

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Enerplus Resources (USA) Corporation
Well Name/Number: Olive-Arlene 27-3-HLID3
Location NE NW Section 27 T24N 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 1000 HP, 19,825' TVD/10,354'MD Bakken Formation single lateral horizontal.

Possible H2S gas production: Yes, 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, oil based invert drilling fluids to be used to drill the main hole.. Surface casing hole to be drilled with freshwater and freshwater mud.

High water table: No, high water table at this location.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Three Buttes Creek ephemeral drainage 1/8 of a mile to northwest of this location. Within this drainage is a stock pond about 1/8 of a mile to the west southwest, does not appear to be down slope from this location.

Water well contamination: None, no water wells with in 1 mile of this location, all wells close by shallower than 1957'. Surface hole will be drilled with freshwater and freshwater mud. Steel surface casing will be set at 1957' and cemented to surface to protect ground and surface waters.

Porous/permeable soils: No, sandy silty clay 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: 1957' sufficient surface casing to cover Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None required.

High erosion potential: No, moderate cut, up to 14.5' and moderate fill up to 12.0', required.

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

Unusually large wellsite: No, large well site 480'X290'

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

Other _____

Comments: Access will be over existing county roads, #132. About 206' of new access is proposed to be built to access this location from the county road.. Oil based muds will be recycled and cuttings will be buried in a lined pit. Any excess drilling fluid and completion fluids in the reserve pit will be hauled to a commercial disposal. Reserve pit will be closed when completion operations have been completed. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Nearest residences, about 1.25 miles to the southeast of this location.

Possibility of H2S: Yes, 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: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems.

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. No concerns.

Social/Economic

(possible concerns)

 Substantial effect on tax base

 Create demand for new governmental services

 Population increase or relocation

Comments: Existing well spacing unit. Development well for this spacing unit. No concerns.

Remarks or Special Concerns for this site

This a 19,825' TVD/10,354'MD Bakken Formation single lateral horizontal development well. This will be the third well in this spacing unit.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts will occur. Some short term impacts will occur, but can be mitigated in a short time span.

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: February 19, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology GWIC website _____

(Name and Agency)

Richland County water wells

(subject discussed)

February 19, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____