

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Sands Oil Company
Well Name/Number: Nichols 4-15
Location: NE SW 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
n/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 3/8 mile to the north of this location and Soda Creek is 1/2 mile to the northeast of this location.
Water well contamination no, closest stock water wells are about 1/4 of a mile to the north and 1/4 mile to the southeast of this location. The two stockwater wells are 260' and 150' 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: Either set 270' of surface casing cemented to surface adequate to protect freshwater zones or cement longstring back to surface. Also, fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)
 Steam crossings no
 High erosion potential no, small cut, up to 0.5' at the well stake and no fill, 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, 150'X150' 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: Freshwater drilling fluids will be allowed to evaporate in the drilling pits. Cuttings and mud solids will be buried in the drilling pits. Access will use existing county roads and well trails. Approximately 0.3 mile of new access will be built into this location. No special concerns

Health Hazards/Noise

(possible concerns)
 Proximity to public facilities/residences Southeast and south ¾ of a mile, 1 mile to the west 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 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: 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: February 27, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Fallon County water wells

(subject discussed)

February 27, 2006
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____