

CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: GEL #5

Operator: Columbia Petroleum, LTD

Location: SW NE NE Section 12 T15N-R28E

County: Petroleum MT; **Field (or Wildcat):** Cat Creek West Dome

Proposed Project Date: 9/30/2023

I. DESCRIPTION OF ACTION

Well Re-entry. Drill rig with a power swivel to clean out plugs to 2,125'MD/TVD for a Morrison Formation test.

II. PROJECT DEVELOPMENT

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

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

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Petroleum County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T15N R28E

Montana Cadastral Website

Surface Ownership and surface use Section 12 T15N R28E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be re-entered.

Action Alternative: Columbia Petroleum, LTD would have permission to re-enter the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 2-3 days.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig, track drill rig with a power swivel to clean out plugs to 2125' TD Morrison Formation test.

Possible H2S gas production: No H2S anticipated.

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 – Morrison Formation test, 2,125' MD/TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil based mud: Will drill with Freshwater mud system/ air. Surface casing hole will be drilled with freshwater and freshwater mud system, Rule 36.22.100.1

Surface drainage leads to live water: No, the nearest drainage is about 430' to the northeast and leads to Berry Creek. Berry Creek is located about 1/10 of a mile to the northwest.

Water well contamination: No, closest water wells are about 4/5 of a mile to the southwest, 2/5 of a mile to the southeast, and 7/10 of a mile to the southeast from this location. Depths of these wells range from 12'-240'. Steel surface casing at 158' to protect ground water. (Rule 36.22.1001).

Porous/permeable soils: No, sandy clay.

Class I stream drainage: No.

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)

Comments: 158' of surface casing cemented to surface adequate to protect freshwater zones (Rule 36.22.1001) also, air/air mist and/or fresh water systems to be used.

5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland.

Stream crossings: None anticipated.

High erosion potential: No.

Loss of soil productivity: No, location to be restored after drilling, if plugged.

Unusually large wellsite (Describe dimensions): No, 50' X 50' location size.

Damage to improvements: Slight.

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

Access Road: Access will be over existing road.

Drilling fluids/solids: Cuttings will be buried in an unlined cuttings pit, liquids will be allowed to evaporate. Pits will be backfilled after drying.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: Residence located 4/5 of a mile west and 1/2 of a mile to the south. The town of Winnett, Montana is located about 12.8 miles to the southwest.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time: Single derrick, 2-3 days.

Mitigation:

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

7. WILDLIFE/RECREATION

Sage Grouse: Core Area.

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

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species listed as threatened or endangered in Petroleum County, MT are the Pallid Sturgeon, Piping Plover, Black-footed Ferret, Yellow-billed Cuckoo, Whitebark Pine, and the Monarch. The Montana Natural Heritage Program lists two (2) species of concern, the Ferruginous Hawk and Greater Sage-Grouse.

Mitigation:

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

Comments: Private grasslands. 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

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites:

Mitigation

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

Other:

9. 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: John Gizicki Title: Chief Field Inspector	Date: 10/31/23
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