

FORM
2Rev
08/19

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:

402106534

(SUBMITTED)

Date Received:

APPLICATION FOR PERMIT TO:

☒ Drill ☐ Deepen ☐ Re-enter ☐ Recomplete and OperateTYPE OF WELL OIL ☒ GAS ☐ COALBED ☐ OTHER: Amend existing wellRefiling ☒ZONE TYPE SINGLE ZONE ☒ MULTIPLE ZONES ☐ COMMINGLE ZONES ☐Sidetrack ☐

Well Name: Shull Fed

Well Number: 31-32-5HN

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)543 7951

Fax: ()

Email: emathews@mallardexploration.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20170115

WELL LOCATION INFORMATION

QtrQtr: SESW Sec: 31 Twp: 9N Rng: 59W Meridian: 6

Latitude: 40.702631

Longitude: -104.023283

Footage at Surface: 1229 Feet FNL/FSL FSL 1951 Feet FEL/FWL FWL

Field Name: WILDCAT

Field Number: 99999

Ground Elevation: 4877

County: WELD

GPS Data:

Date of Measurement: 01/17/2018 PDOP Reading: 1.4 Instrument Operator's Name: Dominick Davis

If well is ☐ Directional ☒ Horizontal (highly deviated) submit deviated drilling plan.

Footage at Top of Prod Zone: FNL/FSL FSL 2179 FEL 2495 FSL 460 FEL

Sec: 31 Twp: 9N Rng: 59W Sec: 32 Twp: 9N Rng: 59W

LOCAL GOVERNMENT INFORMATION

County: WELD

Municipality: N/A

Per § 34-60-106 (1)(f)(I)(A), the following questions pertain to the "local government with jurisdiction to approve the siting of the proposed oil and gas location."

The local government with jurisdiction is: County

Does the local government with jurisdiction regulate the siting of Oil and Gas Locations, with respect to this COGCC application? If the local government has waived its right to precede the COGCC in siting determination, indicate by selecting "NO" here and selecting "Waived" below.

☒ Yes ☐ NoIf 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 local government siting permit type is: WOGLA

The local government siting permit was filed on: 04/15/2019

The disposition of the application filed with the local government is: Approved

Additional explanation of local process:

Weld Co LGD waived right to precede 5/29/19. WOGLA Approved 6/6/19.

LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT

Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Surface Owner is: ☐ is the mineral owner beneath the location.

(check all that apply)

☐ is committed to an Oil and Gas Lease.

☐ has signed the Oil and Gas Lease.

☐ is the applicant.

The Mineral Owner beneath this Oil and Gas Location is: ☒ Fee ☐ State ☐ Federal ☐ Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: No

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

LEASE INFORMATION

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

NENW, W2NW, E2SW, W2SE, SESE, Sec 31, T9N, R59W

Total Acres in Described Lease: 320 Described Mineral Lease is: ☒ Fee ☐ State ☐ Federal ☐ Indian

Federal or State Lease # _____

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 0 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 5280 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 5280 Feet

Above Ground Utility: 1287 Feet

Railroad: 5280 Feet

Property Line: 725 Feet

School Facility: 5280 Feet

School Property Line: 5280 Feet

Child Care Center: 5280 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).
- 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, High Occupancy Building Unit, Designated Outside Activity Area, School Facility, and Child Care Center – as defined in 100 Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: ☐ Buffer Zone ☐ Exception Zone ☐ Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: _____

SPACING and UNIT INFORMATION

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 563 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary 460 Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

Approved Order 535-734.

If this Form 2 is associated with a Drilling and Spacing Unit application, provide docket number: _____

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	535-734	960	31: E/2, 32: All

DRILLING PROGRAM

Proposed Total Measured Depth: 13631 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 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 Operations Plan)

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

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? _____

Reuse Facility ID: _____ or Document Number: _____

CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	43	0	80	50	80	0
SURF	13+1/2	9+5/8	36	0	1525	525	1525	0
1ST	8+1/2	5+1/2	20	0	13631	2150	13631	

☐ Conductor Casing is NOT planned

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

☐ Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)

- ☐ Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- ☐ Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- ☐ Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- ☐ Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318A.a. Exception Location (GWA Windows).
- ☐ Rule 318A.c. Exception Location (GWA Twinning).

RULE 502.b VARIANCE REQUEST

- ☐ Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

OTHER LOCATION EXCEPTIONS

Check all that apply:

- ☐ Rule 318.c. Exception Location from Rule or Spacing Order Number _____
- ☐ Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

Nearest wellbore in proposed unit per anti-collision is the Shull Fed 31-32-6HN.

There are no outside-operated wells within 1500'.

This amendment is part of a larger effort to consolidate and use surface locations and existing well permits in the area more efficiently and effectively.

The well name will change from Shull Fed 31-32-9HN to Shull Fed 31-32-5HN.

The well will be moving from Shull Pad 9-59-31-NESW (Loc ID 447825) to Anderson Facility 9-59-31-SESW Pad (Loc ID 447898).

The objective formation and spacing will not change.

The lease/SUA/right-to-construct, TMD, casing/cement, HOP Evaluation, and BMP have been reviewed and updated.

Cultural distances to Building, Building Unit, High Occupancy Building Unit, DOAA, School Facility, School Property Line, and Child Care Center distances are unchanged at >5,280'.

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 447898

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: _____ Print Name: Justin Garrett

Title: Regulatory Analyst Date: _____ 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 43613 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

No BMP/COA Type

Description

1	Drilling/Completion Operations	Blowout Prevention Equipment ("BOPE"): A double ram annular preventer will be used during drilling.
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.
3	Drilling/Completion Operations	Alternative Logging Program: One of the first wells drilled on the pad will be logged with an 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 clearly 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.
4	Drilling/Completion Operations	Bradenhead Monitoring: Operator acknowledges and will comply with COGCC Policy for Bradenhead Monitoring during Hydraulic Fracturing Treatments in the Greater Wattenberg Area dated May 29, 2012.

Total: 4 comment(s)

Attachment Check List

Att Doc Num

Name

402142641	WELL LOCATION PLAT
402142644	DEVIATED DRILLING PLAN
402142645	DIRECTIONAL DATA
402142926	OffsetWellEvaluations Data

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.

