Categorical Exclusion Documentation Format When Using Categorical Exclusions Not Established by Statute

CX No.: WY-070-CX12-197

A. BACKGOUND

BLM Office: Buffalo Field Office **Lease/Serial/Case File No.: WYW168370**

Proposed Action Title/Type: Merganser 3-D Seismic Project

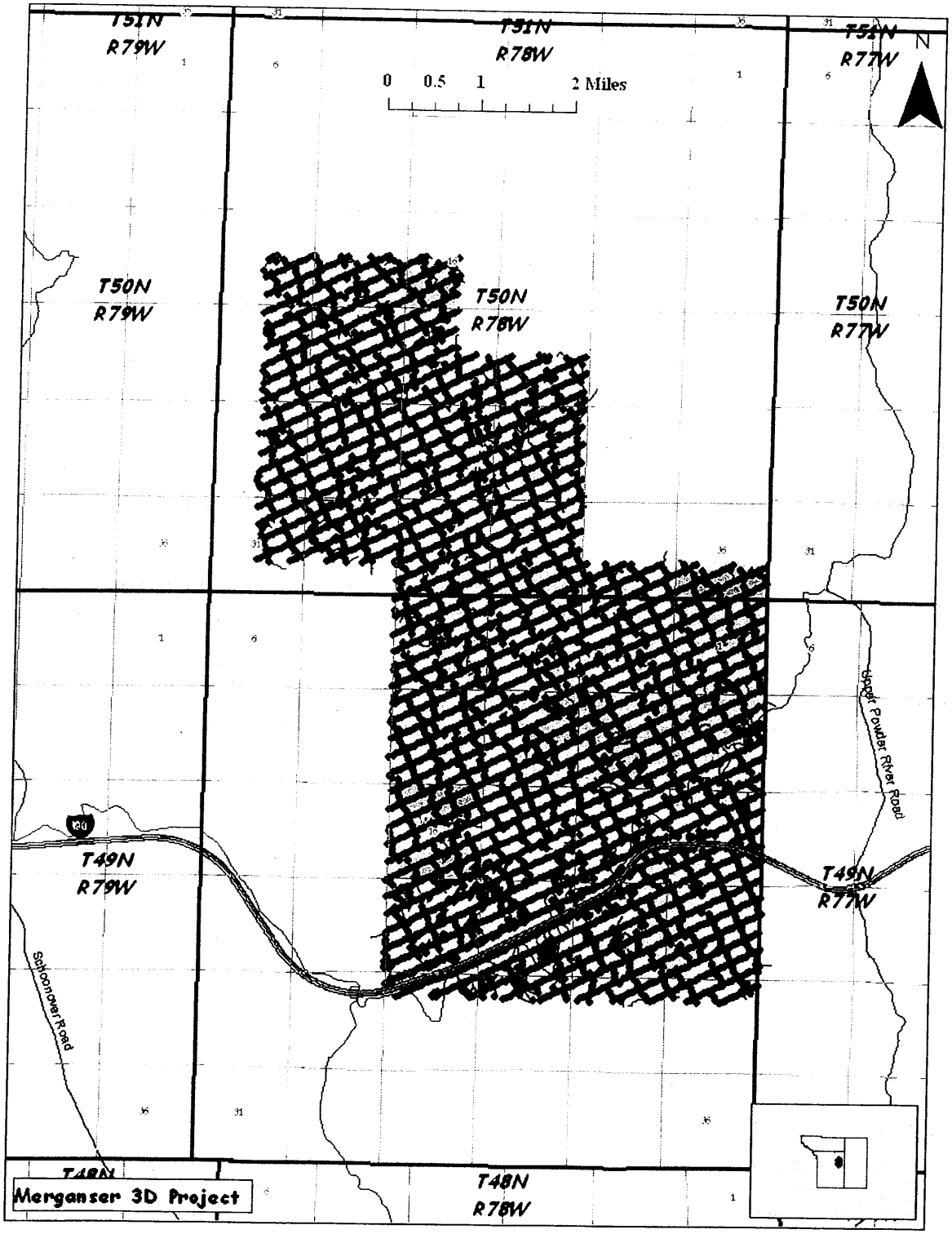
Location of Proposed Action: Bill Barrett Corporation (BBC) proposes to conduct an exploratory, three-dimensional (3D) geophysical seismic survey of the Merganser 3D Seismic Survey Project Area (Project Area) (Figure 1). The Project Area is approximately 28 square miles (17,920 acres) in size and occupies portions of townships T49-50N, R78W, in Johnson County, Wyoming (Project Area). The proposed seismic survey would facilitate development of a 3D image of the geologic structure and stratigraphy underlying the Project Area.

Approximately sixty seven (67) percent (12,006 ac.) of the project area consists of Bureau of Land Management (BLM) lands. Approximately six (6) percent of the project area consists of State of Wyoming lands, and the remaining twenty seven (27) percent (4,875 ac.) consists of deeded lands.

The exploratory, seismic survey would involve: a) the generation of ground vibration utilizing shot hole (buggy mounted, track and heliportable drills); and b) the recording of reflected sound waves and patterns arising from the different underground geologic strata.

The 3-D survey will provide a high resolution image of subsurface geological features underlying the project area. The proposed 3-D seismic project is designed to accurately map structure, stratigraphy, rock and fluid properties in the subsurface.

Figure 1.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R78W
Merganser 3D Project

Description of Proposed Action:
On March 6, 2012 BLM received a Notice of Intent and POA from the operator Bill Barret and held a scoping meeting with the following:

Name	Title	Company
Andy Perez	NRS	BLM
Paul McElvery	Water Resource Engineer	BBC
Mike Waugh	Project Manager	Seismic 21, Inc.
Shirley Green	Energy Program Assistant	BLM
Don Brewer	Wildlife Biologist	BLM
Clint Crago	Archaeologist	BLM

BLM sent out the deficiency letter on March 6, 2012. On March 26, 2012, Bill Barrett Corporation (BBC) resubmitted a Notice of Intent and Authorization to Conduct Oil and Gas Geophysical Exploration Operations for a project titled Merganser 3D. On May 1, 2012 BLM assigned a team to the Merganser 3D. BLM had several meetings and conversations in the following months with TBD Geophyscial Company who was contracted by BBC to do the seismic work in regards, to required surveys for wildlife, cultural, and plan of operations. BLM send out the deficiency letter on March 6, 2012. On June 27, 2012 BLM received new maps and plan of action.

The Merganser 3D Seismic Project area contains approximately sixty seven (67) percent (12,006 ac.) of BLM administered surface. The approval of this Notice of Intent is for the public surface only. BBC will obtain a permit to conduct geophysical operations on the private surface from the Wyoming Oil and Gas Conservation Commission.

Planning Surveys:
Planning surveys for the proposed seismic exploration are underway. BBC has researched existing records for known Archaeological sites, Sage Grouse Leks and Raptor nests in the project area. This information will be incorporated into BBC planning using a high-accuracy (sub-meter) ground positioning units (GPS) to locate the preliminary shot point location. Preliminary shot point survey ground work may begin around April 15, 2012 depending on field ground conditions and contractor availability.

The preliminary shot point survey will be conducted to avoid eligible and unevaluated archaeological sites found in the records search. Archaeologists will be responsible for surveying the preliminary source point stations and modifying such locations so that they avoid all known and apparent heritage sites in areas of project that have not been block surveyed for culture resources. If the Archaeologists encounter potential sites or areas of concern, they will move the subject point in a perpendicular direction to the general NW – SE trend of the source line until a suitable spot is located. Any new point(s) will then be recorded by its respective GPS location in the field and the information compiled into the 3D design by BBC. The central "point" within the circle area is to be marked by the temporary insertion of a small pin flag and small paint dot.

The preliminary shot point survey will be conducted as to limit impact to known raptor nesting and sage grouse lek areas as follows. Crews will be made aware of possible raptor nest locations in advance of working in area based on known nesting areas if a raptor survey has not been conducted before work begins. If the raptor survey has not been completed the personal will be advised by a BLM approved biologist as to what to look for and how to proceed if an active nest is encountered. If a raptor survey has been completed the location will be noted and avoided by a .25 mile buffer. In Greater Sage Grouse Lek areas crew will only work within .25 mile of such lek between 10 AM and 3PM with foot traffic only off of existing roads and trails.

To avoid possible impact to Ute Ladies'-tresses Orchid no shot points would be located within fifty feet of any perennial steams or potential habitat.

Seismic Survey Activity:
The proposed ground-vibration source lines are oriented in a northwest-southeast array. Receiver lines are oriented in a northeast-southwest direction, generally perpendicular to the source lines. The source locations (shot hole points) would be selected using on-the-ground surveyors to identify access and to evaluate each point as a buggy, track or heliportable drill location. The ideal spread would include approximately twenty-three (23) parallel source lines, 1,320 feet apart, with shot points spaced approximately 220 feet apart along the source line. Once the source point has been categorized, the surveyors then scout and locate the best route to access the point. The location of the points can be offset if necessary (based on specific guidelines), to help make them more accessible or to avoid sensitive areas, obstacles or surface structures such as pipelines or wells. Access between source points will be identified, flagged and subsequently mapped by the surveyors. Source points that do not have any feasible access and that cannot be moved within the guidelines to be accessible will be designated as heliportable holes. There would be approximately 2,715 source points.

The recording of seismic information would involve approximately fifty-seven (57) parallel lines of receiver (geophone) stations laid out in a northeast-southwest orientation. Ideally, the receiver lines would be spaced approximately 880 feet apart, with geophones placed approximately every 220 feet along each line. There would be approximately 4,080 receiver points. Ideal receiver locations may also modified due to topographic constraints. Recording equipment lays across the surface of the ground for approximately 7-10 days during the acquisition phase and is then removed. Geophones are placed by crewmembers that would traverse the area on foot.

Drilled shot holes will be used as the energy source. The shot point type would slightly differ across the Project Area based on terrain and general access. Either buggy-mounted drills with floatation tires, low impact rubber tracked drill units or helicopter-moveable (heli-portable) drill rigs would perform the drilling of shot holes. Heli-portable drill rigs would be used in steep terrain and those areas not accessible to buggy-mounted and track drill rigs. Based on the very initial field survey and evaluation of source point locations, it is estimated that 85 percent of the source points would be buggy/track-drilled shot points with the remaining 15 percent heli-portable drilled. When feasible, buggy drills will precede the heliportable drills to ensure that all shot points identified as buggy are accessible based on current conditions. Calculations account for a certain percentage of buggy holes to be drilled by heliportable drills due to weather, logistics and other operational considerations.

The following sections provide additional details regarding project activities.

Source Generation/Shot Hole Source Detonation:
BBC would use the detonation of explosives set in the drilled shot holes as a source of energy within the Project Area. Two types of transportable drills would be used to create the shot holes: 1) a Buggy and/or track mounted drill 2) a drill transported by sling below a helicopter (heli-portable drill). The buggy/track drills would drill up to 40-foot holes; each shot hole would be loaded with 10 pounds of explosive made expressly for seismic shots (60 percent vibrogel). The heli-portable drill would drill up to 40-foot holes; each shot hole would be loaded with 10 pounds of explosive.

Buggy and/or track mounted drill rigs would be used to drill shot holes in areas accessible to wheeled or track vehicles with slopes up to 40 percent. Heli-portable drill rigs would be used in non-accessible areas and areas with steeper slopes. Buggy//track drills would work from existing roads and trails down flagged access routes to source point locations identified by the surveyors as feasible for buggy/track drills. These routes would avoid archaeological/biological and other obstacles or areas of concern. Source points would

also be located on or near existing roads and trails when possible to minimize off road travel when feasible. Buggy drills are very maneuverable and utilize balloon type tires with minimal pounds per square inch (psi). There may be two styles of buggy drills utilized for this project. Self-contained buggy drills have compressors and water tanks mounted on one unit. In some areas, depending on the amount of water needed, a water buggy may work in conjunction with the drill. Other buggy drill models are much smaller and lighter weight utilizing a second companion buggy equipped with a water tank and compressor. Track drills are smaller than buggy drills, possess tracks made of rubber and have a very low pounds/square/inch rating. In some cases an ATV may be utilized as support for the drills. No clearing or grading by heavy equipment of routes for the off-road drilling program would be conducted. BBC proposes to use approximately 4 to 8 buggy/track drills for this project.

Compressed air would be the primary source used as the drilling medium for shot holes. A small amount of water, estimated at an average of approximately 5 gallons or less per hole, would be used to facilitate drilling and stabilize loose surface materials as needed. Occasionally in valley bottoms or drainages if loose unconsolidated gravels are encountered, some holes may require the use of water and drilling mud. In some cases a reduced charge size and hole depth may also be utilized in these areas

After placing the explosive charge in a shot hole, the hole would be plugged as specified by State of Wyoming regulations for seismic exploration. Providing that no water is encountered while drilling, the hole would be back-filled with drill cuttings to within three feet of the surface and a nonmetallic plug would be installed in the hole. The remaining three feet would be backfilled to the surface and covered with more drill cuttings and soil. Excess drill cuttings would be mixed with soil and spread over the surrounding area. A small mound shall be left over the hole for settling allowance unless otherwise directed by the BLM on their lands. In the event that water is encountered during drilling, appropriate State of Wyoming procedures would be followed.

The shot points are detonated individually and the sound wave reflections recorded by a subset of the receiver lines (eight to sixteen lines). Detonation may occasionally produce a small plume of dust within a few feet of the shot hole. Shot points would be triggered from a central control truck stationed on an existing road/trail and a safety officer stationed at a position with line-of-sight visibility, but at a safe minimum distance. The safety officer ultimately controls the detonation and allows detonations initiated by the control trailer (telemetric signal) only if observations indicate the absence of people and animals near the shot hole.

Should the detonated explosive blow the plug and the drill cuttings out of the hole (a blowout), whatever limited disturbance to the surface would be repaired as part of line restoration/reclamation including re-plugging and replacing the hole packing materials with drill cuttings and soil materials that were expelled by the blast from the hole. Based on experience in similar geologic settings, blowouts are highly unlikely to occur.

Data Acquisition:
Data acquisition methods would be the same regardless of surface ownership. Recording equipment would be transported to the field and to the staging area(s) (including the helicopter-landing zone) by truck using existing roads and trails. Sufficient equipment to lay out six geophones per receiver station, one length of seismic cable, and appropriate battery and field recording boxes would be placed in reinforced nylon cache bags at helicopter landing sites and flown to the pre-determined, flagged locations for stations along each receiver line. Helicopters would be used for the project, and would operate only in daylight hours ferrying the heli-portable drills and receiving-station cache bags in separate operations.

The helicopter would move four to six cache bags at a time suspended from a long line. The helicopter

would operate at an altitude of approximately 50-75 feet above the receiver line and deposit one bag at a time using GPS pin flag locations provided by BBC.

Ground crew members would walk to the first dropped cache bag on their receiver line, prepare the radio-telemetric station and/or manually connect cables and geophones. Seismic cable and attached geophones would be laid out by hand around each station in a pre-determined pattern. The geophones mounted on a four-inch spike would be placed into the soil using foot pressure. The crewmember would then proceed on foot to the second bag and repeat the set-up of the first station (receiver location) and its network of cable and geophones. Stations, cable, and geophones would be laid out in this manner at each station across the Project Area. Up to 16 lines of 96 geophone stations would be active at any time throughout the data acquisition task.

After recording in an "active" area of receiver lines, geophones, cable, each station's equipment would be retrieved on foot, bagged using a procedure reverse of placement, and moved to a new receiver location by helicopter.

Approximately 35 crewmembers would conduct daily operations for 12 to 14 hours per day. Crewmembers would be organized into field groups of 4 to 6 personnel; groups would operate at intervals of 2 to 3 miles throughout the Project Area. A troubleshooting crew of 2 to 4 people would repair electrical problems during the project operations utilizing ATV's where feasible. Crewmembers would carpool daily to the Project Area in the morning and return to surrounding cities/towns in the evening.

The recording control truck containing the data acquisition control equipment would be located on an existing road or trail to initiate the source detonation for the active receiver site locations during data recording periods.

Demobilization:
The demobilization task would proceed concurrently with data acquisition. All pin flags, flagging, and other "trash" would be gathered daily as the field groups and crewmembers complete data-acquisition on portions of the project. The "trash" would be collected at points on roads or trails and transported by vehicle to staging areas where personnel would organize materials, handle equipment, and dispose of used/unusable materials. A follow up or "trash" crew would, at completion of the data acquisition, make a complete sweep of the Project Area to ensure no trash or equipment has been left behind. This task would be completed within about 5 days of conclusion of the data acquisition task.

Support Operations:
All equipment, including the buggies and drills, would be transported to the Project Area by 12 to 20 transport trucks/tractor trailers as part of project mobilization. Operation of all support vehicles, including pickups, would be limited to existing roads and trails. Specialized vehicles may be used off road as support for supplies and personnel during certain project operations. This equipment use will be minimized as much as practicable and travel restricted to source, receiver and buggy/track access lines only.

Two main staging areas would be typically be utilized for the project with smaller mini-staging areas utilized for heliportable and buggy drill staging areas throughout the project area. Previously disturbed areas or well pads will be utilized where feasible. The explosives and blasting cap magazines would be temporarily located in one or two isolated locations, (in accordance with Federal Bureau of Alcohol, Tobacco, and Firearms regulations) to minimize public access and to optimize public safety. BBC would not utilize the well locations of other operators for drill staging or parking, unless prior approval is obtained. If staging areas are to be located on BLM land they will be surveyed and coordinated with the BLM. Typically staging areas will be located on private lands within this project area.

Typically one primary staging area will be utilized with up to three or four smaller remote supporting staging locations. Several 45-foot equipment trailers will be parked at the primary staging area and used for the duration of the project. The primary staging area also provides for temporary placement of cable and geophone trailers, battery and coordinator trucks, vehicle maintenance, bagging and preparation of equipment for transport to receiver lines, helicopter landing pad and parking for crew transportation vehicles. Smaller remote staging areas typically have less activity and in most cases are primarily used to bag, prepare and fly equipment to the receiver lines to expedite equipment transportation and layout. In addition, heliportable and buggy drill operations may require several small staging areas in remote locations. No blading or leveling of staging areas would occur. When practicable, staging areas will be used for crew and drill related purposes to minimize the number of staging areas needed. Some remote staging areas may not be utilized. The explosives and blasting cap magazines would be temporarily located on approximately two small locations (in accordance with Federal Bureau of Alcohol, Tobacco, and Firearms regulations) to minimize public access and to optimize public safety.

Occasional helicopter landing sites to drop off personal would be considered casual use. The helicopter may occasionally also land on other areas in addition to staging areas/landing zones to pick up or drop off equipment or personnel.

Project Activities and Schedule:
Seismic survey activities would proceed systematically from one end of the Project Area to the other. Specific activities in order of occurrence would include:

1) Drilling activity would proceed for approximately five to seven weeks prior to commencement of subsequent activities.

2) After initial placement of a minimum of nine (9) recording lines the recording process would begin. Additional lines would be laid out until there are sufficient recording lines to record a full "patch" which would be on the order of 16-20 lines. The geophysical contractor may lay more lines depending on local area logistics and equipment inventory.

3) Controlled detonation of shot holes and recording would begin shortly after placement of the initial grouping of receiver stations/geophones. Time between detonations is typically a minimum of 5-10 minutes and can take longer depending on terrain and accessibility of shot points to the safety officer. Shot points on a source line situated between two central receiver lines within the "patch" would be detonated individually. Shot detonation activities would progress between the same two central receiver lines until all source points in this corridor are detonated. Source generation would then advance to the next leading receiver line corridor.

   As source generation progresses trailing receiver lines outside of the active recording "patch" are picked up and moved in front ("leap-frog") of the lead receiver lines.

4) Source generation and recording is expected to take about 20-30 days. The duration of the complete survey is projected to be about 65 days including mobilization and demobilization. Within this definition of complete survey time, the survey will be considered to be initiated when the first shot hole is drilled.

Workforce:
A work crew of approximately 14 personnel for buggy and up to 18 for heliportable drilling operations would be required during the initial drilling period (i.e., four to six weeks). Depending on drilling

progress and availability, a second helicopter and additional heliportable drilling crews may assist. After drilling, a different work crew of 35-45 personnel would be required for approximately three to four weeks to mobilize and complete data acquisition. A small crew of 4 to 6 personnel would be on site for a few weeks after data acquisition for demobilization and clean up.

Applicant Committed Environmental Protection Measures:
The specific environmental protection or mitigation measures listed below by activity or environmental resource area would be incorporated into the applicant's proposed action on all lands as integral components of the proposed project.

Fire Protection:

- Vehicles with catalytic converters would be restricted to existing roads and trails; parking or idling would not be permitted in portions of roads or trails with taller vegetation.
- Off-road equipment (buggy/track drills) would be diesel powered (no catalytic converter).
- All vehicles would be equipped with fire extinguishers and shovels.
- All specialized vehicles used off-road would be equipped with spark arresters.
- Helicopter landing zones at each staging area would be equipped with fire extinguishers. Each helicopter would have a 100-gallon water bucket should the helicopters be needed to fight a fire in the area, regardless of the fire's source.
- The following operational procedures would be followed:
  - All brush build-up around mufflers, radiators, headers, and other engine parts would be avoided; periodic checks would be conducted to prevent this build-up.
  - Smoking would only be allowed in company vehicles and/or designated smoking areas; all cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles.
  - Cooking, campfires, or fires of any kind would not be allowed.
  - Any Portable generators used in the Project Area would be required to have spark arresters.
  - BBC would coordinate project activities with appropriate fire-fighting personnel the contingency plan would include a fire communications protocol for contacting firefighting and BIA and/or Nation personnel.

Existing Facilities/ROWs Protection:

- Safe operating distances (based on accepted industry standards or as approved by facility owner) would be maintained between source points and existing facilities including structures, producing oil and gas wells, pipelines, and electrical utility lines.
- Gates would be used for crossing fences whenever possible. It is possible but not probable that a fence crossing would be required for a location absent a gate thus, the fence would be cut and H-braces would be installed to support the existing fence and, if livestock are present, a temporary gate would be installed to prevent livestock or wild horse movement from appropriate pastures. Upon termination of seismic survey activities, the temporary opening or gate would be permanently rewired and stretched to their original tension.
- Any damaged caused by the proposed seismic survey would be repaired or replaced as soon as practical before the end of the project.

Hazardous and Solid Waste/Trash Disposal:

- Fuel and lubricants would be temporarily stored in transportable containment-trailers at locations approved by the appropriate surface management agency (SMA) within staging areas to minimize potential for accidental releases/spills. No other hazardous or potentially hazardous materials would be brought into the Project Area.

- All spills or leaks of diesel fuel, hydraulic fluid, lubricating oil, and coolant, including contaminated soil material, would be excavated to an appropriate container and transported to an approved disposal site.
- All solid waste or trash would be transported for disposal to an approved solid waste disposal facility.

Public/Crew Safety:

- All vehicle traffic, excluding buggy/track drills and approved utility vehicles, would be limited to existing roads and trails. Vehicles would travel at speeds within set speed limits of main access roads and at slower speeds appropriate for conditions on more remote roads and trails.
- Survey crew/staff would keep the public a safe distance away from all buggy/track drill activity.
- All survey crewmembers would wear safety vests, hardhats, and goggles where required.
- The shot hole detonation observer would wear a hardhat and safety goggles.
- Temporary signs would be placed along roads to warn the public of travel in areas of seismic acquisition crew activity.
- The helicopter would follow flight paths chosen to be efficient while following activity-specific aviation operational safety standards for flight altitudes.
- Explosives and detonator caps would be stored in or near the Project Area in large, secure magazines (large locked steel boxes) per Federal Bureau of Alcohol, Tobacco, and Firearms requirements. Signage for the magazines would not be placed on the magazines, but on adjacent posts or other permanent features.
- Explosives/detonators would be transported in accordance with Federal Department of Transportation regulations.

Water Resources, Wetland/Riparian/Floodplain Protection:

- Should saturated conditions or water in a drilled shot hole be encountered, native bentonite would be packed into the shot hole to above the water level in the hole to seal the saturated zone, or as specified by State of Wyoming regulations for seismic exploration.
- Project water would be obtained from adjudicated commercial, private or other approved sources. A temporary water tank may be utilized for the project. The tank may be relocated once or twice as needed during the project to minimize unnecessary travel. Buggy drill crews would typically transport water for the buggy drills in the back of work trucks using water barrels or in small portable water tanks. Water tanks on buggy drills would be replenished as needed at road/trail intersections. Heliportable drillers may also use water barrels, a small water tank on a trailer or other source to transport water to mini-staging areas where water would be flown out to heliportable drills as needed. If larger quantities of water are necessary, a small water truck may be utilized to top off portable tanks, water buggies or drills. It is estimated that 500 barrels of water or less would be utilized for drilling operations on this project.
- No wetland/riparian vegetation would be removed during the placement of geophones. Helicopters would be used to drop equipment to support placement of recording lines to reduce surface disturbance.
- No operations other than receiver placement would be performed within 300 feet of a spring. Vehicular travel would be limited to existing roads, trails and previously disturbed areas, or as approved by surface owner.
- Vehicles would not cross perennial water features, except on existing roads or pre-designated crossings. Shot points will be offset a minimum of 50 feet from riparian vegetation, except in areas where riparian vegetation is contained within an incised drainage or other protective buffer. In these areas, shot holes will be offset a minimum of 25 feet or as approved by the surface owner.

Soil Resource Protection:

- Vehicles would be instructed to travel at slow speeds to limit disturbance to roads and creation of dust.

Vegetation Resources Protection:

- All vehicles, including on-road and off-road equipment, would be cleaned to remove weed seed and soil (may contain weed seed) prior to commencing operations on tribal lands within the Project Area. Noxious weed infestations, spread as a direct result of the project activities will be treated as necessary and as approved by the appropriate SMA to prevent additional spread.
- Noxious weed orientation will be given to field crews.
- Larger shrubs, trees, and other obstacles would be avoided where possible; no cutting or removal of shrubs, trees, or other obstacles is proposed. Buggy drills may break some limbs and or impact smaller trees in some areas as they work through the trees. Impacts to trees will be kept to a minimum as much as possible.

Wildlife Resources:

- Project activities would be conducted in compliance with applicable requirements of the Endangered Species Act of 1973, as amended.
- Project personnel would be subject to the following requirements: no harassing or shooting of wildlife or wild horses; no dogs may be brought to the Project Area; no firearms permitted; and no littering.

Livestock Grazing:

- All gates within the Project Area would be left as they are found (i.e., open gates would be left open, closed gates would be closed).
- Damage to existing fences and other range improvements as a result of the seismic survey would be immediately repaired per approved SMA specifications.
- Removal or alteration of existing range improvements would be prohibited unless prior approval from the appropriate SMA is obtained.
- All personnel would be instructed to minimize contact and avoid harassment of livestock.

B. LAND USE PLAN CONFORMANCE

Land Use Plan Name: Buffalo Resource Management Plan **Date Approved:** 1985, 2001 Update
The proposed action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decision(s): Minerals Management – Oil and Gas
The proposed action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s) (objectives, terms, and conditions):

Decision Record MM-7 – Continue to lease and allow development of federal oil and gas in the Buffalo Resource Area

C. COMPLIANCE WITH NEPA

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9(B)(6):

"Approval of Notices of Intent to conduct geophysical exploration of oil, gas, or geothermal, pursuant to 43 CFR 3150 or 3250, when no temporary or new road construction is proposed".
This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. I've reviewed the proposed action and none of the extraordinary circumstances described below and in 516 DM 2 apply.

Cultural:

A Class III cultural resource inventory was performed for the Merganser 3D seismic project prior to on-the-ground project work (BFO project no. 70120073). A class III cultural resource inventory following the Archeology and Historic Preservation, Secretary of the Interior's Standards and Guidelines (48CFR190) and the *Wyoming State Historic Preservation Office Format, Guidelines, and Standards for Class II and III Reports* was provided to BFO by Bill Barrett Corporation. Clint Crago, BLM Archaeologist, reviewed the report for technical adequacy and compliance with Bureau of Land Management (BLM) standards, and determined it to be adequate. The following resources are located in or near the project area (E = Eligible for National Register of Historic Places, NE = Not Eligible, U = Unevaluated):

Site Number/Type/Eligibility	Site Number/Type/Eligibility	Site Number/Type/Eligibility
48JO1267/ Historic Homestead/E	48JO1662/Historic Stockraising/NE	48JO1663/Historic Stockraising/NE
48JO1664/Historic Stockraising/NE	48JO1665/Historic Homestead/NE	48JO1666/Historic Stockraising/NE
48JO1870/Prehistoric Lithic Scatter and Historic Unknown/NE	48JO1871/Prehistoric Lithic Scatter and Historic Unknown/NE	48JO1872/Prehistoric Lithic Scatter and Historic Unknown/NE
48JO1873/Historic Stockraising/NE	48JO1874/Historic Stockraising/NE	48JO1875/Prehistoric Lithic Scatter and Historic Unknown/NE
48JO1876/Historic Stockraising/NE	48JO1877/Historic Stockraising/NE	48JO1878/Historic Stockraising/NE
48JO1879/Historic Stockraising/NE	48JO1880/Prehistoric Open Camp and Historic Stockraising/NE	48JO1884/Prehistoric Open Camp/NE
48JO2149/Historic Stockraising/NE	48JO2150/Prehistoric Lithic Scatter/NE	48JO2152/Historic Ranching/NE
48JO2153/Historic Stockraising/NE	48JO2154/Prehistoric Stone Circle and Historic Stockraising/E	48JO2245/Prehistoric Lithic Scatter/NE
48JO2246/Historic Debris/NE	48JO2248/Prehistoric Lithic Scatter and Historic Debris/NE	48JO2249/Prehistoric Lithic Scatter and Historic Unknown/NE
48JO2251/Prehistoric Open Camp/NE	48JO2252/Historic Debris/NE	48JO2253/Historic Debris/NE
48JO2254/Historic Debris/NE	48JO2493/Prehistoric Lithic Scatter/NE	48JO2494/Prehistoric Open Camp/NE
48JO2495/Prehistoric Lithic Scatter and Historic Unknown/NE	48JO2496/Prehistoric Lithic Scatter/NE	48JO2497/Historic Debris/NE
48JO2498/Prehistoric Lithic Scatter/NE	48JO2503/Prehistoric Lithic Scatter/NE	48JO2504/Prehistoric Lithic Scatter/NE
48JO2505/Prehistoric Lithic Scatter/NE	48JO2508/Historic Debris/NE	48JO2512/Prehistoric Lithic Scatter and Historic Debris/NE
48JO2556/Prehistoric Lithic Scatter/NE	48JO2571/Prehistoric Open Camp/NE	48JO2572/Historic Debris/NE
48JO2573/Historic Debris/NE	48JO2574/Prehistoric Lithic Scatter and Historic Unknown/NE	48JO2575/Prehistoric Lithic Scatter/NE
48JO2576/Prehistoric Lithic Scatter/NE	48JO2577/Prehistoric Lithic Scatter/NE	48JO2578/Historic Debris/NE
48JO2733/Prehistoric Open Camp/ Stone Circle/U	48JO2734/Historic Cairn/NE	48JO2735/Prehistoric Stone Circle/ Lithic Scatter/NE
48JO2736/Prehistoric Lithic Scatter/NE	48JO2742/Prehistoric Open Camp/NE	48JO2885/Historic Debris/NE
48JO2886/Prehistoric Lithic Scatter/NE	48JO2887/Historic Debris/NE	48JO2888/Prehistoric Lithic Scatter/NE
48JO2943/Historic Road/NE	48JO2963/Historic Road/NE	48JO3060/Historic Debris/NE
48JO2945/Historic Debris/NE	48JO2949/ Historic Debris /NE	48JO3043/Historic Debris/NE

Site Number/Type/Eligibility	Site Number/Type/Eligibility	Site Number/Type/Eligibility
48JO3095/Prehistoric Lithic Scatter and Historic Debris/NE	48JO3096/Prehistoric Lithic Scatter/NE	48JO3097/Prehistoric Lithic Scatter/NE
48JO3098/Prehistoric Lithic Scatter/NE	48JO3099/Prehistoric Lithic Scatter and Historic Debris/NE	48JO3102/Prehistoric Lithic Scatter and Historic Debris/NE
48JO3103/ Historic Debris /NE	48JO3105/Historic Homestead/NE	48JO3692/Prehistoric Open Camp/E
48JO3693/Historic Cairn/NE	48JO3694/Prehistoric Open Camp/ Stone Circle/E	48JO3806/Historic Cairn/NE
48JO3807/Historic Cairn/NE	48JO3854/Prehistoric Open Camp/E	48JO3921/Prehistoric Open Camp/E
48JO3922/Prehistoric Open Camp/E	48JO3926/Prehistoric Open Camp/U	48JO3927/Prehistoric Open Camp/ Historic Debris/E
48JO4068/Historic Homestead/NE	48JO4071/Historic Homestead/NE	48JO4072/Prehistoric Open Camp/E
48JO4327/Prehistoric Open Camp/U		

All unevaluated or eligible sites within the project area will be avoided by project activities. Following the Wyoming State Protocol Section VI (A) (4) the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on 8/2/2012 that no historic properties will be affected by the project.

Wildlife:

Big Horn Environmental Consultants (BHEC 2012) did surveys for bald-eagle winter roost, raptors, Greater Sage-Grouse (sage-grouse) leks, prairie dog colonies, and mountain plover during spring of 2012 according to the PRB Interagency Working Group's protocols, available at: http://www.blm.gov/wy/st/en/field_offices/Buffalo/wildlife.html. There were no BLM listed sensitive species observed in the survey area (BHEC 2012).

Eighty-five raptor nests were discovered within 0.5 miles all BLM land inside of the project boundary during the 2012 field survey. Of those nests, five were active during 2012 spring survey; information about the nests is located in the project file. Suitable nesting habitat is present and there is the potential for both raptor and migratory bird nests to be present within the project area. A timing limitation applied to operations during the breeding season will eliminate impacts to migratory birds nesting within 0.5 miles of those identified public lands. Human activities in close proximity to active raptor nests may interfere with nest productivity. Romin and Muck (1999) indicate that activities within 0.5 miles of a nest are prone to cause adverse impacts to nesting raptors. Geophysical exploration on private lands may occur during the breeding season. Noise, surface disturbance, and human disturbance may negatively affect migratory birds and cause them to avoid the area while exploration activities are taking place. Disruptive activities near active nests may also result in the failure or abandonment of nests.

BHEC conducted three bald eagle winter roost surveys from December 2011 through February 2012. Some potential roosting habitat can be found in the form of cottonwood trees along drainages or large ponderosa pines in upland areas. Rock outcrops and cliffs also offer potential roosting and nesting sites. No bald eagles were found within one mile of the project area during the field surveys (BHEC 2012). Geophysical exploration on private lands may occur in suitable habitats for bald eagle nesting or roosting. Noise, surface disturbance, and human disturbance may negatively affect bald eagles and cause them to avoid the area while exploration activities are taking place.

Current Wyoming Game & Fish Department records indicate six occupied sage-grouse leks occur within two miles of the project boundary. The timing of the project will proceed outside of the breeding/nesting

period (April1-June 30) for sage-grouse; there for no impacts are anticipated towards breeding/nesting sage-grouse.

Ute ladies'-tresses orchid habitat will not be disturbed on public lands, and the project is likely to have no effect to the species.

Extraordinary Circumstances (from 516 DM 2, Appendix 2)
Extraordinary circumstances exist for individual actions within categorical exclusions which may:

- Have significant impacts on public health or safety.
- Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.
- Have highly controversial environmental effects or involve unresolved conflicts concerning alternative sues of available resources [National Environmental Policy Act Section 102 (2) (E)].
- Have a highly uncertain and potentially significant environmental effects or involved unique or unknown environmental risks.
- Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.
- Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.
- Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.
- Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.
- Violate a Federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment.
- Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).
- Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).
- Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).

D. SIGNATURE

Authorizing Official: _____ Date: 8/8/12
Duane Spencer, Field Manager

Contact Person
For additional information concerning this CX review, contact:
Andy Perez
Bureau of Land Management
Buffalo Field Office
1425 Fort St.
Buffalo, WY 82834 (307)684-1166

DECISION RECORD

Lease/Serial/Case File No.: **WYW168370**

Recommendation/Rationale: I recommend approving BBC's Notice of Intent to Conduct Geophysical Exploration Operations on public lands administered by the BLM in the NHB 3D Seismic Project Area with the mitigation measures described below. The BBC's Company will utilize the subsurface information gathered by this project to explore for and develop the oil and gas resources in this area. The subsurface data will limit unnecessary drilling, reduce surface disturbance, and reduce adverse impacts to other resources.

Mitigation Measures:

1) No Surface Disturbing activities are authorized with this action.

2) Disruptive activities are prohibited or restricted on public surface in the project area from March 15th through June 30 in suitable sage-grouse nesting and early brood-rearing habitat.
   A. No surface disturbing activity shall occur within 0.25 miles of all identified burrowing owl nests from April 15 through August 31, annually, prior to a burrowing owl nest occupancy survey for the current breeding season. A 0.25 mile buffer will be applied if a burrowing owl nest is identified. This condition will be implemented on an annual basis for the duration of surface disturbing activities within the three known active prairie dog towns located at the following; T49N,R77W Section 7 NENW, T50N,R78W Section 21 SESE, and Section 35 NESE.

   B. No surface disturbing activity shall occur within ½ mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season.

3) All identified cultural sites in the project area shall be avoided by at least 30 meters by all geophysical operations.

4) Vehicular travel shall be suspended when ground conditions are wet enough to cause rutting or other noticeable surface deformation and severe compaction. As a general rule, if vehicles or other project equipment create ruts in excess of four inches deep when traveling cross-country over wet soils, the soil shall be deemed too wet for vehicular use.

5) The staging area(s) shall be kept clean and free of litter. Appropriate human waste facilities will be provided and properly maintained. Such waste facilities shall be removed from the site upon completion of the project.

6) Roads will not be constructed for geophysical projects authorized under a categorical exclusion.

7) Operators of vehicles and equipment shall be responsible for not damaging fences and keeping gates as found. As a last resort, should a fence be cut for access, that fence must be repaired to former or better condition, immediately after equipment has passed through.

8) If soil is disturbed to the extent that erosion is likely or visual impacts are readily apparent, the disturbed areas will be rehabilitated utilizing the following techniques:
   - Ruts and vehicle tracks will be filled with soil and/or obliterated by either hand raking or similar method. When completing this work, care will be taken to minimize disturbance to surrounding lands that have not been disturbed. All areas where rehabilitation work is accomplished will be reseeded with the seed mix provided below.

- The seeded area should be hand raked to assure the seed is covered with approximately ¼ to ½ inch of soil.
- The seed shall be certified, pure live seed, and seed tags must be available if requested by the authorized officer. Certified weed free seed is to be used to rehabilitate disturbed land.

Loamy/Sandy Ecological Site Seed Mix		
Species	**% in Mix**	**Lbs PLS***
Western Wheatgrass (Pascopyrum smithii)/or ***Thickspike Wheatgrass*** (Elymus lanceolatus ssp. lanceolatus)	30	3.6
Bluebunch Wheatgrass (Pseudoroegneria spicata ssp. Spicata)	10	1.2
Green needlegrass (Nassella viridula)	25	3.0
Slender Wheatgrass (Elymus trachycaulus ssp. trachycaulus)	20	2.4
Prairie coneflower (Ratibida columnifera)	5	0.6
Indian ricegrass (Achnatherum hymenoides)	5	0.6
Blue flax(Linum lewisii)	5	0.6
Totals	**100%**	**12 lbs/acre**

Specialist: _____ Date: 8/8/12

Name: Duane Spencer Title: Field Manager

Decision

I have reviewed the plan conformance and NEPA compliance record and have determined that the proposed project is in conformance with the approved land use plan and no further environmental analysis is required.

It is my decision to implement the project as described with the mitigation measures identified above and included in the Special Terms and Conditions along with the mitigation measures in the Standard Terms and Conditions attached to the Notice of Intent to Conduct Geophysical Exploration Operations.

Authorizing Official: _____ Date: 8/8/12
Duane Spencer, Field Manager
FR

DECISION FACTORS

1. **Land Status Including Prior Existing Rights and Land Ownership of Adjacent Non-Federal Lands**: The affected public land in the project area is intermingled with private and Forest Service Lands. The approval of the NOI is only for geophysical operations on public lands. The Wyoming Oil and Gas Conservation Commission authorize geophysical operations on private lands in the project area.

2. **Pending Applications:** None.

3. **Economic and Social Effects**: NA

4. **Access**: Access to the project area is via State highways, existing county and private roads, and existing two-track trails.

5. **Land Use Capability and Past, Present, and Future Land Uses**: Livestock grazing, wildlife habitat, agriculture, oil and gas production, and residential & business uses are the primary land uses in the general area.

6. **Government and Public Support**: None.

7. **Legal Requirements**: No special legal requirements are applicable to this action.

References

Romin, Laura A., and Muck, James A. May 1999. Utah Field Office Guidelines For Raptor Protection From Human And Land Use Disturbances. U.S. Fish and Wildlife Service, Salt Lake City, Utah

Big Horn Environmental Consultants.2012. Merganser 3D: Wildlife Survey and Habitat Report.March. Prepared for: Bill Barrett Corporation, Gillette,Wyoming.