

# Montana Board of Oil and Gas Conservation Environmental Assessment

**Proposed Action:** Approve Drilling Permit (Form 22)

**Operator:** Sinclair Oil and Gas Company

**Well Name/Number:** Schmitz 2-26H

**Location:** SW SE Section 26 T27N R53E

**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): No, use a triple derrick rig 900 HP drilling rig to drill a single lateral Bakken Formation horizontal hole, 18,987' MD/9,132' TVD.

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:

Air quality permit (AQB review)

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 oil based drilling fluids. Horizontal lateral to be drilled with brine water. Surface casing hole to be drilled with freshwater and freshwater mud.

High water table: Possible

Surface drainage leads to live water: Yes, Promise Land Coulee which leads to Charlie Creek, 2/5 of a mile to the west of this location. A stock pond exists in the Coulee about 2/5 of a mile to the west of location.

Water well contamination: Closest water wells are four domestic wells about 7/10 of a mile to the southwest, one domestic well about 1 mile to the southwest, one stockwater well 3/10 of a mile to the southeast, and one stockwater well 4/5 of a mile to the southwest. Depths of these wells range from 10' to 250'. Surface casing will be set to 1,750' and cemented back to surface.

Porous/permeable soils: Variable sandy silty 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: 1,750' surface casing well below freshwater zones in adjacent water wells. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems.

## Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None, only ephemeral drainage will be crossed.

High erosion potential: No, location will require moderate cut, up to 19.8' and a moderate fill, up to 12.4', required.

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

Unusually large wellsite: No, large well site 450' X 400'.

Damage to improvements: None

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 road #148. About 5655' of new road will be constructed into this location off the existing county road. Plans are to use a closed loop system for drilling this well. Drilling fluids will be contained in a 400 bbl tanks on location. Drill cuttings will be mixed with fly ash and deposited in the cuttings pit. Invert mud will be recycled. Completion fluids and reserve pit fluids will be trucked to a commercial Class II for disposal. Pit will be backfilled. No special concerns.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Nearest residence is about 4/5 of a mile to the southwest from this location. Fort Peck Reservation is about 4.6 miles to the north from this location.

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: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. Noise should not be a problem, sufficient distance from residence to rig should mitigate this.

### Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): 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: Threatened or endangered species in Richland County, MT are listed as the Pallid Sturgeon, Piping Plover, Interior Least Tern, and the Whooping Crane. Candidate species are the Greater Sage-Grouse and the Sprague's Pipit. The Montana Natural Heritage Program lists seventeen (17) species of concern. They are the Hoary Bat, Sprague's Pipit, Piping Plover, Black-billed Cuckoo, Bobolink, Red-headed Woodpecker, Least Tern, Northern Redbelly Dace, Blue Sucker, Iowa Darter, Shortnose Gar, Sturgeon Chub, Sicklefing Chub, Pearl Dace, Paddlefish, Sauger, and the Pallid Sturgeon.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DSL)
- Screening/fencing of pits, drillsite
- Other: \_\_\_\_\_

Comments: Private surface lands. 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 lands. No concerns.

**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**

A single lateral Bakken Formation horizontal well, 18,987' MD/9,132'TVD. No concerns.

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

No, long term impacts expected, some short term impacts will occur, but can be mitigated.

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): John Gizicki

(title:) Compliance Specialist

Date: March 13, 2015

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Richland County

(subject discussed)

March 13, 2015 \_\_\_\_\_

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA  
COUNTIES, Richland County

(subject discussed)

March 13, 2015 \_\_\_\_\_

(date)

Montana Natural Heritage Program Website (FWP)

(Name and Agency)

Heritage State Rank= S1, S2, S3, T27N R53E

(subject discussed)

March 13, 2015 \_\_\_\_\_

(date)

Montana Cadastral Website

(Name and Agency)

Surface Ownership and surface use Section 26 T27N R53E

(subject discussed)

March 13, 2015 \_\_\_\_\_

(date)

If location was inspected before permit approval:

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

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

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