

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

**Operator:** Continental Resources, Inc.  
**Well Name/Number:** Alma 2-30H  
**Location:** NW SW Section 30 T23N R57E  
**County:** Richland, MT; **Field (or Wildcat) W/C** (Bakken Horizontal)

**Air Quality**

(possible concerns)

Long drilling time no, 50 to 60 days drilling time.

Unusually deep drilling (high horsepower rig) no, No. 1 16,369' MD No.2 15,683'MD

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 sour gas

Special equipment/procedures requirements

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

Comments: no special concerns – using triple rig to drill 16,032' MD and 15,683' MD, 2 horizontal laterals.

**Water Quality**

(possible concerns)

Salt/oil based mud yes, freshwater and freshwater mud system on surface hole and oil based saltwater mud system on mainhole and saltwater for horizontal laterals.

High water table no

Surface drainage leads to live water no, closest drainages is an unnamed ephemeral tributary drainage to the North Fork Fox Creek, about 1/8 mile to the south of this location.

Water well contamination none all nearby water wells shallow less than 100' in depth.

Surface casing will be drilled with freshwater and freshwater muds. Surface casing will be set and cemented to surface, from 1400'.

Porous/permeable soils no, bentonite 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: 1400' of surface casing cemented to surface adequate to protect freshwater zones.

**Soils/Vegetation/Land Use**

(possible concerns)

Steam crossings no, crossing.  
High erosion potential no, small cut, up to 9.6' and small fill, up to 2.6', required.  
Loss of soil productivity no, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be restored.  
Unusually large wellsite no, 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: Access will be over existing county road, #336. A short access from an existing county road, #336 into location, about 50" of new access will be built. Drill cuttings will be disposed of in the lined reserve pit. Drilling fluids will be trucked to a commercial Class II disposal. Pit will be backfilled after remaining fluids have evaporated. No special concerns.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences building 2 miles to the southeast of this location. The town of Lambert is 8 miles to the southwest.

Possibility of H2S slight

Size of rig/length of drilling time Triple drilling rig/short 50 to 60 days drilling time

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other: \_\_\_\_\_

Comments: Sufficient surface casing and working BOP should mitigate any concerns.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a Fox Lake State Game Management Area about 8.5 miles to the southwest of this location..

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 no

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: \_\_\_\_\_

Comments: The drilling of this well should have no effect on the Fox Lake Game Management Area. No concerns

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**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 land

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**Social/Economic**

(possible concerns)  
 Substantial effect on tax base  
 Create demand for new governmental services  
 Population increase or relocation  
Comments: no concerns

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**Remarks or Special Concerns for this site**

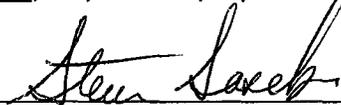
**Summary: Evaluation of Impacts and Cumulative effects**

No significant long term impacts expected, some short term surface impacts will occur, but will mitigate in time.

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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): Steven Sasaki   
(title): Chief Field Inspector  
Date: April 13, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County  
(subject discussed)  
April 13, 2006  
(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_