

# Montana Board of Oil and Gas Conservation Environmental Assessment

**Operator:** SBG Sheridan Facility, LLC  
**Well Name/Number:** SBG Sheridan Facility, LLC  
**Location:** SW SW Section 18 T33N R58E  
**County:** Sheridan, MT; **Field (or Wildcat)** Wildcat

## Air Quality

(possible concerns)

Long drilling time: No, 10 to 15 days drilling time.

Unusually deep drilling (high horsepower rig): Double derrick rig 900 HP, 5,900' TD Dakota Formation disposal well.

Possible H2S gas production: None anticipated.

In/near Class I air quality area: No Class I air quality area.

Air quality permit for flaring/venting (if productive): No facility is not an oil and gas production facility.

Purpose of facility is to dispose of saltwater.

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 saltwater drilling fluids. Surface casing hole freshwater, and freshwater mud system to be used.

High water table: None anticipated.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to Lake Creek, about 1/8 of a mile to the southwest from this location.

Water well contamination: None, water wells in the area are 150' or shallower. Closest water well is about 1/4 of a mile to the north, 5/8 of a mile to the northeast and 3/4 of a mile to the east of this location. Significantly shallower than the surface casing setting depth of 2000'.

Porous/permeable soils: No, sandy clay 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: 2000' 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 drainage.

## Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None

High erosion potential: No, location will require a small cut of up to 8.1' and moderate fill, up to 11.3', required.

Loss of soil productivity: Some productivity loss where the disposal facility is built.

Unusually large wellsite: No, large well site 400'X400'

Damage to improvements: Slight, surface use is cultivated land.

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: Will use existing roads, East Reserve Road and South Dagmar Road. About 345' of new access road will be built into this location off South Dagmar Road. Cuttings will be buried in the lined reserve pit. Drilling fluids will be removed to commercial disposal. Pit will be allowed to dry after all fluids have been removed and solidified with flyash. The pit after solidification will be backfilled. No concerns.

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Residences about 1/8 of a mile to the north, 1 mile to the west and 1/2 of a mile to the southeast from this location. Town of Dagmar is about 2 miles to the south southwest from this location.

Possibility of H2S: None

Size of rig/length of drilling time: Double drilling rig 10 to 15 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. Sufficient distance between location and buildings noise should not be a problem.

### 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 identified as the Piping Plover and Whooping Crane. Candidate species is the Sprague's Pipit. NH Tracker website lists 21 species of concern. They are as follows: Clarks Grebe, Baird's Sparrow, Le Conte's Sparrow, Nelson's Sparrow, Grasshopper Sparrow, Sprague's Sparrow, Burrowing Owl, American Bittern, Chestnut Collared-Longspur, Piping Plover, Piping Plover, Black Tern, Yellow Rail, Bobolink, Whooping Crane, Caspian Tern, Franklin Gull, Black-crowned Night-Heron, American White Pelican, Forester's Tern, Common Tern and Greensnake.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: \_\_\_\_\_  
Comments: Private cultivated surface lands. No live surface water nearby. 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: Surface location is private cultivated land. No concerns.

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### Social/Economic

(possible concerns)  
\_\_ Substantial effect on tax base  
\_\_ Create demand for new governmental services  
\_\_ Population increase or relocation  
Comments: No concerns.

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### Remarks or Special Concerns for this site

No concerns.

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### Summary: Evaluation of Impacts and Cumulative effects

Short term impacts expected, no long term impacts anticipated.

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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: August 23, 2011  
Other Persons Contacted:

Montana Bureau of Mines and Geology, Groundwater Information Center GWIC  
website  
(Name and Agency)  
Sheridan County water wells

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(subject discussed)  
August 23, 2011  
(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

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

(subject discussed)

August 23, 2011 \_\_\_\_\_

(date)

Montana Natural Heritage Program Website (FWP)

(Name and Agency)

Heritage State Rank= S1, S2, S3, T33N R58E

(subject discussed)

August 23, 2011 \_\_\_\_\_

(date)

If location was inspected before permit approval:

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

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

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