

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

**Operator:** KeeSun Corporation  
**Well Name/Number:** Sprague 6-21  
**Location:** SE NW Section 21 T32N R5W  
**County:** Glacier MT; Field (or Wildcat) Cut Bank

**Air Quality**

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig to drill to 2900' TD

Possible H<sub>2</sub>S gas production: No, formation at TD is the Cretaceous Cut Bank Formation.

In/near Class I air quality area: Yes, Class I air quality area nearby is the Blackfoot Indian Reservation, about 1 mile to the west from this location.

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: No special concerns – using small rig to drill to 2900' TD. If there are no gas gathering system nearby, associated gas can be flared under Board Rule 36.22.1220.

**Water Quality**

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system, air, air mist.

High water table: No high water table anticipated.

Surface drainage leads to live water: Closest drainage is an unnamed ephemeral tributary drainage to Cut Bank Creek, about 1/8 of a mile to the east and 1/4 of a mile to the south from this well location. Cut Bank Creek is about 7/8 of a mile to the southwest from this location.

Water well contamination: No, water wells within a 1 mile radius around this location. Surface casing in this well will be drilled with air or freshwater and steel surface casing set at 500' and cemented to surface. If productive 5 1/2" casing will be run and cemented.

Porous/permeable soils: No, sandy bentonitic soils.

Class I stream drainage: Yes, Cut Bank Creek is a Class I stream.

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: 500' of surface casing cemented to surface adequate to protect freshwater zones. Also, air/air mist systems to be used.

### Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated. Crossing only ephemeral drainages.

High erosion potential: No, small cut, up to 9.2' and small fill, up to 2.6', 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, 200'X200' location size required.

Damage to improvements: Slight, surface use is a cultivated field (CRP).

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, Camp Nine Road and existing two track ranch/old lease road. About 400' of new access will be built into this location from the two track ranch road. Cuttings will be buried in and unlined earthen pit. Drilling fluids if used will be allowed to dry in the pit. Pits will be backfilled after drying. No special concerns

### Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences, none within a mile radius from this location.

Possibility of H2S: None anticipated.

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: Adequate surface casing and operational BOP should mitigate any problems. No concerns.

### 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: Listed threatened or endangered species is the Grizzly Bear, Canada Lynx and Bull Trout. Candidate species are the Sprague's Pipit, Wolverine, Whitebark Pine and the Meltwater Lednian Stonefly. NH tracker website lists only two (2) species of concern: Peregrine Falcon and the Long-billed Curlew.

Mitigation:

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

Comments: Private land with location in a CRP field. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

### 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, CRP field. There may be possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

### 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 2900' Cretaceous Cut Bank Formation test.

### 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): /s/Steven Sasaki  
(title:) Chief Field Inspector  
Date: July 30, 2012

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website  
(Name and Agency)  
Glacier County water wells.  
(subject discussed)  
July 30, 2012  
(date)

US Fish and Wildlife, Region 6 website  
(Name and Agency)  
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES  
MONTANA COUNTIES, Glacier County  
(subject discussed)

July 30, 2012  
(date)

Montana Natural Heritage Program Website (FWP)  
(Name and Agency)  
Heritage State Rank= S1, S2, S3, T32N R5W  
(subject discussed)

July 30, 2012  
(date)

If location was inspected before permit approval:

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

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

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