	535	1575	0
1ST	8+1/2	5+1/2	P-110	20	0	17139	2504	17139	1575

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	Laramie-Fox Hills	24	24	268	268	1001-10000	Other	COGCC UPWQ REPORT
Confining Layer	Pierre Formation	268	268	408	408			
Groundwater	Upper Pierre Aquifer	408	408	1523	1518	1001-10000	Other	COGCC UPWQ REPORT
Confining Layer	Pierre Formation	1523	1518	3444	3298			
Hydrocarbon	Larimer ("Parkman") Sand	3444	3298	3738	3568			Not Productive in this area
Confining Layer	Pierre Formation	3738	3568	3978	3788			
Hydrocarbon	Terry ("Sussex") Sand	3978	3788	4076	3878			Not Productive in this area
Confining Layer	Pierre Formation	4076	3878	4659	4413			
Hydrocarbon	Hygiene ("Shannon") Sand	4659	4413	4763	4508			Not Productive in this area
Confining Layer	Pierre Formation	4763	4508	6385	5938			
Subsurface Hazard	Sharon Springs Member	6385	5938	6759	6048			Sloughing Shales
Hydrocarbon	Niobrara	6759	6048	17139	6048			

OPERATOR COMMENTS AND SUBMITTAL

Comments

The distance to the completed portion of the nearest well in the same unit on the "Spacing & Formation" tab is measured to the proposed PH Hyperion P10 03N-20-01 . This distance was measured in 3-dimensional space.

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells was measured to the ESTERLING #44-33H (API Number 05-123-35472). This distance was measured in 3-dimensional space.

Attached as OTHER, is the anti-collision analysis which factors in three dimensional measurements as well as gyro surveys performed on the offset wellbores. All measurements provided in 3-dimensional space were derived from this analysis.

This application is in a Comprehensive Area Plan _____ CAP #: _____
 Oil and Gas Development Plan Name Pronghorn OGD OGD ID#: 486210
 Location ID: 431481

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

Signed: _____ Print Name: Stephen Miller

Title: Lead W&L Permitting Date: 8/27/2024 Email: smiller@civiresources.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 ECMC Rules, applicable orders, and SB 19-181 and is hereby approved.

ECMC Approved:  Director of ECMC Date: 10/22/2024

Expiration Date: 05/14/2027

API NUMBER
05 123 52782 00

CONDITIONS OF APPROVAL, IF ANY LIST

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
Drilling/Completion Operations	Operator will log two (2) additional well(s) with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for the stratigraphically deepest wells for each wellbore orientation (log 2 wells for north/south orientation, and log 1 well for east/west orientation) of the pad for a total of three (3) wells logged during the first rig occupation of this location.
Drilling/Completion Operations	1) Submit Form 42 electronically to ECMC 2 business days prior to MIRU (spud notice) for the first well activity with a rig on the pad and provide 2 business day spud notice via Form 42 for all subsequent wells drilled 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.
Drilling/Completion Operations	Per Order 1-232, Bradenhead tests shall be performed according to the following schedule and Form 17 submitted within 10 days of each test: 1) Within 60 days of rig release, prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation. 2) If a delayed completion, a second test is required between 6-9 months after rig release and must be conducted prior to stimulation. If any pressure greater than 200 psi is observed or if there is continuous flow, Operator must contact ECMC engineering for approval prior to stimulation. 3) A post-production test within 60 days after first sales, as reported on the Form 10, Certificate of Clearance.
Drilling/Completion Operations	Operator acknowledges the proximity of the listed non-operated wells. Operator assures that this offset list will be remediated per the Offset Well Evaluation and Hydraulic Fracturing Operator Guidance Document Operator using Option 3. Operator will submit a Form 42 ("OFFSET MITIGATION COMPLETED") stating what appropriate mitigation occurred and that it has been completed, prior to the hydraulic stimulation of this well. SANBORN DRAW *1-33(API 123-09337)
4 COAs	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	One of the first wells drilled on the pad during the second rig occupation will be logged with open-hole resistivity log with gamma-ray log from the kick-off point into the surface casing for one of the stratigraphically deepest wells on the pad. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The horizontal portion of every well will be logged with a measured-while-drilling gamma-ray log. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs will state "Alternative Logging Program - No open-hole logs were run" and will clearly identify the type of log and the well (by API#) in which open-hole logs were run.`
2	Drilling/Completion Operations	Anti-collision: Operator will perform an anti-collision evaluation of all active (producing, shut in, or temporarily abandoned) offset wellbores that have the potential of being within 150 feet of a proposed well prior to drilling operations for the proposed well. Notice shall be given to all offset operators prior to drilling.`

Total: 2 comment(s)

ATTACHMENT LIST

<u>Att Doc Num</u>	<u>Name</u>
403874250	FORM 2 SUBMITTED
403896266	OffsetWellEvaluations Data
403896270	OTHER
403896271	DEVIATED DRILLING PLAN
403896272	WELL LOCATION PLAT
403896274	DIRECTIONAL DATA
403966569	OFFSET WELL EVALUATION

Total Attach: 7 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	10/22/2024
Permit	Permit Review Complete	10/21/2024
Permit	In the event delayed operations are to occur, Operator shall comply with Notice to Operators: Interim Reclamation Procedures for Delayed Operations (dated January 5, 2017).	10/21/2024
Approval	This APD will not be delayed for the final disposition of the individual 1041WOGLA, as Weld County deems the siting of this Oil and Gas Location preliminarily approved per their land use process as stated by Director Local Government Designee (LGD), Jason Maxey.	10/14/2024
Permit	With operator concurrence, changed the disposition status to approved and the approval date to the date the WOGLA-CDP was approved. Also, added a comment that the individual WOGLA application is still in process.	10/14/2024
Engineer	Groundwater: Laramie-Fox Hills, Upper Pierre Deepest water well: 145'(1mi, 3 records), 740'(2mi, 12 records) Log: Davis 13-2 123-11569 GR=4695 LARAMIE-FOX HILLS 0-260' PIERRE SHALE 260-490' UPPER PIERRE 490-1555' •Surface Casing Check complete •Offset well review complete 408.t - None 408.u - None •Engineering review complete	10/08/2024
OGLA	The Commission approved OGDG #486210 on May 15, 2024 for the Oil and Gas Location related to this Form 2. See Sundry doc #403946583 in Location #431481 file for additional information. OGLA task passed.	08/28/2024

Total: 7 comment(s)