

CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Strand Switch 31X-34

Operator: White Rock Oil and Gas, LLC

State: Montana

Location: NWNE Section 34 T25N R54E

County: Richland

Field (or Wildcat): Wildcat

Proposed Project Date: 5/15/2025

I. DESCRIPTION OF ACTION

Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 21,380'MD/9,785'TVD.

II. PROJECT DEVELOPMENT

A. PUBLIC INVOLVEMENT, AGENCIES, GROUPS, OR INDIVIDUALS CONTACTED

10 day from public notification opportunity to protest for hearing:

Published in Helena Independent Record on 4/19/2025.

Published in The Roundup on 4/19/2025.

No written demand for hearing has been filed per ARM 36.22.601 as of 4/29/2025.

Montana Bureau of Mines and Geology, GWIC website (Richland County Wells).

US Fish and Wildlife, ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Richland County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T25 R54E

Montana Cadastral Website

Surface Ownership and surface use Section 34 T25N R54E

Montana Department of Natural Resources MEPA Submittal

USDA Web Soil Survey Map Website

B. ALTERNATIVES CONSIDERED

No Action Alternative: Permit to drill the well would not be issued by BOGC.

Action Alternative: Referred to the BOGC for further environmental review.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

A. AIR QUALITY

Long drilling time: No, 5-10 days.

Unusually deep drilling (high horsepower rig): No

Emission sources: Vehicles traveling on county road to location, combustion engines on location during drilling operations.

Fugitive dust from traveling operations and location during active drilling.

Possible H₂S gas production: Potentially in Mississippian formations.

In/near Class I air quality area: No.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 21,380' MD/9,785' TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

B. WATER QUALITY

Salt/oil-based mud: Surface casing hole will be drilled with freshwater and freshwater mud system, Rule 36.22.100.1. Will drill with oil-based invert drilling fluids for the intermediate casing hole. Horizontal hole will be drilled with saltwater.

High water table: No.

Surface drainage leads to live water: An unnamed ephemeral drainage to west of well site location about ¼ of a mile. The Ephemeral drainage leads to confluence of East Charlie Creek 6 miles to northeast of location which is also categorized as an ephemeral drainage.

Water well contamination: 6 water wells within ½ mile. Depths range from 29' to 300' with static water levels 12' and 200'. The closest water well is a domestic well located about 1,100' to the northwest on the north side of CR 137 and is 300' deep. 5 wells are categorized as domestic and 1 well is categorized as domestic/stockwater.

Porous/permeable soils: Silty loam soils.

Class I stream drainage: None.

Groundwater vulnerability area: No.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☒ Closed mud system

☒ Off-site disposal of solids/liquids (in approved facility)

Other:

Comments: Surface hole will be drilled with a freshwater mud system to 1650'. Steel surface casing will be run to 1650' and cemented back to surface to protect freshwater zones in adjacent water wells, Rule 36.22.100.1. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems, (5,000 psi annular and double ram), Rule 36.22.1014.)

C. SOILS/VEGETATION/LAND USE

Vegetation: Grass land and Cultivated field.

Stream crossings: None anticipated.

High erosion potential: Potential, cut 21.2' and fill of 13.7'.

Loss of soil productivity: No, location will be restored after drilling if unproductive.

Access Road: Access will be from the north from CR 137.

Unusually large wellsite (Describe dimensions): Well site is 400'X 400' required for a one well pad.

Damage to improvements: Slight, cultivated field.

Conflict with existing land use/values: Slight.

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☐ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation

Drilling fluids/solids: White Rock will not be utilizing a drilling pit. Drilling fluids and solids will be transported to a state approved disposal facility.

D. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No occupied structures within a 1/4-mile radius. The closest occupied structure is 1,431' northwest in section 27 T25N R54E. In compliance with ARM 36.22.260. Fairview, MT, is 31 miles east of location on Hwy 201. Lambert, MT, is 14 miles to southeast on Hwy 200.

Possibility of H2S: Possibility in Mississippian formations.

Size of rig/length of drilling time: 5-10 days.

Mitigation:

- ☒ Proper BOP equipment
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other:

E. WILDLIFE/RECREATION

Sage Grouse: No.

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: No.

Conflict with game range/refuge management: No.

Threatened or endangered species: Richland County are the Pallid Sturgeon, Sicklefin Chub, Interior Least Tern, Whooping Crane, Piping Plover, and the Northern Long-eared Bat.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DNRC Trust Lands)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other:

Comments: Private grass lands and cultivated field. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

A. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites:

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other: The Board of Oil & Gas has no jurisdiction over private surface lands.

B. SOCIAL/ECONOMIC

Substantial effect on tax base

- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

EA Checklist
Prepared By:

Name: Ben Davis

Date: 5/5/2025

Title: Technical Program Coordinator