

DNRC - Trust Land Management Division

DS-252

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Seismic Permit No. 1434

Proposed Implementation Date: July 1, 2004

Proponent: Polaris Explorer USA, Inc., C/o Scott Lindenmuth, PO Box 383, Havre, MT 59501

Type and Purpose of Action: Polaris Explorer USA, Inc. is proposing to conduct a 2-D seismic project across several tracts of state land. Polaris Explorer will be conducting the seismic project on behalf of Devon Louisiana Corporation. Devon Louisiana Corp. holds most of the oil and gas leases on these tracts, but they will have to get release letters from Ranck Oil Company, Inc. and Beacon Exploration Company to conduct this project on the oil and gas leases that these two parties currently hold with the State of Montana. This seismic project will involve approximately 17 miles of state land over nineteen different tracts.

Location: (See Attached Page For All Legal Descriptions)

Counties: Blaine & Hill

I. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.

RECEIVED

JUN 14 2004

LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE

The Department of Natural Resources and Conservation (DNRC) has been petitioned by Polaris Explorer USA, Inc. to conduct a 2-D seismic project across nineteen different tracts of state land (See attached page for complete legal descriptions). The Montana DNRC sent out scoping letters to state surface lessees, Cowan & Son Corporation C/O Bill Cowan, Lon R. & Stacey J. Waid, Jack Stallcup, and Kenneth Wilson, identifying the proposed seismic project across their individual surface leases with the State of Montana. The project also involves a tract of land, in which the State of Montana owns the mineral rights and the surface is located on the Rocky Boys Indian Reservation and the owner/operator is unknown.

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 lands. The Rocky Boys Indian Reservation oil and gas technician will have to approve the line across the tract of land, in which the surface is not owned by the State of Montana. 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 has to have registered their bond with the Secretary of State's office.

3. ALTERNATIVES CONSIDERED:	<p>Action Alternative: Grant Polaris Explorer USA, Inc. permission to conduct a 2-D seismic project for the exploration of shallow natural gas pockets across these tracts of state and fee owned surface lands. The Montana DNRC will issue Polaris Explorer USA, Inc. a seismic permit to conduct this project across these tracts of state and fee owned surface lands.</p> <p>No Action Alternative: Deny Polaris Explorer USA, Inc. permission to conduct this 2-D seismic project across these tracts of state and fee owned surface lands. The Montana DNRC will not issue Polaris Explorer a seismic permit for the exploration of shallow natural gas producing formations across these tracts of state and fee owned surface lands.</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>Action Alternative: The soils will receive a moderate disturbance across these tracts of land. Seismic activity will only take place while the ground is frozen or dry. No activity will be allowed during muddy conditions. There are no known unusual geological features present on the tracts of state land. The soils on these tracts of state land are suitable for this type of activity in most areas. However, there are certain areas that are susceptible to erosion. These areas will be "off limits" to the seismic company's recording crew vehicles. All vehicles and ATV's will not be allowed to traverse steep slopes that are 25% or greater, or areas of very thin soils that may be rutted and left open to erosion. All receiver lines will be placed by hand crews on the slopes that are 25% or greater. Site specific stipulations have been added to ensure that the steep slopes and drainages will not be traversed by the seismic crew. The Havre Unit Office has made maps of the project area and highlighted the areas that will be "off-limits" to the recording crew vehicles for this project.</p> <p>No Action Alternative: The soils located on these tracts of state land will not be altered. The soils will not be compacted by this project on these tracts of state land. The Montana DNRC will not issue Polaris Explorer USA, Inc. a seismic permit to conduct this 2-D seismic project across these tracts of state land.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

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?

Action Alternative: The vast location of the proposed seismic project does contain important surface and groundwater resources during different times of the year. The seismic company is prohibited from all vehicle recording activities within 300 feet of any springs, water wells, streams, lakes or water storage reservoir facilities to maintain the integrity of these water resources. This type of activity does not have the potential to contaminate drinking water or degrade the present water quality that is found in these areas.

No Action Alternative: The water quality, quantity, and distribution will not be impacted on these tracts of state land. The Montana DNRC will not issue Polaris Explorer USA, Inc. a seismic permit to conduct this 2-D seismic project across these tracts of state land.

6. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?

Action Alternative: The project is expected to have a minimal impact on the air quality in the surrounding area. Traffic across the designated roads in these areas will produce additional dust particulates. However, after the seismic company completes the project traffic will return to normal in these areas. No pollutants will be produced by this seismic project. There are no air quality regulations or zones proposed for this project.

No Action Alternative: The air quality found on these tracts of state and fee owned surface lands will not be altered. No pollutants or particulates will be produced in these areas. The proponent will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of land.

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 throughout the native rangeland include the following plants: western wheatgrass (*Agropyron smithii*), needle-and-thread (*Stipa comata*), blue grama (*Bouteloua gracilis*), 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*), woods rose (*Rosa woodsii*), river willow (*Salix exigua*), snowberry (*Symphoricarpos occidentalis*), plains cottonwood (*Populous deltoids*), chokecherry (*Prunus virginiana*), American elm (*Ulmus Americana*), Rocky Mountain juniper (*Juniperus scopulorum*) and Ponderosa pine (*Pinus ponderosa*).

The agricultural lands included within this project contain tame pastures, haylands, small grain crops, and summerfallow. These areas will be impacted more than the native rangeland with this type of activity. Polaris Explorer USA, Inc. will settle all surface damages within a reasonable time period following the completion of this 2-D seismic project.

Action Alternative: The proposed project is expected to have a moderate impact on the vegetative cover, quantity, and quality. The vegetative communities in the immediate area of disturbance will be matted down with this type of activity. No rare plants or cover types are present in the direct route of the proposed project. There will be no vehicular activity, other than specified on the plat map. The seismic company will not be allowed to traverse up, down, or across the steep slopes that are found within the proposed project area. Woody draws are present in this area and will be avoided by the seismic company during this project. Site specific stipulations have been added to ensure that the steep slopes and drainages will not be traversed by the seismic crews recording vehicles. The Havre Unit Office has made maps of the project area and highlighted the areas that will be "off-limits" to the recording crew vehicles for this project.

No Action Alternative: The vegetative communities found throughout the proposed project area will not be disturbed. Rare plants and cover types will not be altered. Polaris Explorer will not be issued a seismic permit to conduct this 2-D seismic project across these tracts of land.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Is there substantial use of the area by important
wildlife, birds or fish?

Action Alternative: The area of the proposed activity is used by many different types of wildlife and bird species. Wildlife will be temporarily displaced across these areas, during the initial seismic activity. Wildlife and bird species found in this area will not be permanently relocated as a result of this type of activity. Once the project is completed, wildlife and bird species will return to normal activities on these tracts of land.

No Action Alternative: The terrestrial and avian life and their habitats will not be altered on these tracts of land. The seismic company will not be issued a seismic permit to conduct seismic activities across these tracts of land. Wildlife and bird species will not be temporarily displaced in these areas.

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?

Action Alternative: The timing of this project will take place while the ground is frozen or dry. This should minimize the disturbance to existing habitat types and the overall ecosystem. Federally listed, threatened, and endangered species will be able to migrate through this area with minimal disturbances. There are sensitive species and species of special concern known to use these areas as habitat. These species will not be impacted by the seismic activity on these tracts of land. The seismic company will complete their work in one to two weeks and they will leave the area completely. All species found in this area will return to normal everyday activities once the seismic company completes this project.

No Action Alternative: The unique, endangered, fragile or limited environmental resources found in the areas of the proposed disturbance will not be impacted. The seismic company will not be issued a seismic permit to conduct this 2-D seismic project across these tracts of state and fee owned surface lands.

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

Action Alternative: The Montana DNRC has surveyed the project area for existing cultural resources. Surface features have been observed during previous field evaluations throughout a majority of the project area. The Montana DNRC Archaeologist, Patrick Rennie, has been contacted for his input on possible cultural resource concerns in this area with this type of activity. He has seen no evidence that seismic activity such as this can impact cultural resources as long as the proponent conducts this type of activity during dry or frozen conditions.

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II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p> <p>(Continued From Previous Page)</p>	<p>(Continued From Previous Page)</p> <p>No Action Alternative: The historical and archaeological resources will not be impacted on these tracts of land. The Montana DNRC's, Trust Land Management Division, Minerals Management Bureau will not issue Polaris Explorer USA, Inc. a seismic permit to conduct this 2-D seismic project across these tracts of state and fee owned surface lands.</p>
<p>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?</p>	<p>Action Alternative: The location of the proposed project is very spread out. This project will be visible to the public on certain tracts and not visible on others. These areas will have recovered from this project within a year and they will not be visible to the general public. The project will create some excessive noise during the initial stages of the project. However, the noise levels will return to normal once the seismic project is completed and the proponent leaves the area.</p> <p>No Action Alternative: The Montana DNRC will deny Polaris Explorer permission to conduct this 2-D seismic project across these tracts of land. Therefore, this project will not impact the aesthetic character that is associated with these tracts of state and fee owned surface lands.</p>
<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>Action Alternative: The native grazing land and agricultural lands will be impacted with the proposed project. The project will take place while the ground is frozen or dry to limit the impact to the native rangeland, agricultural, and soil resources. The project will not use resources that are limited in the area. There are no other activities in the area that will affect the project. The grass will be matted down from the tires on the thumper trucks and the vibrating platform that is used to send a shock wave through the earth to find natural gas formations in the soil below.</p> <p>No Action Alternative: 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 this 2-D seismic project across these tracts of state and fee owned surface lands.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<p>13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?</p>	<p>Action Alternative: The DNRC will continue to monitor mineral and surface management activities on these tracts of state owned surface and subsurface lands. The Montana DNRC will assess the impacts from this type of project on the surrounding environment. The Montana DNRC will continue to administer all the licensed activities that are currently taking place on these tracts of state land.</p> <p>No Action Alternative: No further studies, plans, or projects will be needed if this project is denied. The Montana DNRC Trust Land Management Division will continue to perform field evaluations on these tracts of state land every ten years to monitor surface management activities and to increase the income-generating capacity of the land, while considering environmental factors.</p>
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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>Action Alternative: Polaris Explorer USA, Inc., their subcontractors, and/or their employees understand the risks involved with this type of project. They assume the risks involved in a seismic project as occupational hazard. The project will have no short-term or long-term impacts on the human health and safety of the people found in this area.</p> <p>No Action Alternative: 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 this project is not permitted by the Montana DNRC.</p>

<p>15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>Action Alternative: The Montana DNRC has set up stipulations for Polaris Explorer to ensure that the industrial, commercial, and agricultural activities will not be permanently altered with this type of project. The native rangeland and agricultural lands will be impacted with this type of activity. The impact to the native grass communities will be short-term and the vegetative species will return to normal production next year, providing ample precipitation falls in this area. The agricultural land involved in this project will be impacted somewhat more than the native rangeland. Polaris Explorer USA, Inc. will settle all surface damages with the surface lessees within a reasonable time period following the completion of the seismic project.</p> <p>No Action Alternative: The industrial, commercial, and agricultural activities currently found on these tracts of land will not be altered. The Montana DNRC will not issue Polaris Explorer a seismic permit for this project. Native forage production will not be matted where the seismic company has completed their activities. Agricultural commodities will not be lost or damaged, if this project is not permitted by the DNRC.</p>
<p>16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>Action Alternative: 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 in this area.</p> <p>No Action Alternative: The quantity and distribution of employment will not be impacted in the surrounding area. The seismic company may have to eliminate jobs if they cannot find enough work for their employees throughout the summer.</p>
<p>17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>Action Alternative: The project will not create or eliminate tax revenue within Blaine or Hill County. The local and state tax base will remain the same.</p> <p>No Action Alternative: The local and state tax base will not be altered. Tax revenue in Hill and Blaine County will continue to 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>Action Alternative: The project will increase traffic on the existing designated roads throughout the entirety of the project. Traffic will return to normal, once the seismic company has completed the project. The project will not require other services from police, fire departments, and/or schools.</p> <p>No Action Alternative: There will be no demand for additional government services on these tracts of state land. The Montana DNRC will not issue Polaris Explorer a seismic permit for the exploration of shallow natural gas producing formations across these tracts of state and fee owned surface lands.</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>Action Alternative: 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. There are no other locally adopted environmental plans or goals for this project that the Montana DNRC is aware of.</p> <p>No Action Alternative: There will be no impacts to the locally adopted environmental plans or goals that the Montana DNRC/TLMD has for these tracts of state and fee owned surface lands within this Environmental Assessment Checklist.</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>Action Alternative: The location of the proposed seismic project does have recreational potential. Some of these tracts of state land have legal access for recreational opportunities via an adjacent county road. Upland game bird hunting, big game hunting, fishing, bird watching, and hiking are just some of the types of recreational activities that take place on these tracts of state land that have legal access. Recreational activities are limited this time of year, but this project will not alter the environment for future recreational opportunities.</p> <p>No Action Alternative: The access to and quality of the wilderness and recreational activities found in these areas will continue to remain the same. The Montana DNRC will not issue Polaris Explorer a seismic permit for the exploration of shallow natural gas formations across these tracts of state and fee owned surface lands.</p>

<p>21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>Action Alternative: The density and distribution of population and housing will not be impacted with the proposed project. The proposed activity will increase traffic on the designated roads into the area of the project. Once Polaris Explorer USA, Inc. has completed this project they will pull out of the area. The areas located within the project primarily consist of grazing lands and farming lands with very rural housing. No additional housing will be required in this area.</p> <p>No Action Alternative: The density and distribution of population and housing will not change in this area. The project will not add to the population or decrease the population. The Montana DNRC will not issue Polaris Explorer a seismic permit to conduct a 2-D seismic project across these tracts of state and fee owned surface lands.</p>
<p>22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>Action Alternative: This project will have a minimal impact on the traditional lifestyles found in these areas. The social structures and mores will not be altered with the proposed seismic project.</p> <p>No Action Alternative: The social structures and mores will continue to stay the same. The native and traditional lifestyles found in these areas will not be disrupted. The Montana DNRC will not issue Polaris Explorer a seismic permit to conduct a 2-D seismic project across these tracts of state and fee owned surface lands.</p>
<p>23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p>Action Alternative: The proposed activity will not cause a shift in any of the unique qualities that are found within the surrounding area. The seismic project will not change the cultural uniqueness or the diversity found on these tracts of land. The proposed project will not be visible to the general public within a year, once native vegetation and newly seeded crops have established.</p> <p>No Action Alternative: The cultural uniqueness and diversity of the land will remain the same. The Montana DNRC will not issue Polaris Explorer a seismic permit to conduct a 2-D seismic project across these tracts of state and fee owned surface lands.</p>

IV. FINDING	
25. ALTERNATIVE SELECTED:	Action
26. SIGNIFICANCE OF POTENTIAL IMPACTS:	U.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

6-7-4
Date

Seismic Permit No. 1434

Polaris Explorer USA, Inc.

(Legal Descriptions for Permit)

Township 27.0 North, Range 19.0 East

Section 10: SE $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$

Section 12: S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$

Section 13: N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$, SE $\frac{1}{4}$ SE $\frac{1}{4}$

Section 15: N $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$, N $\frac{1}{2}$ S $\frac{1}{2}$

Section 16: All

Section 20: S $\frac{1}{2}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$

Section 21: SW $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ NE $\frac{1}{4}$, S $\frac{1}{2}$

Section 28: N $\frac{1}{2}$ NW $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$

Section 22: S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$

Section 23: S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$

Section 24: S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$

Section 25: All

Section 26: All

Section 27: N $\frac{1}{2}$, SE $\frac{1}{4}$, E $\frac{1}{2}$ SW $\frac{1}{4}$

Section 36: All

Township 30.0 North, Range 15.0 East

Section 36: All (State does not own surface)

Township 30.0 North, Range 16.0 East

Section 36: All

Township 31.0 North, Range 16.0 East

Section 36: Lots 1-3, NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$, S $\frac{1}{2}$

Township 32.0 North, Range 14.0 East

Section 36: All