

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

Operator: Continental Resources, Inc.
Well Name/Number: Martin 1-27H
Location: NW NW Section 27T26N R54E
County: Richland, MT; **Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)

Long drilling time: No, 40 to 50 days drilling time.

Unusually deep drilling (high horsepower rig): No, 13,831'MD/9,573'TVD,
15,265'MD/9,573'TVD and 13,806'MD/9,573'TVD

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: No special concerns – using triple rig to drill to
13,831'MD/9,573'TVD, 15,265'MD/9,573'TVD and 13,806'MD/9,573'TVD – 3 laterals

Water Quality

(possible concerns)

Salt/oil based mud: Yes, freshwater and freshwater mud system on surface hole, oil
based invert mud system on mainhole and saltwater for the horizontal hole.

High water table: Possible

Surface drainage leads to live water: Yes, Middle Charlie Creek, ephemeral drainage,
about 1/2 of a mile to the south and Shack Creek, an ephemeral tributary drainage to
Middle Charlie Creek, about 1/2 mile to the north of this location. Middle Charlie Creek
has ponds within the drainage.

Water well contamination: No, nearest water wells are about 3/8 of a mile to the
northwest of this location. Depth of water wells are 55' or less. Surface hole will be
drilled with freshwater and freshwater muds. Surface casing will be set at 1500' and
cemented to surface.

Porous/permeable soils: No, silty sandy bentonitic 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: 1500' of surface casing cemented to surface adequate to protect
freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No, crossings.
High erosion potential: No, moderate cut, up to 10.2' and small fill, up to 7.4', 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: 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: Will use existing county road, #323 and #144. About 225' of new access road will be built into this location, off county road, #144. Drill cutting will be disposed of in the lined reserve pit. Oil based drilling fluids will be recycled. Reserve pit fluids will be recycled and/or haul to a commercial disposal. Lined reserve pit will be backfilled when dry. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest building is 3/8 of a mile to the northwest, 3/4 of a mile to the northeast and 1 mile to the southeast of this location.
Possibility of H2S: Slight
Size of rig/length of drilling time: Triple drilling rig/short 40 to 50 days drilling time

Mitigation:

- 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: 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: No, private 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 13,831'MD/9,573'TVD, 15,265'MD/9,573'TVD and 13,806'MD/9,573'TVD Bakken Formation trilateral horizontal test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact 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: March 31, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Richland County water wells

(subject discussed)

March 31, 2008

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____