Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Orion Energy Partners, L.P.
Well Name/Number: Yellowstone 2-24H
Location: SE SW Section 2 T25N R59E
County: Richland, **MT; Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)
Long drilling time No, 30-40 days drilling time.
Unusually deep drilling (high horsepower rig) Triple derrick rig 900 HP
Possible H2S gas production Yes
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)
X Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:
Comments:

Water Quality

(possible concerns)
Salt/oil based mud yes to long string invert drilling fluids. Surface casing freshwater, and freshwater mud system to be used. Horizontal hole will be drilled with brine water.
High water table No
Surface drainage leads to live water yes, close to an unnamed ephemeral drainage which drains to nearby stock ponds. .
Water well contamination None, surface hole will be drilled with freshwater to 1800'. Surface casing will be run and cemented to surface. Deepest nearby water well about 1 mile away is 290' deep about ¼ mile to the south of this well in section 11.
Porous/permeable soils No, gumbo soils
Class I stream drainage No, Class I stream drainages.

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: 1800' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems in and around freshwater slough.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings None
High erosion potential No, location requires a small cut, up to 3.4' and a small fill, up to 4.5', required.
Loss of soil productivity None, location to be restored after drilling well, if nonproductive. If productive

unused portion of the drilling pad will be reclaimed.
Unusually large wellsite __No, large well site 300'X400'
Damage to improvements __No, location to be restored after drilling, if nonproductive. If productive unused portion of the drilling pad will be reclaimed.
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 gravel road and existing trail. A short access off the improved trail into location will be built. Estimated new road length is about 3/8 of a mile. Cuttings will be buried in the lined reserve pit. Drilling fluids will be recycled to the next location. Completion fluids in the reserve pit will be hauled to a commercial Class II disposal site.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences __yes, residence about ¼ of a mile to the south of this location. The town of Nohly lies 4.5 miles to the northwest of this location._____
Possibility of H2S _Yes__
Size of rig/length of drilling time Triple drilling rig 30 to 40 days drilling time.

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

Comments: __Adequate surface casing cemented to surface with working BOP stack should mitigate any problems.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified) n/a__None identified.
Proximity to recreation sites __Missouri River is 3 miles to the northeast_____
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: ___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: Private surface

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

This will be a 19,637' MD 10,349'TVD 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: April 26, 2006
Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Water wells in Richland County
(subject discussed)
April 26, 2006
(date)

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