

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

**Operator:** Newfield Production Company  
**Well Name/Number:** Land Run 1-26H  
**Location:** NW NE Section 26 T34N R8W  
**County:** Glacier, **MT;** **Field (or Wildcat)** W/C

**Air Quality**

(possible concerns)

Long drilling time: 15 to 30 days drilling time.

Unusually deep drilling (high horsepower rig): No, super single or small triple derrick drilling rig for a 7433' TD vertical pilot hole. Plug back to 5115' and kick off a single lateral Bakken Formation horizontal well 10,042' MD/5688' TVD.

Possible H<sub>2</sub>S gas production: Slight

In/near Class I air quality area: Yes, Class I air quality area, Blackfeet Reservation.

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: Super single or triple derrick drilling rig to drill a vertical basement test pilot hole to 7433' TD and plug back to 5115' and kick off a single lateral horizontal Bakken Formation test to 10,042' MD/5688' TVD.

**Water Quality**

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on surface, pilot hole and horizontal hole.

High water table: None anticipated.

Surface drainage leads to live water: No, closest drainages are unnamed ephemeral tributary drainages to Cut Bank Creek, about 1/8 of a mile to the south and east from this location. Cut Bank Creek is about 3/10 of a mile to the south of this location in a direct line.

Water well contamination: No, closest water well is close to the south edge of this location. Depth of this water well is 127'. Surface casing hole will be drilled with freshwater and freshwater muds to 1000' and steel surface casing run and cemented to surface to protect ground water.

Porous/permeable soils: Yes, gravelly silty clay soils.

Class I stream drainage: Yes, closest Class I stream drainage is Cut Bank Creek, about 3/8 of a mile to the south of this location.

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: 1000' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole.

### Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None anticipated.

High erosion potential: No, small cut, up to 3.8' and small fill required up to 9.3', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large, 400'X300' location size required.

Damage to improvements: Slight, surface use is an irrigated crop 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: Using existing county road, Pardue Road and existing two track farm trail. Cuttings will be buried in the lined reserve pit. Drilling fluids will be allowed to dry in the lined pit. Pit will be backfilled when dry. No special concerns

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences are about 1.25 miles to the northeast (Seville Hutterite Colony) and about 1 mile to east southeast (Ranch) from this wellsite. Landing Strip is about 1.25 miles to the northeast of this location. The town of Cut Bank, Montana is 13 miles to the east southeast from this location.

Possibility of H2S: Slight

Size of rig/length of drilling time: Super Single or triple derrick drilling rig 15 to 30 days drilling time.

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other: \_\_\_\_\_

Comments: No concerns, proper BOP stack and surface casing should be able to control any problems that occur.

### 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: Species identified as threatened or endanger in Glacier County are Grizzly Bear, Canada Lynx and Bull Trout.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: Remove garbage daily. All empty mud sacks need to be stored in an enclosed trailer.

Comments: Private irrigated surface lands. Drilling of this well should not impact any of species listed above. Bull Trout do not exist in Cut Bank Creek drainage. Grizzly Bears and Canada Lynx are not established in this area. 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 cultivated surface lands. No concerns.

### Social/Economic

(possible concerns)

- Substantial effect on tax base
- Create demand for new governmental services
- Population increase or relocation

Comments: Wildcat well. If production is established then these issues will be addressed based on the size of the discovery. If a dryhole no social/economic impact will occur. No concerns

### Remarks or Special Concerns for this site

Well is a vertical basement test pilot hole to 7433' TD and plug back to 5115' and kick off a single lateral horizontal Bakken Formation test to 10,042' MD/5688' TVD.

### Summary: Evaluation of Impacts and Cumulative effects

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

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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): \s\Steven Sasaki \_\_\_\_\_

(title:) Chief Field Inspector  
Date: April 23, 2010

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website  
(Name and Agency)  
Glacier County water wells  
(subject discussed)  
April 15, 2010  
(date)

US Fish and Wildlife, Region 6 website  
(Name and Agency)  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES  
MONTANA COUNTIES, Glacier County  
(subject discussed)  
April 15, 2010  
(date)

If location was inspected before permit approval:

Inspection date: 4/20/10

Inspector: Mr. Gary Klotz

Others present during inspection: None