Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Continental Resources, Inc.
Well Name/Number: Swendseid 3-9H
Location: NE NW Section 9 T23N R55E
County: Richland , **MT; Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time: No, 30 to 40 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig to drill a single lateral Bakken Formation single lateral horizontal well,18,850'MD/10,051'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:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:
Comments: No special concerns – using triple rig to drill to 18,850'MD/10,051'TVD – 1 lateral.

Water Quality

(possible concerns)
Salt/oil based mud: Yes, freshwater and freshwater mud system on surface hole and oil based invert mud system on mainhole. Brine water to drill horizontal lateral.
High water table: No
Surface drainage leads to live water: Yes, nearest drainage is unnamed ephemeral tributary drainage to East Fork of Fox Creek. Location is about 1/8 of a mile north from this unnamed tributary drainage.
Water well contamination: No, closest water wells are about 3/8 of a mile to the southwest of this location. Water wells are domestic water wells and are less than 75' in depth. Very shallow water wells. Surface casing will be drilled with freshwater and steel surface casing set and cemented from 1790' to protect freshwater zones.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage: No

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other:
Comments: 1750' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: No, stream crossing. Location will be accessed off paved highway, #301.
High erosion potential: No, moderate cut, up to 10.7' and small fill, up to 8.7' 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 wellsite, 500'X270' location size required.
Damage to improvements: No, surface use appears to be cultivated fields.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
X Stockpile topsoil
__ Stream Crossing Permit (other agency review)
X Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be off of an existing county road #301 and an existing trail. About 2127' of new road will be built into this location. Cuttings will be buried in the lined reserve pit . Invert drilling mud will be recycled. Completion liquids will be recycled and/or hauled to a commercial disposal. Pit will be backfilled with cuttings and subsoil when dry. No special concerns

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Closest residences about 3/8 of a mile to the southwest of this location.
Possibility of H2S: Slight
Size of rig/length of drilling time: Triple drilling rig 30 to 40 days drilling time.

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

Comments: No concerns.

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: None identified.
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 Bakken Formation single lateral horizontal well,18,850'MD/10,051'TVD, well test in Richland County

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, GWIC website
(Name and Agency)
Richland County water wells
(subject discussed)

February 22, 2008
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____