Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Slawson Exploration Company, Inc.
Well Name/Number: Desperado 1-2H
Location: NW NW Lot 4 Section 2 T23N R52E
County: Richland**, MT; Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)
Long drilling time: No, 25-35 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick rig to drill a single lateral Bakken Formation horizontal well to 13,208'MD/9,106'TVD.
Possible H2S gas production: Slight chance H2S gas.
In/near Class I air quality area: No Class I air quality area.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____
Comments: Single lateral Bakken Formation horizontal well, 13,208'MD/9,106'TVD.

_____

Water Quality

(possible concerns)
Salt/oil based mud: Yes intermediate string casing hole will be drilled with oil based invert drilling fluids. Oil based invert drilling fluids for horizontal leg. Surface casing hole will be drilled with freshwater and freshwater drilling fluids.
High water table: No high water table anticipated.
Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to East Redwater Creek, about 1/8 of a mile to the east from this location. The confluence with the ephemeral drainage and East Redwater Creek is about 2.25 miles to the east northeast from this location.
Water well contamination: No, closest nearby wells are about 5/8 of a mile to the north and about ¾ of a mile to the east northeast from this location. Depth of these wells are from 40' to 300'. Surface hole will be drilled with freshwater and freshwater drilling fluids. Surface casing will be cemented to surface from 1550'.
Porous/permeable soils: No, silty sand clay soils.
Class I stream drainage: No, Class I stream drainages.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
X Closed mud system
X Off-site disposal of solids/liquids (in approved facility)
__ Other: _____
Comments: 1550' surface casing to be set to protect freshwater zones and to cover the Fox Hills aquifer. Cuttings will be stockpiled on location and mixed with flyash. The cuttings will be trucked to a permitted disposal site or buried on the wellsite. Adequate surface casing and operational BOP equipment will prevent any problems.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None anticipated.
High erosion potential: Yes, location will require moderate cut, up to 22.4' and moderate fill, up to 15.3', required.
Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive the unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, very large well site 450'X350'
Damage to improvements: Slight, surface use is grazing land.
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
X Stockpile topsoil
__ Stream Crossing Permit (other agency review)
X Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be over existing county road, #133 and ranch trail. A long access road will be built into location, mainly upgrade to handle heavy trucks in all weather conditions. About 13,819' of upgraded road will built into this location. Cuttings will be mixed with flyash and trucked to a permitted disposal site or buried in a pit on the drill location. Oil based invert drilling fluids will be recycled. Completion fluids will be hauled to a Class II disposal. No concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Closest residences are 1 mile or further in any direction from this location.
Possibility of H2S: Slight chance.
Size of rig/length of drilling time: Triple drilling rig 25 to 35 days drilling time.

Mitigation:
X 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. Distance from rig to residences sufficient to mitigate any noise problems.

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: None
Conflict with game range/refuge management: None
Threatened or endangered Species: Threatened or endangered species listed in Richland county by USFW Service are Pallid Sturgeon, Piping Plover, Interior Lease Tern and Whooping Crane. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. NH tracker website lists zero (0) species of concern.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)

__ Screening/fencing of pits, drillsite
__ Other: _____
Comments: Private grazing lands. There maybe 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 are 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 grazing lands. There maybe 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: Wildcat well test. No concerns.

Remarks or Special Concerns for this site

A single lateral Bakken Formation single lateral horizontal well, to 13,208'MD/9,106'TVD.

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): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: December 17, 2011
Other Persons Contacted:

_____
_____
(Name and Agency)
Montana Bureau of Mines and Geology, Groundwater Information Center website.
(subject discussed)

Water wells in Richland County_____
(date)
December 17, 2011

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

December 17, 2011
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T23N R52E
(subject discussed)

December 17, 2011
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____