

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:
402775712
Date Received:
09/10/2021

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

Amend

TYPE OF WELL OIL GAS COALBED OTHER: _____

Refile

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES

Sidetrack

Well Name: SU Spicer 0680 Well Number: 1-5H17
Name of Operator: D90 ENERGY LLC COGCC Operator Number: 10706
Address: 952 ECHO LANE SUITE 480
City: HOUSTON State: TX Zip: 77024
Contact Name: Allen O'Neal Phone: (214)364-6499 Fax: ()
Email: allen@d90energy.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20210083

WELL LOCATION INFORMATION

Surface Location

QtrQtr: SWSW Sec: 32 Twp: 7N Rng: 80W Meridian: 6
Footage at Surface: 1034 Feet FSL 889 Feet FWL
Latitude: 40.529427 Longitude: -106.403962
GPS Data: GPS Quality Value: 1.3 Type of GPS Quality Value: PDOP Date of Measurement: 08/13/2021
Ground Elevation: 8213
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: 5 Twp: 6N Rng: 80W Footage at TPZ: 118 FNL 346 FWL
Measured Depth of TPZ: 6800 True Vertical Depth of TPZ: 6632 FNL/FSL FEL/FWL

Base of Productive Zone (BPZ)

Sec: 17 Twp: 6N Rng: 80W Footage at BPZ: 2662 FNL 350 FWL
Measured Depth of BPZ: 20602 True Vertical Depth of BPZ: 6770 FNL/FSL FEL/FWL

Bottom Hole Location (BHL)

Sec: 17 Twp: 6N Rng: 80W Footage at BHL: 2662 FNL 350 FWL
FNL/FSL FEL/FWL

LOCAL GOVERNMENT PERMITTING INFORMATION

County: JACKSON 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.)

T6N-R80W, 6th P.M.. Sec. 5: Lots 5, 6, 7, 8, 9, 10, 11, 12, and 13 and S2SE4

Total Acres in Described Lease: 447 Described Mineral Lease is: Fee State Federal Indian

Federal or State Lease # COC 079846

SAFETY SETBACK INFORMATION

Distance from Well to nearest:

Building: 2095 Feet Building Unit: 3020 Feet Public Road: 430 Feet Above Ground Utility: 291 Feet Railroad: 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.

Property Line: 289 Feet

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	531-66		

Federal or State Unit Name (if appl): Surprise Unit

Unit Number: COC 075017X

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: 118 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: 323 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

Order 531-66 added expansion lands (S.5-T6N-R80W) to the Surprise Unit and reduced unit setbacks to 100' when measured parallel to the orientation of the wellbore and 300' when measured perpendicular to the orientation of the wellbore.

DRILLING PROGRAM

Proposed Total Measured Depth: 20602 Feet

TVD at Proposed Total Measured Depth 6770 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 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? _____

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	24	16	J55	65	0	90	8	90	0
SURF	12+1/4	9+5/8	J55	36	0	2400	605	2400	0
1ST	8+3/4	5+1/2	P110HC	20	0	20602	3648	20602	0

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	Coalmont Sand	0	0	1200	1200	501-1000	USGS	Site Name: SB00708029BAA1 TD@476' TDS@509
Confining Layer	Coamont Shale	1200	1200	3500	3485			
Confining Layer	Upper Pierre	3500	3485	5000	4899			
Hydrocarbon	Sussex	5000	4899	5400	5291			
Confining Layer	Pierre Lower (shale)	5400	5291	5660	5551			
Hydrocarbon	Shannon	5660	5551	5800	5691			
Confining Layer	Pierre Lower (shale)	5800	5691	6800	6632			
Hydrocarbon	Niobrara	6800	6632	20602	6670			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 This proposed well will be located on a built location that was approved in 2019 for four wells. No wells have been approved or spud to date. This location does not have any residential building units less than 2000' from the working pad surface and is not located in an area that has been determined to be sensitive for water.

Nearest well in unit (producing zone to producing zone) per manual calculation is the proposed SU 0680 2-5H17.

No well belonging to another operator within 1,500 feet.

A Form 4 (document #402789918) has been submitted to update the Directional Well Plat for this location and related production facility: Surprise Central Facility, Location ID#436676. (Surprise Central Facility also has a location sundry, Document #402791142, in process to change the facility name to Surprise Unit 0680 S4 CTB.)

This application is in a Comprehensive Area Plan _____ CAP #: _____

OGDP ID#: _____ OGDP Name: _____ Expiration Date: _____

Location ID: 467526 Location Name: Spicer S32 Annex Pad

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

Signed: _____ Print Name: Ann Feldman

Title: Regulatory Manager Date: 9/10/2021 Email: regulatory@ascentgeomatics.c

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 COGCC Rules, applicable orders, and SB 19-181 and is hereby approved.

COGCC Approved:  Director of COGCC Date: 3/8/2022

Expiration Date: 03/07/2025

API NUMBER 05 057 06629 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.

Condition of Approval

<u>COA Type</u>	<u>Description</u>
Drilling/Completion Operations	1) Submit Form 42 electronically to COGCC 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) Operator shall provide cement coverage from the production casing shoe (5 1/2" First String) to a minimum of 200' above the surface casing shoe to provide full isolation of the Coalmont Formation. Verify production casing cement coverage with a cement bond log.
Drilling/Completion Operations	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 COGCC 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 COGCC 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.
2 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 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 "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.

Total: 1 comment(s)

Attachment List

Att Doc Num	Name
402775712	FORM 2 SUBMITTED
402799493	OffsetWellEvaluations Data
402799495	DEVIATED DRILLING PLAN
402806497	DIRECTIONAL DATA
402807401	WELL LOCATION PLAT
402976485	OFFSET WELL EVALUATION

Total Attach: 6 Files

General Comments

User Group	Comment	Comment Date
Engineer	<ul style="list-style-type: none"> •Surface Casing Check complete Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. This information was used in addition to locally available geophysical logs and hydrogeologic information to evaluate the adequacy of the operator's proposed surface casing setting depth. The deepest water well within one mile is 251 feet. The Coalmont Formation is considered a potential freshwater resource in the North Park Basin (CGS Ground Water Atlas of Colorado, 2003). The proposed surface casing setting depth of 2400' may not cover the entire Coalmont Formation, based on the operator's drilling prognosis in the drilling plan. Minimum cement isolation standards are specified in Condition of Approval #2. <ul style="list-style-type: none"> •Offset well review complete 408.t - No wells 408.u - No wells •Engineering review complete 	02/28/2022
Permit	Final Review Completed.	02/16/2022
Permit	-Wellbore looks closer than 300ft to unit boundary. Well location plat is correct though and operator certifies wellbore is not within in the unit boundary. Sections line on our map are just not matching up perfectly. -Plugging and Abandonment Bond Surety ID corrected -Correction made with operator concurrence -Permit review complete.	02/07/2022
OGLA	This Location (ID #467526) and its associated Form 2A materials were fully reviewed during the OGLA review of this APD in accordance with current Rules. This APD complies with all COGCC Rules and is adequately protective of public health, safety, welfare, the environment, and wildlife resources. Passed the OGLA task.	09/13/2021

Total: 4 comment(s)