

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

Operator: Apache Corporation
Well Name/Number: Jayhawk Wescoe-35-8H-T
Location: SE NE Section 34 T36N R47E
County: Daniels, **MT;** **Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 20 to 30 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig to drill a Three Forks Formation single lateral horizontal well test, 12.163' MD/7,179' TVD.

Possible H2S gas production: Possible H2S gas from Mississippian Formations.

In/near Class I air quality area: Yes, closest Class I air quality area is the Fort Peck Indian Reservation, about 13.8 miles to the south 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 a rig to drill a Three Forks Formation single lateral horizontal well test, 12.163' MD/7,179' TVD. If there are existing pipelines for natural gas in the area then associated gas must be tied into gathering system 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: Yes, freshwater and freshwater gel polymer mud system on surface hole. Mainhole will be drilled with a oilbased invert mud system. Horizontal lateral will be drilled with a freshwater polymer mud system.

High water table: No high water table anticipated at this location.

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

Butte Creek is about 3/4 of a mile to the south from this location.

Water well contamination: No, no water wells are within a 1 mile radius from this location. Surface hole will be drilled with freshwater and surface casing set and cemented to surface at 1550'. (Rule 36.22.1001)

Porous/permeable soils: No, sandy clay soils.

Class I stream drainage: No, Class I stream drainage in the area of review.

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: Lined cuttings pit will be constructed on the location for the disposal of the drill cuttings.

Comments: 1550' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud systems to be used. (Rule 36.22.1001)

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None

High erosion potential: No, moderate cut, up to 11.0' and small fill, up to 9.0', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be restored.

Unusually large wellsite: No, a large well site, 400X500' location size for two (2) wells, Jayhawk Wescoe 35-8H-T.

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

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 county road, Chabot Road. An access will be built along the east section line, about 7390' will be built into this location. Cuttings will be buried on site in the lined cuttings pit. Drilling fluids and completion fluids will be hauled to commercial Class II saltwater disposal facility. Solids will be allowed to dry in the lined cuttings pit. Pit will be back filled when dry with clay subsoils and then topped with topsoil. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within 1 mile radius from this location. The town of Scobey, Montana is about 6 miles to the southeast from this location.

Possibility of H₂S: Possible H₂S gas from Mississippian Formations.

Size of rig/length of drilling time: Triple drilling rig 25 to 30 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. (BOP's 5,000 psig annular, pipe and blind rams) rule 36.22.1014. 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: Species identified as threatened or endangered are the Whooping Crane. Candidate species is the Sprague's Pipit. NH tracker website indicates one (2) species of concern: the Northern Redbelly Dace and the Iowa Darter.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, **DNRC Trust Lands**)

Screening/fencing of pits, drillsite

Other: _____

Comments: Private surface land, cultivated. State of Montana minerals, DNRC Trust Lands will do surface EA. 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. State of Montana Trust Lands minerals, Trust Lands will do a surface EA.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified.

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, **DNRC Trust Lands**, federal agencies)

Other _____

Comments: Private cultivated surface land. State of Montana minerals, DNRC Trust Lands will do surface EA. 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. State of Montana Trust Lands mineral. Trust Lands will do a surface EA.

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: Wildcat well. No concerns

Remarks or Special Concerns for this site

Well is a wildcat exploratory to drill a Three Forks Formation single lateral horizontal well test, 12.163'MD/7,179' 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: October 19, 2012 _____

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Daniels County water wells

(subject discussed)

October 19, 2012

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA
COUNTIES, Daniels County, Montana

(subject discussed)

October 19, 2012

Montana Natural Heritage Program Website

(Name and Agency)

Heritage State Rank= S1, S2, S3, Location T36N R47E

(subject discussed)

October 19, 2012

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____