Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Continental Resources, Inc.
Well Name/Number: Melvin 3-3H
Location: SE SW Section 3 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 to 10,146'TVD/19,060'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:
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 10,146'TVD/19,060'MD, single lateral Bakken Formation horizontal well.

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. Saltwater for horizontal lateral.
High water table: No
Surface drainage leads to live water: Yes, closest surface drainage is an unnamed ephemeral tributary to East Fork Fox Creek, about 3/8 of a mile to the west of this location.
Water well contamination: No, closest water well is about 5/8 mile to the southeast of this location in section 10 T22N R55E and is a shallow water well, about 120' in depth.
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: 1790' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: No, stream crossings.
High erosion potential: No, small cut, up to 6.8' and small fill, up to 7.2', 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: 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
_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 over existing county road, #328. An access road will be built from the existing county road, about 3543' of new road will be constructed into this location. Drill cuttings will be disposed of in the lined reserve pit. Invert mud will be recycled. Completion fluids will be trucked to a commercial Class II for disposal. Pit will be backfilled after remaining fluids have evaporated. No special concerns

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Nearest residence is about 5/8 of a mile to the southeast and ¾ of a mile to the northeast of this location.
Possibility of H2S: Slight.
Size of rig/length of drilling time: Triple drilling rig/short 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. Adequate surface casing and operational BOP stack should mitigate any problems.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: Fox Lake State Game Management Area about 7 miles to the south of this location.
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: No concerns. Private surface lands.

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: 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. A development well in an existing spacing unit.

Remarks or Special Concerns for this site

Well is a 10,146'TVD/19,060'MD, single lateral Bakken Formation horizontal well.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected from the drilling of this well. Some short term impacts will occur, but will be mitigated in time.

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: May 27, 2008

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website.

(Name and Agency)
Richland County water wells.
(subject discussed)
May 27, 2008
(date)

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