

Montana Board of Oil and Gas Conservation Environmental Assessment

Operator: Enerplus Resources (USA) Corporation
Well Name/Number: Penelope-Jean No. 19-3-HLID3
Location: NE NW Section 19 T24 R56E
County: Richland, MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 30-40 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick rig 900 HP, Bakken horizontal TVD 10,147' MD 19,700'TVD.

Possible H2S gas production: Slight

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.

Mitigation:

Air quality permit (AQB review)

Gas plants/pipelines available for sour gas

Special equipment/procedures requirements

Other: _____

Comments: Existing pipeline for gas in the area.

Water Quality

(possible concerns)

Salt/oil based mud: Yes to long string oil based drilling fluids. Surface casing hole to be drilled with freshwater and freshwater mud.

High water table: No

Surface drainage leads to live water: No, nearest drainage is an unnamed ephemeral tributary drainage to East Charlie Creek, about 1/8 of a mile to the east of this location.

Water well contamination: No, closest water well is 1/4 of a mile to the southeast of this location. The water well is a domestic water well 334' in depth. Surface hole will be drilled with freshwater and surface casing set and cemented to surface from 1752'.

Porous/permeable soils: No, silty sandy soils.

Class I stream drainage: No, Class I stream drainages.

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: 1752'+/- surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems in and around freshwater drainages.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No stream crossings.

High erosion potential: No, location has a moderate cut, up to 10.1' and a small fill, of up to 1.9', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 450'X310'

Damage to improvements: Slight, surface use is a 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
- Other _____

Comments: Access will be over existing county gravel road, #133. A short access off the county road will be built into this location, about 100'. Oil based drilling fluids will be recycled. Cuttings will be buried in the lined reserve pit. Completion fluids will be hauled to a Class II disposal. No Concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is 1/8 of a mile to the southeast from this location.

Possibility of H2S: Slight

Size of rig/length of drilling time: Triple drilling rig 30 to 40 days drilling time.

Mitigation:

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

Comments: 1752+ is adequate surface casing cemented to surface with working BOP stack should mitigate any problems. Distance sufficient to mitigate noise.

Wildlife/recreation

(possible concerns)

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

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: None identified.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: _____

Comments: Private surface lands. No concerns

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: _____

Comments: Private surface lands. No concerns.

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: No concerns, development well in this spacing unit.

Remarks or Special Concerns for this site

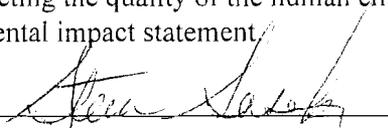
TVD 10,147' MD 19,700' Bakken Formation single lateral horizontal well. This is a development well in this spacing unit.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

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.

Prepared by (BOGC): Steven Sasaki



(title): Chief Field Inspector

Date: December 20, 2007

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website

(Name and Agency)

Richland County water wells

(subject discussed)

December 20, 2007

(date)

If location was inspected before permit approval:

Inspection date:

Inspector:

Others present during inspection: