

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Briscoe Seismic Survey

Proposed Implementation Date: October/November 2015

Proponent: Briscoe Petroleum, LLC
Rick Briscoe

Location: Section 16 – T2N-R34E (Common School Trust)

County: Big Horn

I. TYPE AND PURPOSE OF ACTION

Briscoe Petroleum, LLC (henceforth referred to as the proponent) has requested to conduct a seismic survey on the state trust land listed above (who also has the mineral lease on Section 16). This project would utilize heavy vibration equipment and seismic detecting equipment for the purpose of oil and gas exploration.

II. PROJECT DEVELOPMENT

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

Provide a brief chronology of the scoping and ongoing involvement for this project.

The proponent has submitted the proper documentation to the State of Montana DNRC to request this project. The SLO staff has been notified of the project. SLO Land Use Specialist, Jocce Hedrick, completed a site visit on October 19, 2015. The proponent has contacted the DNRC surface lessee to discuss potential impacts and will be paying \$500.00 per mile for settlement of damages.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

None

3. ALTERNATIVES CONSIDERED:

No Action Alternative: The proposed seismic exploration project will not occur. Current non-motorized recreational use and grazing leasing would continue.

Action Alternative: Briscoe Petroleum, LLC will have permission to conduct seismic exploration using vibroseis trucks for oil and gas in the N ½ of Section 16.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

In the N½ of Section 16, the seismic activities will cross three different formations. The Tongue River Member of the Fort Union Formation can be up to 525 feet thick and consists of sandstone intermixed with shale and siltstone, with multiple coal beds. The Tullock Member of the Fort Union Formation can be 195-230 feet in thickness and contains very thin sandstone layers intermixed with shale. The Lance Formation can be 400-500 feet thick, also contains thick layers of sandstone intermixed with shale, lighter in color than the other formation shales. This formation also contains sandstone lenses and white sandstone with coal.

Soil compositions in the N½ of Section 16, where the seismic activities will take place, consist of loam, silty clay loam, and a variety of complexes. Web soil survey indicates these soils have low erosion hazards, slight to moderate susceptibility to degradation, low resistance to soil compaction, fair vehicle trafficability, moderate to high restoration potential, and good to excellent rating for handling traffic of seismic activity when conditions are dry.

Some soil disturbance may take place through the use of heavy vibration equipment. Major disturbance can be mitigated through the exclusion of heavy equipment on some areas of trust land in which the soils are excessively compactable or fragile. Heavy equipment will not be allowed into any wetland, sub-irrigated sites, or rivers, streams, springs, reservoirs, or ponds on the project. Some soil compaction may take place in areas where heavy equipment will be operated.

A steep rock face exists along the drainage on the west side of the section and a larger drainage also runs through the section. The seismic crew will be required to avoid the rock face.

The seismic contractor agrees to restore any disturbed soil from seismic activities.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Water quality will be maintained by excluding access to any area where ground or surface water could potentially be disturbed. The proposed seismic line crosses the West Fork of Brant Coulee, an intermittent stream. All equipment will be kept out of rivers, wetlands, sub-irrigated ground or any area where water quality, quantity or distribution could be affected. The depth to the water table in the entire section is over 200 centimeters. A search on the Ground Water Information Center data base found no sites documented in this section.

The drainage on the west side of the section does contain water sporadically. In order to minimize damage to the surface, seismic crews will need to move equipment up or down the drainage and cross where the drainage is dry and where the side slopes are not steep.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Pollutants and particulates may be increased during the project as a result of dust from vehicles traveling along the seismic lines. After the completion of the project pollutant and particulate levels should return to normal.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Vegetative communities may be temporarily affected by this project. The use of heavy equipment has the potential to damage some areas of the plant community. This may come from the vegetation being compacted by heavy equipment. Damage to the plant community should be less at this time of year due to the fact that most species have produced seed.

The seismic line will cross forest and woodlands with Ponderosa Pine, grasslands with mixedgrass prairie, sagebrush steppe with big sagebrush,

This project is located within the boundaries of Sage Grouse General Habitat Area, however, no vegetation will be removed and the proposed activity will have only short-term, minimal impact on the vegetation from vibroseis trucks.

Vegetative species found on the site include; bluebunch wheatgrass, little bluestem, green needlegrass, sideoats grama, needle & thread, blue grama, Sandberg bluegrass, ponderosa pine, green sagewort, fringed sagewort, broom snakeweed, prickly pear cactus, big sagebrush, silver sagebrush and cheatgrass.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Section 16 is in the general sage grouse habitat area, although the proposed seismic activity is approximately 13 miles from the nearest documented, confirmed active sage grouse lek.

There may be minimal disruption to other wildlife in the area. The scale and length of the project should not be enough to permanently disrupt wildlife species. Species in the area include antelope, whitetail deer, mule deer, raptors and other birds, various rodents, rabbits, reptiles and others.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Section 16 is located within the boundaries of Sage Grouse General Habitat Area. The proposed seismic activity complies with the guidelines set in the Executive Order (EO) for the Montana Sage Grouse Conservation Strategy, General Habitat Stipulations. The proposed activity is located approximately 13 miles from the nearest active lek.

In accordance to the Executive Order, the following items have met the General Habitat Stipulations: Surface disturbance will be more than 0.25 miles from the perimeter of the nearest active lek. The proposed activity will be more than 2.0 miles from the nearest active lek and will be outside the seasonal use period. Noise levels of the proposed activity should be much less than 10 dBA at the site of the nearest lek, and will occur outside of the breeding season.

A search was conducted using the Montana Natural Heritage Program database to identify point observations of species of concern in the section of the proposed activity. No other species of concern have been documented in this section.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

TLMS search indicated that there are no cultural/paleontological resources documented on this section. DNRC Archeologist, Patrick Renne, was consulted and no cultural/paleontological resources are on file for this section.

Land Use Specialist, Jocce Hedrick walked the seismic source line and found no archaeological resources.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Very little impact should be noticed aesthetically in the scope of this project. There should be minimal lasting effects on the landscape from this project. The project will be short term and the seismic crew will reclaim any sites that show disturbance.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None.

IV. IMPACTS ON THE HUMAN POPULATION

- RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

No human and health safety risks were identified as a result of the proposed project other than the typical occupational hazards that coincide with seismic survey operations.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

The proposed project is not expected to alter current or future industrial, commercial, and agricultural activities and production.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

The proposed project would not create, move, or eliminate jobs.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

No impact.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

No impact.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No impact.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

No impact.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

No impact.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

No impact.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

No impact.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The Seismic Exploration Permit for Oil and Gas fee is waived since Briscoe Petroleum (the applicant) is also the current mineral lessee. The existing grazing lease on the State Section listed above provides approximately \$3,487, and the existing oil and gas lease provides \$960 in rental fees, in annual revenue from Section 16 that goes to Common Schools. If wells are drilled and oil is extracted from state land, the amount of royalties would benefit Common Schools.

EA Checklist Prepared By:	Name: Heidi Crum	Date: Oct. 23, 2015
	Title: Mineral Resource Specialist	

V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, I have selected the Action Alternative, to issue a new seismic permit. I believe this alternative can be implemented in a manner that is consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis

EA Checklist Approved By:	Name: Monte Mason	
	Title: MMB Bureau Chief	
Signature:	<i>Monte Mason</i>	Date: 10/23/2015