CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22) Project/Well Name: Putnam 42X-13 Operator: White Rock Oil and Gas, LLC State: Montana Location: SENE Section 13 T23N R56E County: Richland Field (or Wildcat): Wildcat Proposed Project Date: 4/10/2025

I. DESCRIPTION OF ACTION

Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 21,270'MD/10,595'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 3/13/2025. Published in The Roundup on 3/8/2025.

No written demand for hearing has been filed per ARM 36.22.601 as of 3/24/2025.

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, T26 R57E

Montana Cadastral Website Surface Ownership and surface use Section 13 T26N R57E

Montana Department of Natural Resources MEPA Submittal

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, 21,270'MD/10,595'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 south side of well pad. The Ephemeral drainage leads to confluence of Lone Tree Creek 3 miles to northeast of location which is also categorized as an ephemeral drainage.

Water well contamination: The closest water well is an abandoned well located about 2100' to the northeast on the east side of CR 336 and is 30' deep. The surface hole will be drilled with freshwater and freshwater mud to 2300' and steel surface casing will be run and cemented to surface to protect groundwater. Larson Merlyn a stockwater well approximately 2700' to northeast is 40' deep with 20' static water level outside of ½ mile radius. Nevins DMC Trust a domestic/stockwater well approximately 2700' to southwest and is 540' deep with stating water level of 302' outside of ½ mile radius.

Porous/permeable soils: Loam soils. Class I stream drainage: None. Groundwater vulnerability area: No. Mitigation: _____ Lined reserve pit

- \underline{X} Adequate surface casing
- ____ Berms/dykes, re-routed drainage

X Closed mud system X Off-site disposal of solids/liquids (in approved facility) Other:

Comments: Surface hole will be drilled with a freshwater mud system to 2300'. Steel surface casing will be run to 2300' and cemented back to surface to protect freshwater zones in adjacent water wells, Rule 36.22.1001. 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

Stream crossings: None anticipated.

High erosion potential: Slight, cut 4.1' and fill of 7.7'.

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

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

Damage to improvements: Slight, middle of grassland next to ag land.

Conflict with existing land use/values: Slight.

Mitigation

- ____ Avoid improvements (topographic tolerance)
- Exception location requested
- \underline{X} Stockpile topsoil
- ____ Stream Crossing Permit (other agency review)
- _____Reclaim unused part of wellsite if productive
- _____ Special construction methods to enhance reclamation

Access Road: Access will be north 3.5 on CR 336 from Highway 200 E. 1900' new access road to location west of CR 336.

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. Closest occupied structure is >2,640' southwest in section 13 T23N R56E. The town of Lambert, MT is 8.5 miles to southwest of location.

Possibility of H2S: Possibility in Mississippian formations.

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

Mitigation:

- <u>X</u> 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. 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/<u>does not</u>) constitute a major action of state government significantly affecting the quality of the human environment, and (does/<u>does not</u>) require the preparation of an environmental impact statement.

EA Checklist Prepared By:			Date:	4/8/2025
	Title:	Technical Program Coordinator		