

# CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b> Seismic Permit No. 1430	<b>Proposed Implementation Date:</b> June 1, 2004
<b>Proponent:</b> Polaris Explorer USA, Inc. , c/o John O Brown Jr., PO Box 240, Havre, MT 59501	
<b>Type and Purpose of Action:</b> Polaris Explorer USA, Inc. is proposing to conduct the North Chinook 3-D seismic project for to explore for natural gas formations across two tracts of state land within this section. Polaris Explorer USA, Inc. will be conducting the seismic project on behalf of Sandtana Inc. The seismic project will cross approximately 4 miles over these two tracts of state land in Section 16.	
<b>Location:</b> <u>Township 35.0 North, Range 18.0 East, M.P.M.</u> Section 16: All	<b>County:</b> Blaine County, Montana

**RECEIVED**

MAY 24 2004

## I. PROJECT DEVELOPMENT

## LEGISLATIVE ENVIRONMENTAL

	POLICY OFFICE
1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.	The Department of Natural Resources and Conservation (DNRC) has been petitioned by Polaris Explorer USA, Inc. to conduct the North Chinook 3-D seismic project across two tracts of state land. The Montana DNRC sent out scoping letters to the state's surface lessees, Laurence Listou and Robert Munson, to notify them of this proposal. The scoping letters identify the location of the proposed seismic project across these two tracts of state land. The letter also informs them on how damages will be settled with Polaris Explorer USA, Inc.
2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:	The Montana DNRC's; Havre Unit Office, Minerals Management Bureau, and the Montana Board of Oil & Gas are the only governmental agencies with jurisdiction for this type of project on State School Trust lands. Polaris Explorer USA, Inc. will need to obtain a seismic permit from the Montana DNRC, prior to conducting any seismic activity on state land. The seismic company that has been contracted to do the seismic work under this permit (Polaris Explorer USA, Inc.) must have a valid permit with the county and have registered their bond with the Secretary of State's Office.

3. ALTERNATIVES CONSIDERED:	<p><b>Action Alternative:</b> Grant Polaris Explorer USA, Inc. permission to conduct the North Chinook 3-D seismic project to explore for natural gas formations on this section of state land. The Montana DNRC will issue Polaris Explorer USA, Inc. a seismic permit to conduct this project on state land.</p> <p><b>No Action Alternative:</b> Deny Polaris Explorer USA, Inc. permission to conduct the North Chinook 3-D seismic project to explore for natural gas formations on this section of state land. The Montana DNRC will not issue Polaris Explorer USA, Inc. a seismic permit for this project.</p>
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## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS
<p>4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p><b>Action Alternative:</b> The soils will receive a minimal disturbance with this type of activity. The proposed seismic project will only take place while the ground is dry. No unusual geological features are present on these tracts of state land. Most of the soils are suitable for this type of activity, but may experience some compaction due to the heavy equipment that will be used. The seismic company is prohibited from traversing the North Chinook Irrigation Canal. No vehicles will be allowed to cross the canal, where there is no bridge. All receiver lines shall be laid by hand crews in this area. There are no special reclamation considerations for this project, as long as the seismic company follows the stipulations that have been put in place by the Montana DNRC.</p> <p><b>No Action Alternative:</b> The soils that are located on these tracts of state land will not be disturbed. The seismic company will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across this section of state land.</p>

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>5. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p><b>Action Alternative:</b> The location of the seismic project does contain important surface and/or groundwater resources during different times of the year. The seismic company is prohibited from any seismic activity within 300 feet of any springs, water wells, streams, lakes or water storage reservoir facilities to maintain the integrity of these water resources. The seismic company is prohibited from traversing the North Chinook Irrigation Canal. This type of activity does not have the potential to contaminate drinking water or degrade the present water quality found in this area, as long as the seismic company follows the guidelines and stipulations that the Montana DNRC has set in place.</p> <p><b>No Action Alternative:</b> The water quality, quantity, and distribution will not be impacted. The seismic company will not be allowed to conduct the North Chinook 3-D seismic project across the state land. Water quality standards will not be violated and drinking water will not be degraded in this area.</p>
<p>6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p><b>Action Alternative:</b> The project is expected to have a minimal impact on the air quality in the surrounding area. An increase in traffic across the designated roads may produce some additional dust particulates, throughout the course of the project. However, after the seismic company completes the project, traffic will return to normal in these areas. The seismic company will be required to use all the existing roads and trails to minimize the impacts to the native rangeland resource.</p> <p><b>No Action Alternative:</b> The air quality currently found across these tracts of state land will not be altered. No pollutants or particulates will be produced in this area. The seismic company will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?

The vegetative communities found on the native rangeland include the following plants: western wheatgrass (*Agropyron smithii*), needle-and-thread (*Stipa comata*), blue grama (*Bouteloua gracilis*), prairie junegrass (*Koeleria pyramidata*), green needlegrass (*Stipa viridula*), sedges (*Carex spp.*), sandberg bluegrass (*Poa secunda*), cudweed sagewort (*Artemisia ludoviciana*), fringed sagewort (*Artemisia frigida*), dense clubmoss (*Selaginella densa*), silver sagebrush (*Artemisia cana*), and woods rose (*Rosa woodsii*).

**Action Alternative:** The proposed project is expected to have a minimal impact on the vegetative cover, quantity, and quality found on these tracts of state land. The native rangeland will receive minimal impacts as long as the seismic company follows the stipulations that have been put in place by the Montana DNRC. The vegetative communities found in the immediate area of disturbance will receive some compaction due to the heavy equipment. There are no rare plants or cover types located within the proposed route of this project. There will be no vehicular activity, other than specified on the plat map. The seismic company will not be allowed to traverse the North Chinook Irrigation Canal in places where there is no crossing. All receiver lines shall be laid by hand crews along the irrigation canal. The native rangeland disturbance will be small in scope and plant production should recover within the year. The seismic activity will only be allowed to take place during dry surface conditions.

**No Action Alternative:** The vegetative communities found throughout the proposed project area will not be altered. Rare plant and cover types will not be disturbed. Polaris Explorer USA, Inc. will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p><b>Action Alternative:</b> The area of the proposed activity is used by many different types of wildlife and bird species. Wildlife and bird species may be temporarily displaced in this area throughout the course of the seismic project. However, wildlife and bird species found in this area will not be permanently relocated as a result of this activity. Once the project is completed, wildlife and bird species will return to normal activities in this area. Wildlife habitat will not be significantly impacted by the seismic project, as long as the seismic company follows the stipulations that the Montana DNRC has set in place.</p> <p><b>No Action Alternative:</b> The terrestrial and avian life and their habitats will not be permanently altered. Wildlife and bird species will not be temporarily displaced by this project. The Montana DNRC will not issue Polaris Explorer USA, Inc. a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>
<p>9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Sensitive Species or Species of special concern?</p>	<p><b>Action Alternative:</b> The timing of this project will take place while the ground is dry. This will minimize the overall disturbance to existing habitat types and ecosystem. Federally listed, threatened, and endangered species will be able to migrate through this area with minimal disturbance. There are sensitive species and species of special concern known to use this area as habitat. These species may be temporarily displaced with this type of activity. However, these species will not be permanently relocated with this type of activity. The seismic company will complete their work in one to two days and they will leave the area completely. All wildlife species found across this area will return to normal everyday activities once the seismic company finishes the project and leaves this area. There are no wetlands located in the immediate area of the proposed disturbance. The seismic company is prohibited from traversing the North Chinook Irrigation Canal.</p> <p><b>No Action Alternative:</b> The unique, endangered, fragile and/or limited environmental resources found within the immediate area of the proposed disturbance will not be altered. Polaris Explorer USA, Inc. will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?

**Action Alternative:** The Montana DNRC has surveyed the proposed project area for existing cultural resources. Three tepee rings are known to exist in the SE4NE4SW4SW4 and two other tepee rings are known to exist in the NW4SW4SE4SW4. These areas will be avoided by Polaris during this project. However, there are no other known cultural resources located within the immediate area of the proposed disturbance. The Montana DNRC Archaeologist, Patrick Rennie, was contacted for his input on cultural resources in this area. He has seen no evidence that 3-D seismic activity, on frozen or dry ground, has any ability to impact cultural resources in this area.

**No Action Alternative:** Historical and archaeological resources present on these tracts of state land will remain intact. Unknown historical and archaeological resources will not be disturbed. The seismic company will not be issued a seismic permit to conduct this seismic project.

11. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?

**Action Alternative:** The proposed project is located in a rural area approximately 14 miles northwest of Chinook, Montana. Some areas contained within this project will be visible to the public until native vegetation can recover from the disturbance. The proposed disturbance will create some excessive noise, throughout the entirety of the project. However, noise levels will return to normal once the project is completed and the seismic company pulls out of the area. The seismic company is prohibited from traversing the North Chinook Irrigation Canal. Restricting this activity will ensure that the aesthetic character of the land is not diminished.

**No Action Alternative:** There will be no alterations to the aesthetic character of the land. The seismic company will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.

## II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p><b>Action Alternative:</b> The native grazing land will receive minimal, short-term impacts with this type of activity. The project will take place while the ground is dry, in order to limit the impact to the native rangeland resource. The project will not use resources that are limited in the area.</p> <p><b>No Action Alternative:</b> There will be no demands on the environmental resources of land, water, air or energy. The Montana DNRC will not issue Polaris Explorer USA, Inc. a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>
<p>13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?</p>	<p><b>Action Alternative:</b> The Montana DNRC will continue to monitor mineral and surface management activities on state land to assess the impacts from this type of project on the surrounding ecosystem. The Montana DNRC will continue to administer the licensed grazing activities that are currently taking place on these tracts of state land.</p> <p><b>No Action Alternative:</b> No further studies, plans, or projects will be needed for this project. The Montana DNRC will not issue the seismic company a seismic permit to conduct 3-D seismic project across these tracts of state land. The Montana DNRC Trust Land Management Division will continue do field reviews on these tracts of state land every ten years.</p>

## III. IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p><b>Action Alternative:</b> The seismic company, subcontractors, and/or their employees understand the risks involved with this type of project. They assume the risks involved in seismic project as an occupational hazard. The project will have no long-term impacts to the human health and safety risks that are found within this area.</p> <p><b>No Action Alternative:</b> The human health and safety risks found in this area will continue to remain minimal. There will be no human health or safety risks to the seismic company, subcontractors, and/or its employees, if the Montana DNRC denies the seismic company a seismic permit for this project.</p>

<p>15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p><b>Action Alternative:</b> The Montana DNRC has set up stipulations for the seismic company to ensure that the industrial, commercial, and agricultural activities will not be altered with this type of project. The native rangeland will receive minimal impact with this type of activity. The seismic project will matt the grass down, but will not impact the long-term, future forage productivity found on these tracts of native grazing land. The seismic company is prohibited from traversing the North Chinook Irrigation Canal. Polaris Explorer USA, Inc. will settle all surface damages with the state's surface lessees within a reasonable time period following the completion of the North Chinook 3-D seismic project.</p> <p><b>No Action Alternative:</b> The industrial, commercial, and agricultural activities found on these tracts of state land will not be altered. The seismic company will not be issued a seismic permit. Native rangeland forage production will not be altered.</p>
<p>16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p><b>Action Alternative:</b> The project will not alter the quantity and distribution of employment in this area. The project will create short-term jobs for the seismic company's employees, but will have no impact on the local quantity and distribution of employment.</p> <p><b>No Action Alternative:</b> The quantity and distribution of employment will not be impacted in the surrounding area. Polaris Explorer USA, Inc. will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>
<p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p><b>Action Alternative:</b> The project will not create or eliminate tax revenue within Blaine County. The local and state tax base will remain the same.</p> <p><b>No Action Alternative:</b> The local and state tax base will not be impacted. Tax revenue in Blaine County will remain the same.</p>

<p>18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>	<p><b>Action Alternative:</b> The project will increase traffic on the existing roads throughout the course of the project. Traffic will return to normal, once the seismic company has completed the project. The project will not require other services such as police, fire departments, or schools. No additional government services will be needed for this project.</p> <p><b>No Action Alternative:</b> There will be no additional demand for government services in this area. The Montana DNRC will not issue Polaris Explorer USA, Inc. a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>
<p>19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p><b>Action Alternative:</b> The goal of the Montana DNRC/TLMD is to manage the State of Montana's trust land resources to produce revenue for the trust beneficiaries, while considering environmental factors and protecting the future income-generating capacity of the land. Exploring for natural gas and oil formations on state land has the potential to increase the income-generating capacity of the land. If natural gas or oil formations are found on the state land, additional revenue may get be generated for the trust beneficiaries, through royalties from the sale of natural gas and/or oil from a commercially producing well. Natural gas and/or oil development proposals will be reviewed through the same MEPA process as seismic projects.</p> <p><b>No Action Alternative:</b> There will be no impacts to the locally adopted environmental plans or goals that the Montana DNRC/TLMD has for these tracts of state land. Polaris Explorer USA, Inc. will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>

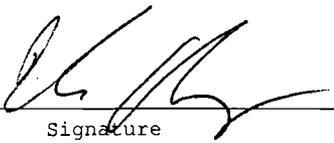
<p>20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?</p>	<p><b>Action Alternative:</b> The location of the proposed project does have recreational potential. These tracts of state land do have legal access for recreational activities via federally owned public land. Upland game bird hunting, waterfowl hunting, big game hunting, bird watching, and hiking are just some of the types of recreational activities that take place in this area. The proposed project will not alter these activities. Recreational activities will return to normal once the seismic company is done with this project.</p> <p><b>No Action Alternative:</b> The access to and quality of the wilderness and recreational activities found in this area will continue to remain the same. These tracts of state land that do have legal access will continue to be used for recreational purposes by people who possess a Montana Conservation License with the newly attached State Lands Recreational Use Permit.</p>
<p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p><b>Action Alternative:</b> The density and distribution of population and housing will not be impacted with the approval of the seismic project. The proposed activity will increase traffic on the designated roads into the areas of the project. The increase in traffic will occur for the duration of the entire seismic project. The location of this project is in a rural area with little to no localized housing. This area is primarily used for livestock grazing purposes and the production of dryland agricultural commodities.</p> <p><b>No Action Alternative:</b> The density and distribution of population and housing will not change in this area. The proposed project will not have any impact on the density and distribution of population and housing in this area, regardless of the decision from the Montana DNRC. Polaris Explorer USA, Inc. will not be issued a seismic permit to conduct the North Chinook 3-D seismic project across these tracts of state land.</p>



IV. FINDING	
25. ALTERNATIVE SELECTED:	Action
26. SIGNIFICANCE OF POTENTIAL IMPACTS:	N.S.I.
27. Need for Further Environmental Analysis:  <input type="checkbox"/> EIS <input type="checkbox"/> More Detailed EA <input checked="" type="checkbox"/> No Further Analysis	

EA Checklist Approved By: Clive Rooney  
Name

Area Manager, Northeastern Land Office  
Title

  
Signature

5-12-41  
Date