

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

**Operator:** Headington Oil, Limited Partnership.  
**Well Name/Number:** Sneidgar State 44X-36  
**Location:** SE SE Section 36 T26N R53E  
**County:** Richland, MT; **Field (or Wildcat)** Wildcat

**Air Quality**

(possible concerns)

Long drilling time No, 50-60 days drilling time.  
Unusually deep drilling (high horsepower rig) Triple derrick rig 900 HP  
Possible H2S gas production slight  
In/near Class I air quality area No  
Air quality permit for flaring/venting (if productive) Yes, if productive. DEQ air quality permit required, under rule 75-2-211.

Mitigation:

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

Comments: Existing gas pipelines in the area.

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**Water Quality**

(possible concerns)

Salt/oil based mud yes to long string salt based and oil based drilling fluids. Horizontal legs to be drilled with brine water. Surface casing hole to be drilled with freshwater and freshwater mud.  
High water table No  
Surface drainage leads to live water No, closest drainage is an unnamed tributary ephemeral drainage to Middle Charlie Creek, about 1/8 of a mile to the east of this location. Middle Charlie Creek confluence with this drainage is about 1.5 miles to the southeast.  
Water well contamination No, all nearby water wells are less than 400' in depth. Surface casing will be drilled with freshwater to 1200' and surface casing run and cemented to surface.  
Porous/permeable soils No, gumbo soils  
Class I stream drainage No, Class I stream drainages.

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: 1200' 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)

Stream crossings None  
High erosion potential No, location will need a moderate cut of up to 10.6' and a moderate fill of up to

16.8', required.

Loss of soil productivity None, location to be restored after drilling well, if productive. In nonproductive unused portion of drillsite will be reclaimed.

Unusually large wellsite No, large well site 430'X300'

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, #141 and existing trails. An access will be constructed from the county road, about 1.25 miles, into this location. Some of the access is an existing trail that will be upgrade for heavy truck use and some of it will be new access. Cuttings will be disposed of in the lined reserve pit. Drilling pit fluids will either be recycled to the next location.

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### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences Residences about 1 mile to the south and 1.25 miles to the southeast of this location.

Possibility of H2S Slight

Size of rig/length of drilling time Triple drilling rig 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: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. Distance sufficient to mitigate noise problems.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a 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 No

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

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

Comments: Montana Trust Lands surface. Trust Lands will do surface EA.

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**Historical/Cultural/Paleontological**

(possible concerns)

Proximity to known sites None identified

Mitigation

   avoidance (topographic tolerance, location exception)

  X other agency review (SHPO, DSL, federal agencies)

   Other: \_\_\_\_\_

Comments: Montana Trust Lands surface. Trust Lands will do surface EA.

**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**

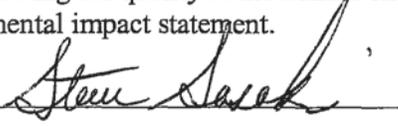
This is a three legged Bakken horizontal well 16,352' MD, 14,805' MD, 14,138' MD TVD 9449'

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

No long term impacts expected. 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 12, 2006

Other Persons Contacted:

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(Name and Agency)

Montana Bureau of Mines and Geology, Groundwater Information Center website.

(subject discussed)

Water wells in Richland County

(date)

April 12, 2006

If location was inspected before permit approval:

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

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

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