CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Bell Creek 3-D Seismic 2019
Proposed Implementation Date:	Late Summer 2019
Proponent:	Denbury Onshore
Location:	Surface and Minerals- T8S-R54E-Sec 36
County:	Powder River

I. TYPE AND PURPOSE OF ACTION

Denbury Onshore (Henceforth referred to as the proponent) has requested to conduct a seismic survey on the State Trust land mentioned above. This project would utilize heavy vibration equipment and seismic detecting equipment for the purpose of oil and gas exploration. This proposed survey is generalized in the area of the existing Bell Creek Oil Field and proposes to survey the same points used in the Summer of 2015.

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 request this project. The ELO staff has conducted a field review on the project on June 16th 2015 and again on July 30th 2019. The proponent has been in touch with the DNRC and the surface lessee to discuss potential impacts, surface lessee settlement of damages have been received.

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

None

3. ALTERNATIVES CONSIDERED:

Alternative A- Allow the proponent to conduct the seismic survey of these parcels of State Trust Land
Alternative B- No Action

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.

Alternative A- Soil composition is varied throughout the project. Soil types include clay and silty loams with shallow bases. 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, or at times when the soils are wet as the soils on the tract have very little resistance to compaction. The soils are fairly resistant to degradation and are able to recover in both structure and functional integrity once disturbance has occurred. Heavy equipment will not be allowed into any wetland, sub irrigated sites, or rivers, streams, springs, reservoirs, ponds, hardwood thickets ect... on the project. Equipment will also not be allowed in steeper topography or any area where the soil structure is fragile. Soils impacted by the 2015 seismic survey recovered and impacts weren't visible the following year.

Alternative B- No Impacts expected

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.

Alternative A- Water quality will be maintained by excluding access to any area where ground or surface water could potentially be disturbed. All equipment will be kept out of rivers, wetlands, sub irrigated ground or any area where water quality, quantity or distribution could be affected. A minimum 300 foot setback will be placed around all surface and subsurface water sources and impoundments.

Alternative B- No Impacts Expected

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.

Alternative A- Pollutants and Particulates may be increased during the project. After the completion of the project pollutant and particulate levels should return to normal.

Alternative B- No Impacts Expected

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.

Alternative A- Vegetation communities may be 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 lessened at this time of year due to the fact that most species have produced seed and entered dormancy. There is no evidence of rare plants or cover types in the scope of the project. Current plant species which occupy the construction area include Western Wheatgrass (Agropyron Smithii), Green Needlegrass (Stipa Viridula), Blue Bunch Wheatgrass (Agropyron Spicatum), Prairie Sandreed (Calamovilfa longifolia), Needle and Thread (Stipa comata), Prairie Junegrass (Koleria pyramidata), Blue Grama (Bouteloua gracilis), Sandberg Bluegrass (Poa secunda),
Silver Sagebrush (Artemisia cana), Fringed Sagewort (Artemisia frigida), Broom Snakeweed (Gutierrezia sarothrae), Downy Brome (Bromus tectorum) and Japanese Brome (Bromus japonicus).

Alternative B- No Impacts expected

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.

Alternative A-There may be minimal disruption to the wildlife that inhabit the area. The scale and length of the project should not be enough to permanently disrupt the wildlife species. Species in the area include Whitetail and Mule Deer, Elk, Antelope, Raptors and other birds, various rodents, rabbits, reptiles and others.

Alternative B- No Impacts Expected

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.

Alternative A- A search of the Montana Natural Heritage Database shows that no threatened, endangered or species of concern were noted within the general project area. The project is located within sage grouse general habitat, but not in the vicinity of sage grouse leks. The Sage Grouse Program has issued recommendations to mitigate effects to sage grouse during the proposed operation.

Alternative B- No Impacts Expected

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

Alternative A- A search of the TLMS database and field survey showed no noted historical, archeological or paleontological resources within the project area on state trust lands and visits by the Eastern Land Office (ELO) did not encounter any resources. If resources are discovered during the proposed survey, operations in that area must cease until the ELO staff or the DNRC Archeologist can make an appropriate determination.

Alternative B- No Impacts Expected

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.

Alternative A- Very little impact should be felt aesthetically in the scope of this project. There should be minimal lasting affects on the landscape from this project. The project should only last a few days on each tract, after which the landscape will be allowed to recover.

Alternative B- No Impacts Expected

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.

Alternative A- No impacts expected.

Alternative B- No Impacts expected

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.

A MEPA review was conducted in June of 2015 by the DNRC Eastern Land Office before issuing Seismic Permit #1603 for a seismic survey that covered the same points as the proposed project will survey. No cumulative impacts are anticipated to result in the proposed action.

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.

Alternative A- There may be potential safety risks for laborers, but the potential risk should be minimal with proper safety efforts.

Alternative B- No Impact Expected

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

Alternative A- The project has potential to have a positive effect on Industrial and Commercial Activities and Production.

Alternative B- No Impacts Expected

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.

Alternative A- This project has the potential to maximize the efficiency of current operations in the Bell Creek field, which could potentially prolong existing jobs.

Alternative B- No Impacts Expected

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.

Alternative A- No Impacts Expected

Alternative B- 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

Alternative A- No Impacts Expected

Alternative B- 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.

Alternative A- No Impact Expected
Alternative B- 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.

Alternative A- No Impacts Expected
Alternative B- 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.

Alternative A- No Impacts Expected

Alternative B- No Impact

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

Alternative A- No Impacts Expected

Alternative B- No Impact

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

Alternative A- No Impacts Expected

Alternative B- 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.

Alternative A- This project will provide a benefit to the trust through a better survey of state owned minerals with the potential of development. Denbury currently holds the mineral leases on these tracts, and as such are authorized to conduct seismic projects with Department approval.

Alternative B- No Impact

EA Checklist Prepared By:	**Name:** Trevor Taylor	**Date:** 8-2-2019	
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V. FINDING

25. ALTERNATIVE SELECTED:

Alternative A

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

None

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

EA Checklist Approved By:	**Name:** Monte Mason	
	Title: Bureau Chief, Minerals Management Bureau	
Signature: Monte Mason	**Date:** 8/2/2019	