Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Bayswater Exploration & Production, LLC
Well Name/Number: Central Sumatra Tyler Sand Unit C215Y
Location: SE NE Section 15 T11N R32E
County: Rosebud **, MT; Field (or Wildcat)** Sumatra

Air Quality

(possible concerns)
Long drilling time: No, 10 to15 days drilling time.
Unusually deep drilling (high horsepower rig): No, double derrick drilling rig to drill to 6750' TD Madison Formation, a development well in the Tyler Formation.
Possible H2S gas production: Slight possibility of 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: No special concerns – using small rig to drill to 6750' TD.

Water Quality

(possible concerns)
Salt/oil based mud: No, freshwater or freshwater mud system.
High water table: No high water table anticipated.
Surface drainage leads to live water: None, no live drainages nearby. Only an unnamed ephemeral tributary drainage to Rattlesnake Creek, also an ephemeral drainage.
Water well contamination: No, closest water wells are about 1/4 of a mile to the northwest (this water source well for the waterflood has been plugged and abandoned) and ¾ of a mile to the northeast from this location, wells are from 600' to 6770' in depth. Surface casing will be drilled to 650' with freshwater and steel surface casing cemented to surface. If productive 7" production casing will be cemented to surface.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage: No Class I stream drainages in the area.

Mitigation:
__ Lined reserve pit
_X_ Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____

Comments: 650' of surface casing cemented to surface adequate to protect freshwater zones. Fresh water mud systems to be used on the surface hole. 7" production casing will be cemented to surface.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: No, stream crossings anticipated.
High erosion potential: No, a small cut of about 3.6' and small fill of about 3.6', required.
Loss of soil productivity: No, location will be restored after drilling in nonproductive and if productive unused portion of the drillsite will be reclaimed.
Unusually large wellsite: No, 295'X200' location size required.
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
_X_ Other: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Surface access will be over existing county roads, Grebe Road and existing unnamed gravel road. A short access road will be built off an existing two track well access road, about 1424'. Cuttings will be buried in the earthen pit. Fluids will be allowed to evaporate. Pit will be backfilled when dry. No special concerns

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: No residences within 1 mile from this wellsite. Topographic map indicates a school house, about 1.5 miles to the north. I believe that there no longer exists a school at this location, based upon my travels in the area.
Possibility of H2S: Slight chance of H2S.
Size of rig/length of drilling time: Double derrick drilling rig/short 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: Operational BOP and adequate surface casing will all 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: No
Conflict with game range/refuge management: No
Threatened or endangered Species: Species identified as threatened or endangered are the Black-footed Ferret and the Interior Least Tern. Candidate species listed are the Greater Sage Grouse and the Sprague's Pipit (Listed in Rosebud County by US Fish & Wildlife website).

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____
Comments: Private surface grazing 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 grazing 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

Well is a 6750' Tyler Formation development well for the Tyler Formation waterflood, within the Central Sumatra Tyler Sand Unit.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected. Some short term surface impacts will occur, but will be mitigated in time.

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: May 27, 2011

Other Persons Contacted:

_____
_Montana Bureau of Mines and Geology, GWIC website
_____
(Name and Agency)
_Water wells in Rosebud County___
_____
(subject discussed)
_May 27, 2011_____
(date)

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

_May 27, 2011_____
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T11N R32E
(subject discussed)

_May 27, 2011_____
(date)

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