

Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Stone Energy Corporation
Well Name/Number: Hedegaard 2-27H
Location: SE SE Section 27 T23N R58E
County: Richland, MT; Field (or Wildcat) W/C

Air Quality

(possible concerns)

Long drilling time 30-40 days drilling time
Unusually deep drilling (high horsepower rig) No, triple drilling rig for single leg Bakken horizontal well 14,319' MD 10,312' TVD
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 require.

Mitigation:

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

Comments: Gas plant available to take associated gas, No special concerns.

Water Quality

(possible concerns)

Salt/oil based mud use freshwater and freshwater mud system on surface, oil based drilling fluids for intermediate string and saltwater for horizontal legs.
High water table no
Surface drainage leads to live water yes, unnamed ephemeral drainage to Lone Tree Creek about 1/4 mile to the east of this location. From where this drainage enters Lone Tree Creek it is 1/4 mile downstream to Vaux Reservoir No. 2.
Water well contamination no, all water wells within 1 mile of this location are shallower than 1701'. Nearby water wells appear to be less than 200' in depth.
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: 1701' of surface casing cemented to surface adequate to protect freshwater zones to cover base of Fox Hills formation. Also, fresh water mud systems to be used on surface hole.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings none.

High erosion potential no, small cut, up to 3.9' and moderate fill required up to 10.0' required

Loss of soil productivity no, location will be restored after drilling, if nonproductive. If productive unused portion of the drillsite will be reclaimed.

Unusually large wellsite Large, 300'X400' 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: using existing access county road. Short access off existing trail, approximately 50' of new road into this location. Reserve pit liquids to be recycled or hauled to a commercial disposal. Solids will be allowed to dry, pit liner folded over the top of the solids, spoil dirt to fill pit, top soil spread over pit area, and seeded to land owners specification. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences None nearby, buildings 1 mile to the south of this wellsite.

Possibility of H₂S slight

Size of rig/length of drilling time Triple drilling rig 30 to 40 days drilling time

Mitigation:

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

Comments: no concerns, proper BOP stack and surface casing should be able to control any problems that occurs.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified) n/a None, identified

Proximity to recreation sites Vaux reservoir 1 mile to the east and Sportsman's dam 1.5 miles to the northeast of this location.

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: _____

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: no concerns

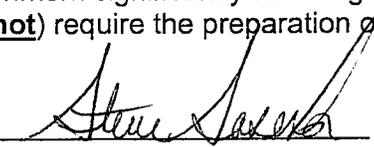
Remarks or Special Concerns for this site

Well is a 14,319' horizontal Bakken formation test. Second Bakken well in the spacing unit.

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 10, 2006

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Richland County water wells

(subject discussed)

February 10, 2006

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____