

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	St Croix Seismic, 3-D Seismic Project, Stros 3-D Permit #1547
Proposed Implementation Date:	August, 2010
Proponent:	St Croix Seismic on behalf of Conquest Seismic and Hancock Enterprises
Location:	See attached list of tracts
County:	Fergus County
Trust:	Common Schools

I. TYPE AND PURPOSE OF ACTION

The proponent has requested a permit to explore for natural gas and/or oil deposits on tracts (below) of State Land in Fergus County Montana using the vibroseis 3-D seismic exploration technique.

T/22N, R/19E

Sec 2: Lot 1, SE4NE4, W2SE4

Sec 4: SE4SW4

Sec 8: W2NW4, NE4SE4, S2SE4

Sec 9: NE4NW4, S2NW4, SW4

Sec 10: S2S2

Sec 11: SW4NW4, NW4NE4, SE4SE4, NW4SW4

Sec 14: NE4NE4, E2SE4 – **STATE DOES NOT OWN THE SURFACE**

Sec 15: NW4, N2SW4, SW4SW4

Sec 16: ALL

Sec 21: NW4

Sec 22: E2SW4

Sec 24: E2NE4, N2SW4 - **STATE DOES NOT OWN THE SURFACE**

Sec 25: S2NE4, N2SE4, SW4SE4, E2SW4

Sec 26: NE4NE4, S2NE4, S2

Sec 27: S2

Sec 28: N2NW4, SE4NW4, E2, SW4SW4

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 Department of Natural Resources and Conservation (DNRC) Trust Land Division (TLMD), DNRC Minerals Management Bureau (MMB), the Oil & Gas Lessees, and the State surface owners (see attached lists below) have all been informed of the proposed seismic project.

State Oil & Gas Lessees

Hancock Enterprises (CLIENT)

Retamco Operating, Inc
8601 US Hwy 212
Roberts MT 59070

Empresa Exploration LLC
621 17th ST Suite 2501
Denver CO 80293

NFR Bear Paw Basin LLC
1415 Louisiana St Ste 1600
Houston TX 77002

State Surface Lessees

Wade & Deena Kinkelaar
HCR 83 Box 8
Winifred MT 59489
(406) 462-5589

Larry Udelhoven
PO Box 52
Winifred MT 59489
(406) 462-5362

Beth & David Bergum
PO Box 125
Winifred MT 59489
(406) 462-5490
(406) 462-5693

David & Tammy Udelhoven
PO Box 143
Winifred MT 59489
(406) 462-5476

Bruce & Cheryl Udelhoven
PO Box 4
Winifred MT 59489
(406) 462-5353

Richard & Janet Bergum
PO Box 56
Winifred MT 59489
(406) 462-5546

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

The DNRC Trust Land Management Division and Minerals Management Bureau has jurisdiction over this proposed project. The proponent will need a Montana Board of Oil and Gas Conservation permit, State seismic exploration permit, County permit, and proof of qualification to conduct business in the State of Montana.

DNRC is not aware of any other agencies with jurisdiction or other permits needed to complete this project

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action) – Under this alternative, the Department does not issue a permit to conduct the 3-D seismic survey.

Alternative B (the Proposed Action) – Under this alternative, the Department does issue a permit to conduct the 3-D seismic survey.

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.

The soils within the proposed project area are dense clays, clays, shallow clays, and silty/clay loams. The terrain is mostly gently rolling plains with some steeper Breaks, coulees and draws.

Some minor soil compaction may occur during the seismic exploration activity. Any impacts to the soil are expected to be minor, and temporary.

Standard Special Stipulations including no vehicle operation during wet or muddy conditions, no seismic testing on slopes greater than 25%, and no seismic testing in wet zones, will minimize any impacts.

No cumulative effects to the soils are anticipated.

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.

There are some reservoirs, pits and at least 1 well in the proposed project area. Taffy Creek flows through 2 of the tracts.

The proponent will be required by the Standard Special Stipulations to stay 300-feet back from any stream, springs, pipelines, and gas and water wells in accordance with DNRC rules.

No important surface or groundwater resources will be impacted by the proposed project.

No cumulative effects to the water resources are anticipated.

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.

The air quality in the area will not be affected.

No cumulative effects to air quality are anticipated.

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.

The vegetation within the proposed project area consists primarily of native rangeland grasses, forbs, and shrubs. There are some agricultural acres in small grain production and tame pasture.

Woody draws, and riparian areas will be avoided. The vegetation along the proposed seismic routes will be minimally impacted. Restricting the vibroseis and vehicle activity to only frozen and/or dry conditions will minimize any impacts to the vegetation. Vehicle traffic will flatten some standing, native vegetation. This is an expected, acceptable, minimal impact. Compacted (trampled) vegetation is expected to recover quickly and naturally.

No rare plants or cover types are present.

No long term cumulative effects to vegetation are anticipated.

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.

Vibroseis activities and road travel may temporarily displace wildlife species found in this area. These wildlife species may include elk, mule deer, pronghorn antelope, predators, upland game birds, waterfowl, non-game animals and songbirds. The proposed action will not impact wildlife forage, cover, or traveling corridors. Nor will this action change the juxtaposition of wildlife forage, water, or hiding and thermal cover. Wildlife usage is expected to quickly return to "normal" (preaction usage) following the conclusion of seismic operations.

The proposed action will not have long-term negative effect on existing wildlife species and/or wildlife habitat.

The area is not considered critical wildlife habitat.

No cumulative effects are anticipated.

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.

At this time, no known unique, endangered, fragile or limited environmental resources have been identified within the proposed project area.

A search of the Montana Natural Heritage Program (attached) identified one species of birds on the Species of Special Concern. Greater Sage-grouse (*Centrocercus urophasianus*) may be found on the State tracts in the proposed project area.

A review of the 2009 Sage-grouse lek and lek area data in ArcGis showed several active sage grouse leks occur in or near the proposed project area.

In accordance with the 2005 Montana Sage Grouse Management Plan, surface activities in these areas are restricted from March 1, to June 15, 2010.

Additionally, in accordance with Montana Fish, Wildlife and Parks recommendations, seismic activities will be deferred during the winter (physiological stress period), spring (breeding and nesting period), and early summer (fawn and brood rearing period).

Seismic exploration starting August 1 through the end of December will have the least negative impacts on the wildlife in this area. Special stipulations attached to the seismic permit will restrict seismic activity to this time frame.

No cumulative effects to habitat are anticipated.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

A review of previous field evaluations for these tracts indicated that no archeological or paleontological resources were found.

The proponent will be required by Special Stipulations to avoid and report any archeological and paleontological resources encountered in the project area.

This type of seismic activity has very low impacts to archaeological and paleontological resources. The DNRC archaeologist has been informed of seismic surveys occurring throughout this region and does not have any cultural resource concerns with this type of seismic exploration.

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.

During seismic operations, a variety of vehicles, including quads, pickups, buggies, and large vibroseis trucks will be seen and possibly heard by people in the vicinity of the operations. The survey vehicles and equipment will only be visible during the seismic operation and therefore no long term affects to the aesthetics of this area will occur.

The state land does not provide any unique scenic qualities not also provided on adjacent private lands. The proposed activity will be conducted in a remote area, so there would be no change to the aesthetics in either alternative.

No direct or cumulative effects to aesthetics are anticipated.

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.

No demands on limited resources are required for this project.

No direct or cumulative effects to environmental resources are anticipated.

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.

There are DNRC grazing and agricultural leases associated with the surface of the State land where this project is proposed. The seismic activities will not have any long term affects to these lease operations.

There are no other projects or plans being considered on the tracts listed in this EA Checklist.

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.

There will be some health and safety concerns associated with the operation of heavy seismic equipment in remote areas during late spring and summer. The proponent and their employees are aware of any health and safety hazards and accept them as occupational hazards.

Once the survey has been completed, there will be no health and safety concerns associated with this project.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

This project will not add to or deter from other industrial, agricultural, or commercial activities in this area.

This proposed oil and gas exploration project could lead to increased oil and gas activity in the area. There is a potential for increased industrial activity associated with oil and gas production in this area.

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.

The proposed activity will create a limited number of jobs. These positions are already held by employees of the proponent. No new jobs will be created.

No cumulative effects to the employment market are anticipated.

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.

This seismic project will not affect the tax base or tax revenues.

State and local tax revenue may be increased from the sale of any natural gas or oil if deposits are discovered as a result of this proposed exploration project. In addition, employment security for employees that work for companies associated with this project and the gas industry will help the state and local tax base.

There are no direct or cumulative effects to taxes or revenue for the proposed project.

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

There will be a temporary increase in local traffic if this project is approved. The increase in traffic may require some additional emergency services to be provided by local government for a short time.

There will be no direct or cumulative effects on government services.

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.

There are no zoning or other agency management plans affecting these lands.

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.

The main recreational activity in this area is hunting. Approval of this proposed project would not affect hunting opportunities in this area.

There will be no direct or cumulative effects on recreation or wilderness activities.

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

The proposal does not include any changes to housing or developments. Population and housing will not be affected.

No direct or cumulative effects to population or housing are anticipated.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

There are no native, unique or traditional lifestyles or communities in the vicinity that would be impacted by the proposal.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

The proposed project will have no effect on any unique quality of the area.

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.

The Settlement of Damages returns approximately \$5/ac to the Common Schools Trust for seismic exploration on these tracts. There is a potential for the proposed project to locate extractable gas and/or oil resources on state land.

The development of gas and oil resources would generate additional revenue to the trusts.

EA Checklist Prepared By:	Name: Bill Creamer
	Title: Land Use Specialist
Signature: /s/ Bill Creamer	Date: 7/15/2010

V. FINDING

25. ALTERNATIVE SELECTED:

The DNRC cannot grant access across private land to landlocked tracts. The proponent is responsible for acquiring landowner permission to cross deeded land. The proponent **must** provide proof of access to all landlocked tracts before the seismic permit will be issued.

I have selected the Proposed Alternative B, and recommend the proponent be issued the permit for the Vibroseis 3-D seismic exploration.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I have evaluated the potential environment effects and have determined that no negative long-term environmental impacts will result from the proposed activity.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis

EA Checklist Approved By:	Name: Barny D. Smith
	Title: Unit Manager, Northeastern Land Office
Signature: /S/ Barny D. Smith	Date: 7/15/2010