

## CHECKLIST ENVIRONMENTAL ASSESMENT

**Proposed Action:** Approve Drilling Permit (Form 22)

**Project/Well Name:** Lybeck 1-35

**Operator:** Behm Energy, Inc.

**Location:** NW NE Section 35 35N-20E

**County:** Blaine **MT;** **Field (or Wildcat):** Wildcat

**Proposed Project Date:** 10/20/2017

### I. DESCRIPTION OF ACTION

Behm Engery, Inc plans to drill a vertical oil well with an objective formation being the Sawtooth, 4,400' TVD/MD.

### II. PROJECT DEVELOPMENT

#### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Blaine County Wells).

US Fish and Wildlife, Region 6 website

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

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T35N R20E

Montana Cadastral Website

Surface Ownership and surface use Section 35 T35N R20E

Montana Department of Natural Resources MEPA Submittal

#### 2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Behm Energy, Inc. would have permission to drill the well.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

#### 3. AIR QUALITY

Long drilling time: No, 4-5 days.

Unusually deep drilling (high horsepower rig): No.

Possible H<sub>2</sub>S gas production: No H<sub>2</sub>S anticipated.

In/near Class I air quality area: No.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using small rig to drill to 4,400' TD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

#### 4. WATER QUALITY

Salt/oil based mud: Water based mud to be used.

High water table: There may be a high water table in this area.

Surface drainage leads to live water: No, nearest drainage is unnamed ephemeral drainage to Fifteenmile Creek about 1/5 of a mile to the south. Fifteenmile Creek is about 1/2 a mile to the south.

Water well contamination: No water wells within a 1/2 mile radius.

Porous/permeable soils: No, sandy clay.

Class I stream drainage: No.

Groundwater vulnerability area: Location is near a groundwater vulnerability area but not in one.

Mitigation:

Lined reserve pit

Adequate surface casing

Berms/dykes, re-routed drainage

Closed mud system

Off-site disposal of **solids/liquids** (in approved facility)

Comments: Steel surface casing will be run to 350' and cemented to surface to protect ground water. (Rule 36.22.1001).

## 5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland

Stream crossings: None anticipated.

High erosion potential: No, location requires a small cut of 1.2' and a small fill of 3.1'.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive.

Unusually large wellsite (Describe dimensions): No, 250' X 250'.

Damage to improvements: Slight, surface use is grassland.

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

Access Road: Access will be off existing U.S. Highway 2, an existing 2 track and a new access of 340' will be built into location from 2 track.

Drilling fluids/solids: The fluids and cuttings will be stored in a steel tank closed loop system. All drilling mud and drill cuttings will be removed from the well location by Moxley Construction's vacuum truck and hauled to two stock ponds located in Sec 23 35N-20E.

## 6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: Closest residence is 1.2 miles to the northeast.

Possibility of H2S: None anticipated.

Size of rig/length of drilling time: Single derrick rig, 4-5 days drilling time.

Mitigation:

Proper BOP equipment

Topographic sound barriers

H2S contingency and/or evacuation plan

Special equipment/procedures requirements

Other:

## 7. WILDLIFE/RECREATION

Sage Grouse: In general habitat.

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: None.

Conflict with game range/refuge management: None.

Threatened or endangered Species: Species listed as endangered or threatened are the Pallid Sturgeon, Black-footed Ferret, and Piping Plover. The Montana Natural Heritage Program Website lists two (2) species of concern: Green-tailed Towhee and Brewer's Sparrow.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DNRC Trust Lands)
- Screening/fencing of pits, drillsite
- Other:

Comments: Private cultivated surface lands. 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. No concerns.

**IV. IMPACTS ON THE HUMAN POPULATION**

**8. HISTORICAL/CULTURAL/PALEONTOLOGICAL**

Proximity to known sites:

Mitigation

- avoidance (topographic tolerance, location exception)
- other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

**9. SOCIAL/ECONOMIC**

Substantial effect on tax base

- Create demand for new governmental services
- Population increase or relocation

Comments: No concerns.

**IV. SUMMARY**

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

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.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> John Gizicki	<b>Date:</b> 09/27/17
	<b>Title:</b> Compliance Specialist	