Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Denbury Onshore, LLC
Well Name/Number: Unit 22-33
Location: SE NW Section 33 T12N R57E
County: Wibaux **, MT; Field (or Wildcat)** Pine

Air Quality

(possible concerns)
Long drilling time: No, 20-30 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple drilling rig for 9,900' TD, vertical development well.
Possible H2S gas production: Yes, possible H2S gas.
In/near Class I air quality area: No Class I air quality area in area of review.
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 triple derrick drilling rig to drill a vertical 9,900' TD Winnipeg Formation well test. If existing pipeline for associated gas in the area, gas can be gathered or if no gathering system nearby, associated gas can be flared under Board Rule 36.22.1220.

Water Quality

(possible concerns)
Salt/oil based mud: Use freshwater and freshwater mud system for drilling surface hole (Rule 36.22.1001) and main hole will utilize oil based invert mud to TD.
High water table: No, high water table anticipated at this location.
Surface drainage leads to live water: No, closest drainages are unnamed ephemeral tributary drainages to Cedar Creek, about 1/4 of a mile southeast and about ½ of a mile to the south from this location.
Water well contamination: None, closest water well is further than 1 mile in any direction from this location. Surface casing will be set below all known water wells in the area. Surface hole will be drilled with freshwater and freshwater muds, rule 36.22.1001. Surface casing will be set to1100' and cemented back to surface.
Porous/permeable soils: No, sandy clay soils.
Class I stream drainage : No Class I stream drainages in the area of review.

Mitigation:
__ 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)**
_X_ Other: _Cuttings pit will be lined with a minimum of a 12 mil impermeable liner. _____

Comments: _ 1100' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used on surface hole. Oil base invert drilling fluids will be recycled and completion fluids will be hauled to a commercial Class II disposal. Solids will be left on site in the lined cuttings pit after being allowed to dry, pit liner folded over the top of the solids, minimum of 4' of spoil dirt to fill pit over the top of the cuttings.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: _None anticipated.__
High erosion potential: _No high erosion at this well site, small cut, up to 8.7' and moderate fill, up to 12.1', required._
Loss of soil productivity : None, location to be restored after drilling well, if well is nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: _Large, 270'X400' 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
__ Other _____

Comments: __ All of the access will be over existing county roads and existing lease roads. About 1141' of new road will be constructed into this location off the lease road. No special concerns. _

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: _Oil field buildings and facilities are the only structures nearby. Unknown if they are any residences nearby. Either way the drilling of this well should not pose any problems.
Possibility of H2S: _Yes H2S possible._
Size of rig/length of drilling time: _Triple drilling rig 20 to 30 days drilling time.

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: No special concerns. Proper BOP stack (5000 psig annular with double blind rams and pipe rams) and surface casing should be able to control any problems that could occur.

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 Pallid Sturgeon, Interior Least Tern and Whooping Crane. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. MTFWP Natural Heritage Tracker website lists three (3) species of concern. They are the Greater Sage Grouse, Sprague's Pipit and the Long-Bill Curlew.

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

Comments: The surface ownership is private land. 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: On private surface land. 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 desire to preserve

these sites or not, if they are found during construction of this 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, a development oil well within the Pine Oil Field.

Remarks or Special Concerns for this site

Well is a 9,900' vertical Winnipeg Formation well test in the Pine oil field.

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 11, 2012_____

Other Persons Contacted:

_____
Montana Bureau of Mines and Geology, GWIC website
_____
(Name and Agency)
Wibaux County water wells__
(subject discussed)
December 11, 2012_____
(date)

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

December 11, 2012_____
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T12N R57E
(subject discussed)

December 11, 2012_____
(date)

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