

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Continental Resources, Inc.
Well Name/Number: Lucille 1-27H
Location: NW NW Section 27 T23N R55E
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, 14,698' MD Leg #1 14, 376' MD Leg #2

Possible H₂S gas production slight
in/near Class I air quality area no

Air quality permit for flaring/venting (if productive) DEQ Air Quality permit for flaring required if well is productive and no gas pipeline available nearby.

Mitigation:

- Air quality permit (AQB review)
- Gas plants/pipelines available for sour gas
- Special equipment/procedures requirements
- Other: _____

Comments: no special concerns – using triplig rig to drill to 14,698' MD and 14,379' MD – 2 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, nearest unnamed ephemeral tributary to East Fork of Fox Creek is about 1/8 mile to the north of this location. This unnamed tributary drains to what appears to be a stock pond in the East Fork Fox Creek 1 mile to the northeast of this location.

Water well contamination none all water wells shallow less than 305' in depth. Surface hole will be drilled with freshwater muds. Surface casing will be set at 1680' and cemented to surface.

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: 1680' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings none

High erosion potential no, moderate cut, up to 16.9' and moderate fill, up to 10.6', required.

Loss of soil productivity no, location will be restored after drilling if unproductive. If productive, unused portion of this drilling location will be restored.

Unusually large wellsite no, 450'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 roads and existing trails. About 6100' of new access road will be built into this location. Cuttings will be buried in the lined reserve pit. Reserve pit fluids will either be recycled or hauled to a commercial disposal. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences buildings 1 mile to the northeast, south and southeast of the location. Air strip approximately 1/2 to 3/4 of a mile to the northeast of this location. Drilling rig derrick is lighted with a flashing red light in the crown.

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: no concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a Fox Lake State Game Management Area 3 miles to the south 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.

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

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

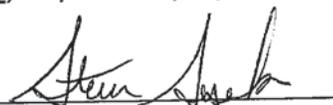
Bakken horizontal well 14,698' MD. No special concerns.

Summary: Evaluation of Impacts and Cumulative effects

No significant 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: January 6, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

January 6, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____