

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

Operator: Burlington Resources Oil & Gas Company

Well Name/Number: BR 41-19H 48

Location: SW SW Section 19 T24N R58E

County: Richland, **MT;** **Field (or Wildcat)** W/C

Air Quality

(possible concerns)

Long drilling time: 30-40 days drilling time

Unusually deep drilling (high horsepower rig): No, triple drilling rig for 13,050' MD/10,473' TVD, 14,716' MD/10,473' TVD, and 16,075' MD/10,473' TVD 3 legged horizontal Bakken formation test.

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 sweet gas

Special equipment/procedures requirements

Other: _____

Comments: No special concerns three horizontal legs to be drilled from 1 surface location.

Water Quality

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on surface hole and invert oil based drilling fluid out from under surface casing to intermediate casing depth. Saltwater to be used out from under intermediate casing to drill horizontal laterals to TD.

High water table: No

Surface drainage leads to live water: No, location is close to unnamed ephemeral tributary drainage, to First Hay Creek, also an ephemeral drainage, adjacent to this location to the south.

Water well contamination: No, all water wells are less than 500' in depth. Closest water well is about 1/2 of a mile to the northeast of this location. Surface hole will be drilled with freshwater and steel surface casing set and cemented from 2100'. This should protect any water wells in the area.

Porous/permeable soils: No, silty sandy clay soils.

Class I stream drainage: 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)

Other: _____

Comments: 2100' of surface casing cemented to surface adequate to protect

freshwater. Also, fresh water mud systems to be used on surface hole. Invert drilling fluids will be recycled. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be solidified in the lined reserve pit with subsoil and buried at least 4' below ground level in the reserve pit. No concerns.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None.

High erosion potential: No, small cut up to 9.4' and small fill up to 5.2', 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: Large, 315'X440' location size required.

Damage to improvements: Slight, surface use appears to be grasslands.

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 road, #342 and an existing lease access road. About 226' of new access road will be built into this location off the existing lease road. Oil based drilling fluids will be recycled. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be solidified with subsoil and buried at least 4' below ground level in the lined reserve pit. Topsoil will be spread and seeded to land owners specification. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: buildings about 1mile to the south of this location. The Town of Sidney, Montana is about 10.5 miles to the southeast of 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: No concerns, residences have sufficient distance to mitigate noise problems. Proper BOP stack and surface casing should be able to control any problems that occurs.

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: On 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

Remarks or Special Concerns for this site

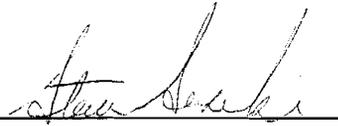
Well is a 13,050' MD/10,473' TVD, 14,716'MD/10,473'TVD, and 16,075'MD/10,473'TVD 3 legged horizontal Bakken formation test.

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: February 22, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center website.
(Name and Agency)
Water wells in Richland County _
(subject discussed)

February 22, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____