

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name: 2D Seismic on State land

Proposed Implementation Date: January 14, 2011

Proponent: St Croix Seismic, P O Box 55, Stanley, North Dakota 58784

Type and Purpose of Action: St Croix Seismic has made application to conduct 2D Seismic Survey on State land in Sheridan County. Tesla Conquest Seismic Services will be the contractor conducting the seismograph operation on the State land. The project is described as the Bakken Edge 2-D under permit number 1555.

Location: W2,, Sec. 16 Twp. 33N Rge. 56E, All, Sec. 16 Twp. 34N Rge. 55E, NE4NE4, Sec. 21 Twp. 34N Rge. 55E, S2, Sec. 36 Twp. 34N Rge. 55E, All, Sec. 16 Twp. 35N Rge. 54E, NW4, W2NE4, Sec. 23 Twp. 35N Rge. 54E, NW4NE4, Sec. 26 Twp. 35N Rge. 54E, All, Sec. 36 Twp. 35N Rge. 54E

County: Sheridan and Roosevelt

I. PROJECT DEVELOPMENT

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

Judy Hakala, permit agent for St Croix Seismic contacted the Department of Natural Resources and Conservation, Minerals Management Bureau, Helena Office. The Department of Natural Resources and Conservation, Glasgow Unit Office was contacted to complete the Checklist Environmental Assessment process for the seismograph survey. St Croix Seismic has applied for a permit from the Department of Natural Resources and Conservation to conduct a 2D seismograph survey operation on State land. St Croix Seismic has sent maps to the Glasgow Unit Office showing project locations. The Department of Natural Resources and Conservation has contacted the surface lessees concerning this project to explain surface damage rules and regulations.

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

The other agencies that would have jurisdiction for this type of project would be the Montana Board of Oil and Gas, Montana Secretary of States Office, Sheridan County Commissioners, Sheridan County Farm Service Agency. There may be other governmental agencies that may or may not have jurisdiction for this project.

3. ALTERNATIVES CONSIDERED:

Action Alternative: Grant a seismograph permit to the St Croix Seismic to conduct a 2D seismic survey project on State land.

No Action Alternative: Deny a seismograph permit to St Croix Seismic to conduct a 2D survey project on State land.

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II. IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS
<p>4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compatible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>Action Alternative: The seismograph project will alter the surface soils on the state land through some compaction. The soil compaction will occur under frozen ground conditions in the middle of winter. The impacts will be minimal to the surface silty and sandy soils. The surface soils will retain the same capabilities of producing native rangeland vegetation upon completion of activities. The dryland agriculture acreage will continue to produce small grain crops. The Conservation Reserve Program acreage will continue to produce various grass and legume species.</p> <p>No Action Alternative: Under this type of alternative, no impacts would occur on the surface soils.</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 seismograph project on the various State land tracts will not impact the water quality, quantity and distribution. St Croix Seismic will have specific distance limits in the seismograph permit from surface water sites.</p> <p>No Action Alternative: Under this type of alternative, no impacts would occur on water quality, quantity and distribution.</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>Action Alternative: The seismograph project on the State land will have minimal impacts to the air quality. Some pollutants will become airborne from various types of seismograph equipment exhaust.</p> <p>No Action Alternative: Under this type of alternative there would be no impacts to air quality.</p>
<p>7. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>Action Alternative: The native vegetation on the project area will become compacted from heavy equipment during frozen conditions. The impacts will be minimal and the area will continue to produce native vegetation. The dryland agriculture acreage will be compacted and will continue to produce small grain vegetation upon project completion. The conservation reserve program acreage will continue to produce grass and legume vegetation. Compaction on plant community will be</p>

II. IMPACTS ON THE PHYSICAL ENVIRONMENT	
	<p>during a dormant stage.</p> <p>No Action Alternative: Under this alternative there would be no impacts to native vegetation or small grain crops.</p>
<p>8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>Action Alternative: The state land contains habitat types for wildlife and upland birds. Specific species are pheasant, sharptail grouse, and whitetail deer. Some prairie pothole areas are utilized by waterfowl in the spring when the potholes contain standing water. The project will be short term and there will be minimal impacts to the habitat types under winter conditions.</p> <p>No Action Alternative: Under this alternative there would be no impacts to the habitat types.</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>Action Alternative: The area of impact contains no known unique, endangered, fragile or limited environmental resources.</p> <p>No Action Alternative: Under this alternative there would be no impacts to the State land environmental resources.</p>
<p>10. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>Action Alternative: The state land contains stone circles on S2SE4, Sec. 16 Twp. 34N Rge. 55E, stone circles on N2 Sec.16 Twp. 35N Rge. 54E, stone circles on the NE4, Sec. 36 Twp. 35N Rge. 54E. These sites will see minimal impacts from the seismograph project.</p> <p>No Action Alternative: Under this alternative no project would occur on the State land.</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: This type of project on State land will not impact the aesthetics of the state land. The seismic operation will be visible at times to the general public. There are county roads that boarder some of the tracts listed in this environmental assessment.</p> <p>No Action Alternative: Under this alternative there would be no impacts on the State land.</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: This type of project on State land will place no demands on the environmental resources of land, water, air or energy. Surface water resources will be avoided by the seismograph company.</p>

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	No Action Alternative: Under this alternative there would be no demands on environmental resources of land, water, air or energy.
13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA: Are there other studies, plans or projects on this tract?	<p>Action Alternative: This type of project on State land will not impact other studies, plans or projects that the Department of Natural Resources and Conservation may have in place on the State land. The seismograph activity will occur in the middle of winter. This will be a mitigation measure taken to avoid impacts to the natural resources of the State land.</p> <p>No Action Alternative: This alternative would have no impacts to other environmental documents pertinent to the State land.</p>

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: This type of project on State land has minimal human health and safety risks. The risks are understood by the employer and employee as occupational hazards.</p> <p>No Action Alternative: This type of alternative will have no impacts to human health and safety.</p>
15. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	<p>Action Alternative: The project will have minimal impacts to the current dryland agriculture activities or livestock grazing that may be occurring on the State land.</p> <p>No Action Alternative: Under this type of alternative there would be no impacts to agriculture activities on the State land.</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 have no impacts on the quality and quantity and distribution of employment.</p> <p>No Action Alternative: Under this alternative there would be no impacts to quantity and distribution of employment.</p>
17. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	<p>Action Alternative: The project will have no impacts on the local and state tax base and tax revenues.</p> <p>No Action Alternative: Under this type of alternative there will be no impacts to</p>

	the local and state tax base and tax revenues.
18. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?	<p>Action Alternative: The project will place no demands for government services.</p> <p>No Action Alternative: Under this alternative there will be no impacts for the demand for government services.</p>
19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	<p>Action Alternative: The project will not impact locally adopted environmental plans and goals. Other government agencies have been contacted by the seismic company, depending on possible impacts.</p> <p>No Action Alternative: Under this alternative there would be no impacts on locally adopted environmental plans and goals.</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>Action Alternative: The area of impact has recreational values such as hunting antelope, whitetail deer and upland birds. The project is short term and there will be no impacts to the recreational values associated with the State land tracts. The project will occur in winter time. There should be very minimal impacts to wintering areas for all classes of wildlife.</p> <p>No Action Alternative: Under this type of alternative there would be no impacts to the recreational values associated with the State land.</p>
21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	<p>Action Alternative: The project will not impact the density and distribution of population and housing.</p> <p>No Action Alternative: Under this alternative there would be no impacts to density and distribution of population and housing.</p>
22. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	<p>Action Alternative: The project will not disrupt the traditional lifestyles of the local community.</p> <p>No Action Alternative: Under this alternative there would be no disruption of native or traditional lifestyles of the local communities.</p>
23. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	<p>Action Alternative: The project will not impact the cultural uniqueness and diversity of the area.</p> <p>No action Alternative; Under this alternative there would be no impacts to the cultural uniqueness and diversity of the area.</p>

