

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION
NORTHEASTERN LAND OFFICE

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MAR 17 2004
D.N.R.C.



STATE OF MONTANA

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HAVRE UNIT OFFICE
PO BOX 868
210 SIXTH AVENUE
HAVRE, MONTANA 59501-0868

March 12, 2004

MEMORANDUM

TO: Clive Rooney, Area Manager, Northeastern Land Office
Wanda Walks, Mineral Leasing Section, Helena Office

FR: Dan Dobler, Havre Unit Manager, NELO *Dan Dobler*

RE: Seismic Permit No. 1425
Polaris Exploration LTD – Alta Canada
All, Sec. 36, T33N, R22E
All, Sec. 36, T34N, R22E
Blaine County, Montana

RECEIVED

APR 12 2004

LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE

Polaris Exploration LTD is proposing to conduct a 2-D seismic project across the above referenced tracts of state land. Polaris Exploration will be conducting the seismic project on behalf of Ominex Canada LTD. This type of project will create low impact energy sources by using vibroseis equipment. This equipment is used to locate shallow natural gas producing formations.

The seismic project will involve approximately 1¼ miles of state land. The surface impacts will consist mainly from limited vehicular travel across the surface and soil compaction from the tires and vibrating platform of the vibroseis equipment. The proponent will be required to contact the state's surface lessee, George E. Baldnik to inform him of the proposed seismic project. The proponent will be required to settle all surface damages within a reasonable time period following the completion of the seismic project. This project is expected to have minor environmental impacts on the native grazing land associated with these tracts of state land. If the proponent conducts this project during frozen or dry surface conditions and complies with the Departments terms and conditions for seismic activity on state land, there will be minimal negative impacts to the natural resources that exist on these tracts of state land.

I have prepared and enclosed the original Environmental Assessment Checklist for your review. Please review the EA Checklist, sign and date it, and return an executed copy to the Havre Unit Office. Please forward a copy of the EA Checklist to Connie Daruk, so that she can submit it to the EQC. I am recommending that the Department issue Polaris Exploration LTD a seismic permit to conduct a 2-D seismic project across the above referenced tracts of state land.

I have prepared two maps that indicate the proposed seismic lines across these tracts of state land using a red highlighter. I used a yellow highlighter to indicate the areas that will be "off-limits" to the recording crews of seismic company for this project. All receiver lines will be placed by hand crews in those areas containing steep slopes within the intermittent drainages of Borders Coulee. Listed below are the stipulations for Seismic Permit No. 1425:

STIPULATIONS

1. Permittee shall contact the Havre Unit Office, 24 hours prior to commencing any surface activities at: PO Box 868, Havre, MT 59501, phone (406) 265-5236.

2. The permittee shall be responsible for controlling any noxious weeds introduced by the permittee's activity on state lands and shall prevent or eradicate the spread of those noxious weeds onto land adjoining the leased premises.
3. These tracts of state land do contain significant archaeological, historical, and/or paleontological resources. If any of these resources are located in the direct route of the proposed seismic line, the permittee shall cease all activity and contact the Havre Unit Office and the Department Archaeologist in Helena immediately.
4. It is the responsibility of the permittee to make sure that the seismic company that has been contracted to do the seismic work under this permit has a valid permit with the county and has registered their bond with the Secretary of State's Office.
5. In order to prevent the introduction of noxious weeds on state lands, vehicles and ATV's used on this project must be power washed prior to use.
6. Permittee shall contact the state's surface lessee, George E. Baldnik, 48 hours prior to any seismic activity on the state land.
7. Seismic activity will occur on dry or frozen ground only. **No seismic activity will be allowed during muddy or thawing conditions.**
8. No vehicle oil changes or petroleum disposal shall occur on these lands.
9. There will be no off-road traffic other than necessary to accomplish the seismographic goals.
10. **Vehicles will not be allowed to traverse steep slopes located within the intermittent drainages of Borders Coulee and all other areas that have slopes greater than 25%. No vehicles will be allowed to traverse areas with very thin soils that may be rutted and left open to erosion. All receiver lines will be placed on steep slopes by hand crews. All areas that are highlighted in yellow on the attached aerial photographic maps are "off limits" to the recording crews.**
11. All gates will be closed, and all fences that are taken down will be repaired as soon as possible. The Havre Unit Office recommends that the seismic company use gates as much as possible to limit the impact to the surface and the lessee's improvements.
12. Once the project is completed, all flagging tape will be removed from the roads and fences leading into the site, along designated routes, and fence lines indicating where gates are located.
13. There may be woody species present on these tracts of state land. Those species include snowberry, woods rose, greasewood, buffaloberry, and silver sagebrush. Recording crews will avoid these species by going around them. **If woody draws are present, these areas must be avoided.**
14. The permittee shall settle all surface damages with the state's surface lessee within a reasonable time period following the completion of the proposed seismic project.

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: Seismic Permit No. 1425	Proposed Implementation Date: April 15, 2004
Proponent: Polaris Exploration LTD – Alta Canada, c/o Stephen Boyle, P.O. Box 801, Chinook, MT 59523 Phone Number (406) 357-2221, Room 14 (Bear Paw Motel)	
Type and Purpose of Action: Polaris Exploration LTD is proposing to conduct a 2-D seismic project for the exploration of natural gas formations across two tracts of state land. Polaris Exploration will be conducting the seismic project for Ominex Canada LTD.	
Location: All, Sec. 36, T33N, R22E All, Sec. 36, T34N, R22E	County: Blaine County, Montana

I. PROJECT DEVELOPMENT

<p>1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED: Provide a brief chronology of the scoping and ongoing involvement for this project.</p>	<p>The Department of Natural Resources and Conservation (DNRC) has been notified by Polaris Exploration LTD – Alta Canada about their plans to conduct a 2-D seismic project across two tracts of state land. The Montana DNRC sent out a scoping letter to the state's surface lessee, George E. Baldnik to notify him of this proposal. The scoping letter identifies the location of the proposed seismic project across these two tracts of state land. The letter also informs him about how damages will be settled with the proponent.</p>
<p>2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:</p>	<p>The Montana DNRC's, Havre Unit Office, Minerals and 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 Exploration LTD - Alta Canada 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 Exploration LTD) must have a valid permit with the county and have registered their bond with the Secretary of State's Office.</p>
<p>3. ALTERNATIVES CONSIDERED:</p>	<p>Action Alternative: Grant Polaris Exploration LTD permission to conduct 2-D seismic activities for the exploration of natural gas formations on state land. The Montana DNRC will issue Polaris Exploration LTD a seismic permit to conduct this activity on state land.</p> <p>No Action Alternative: Deny Polaris Exploration LTD permission to conduct 2-D seismic activities for the exploration of natural gas formations on state land. The Montana DNRC will not issue Polaris Exploration a seismic permit for this project.</p>

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 minimal disturbance with this type of activity. The proposed seismic project will only take place while the ground is frozen or 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 steep slopes that are found within the intermittent drainages of Borders Coulee. No vehicular activity will be allowed in these areas. All receiver lines shall be laid by hand crews in these areas. 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>No Action Alternative: 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 a 2-D seismic project on state land.</p>
<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>Action Alternative: 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 steep slopes that are found within the intermittent drainages of Borders Coulee. No vehicular activity will be allowed in these areas. 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>No Action Alternative: The water quality, quantity, and distribution will not be impacted. The seismic company will not be allowed to conduct this 2-D seismic project across these tracts of state land. Water quality standards will not be violated and drinking water will not be degraded in this area.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

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. 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.

No Action Alternative: 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 2-D seismic project across these tracts of State 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 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*), buffaloberry (*Shepherdia argentia*), greasewood (*Sarcobatus vermiculatus*), creeping juniper (*Juniperus horizontalis*), and woods rose (*Rosa woodsii*).

Action Alternative: The proposed project is expected to have a minimal impact on the vegetative cover, quantity, and quality of 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 up, down, or across the steep slopes that are found within the intermittent drainages of Borders Coulee. No vehicular activity will be allowed in these areas. All receiver lines shall be laid by hand crews on the steep slopes and in the coulees. 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 frozen or 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. The seismic company will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state 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 may be temporarily displaced in this area during 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.

No Action Alternative: 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 seismic company will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

<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>Action Alternative: The timing of this project will take place while the ground is frozen or dry. This should 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 these areas as habitat. These species may be temporarily displaced with this type of activity across these tracts of state land. 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 routes across these tracts of state land. The seismic company is prohibited from traversing the steep slopes that are found within the intermittent drainages of Borders Coulee. No vehicular activity will be allowed in these areas.</p> <p>No Action Alternative: The unique, endangered, fragile and/or limited environmental resources found within the immediate area of the proposed disturbance will not be altered. The seismic company will not be issued a seismic permit to conduct a 2-D seismic project across these tracts of state land.</p>
<p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>Action Alternative: The Montana DNRC has surveyed the proposed project area for existing cultural resources. Several tepee rings and lithic scatter are known to exist in the SW4SW4 and the NE4SW4 of Sec. 36, T33N, R22E. 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 2-D seismic activity, on frozen or dry ground, has any ability to impact cultural resources in this area.</p> <p>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.</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT

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 3 to 8 miles north of Harlem, Montana. Some areas contained within this project will be visible to the public until native grasses begin new growth. The proposed disturbance will create some excessive noise throughout a majority 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 steep slopes that are found within the intermittent drainages of Borders Coulee. 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 2-D seismic project across these tracts of state land.

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?

Action Alternative: The native grazing land will receive minimal, short-term impacts with this type of activity. The project will take place while the ground is frozen or dry, in order to limit the impact to the native rangeland resource. The project will not use resources that are limited in the area.

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 Exploration LTD a seismic permit to conduct a 2-D seismic project across these tracts of state land.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?

Action Alternative: The Montana DNRC will continue to monitor mineral and surface management activities on state land to assess the impacts of this type of project on the surrounding ecosystem. The Montana DNRC will continue to administer the licensed activities that are currently taking place on these tracts of state land.

No Action Alternative: No further studies, plans, or projects will be needed for this type of project. The Montana DNRC will not issue the seismic company a seismic permit to conduct 2-D seismic project across these tracts of state land. The Montana DNRC Trust Land Management Division will continue to do field reviews on these tracts of state land every ten years. In fact, field staff from the Havre Unit Office will be on these tracts of state land to conduct field appraisals this summer.

III. IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
14. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	<p>Action Alternative: 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>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 the Montana DNRC denies the seismic company a seismic permit for this project.</p>
15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	<p>Action Alternative: 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 steep slopes that are found within the intermittent drainages of Borders Coulee. Polaris Exploration LTD will settle surface damages with the state's surface lessee within a reasonable time period following the completion of the seismic project.</p> <p>No Action Alternative: 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 reduced this year by this project.</p>
16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	<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.</p> <p>No Action Alternative: The quantity and distribution of employment will not be impacted in the surrounding area.</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 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 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>Action Alternative: 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>No Action Alternative: There will be no additional demand for government services in this area. The Montana DNRC will not issue Polaris Exploration LTD a seismic permit to conduct a 2-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>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. 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 with a more intensive review.</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 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>Action Alternative: The location of the proposed project does have recreational potential. One of these tracts of state land does have legal access for recreational activities via federally owned public land (Sec. 36, T33N, R22E). Upland game bird 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. The other tract is not legally accessible and therefore, recreational opportunities are minimal to the general public.</p> <p>No Action Alternative: The access to and quality of the wilderness and recreational activities found in this area will continue to remain the same. The tract of state land that has legal access and 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>Action Alternative: 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>No Action Alternative: 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. However, the seismic company will not be issued a seismic permit to conduct a 2-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

3-15-4
Date

Seismic Permit No. 1425

□ = State Land - Sec. 36, T33N, R22E

— = Proposed Seismic Line

— = Areas "Off-Limits" to Recording Crews

36 34

30



Seismic Permit No. 1425

□ = State Land - Sec. 36, T34N, R20E

— = Proposed Seismic Line

25

25

36

Complex

Rosebud

36

25

