

Montana Board of Oil and Gas Conservation  
Environmental Assessment

Operator: Sands Oil Company  
Well Name/Number: Nichols 3-15  
Location: SW NE Section 15T3N R61E  
County: Fallon, MT; Field (or Wildcat) Gas Light

**Air Quality**

(possible concerns)

Long drilling time no, 3 to 4 days drilling time.  
Unusually deep drilling (high horsepower rig) no, 1975' TD  
Possible H2S gas production None expect  
In/near Class I air quality area no  
Air quality permit for flaring/venting (if productive) n/a

Mitigation:

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

Comments: no special concerns – using small sized rig to drill to 1975'

**Water Quality**

(possible concerns)

Salt/oil based mud no, freshwater and freshwater gel polymer mud system.  
High water table no  
Surface drainage leads to live water Yes. Nearest water is a stock ponds about 1/2 mile to the southeast of this location and Soda Creek is 1/8 mile to the west of this location.  
Water well contamination Possible, closest stock water well is 3/8 mile to the southwest of this location and is 260' in depth. This well will be drilled with freshwater and freshwater muds. Surface casing will be set and cemented to surface. If productive longstring will be cemented to surface. If nonproductive cement plugs will be set across water zones.  
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: 200' of surface casing drilled with freshwater and freshwater muds and cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on mainhole.. 4 1/2" casing should be cemented back to surface.

**Soils/Vegetation/Land Use**

(possible concerns)  
Steam crossings no  
High erosion potential no, small cut, up to 0.5' at the stake and no fill, required.  
Loss of soil productivity no, location will be restored after drilling  
Unusually large wellsite no, 150'X150' location size required.  
Damage to improvements no.  
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 use existing county roads and well trails.  
Approximately 0.4 mile of new access will be built into this location. Cuttings and mud solids will be buried in the drilling pits. All pits will be allowed to evaporate and then backfilled with subsoil and topsoil will be spread last. No special concerns

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### Health Hazards/Noise

(possible concerns)  
Proximity to public facilities/residences Southeast 3/4 of a mile, 1 1/2 miles to the southwest and 1 mile east are residences .  
Possibility of H2S None  
Size of rig/length of drilling time Small drilling rig/short 3 to 4 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  
Proximity to recreation sites no  
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: 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  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

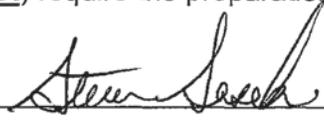
**Remarks or Special Concerns for this site**

Well is a 1975' Eagle Formation test

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

No, 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: March 6, 2006

**Other Persons Contacted:**

Montana Bureau of Mines and Geology, GWIC website  
\_\_\_\_\_  
(Name and Agency)  
Fallon County water wells  
(subject discussed)

March 6, 2006  
(date)

If location was inspected before permit approval:

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

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

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