

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

Operator: Taylor Well Operating, Inc. (TWO)
Well Name/Number: Taylor No. 4-15
Location: SW NW Section 15 T34N R4E
County: Liberty, MT; **Field (or Wildcat)** Grandview

Air Quality

(possible concerns)

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

Unusually deep drilling (high horsepower rig): No, 2750' TD single derrick drilling rig will be used to drill this well.

Possible H2S gas production: Yes, Sawtooth/Madison Formations have H2S.

In/near Class I air quality area: No, Class I air quality area nearby.

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: Sweet gas lines in the area.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud/air and air mist system to be used.

High water table: No, should not encounter a high water table area here.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary to Eagle Creek, about 1/32 mile to the northwest from this location. Within Eagle Creek are stock ponds.

Water well contamination: No, closest water wells are about 1/4 of a mile to the southeast and 3/4 of a mile to the southwest from this location. Depth of these water wells are from 145' to 318'. The two closest water wells are Public Water Supply wells at a Hutterite Colony. Surface hole will be drilled with air, air/mist, freshwater and freshwater mud system to below the depth of the deepest water well and set casing into the top of the Colorado Shale.

Porous/permeable soils: No, soils tight sandy- silty bentonitic soils.

Class I stream drainage: No Class I stream drainages.

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: Adequate well control and surface casing should mitigate any problems.

Surface casing set at 350' would mitigate any problem with the water wells.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None anticipated.

High erosion potential: No, location fairly flat, small cut, up to 5.2' and small fill, up to 4.0', required.

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

Unusually large wellsite: No, small 200'X200' location size.

Damage to improvements: Slight, surface use cultivated fields.

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 roads and existing farm trails. About 3/8 of a mile of new access will be built into this location off an existing farm trail. Drilling fluids will be allowed to dry in the pits. Cuttings will be buried in the unlined earthen pit after pit is allowed to dry. No concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Nearest residences is a Hutterite Colony, Eagle Creek Colony, about 1/4 of a mile to the southeast of this location. Trinity church is 1.25 miles to the northwest 1 from this location.

Possibility of H2S: Slight

Size of rig/length of drilling time: 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: Noise should not be a problem . Adequate BOP and surface casing should mitigate any 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: Threatened or endangered species listed is the Black-footed Ferret. Specie listed as Proposed is the Mountain Plover. Species listed as Candidate species are the Greater Sage Grouse and Sprague's Pipit. NH tracker website lists no species of concern.

Mitigation:

Avoidance (topographic tolerance/exception)

Other agency review (DFWP, federal agencies, DSL)

Screening/fencing of pits, drillsite

Other: _____

Comments: Private cultivated surface lands. No concerns.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified. Location in a cultivated field.

Mitigation

avoidance (topographic tolerance, location exception)

other agency review (SHPO, DSL, federal agencies)

Other: _____

Comments: Private surface lands. No concerns

Social/Economic

(possible concerns)

Substantial effect on tax base

Create demand for new governmental services

Population increase or relocation

Comments: Existing oil and gas field, Grandview Oil and Gas Field.

Remarks or Special Concerns for this site

Summary: Evaluation of Impacts and Cumulative effects

No, long term impacts expected from the drilling of this well. 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: March 4, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Liberty County water wells

(subject discussed)

March 4, 2011

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA
COUNTIES, Liberty County

(subject discussed)

March 4, 2011

(date)

Montana Natural Heritage Program Website (FWP)

(Name and Agency)

Heritage State Rank= S1, S2, S3, T34N R4E

(subject discussed)

March 4, 2011

(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____