

FORM  
2

Rev  
12/05

## State of Colorado

### Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



DE	ET	OE	ES
Document Number:  400214589			
PluggingBond SuretyID  19970026			

#### APPLICATION FOR PERMIT TO:

1. ☒ Drill, ☐ Deepen, ☐ Re-enter, ☐ Recomplete and Operate

#### 2. TYPE OF WELL

OIL ☒ GAS ☐ COALBED ☐ OTHER \_\_\_\_\_  
SINGLE ZONE ☐ MULTIPLE ☒ COMMINGLE ☒

Refiling ☒  
Sidetrack ☐

3. Name of Operator: MERIT ENERGY COMPANY 4. COGCC Operator Number: 56565  
5. Address: 13727 NOEL ROAD STE 500  
City: DALLAS State: TX Zip: 75240  
6. Contact Name: Kim Brand Phone: (972)628-1023 Fax: (972)628-1323  
Email: kim.brand@meritenergy.com  
7. Well Name: Avey Well Number: 21-9  
8. Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_  
9. Proposed Total Measured Depth: 8100

#### WELL LOCATION INFORMATION

10. QtrQtr: SWNW Sec: 9 Twp: 1N Rng: 66W Meridian: 6  
Latitude: 40.066980 Longitude: -104.789490  
Footage at Surface: 2177 feet FNL/FSL 608 feet FEL/FWL FWL  
11. Field Name: Wattenberg Field Number: 90750  
12. Ground Elevation: 4991 13. County: WELD

#### 14. GPS Data:

Date of Measurement: 07/05/2007 PDOP Reading: 2.3 Instrument Operator's Name: Robert D. Thomas

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

Footage at Top of Prod Zone: FNL/FSL \_\_\_\_\_ FEL/FWL \_\_\_\_\_ Bottom Hole: FNL/FSL \_\_\_\_\_ FEL/FWL \_\_\_\_\_  
Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_ Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_

16. Is location in a high density area? (Rule 603b)? ☐ Yes ☒ No  
17. Distance to the nearest building, public road, above ground utility or railroad: 591 ft  
18. Distance to nearest property line: 499 ft 19. Distance to nearest well permitted/completed in the same formation(BHL): 1126 ft

#### 20. LEASE, SPACING AND POOLING INFORMATION

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
J-Sand	JSND	232.23	320	W/2
Niobrara-Codell	NB-CD	407.87	160	NW/4

21. Mineral Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian Lease #: \_\_\_\_\_  
22. Surface Ownership: ☒ Fee ☐ State ☐ Federal ☐ Indian  
23. Is the Surface Owner also the Mineral Owner? ☒ Yes ☐ No Surface Surety ID#: \_\_\_\_\_  
23a. If 23 is Yes: Is the Surface Owner(s) signature on the lease? ☐ Yes ☒ No  
23b. If 23 is No: ☒ Surface Owners Agreement Attached or ☐ \$25,000 Blanket Surface Bond ☐ \$2,000 Surface Bond ☐ \$5,000 Surface Bond

24. Using standard QtrQtr, Sec, Twp, Rng format enter entire mineral lease description upon which this proposed wellsite is located (attach separate sheet/map if you prefer):

NW/4, Sec 9, T1N-R66W

25. Distance to Nearest Mineral Lease Line: 464 ft

26. Total Acres in Lease: 160

### DRILLING PLANS AND PROCEDURES

27. Is H2S anticipated? ☐ Yes ☒ No If Yes, attach contingency plan.

28. Will salt sections be encountered during drilling? ☐ Yes ☒ No

29. Will salt (>15,000 ppm TDS CL) or oil based muds be used during drilling? ☐ Yes ☒ No

30. If questions 28 or 29 are yes, is this location in a sensitive area (Rule 901.e)? ☐ Yes ☒ No

31. Mud disposal: ☒ Offsite ☐ Onsite

If 28, 29, or 30 are "Yes" a pit permit may be required.

Method: ☐ Land Farming ☒ Land Spreading ☐ Disposal Facility Other: \_\_\_\_\_

Note: The use of an earthen pit for Recompletion fluids requires a pit permit (Rule 905b). If air/gas drilling, notify local fire officials.

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	12+1/4	8+5/8	24	0	1,030	600	1,030	
1ST	7+7/8	4+1/2	11.6	0	8,100	700	8,100	

32. BOP Equipment Type: ☒ Annular Preventer ☐ Double Ram ☐ Rotating Head ☐ None

33. Comments No conductor pipe will be used.

34. Location ID: 310137

35. Is this application in a Comprehensive Drilling Plan ? ☐ Yes ☐ No

36. Is this application part of submitted Oil and Gas Location Assessment ? ☒ Yes ☐ No

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

Signed: \_\_\_\_\_ Print Name: Kim Brand

Title: Regulatory Analyst Date: \_\_\_\_\_ Email: kim.brand@meritenergy.com

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_ Director of COGCC Date: \_\_\_\_\_

#### API NUMBER

05 123 25958 00

Permit Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

#### CONDITIONS OF APPROVAL, IF ANY:

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.

### Attachment Check List

Att Doc Num	Name
400214606	PLAT
400214607	SURFACE AGRMT/SURETY

Total Attach: 2 Files

### General Comments

User Group	Comment	Comment Date

Total: 0 comment(s)

### BMP

Type	Comment
General Housekeeping	<p>In accordance with Best Management Practices that provide procedures to eliminate contamination, direct, divert, and contain stormwater, the Merit Wattenberg Field project has implemented a number of housekeeping practices that will help prevent soil sediment, trash, and toxic or hazardous substances from entering navigable waters.</p> <p>Housekeeping practices include regular cleaning, organization and maintenance of pad equipment and erosion and sediment control structures throughout the project. Areas where chemicals are stored and used at the project are stored in buildings where there is no potential for stormwater contact. These areas include producing pads that typically consist of wellheads, separator units, produced water tanks, and 300-barrel capacity above ground stock tanks.</p> <p>General Procedures</p> <p>The following items will be addressed in order to maintain a clean and orderly pad during the development, production, and abandonment phases of work:</p> <ul style="list-style-type: none"><li>• Inspect pad areas routinely;</li><li>• Correct deficiencies noted during inspections;</li><li>• Clean and maintain stormwater management structures and components;</li><li>• Routine trash collection and disposal;</li><li>• Familiarize employees and contractors with spill clean-up equipment and storage locations;</li><li>• Familiarize employees and contractors with good housekeeping procedures and pad pollution prevention procedures.</li></ul> <p>Material Storage</p> <p>The following good housekeeping practices will be followed at the material storage areas:</p> <ul style="list-style-type: none"><li>• Storage containers will be stored away from direct traffic to prevent accidents. They will also have proper labels;</li><li>• Dumpsters and trash receptacles will be enclosed in order to prevent the dissemination of refuse;</li><li>• Storage areas will be kept free of refuse;</li><li>• Chemical substances used at pads will be properly labeled. Chemicals used at pads will have proper spill containment.</li><li>• Chemical substance containers will be clearly labeled and a MSDS will be on file.</li></ul>

Final Reclamation	<p>Unless otherwise directed by the landowner or the jurisdictional authority, rocks, cut vegetation, and other surface material temporarily stockpiled during construction will be redistributed as backfill on the project area.</p> <p>Disturbed areas will be seeded using seed mixes appropriate to the location. Local soil conservation authorities with the U.S. Natural Resources Conservation Service, surface owners and/or reclamation contractors familiar with the area may be consulted regarding the correct seed mix to be utilized. The majority of Merit's locations in the Wattenberg Field are in crop areas. The surface owner will take care of the specific crop seeding.</p> <p>On terrain where drill seeding is appropriate, seed may be planted using a drill equipped with a depth regulator to ensure proper depth of planting. The seed mix will be evenly and uniformly planted over the disturbed area. Drilling will be used where topography and soil conditions allow operation of equipment to meet the seeding requirements of the species being planted. Broadcast seeding will occur on steep terrain and on areas where the cut vegetation and rocks were redistributed over a right-of-way.</p> <p>Seeding will be done when seasonal or weather conditions are most favorable according to schedules identified by the jurisdictional authority, reclamation contractor, or landowner. Whenever possible, seeding will be timed to take advantage of moisture, such as early spring or late fall, which will benefit from winter precipitation.</p> <p>Seed mixes will be planted in the amount specified in pounds of pure live seed/acre. No primary or secondary noxious weeds shall be in the seed mix.</p> <p>The reestablishment of vegetative cover as well as watershed stabilization measures will be scheduled during the working season and before the succeeding winter. Revegetation will be accomplished as soon as practical following the reclamation of a pad.</p> <p>In general, the applicable portions of the project area will not be mulched during reclamation and revegetation. Mulch will only be applied at the request of the jurisdictional authority in areas where the cut vegetation and rocks are not redistributed over the disturbed area. The cut vegetation and rocks will act like mulch in the areas where they are applied. Where straw or hay mulch is requested, the mulch will be applied and crimped into the soil.</p> <p>The need for fertilizers will be determined in conjunction with the jurisdictional authority. If fertilization is necessary, the rates of application will be based on site-specific requirements of the soil.</p>
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Structural Practices	<p>The following structural site management practices are expected to reduce, minimize and control erosion and sediment transport.</p> <ul style="list-style-type: none"><li>• In order to minimize disturbances associated with installation of pads, level and gently sloping terrain outside the project area will not be graded, except where necessary.</li><li>• Silt barriers (e.g. brush dams, rock filter dikes, silt fences, hay bales, or water bars) will be installed as needed on down-gradient portions of project areas.</li><li>• Side hill cuts (cut slopes) will be kept to a minimum to protect local resources while providing a safe and stable plane for the efficient and safe use of equipment.</li><li>• Where conditions warrant, erosion control structures such as berms, water bars, diversion or collection channels, terraces, or culverts will be constructed to divert water away from project areas. These control structures will also reduce soil erosion along and adjoining areas disturbed during construction.</li><li>• In areas that have steep slopes water bars or runoff diversions may be installed. Guidelines for the spacing of diversion structures are listed in Table 1 below. When used, water bars will generally begin and end in undisturbed ground at approximately a 2% slope.</li></ul> <p>Table 1 Spacing for Erosion Control Structures (BLM Gold Book) Slope Diversion Spacing (feet)</p> <table><tr><td>2%</td><td>200</td></tr><tr><td>2-4%</td><td>100</td></tr><tr><td>4-5%</td><td>75</td></tr><tr><td>5+%</td><td>50</td></tr></table> <ul style="list-style-type: none"><li>• Culverts may be installed at a grade ranging from 2-5 percent. Inlet protection may include inlet aprons and rock armoring around the culvert perimeter while below grade inlet sumps may be installed to enhance sediment deposition. Outfall protection may include the use of a rock barrier to slow the discharge of runoff water. Culvert pipe or outfall protection will be extended to the toe of the slope on the discharge end.</li><li>• During the reclamation of a pad all cut and fill slopes in steep terrain will be graded and contoured to blend into the adjoining landscape. Natural drainage patterns will also be reestablished. When possible cut and fill slopes will be constructed so they are no steeper than a 1 to 3 ratio.</li><li>• Reclaimed pads may have a fence constructed around areas that have been seeded. These fences will be installed in order to keep livestock and vehicles off reseeded areas.</li></ul>	2%	200	2-4%	100	4-5%	75	5+%	50
2%	200								
2-4%	100								
4-5%	75								
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Material Handling and Spill Prevention	<p>Merit is committed to operating the Wattenberg Field project in accordance with Section 112.7 of the Oil Pollution Prevention Regulations that are issued under the Federal Water Pollution Control Act (40 CFR Part 112). These regulations require the owners/operators of certain facilities and projects to prepare and implement a Spill Prevention Control and Countermeasure (SPCC) plan. Copies of Merit's SPCC and SWMP plans are kept on file at the Merit Evans Field Office.</p> <p>The Merit SPCC plan contains information pertaining to the potential for oil (as defined in 40 CFR Part 112.2) to impact stormwater discharges. The plan also provides the quantities of oil that potentially could be discharged from a pad. The SPCC plan contains employee training information pertaining to spill prevention and response. Agencies to be contacted in the event of a release or spill are listed in the SPCC plan.</p> <p>Hazardous materials and petroleum products used in construction of a pad include fuel and lubricants for construction equipment and vehicles; small quantities of paints and solvents; water or gel based frac fluids (surfactant, friction reducer, dilute hydrochloric acid, potassium chloride) used during well completion; produced water; and, crude oil/condensate. Material Safety Data Sheets (MSDS) for materials to be used or that are produced are listed in the Health and Safety Plan, which is filled at the Merit Evans Field Office.</p> <p>Refueling and lubrication of vehicles and equipment will be conducted a minimum of 100 feet from flowing streams and wetlands. Any spills will be promptly cleaned and contaminated materials will be hauled off-site and disposed of/recycled properly. Quantities of fuel and lubricates will be limited to "as-needed" for the immediate operations underway.</p>								

Total: 4 comment(s)