

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:

403036040

(SUBMITTED)

Date Received:

05/24/2022

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: Gadwall Fed

Well Number: 30-31-5HN

Name of Operator: MALLARD EXPLORATION LLC

COGCC Operator Number: 10670

Address: 1400 16TH STREET SUITE 300

City: DENVER

State: CO

Zip: 80202

Contact Name: Erin Mathews

Phone: (720)5437951

Fax: ( )

Email: emathews@mallardexploration.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170115

WELL LOCATION INFORMATION

Surface Location

QtrQtr: NWNE Sec: 30 Twp: 8N Rng: 60W Meridian: 6

Footage at Surface: 749 Feet FNL 2142 Feet FEL

Latitude: 40.638432 Longitude: -104.133095

GPS Data: GPS Quality Value: 1.4 Type of GPS Quality Value: PDOP

Date of Measurement: 08/10/2017

Ground Elevation: 4950

Field Name: WILDCAT

Field Number: 99999

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: 30 Twp: 8N Rng: 60W

Footage at TPZ: 900 FNL 2300 FEL

Measured Depth of TPZ: 6804

True Vertical Depth of TPZ: 6457

FNL/FSL

FEL/FWL

Base of Productive Zone (BPZ)

Sec: 31 Twp: 8N Rng: 60W

Footage at BPZ: 300 FSL 2300 FEL

Measured Depth of BPZ: 16180

True Vertical Depth of BPZ: 6457

FNL/FSL

FEL/FWL

Bottom Hole Location (BHL)

Sec: 31 Twp: 8N Rng: 60W

Footage at BHL: 300 FSL 2300 FEL

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? ☒ 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: 09/05/2018

Comments: WOGLA 18-0087 submitted 7/9/2018, approved 9/5/2018

## 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.)

Township 8 North, Range 60W, 6th PM  
Section 29: NW4  
Section 30: NE4

Total Acres in Described Lease: 318 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian  
Federal or State Lease # \_\_\_\_\_

## SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 4533 Feet  
Building Unit: 4691 Feet  
Public Road: 738 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.

Above Ground Utility: 660 Feet

Railroad: 5280 Feet

Property Line: 466 Feet

- 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	535-1273	2560	Sec 29,30,31,32: 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: 300 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: 622 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: 16180 FeetTVD at Proposed Total Measured Depth 6457 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: 730 Feet ☐ No well belonging to another operator within 1,500 feetWill a closed-loop drilling system be used? YesIs H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater thanor 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? NoWill salt sections be encountered during drilling? NoWill salt based (>15,000 ppm Cl) drilling fluids be used? NoWill oil based drilling fluids be used? YesBOP 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	43	0	80	50	80	0
SURF	13+1/2	9+5/8	J55LTC	36	0	1700	575	1700	0
1ST	8+1/2	5+1/2	HCP110	20	0	16180	2275	16180	

☐ 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	0	0	165	165	0-500	DWR	
Groundwater	Laramie Fox Hills	165	165	610	610	0-500	DWR	
Groundwater	Pierre Shale	610	610	915	915	0-500	DWR	
Groundwater	Upper Pierre	915	915	1703	1700	0-500	DWR	
Confining Layer	Pierre Shale	1703	1700	3412	3402			
Hydrocarbon	Richard Sandstone	3412	3402	3532	3522			
Hydrocarbon	Parkman Sandstone	3532	3522	3894	3882			
Confining Layer	Pierre Shale	3894	3882	6223	6187			
Confining Layer	Sharon Springs Shale	6223	6187	6272	6227			
Hydrocarbon	Niobrara Shale	6272	6227	16180	6457			Bottom TVD is bottom of the well and not bottom of the formation; the formation is not planned to be exited.

**OPERATOR COMMENTS AND SUBMITTAL**

Comments

This Form 2 is being submitted as a refile of API 05-123-47035.

Surface hole and lateral remain unchanged. TVD and TMD of well have been updated - target formation remains unchanged.

The well site has not been constructed. There have been no changes to the surrounding land use, Surface & Minerals, Right to Construct, or mineral lease descriptions. All previously submitted notices, Surface Use Agreements, and letters are also still valid.

Cultural Distances have been updated.

Nearest well in unit per anti-collision is the Gadwall 30-31-4HN.

Nearest outside operated well per anti-collision is the Hill 31-15-8 (API: 05-123-19368) PA status.

This application is in a Comprehensive Area Plan No CAP #: \_\_\_\_\_  
Oil and Gas Development Plan Name Gadwall Pad OGDID#: 481114  
Location ID: 455385

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 I Date: 5/24/2022 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 47035 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 Type**

**Description**



## Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.
2	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with open-hole resistivity log and gamma ray log from the kick-off point into the surface casing. 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 shall state 'Alternative Logging Program -No open-hole logs were run' and shall clearly identify the type of log and the well (by API#) in which open-hole logs were run.
3	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: 3 comment(s)

### Attachment List

<u>Att Doc Num</u>	<u>Name</u>
403057043	OffsetWellEvaluations Data
403057045	DIRECTIONAL DATA
403057047	DEVIATED DRILLING PLAN
403057050	WELL LOCATION PLAT

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.

