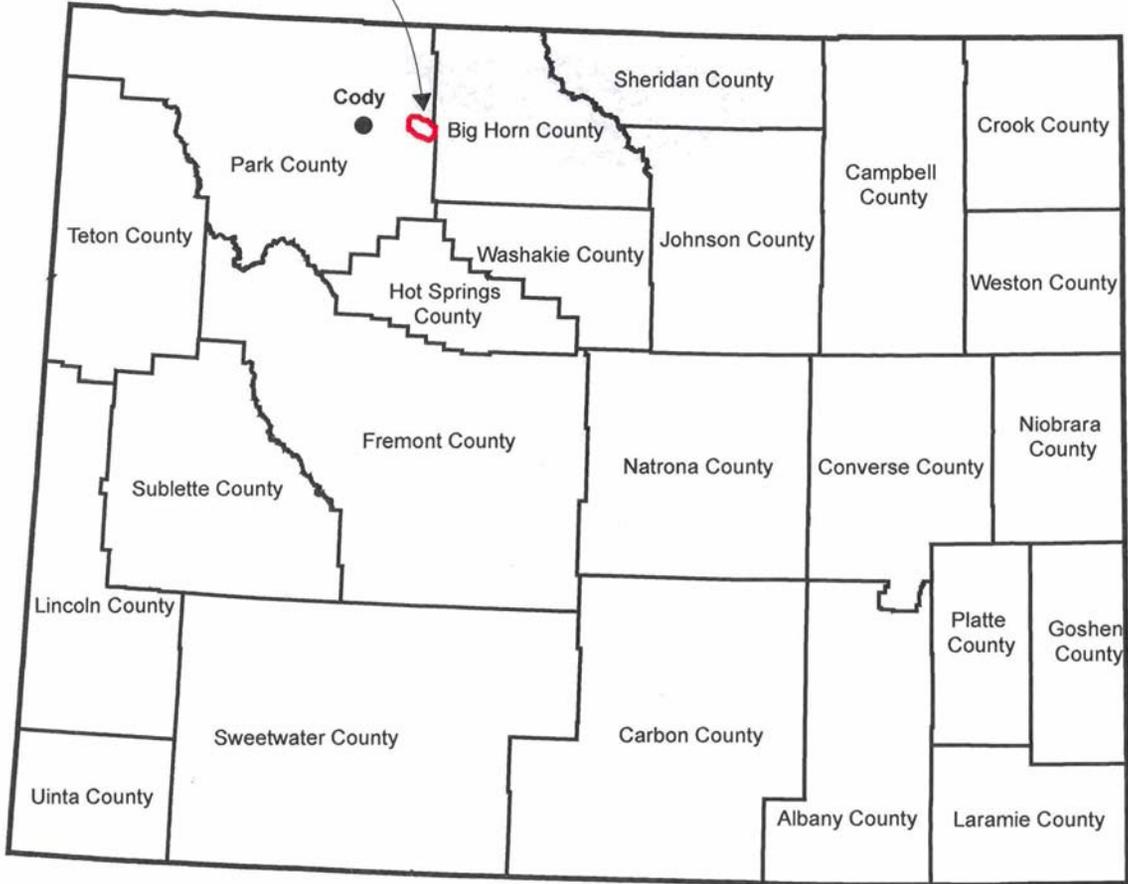


APPENDIX A

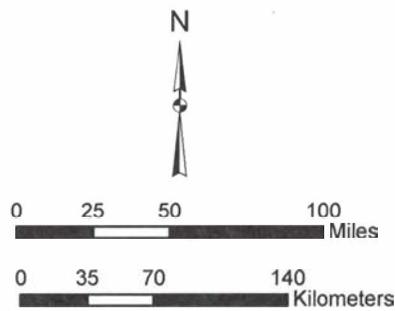
Project Maps

Project Location

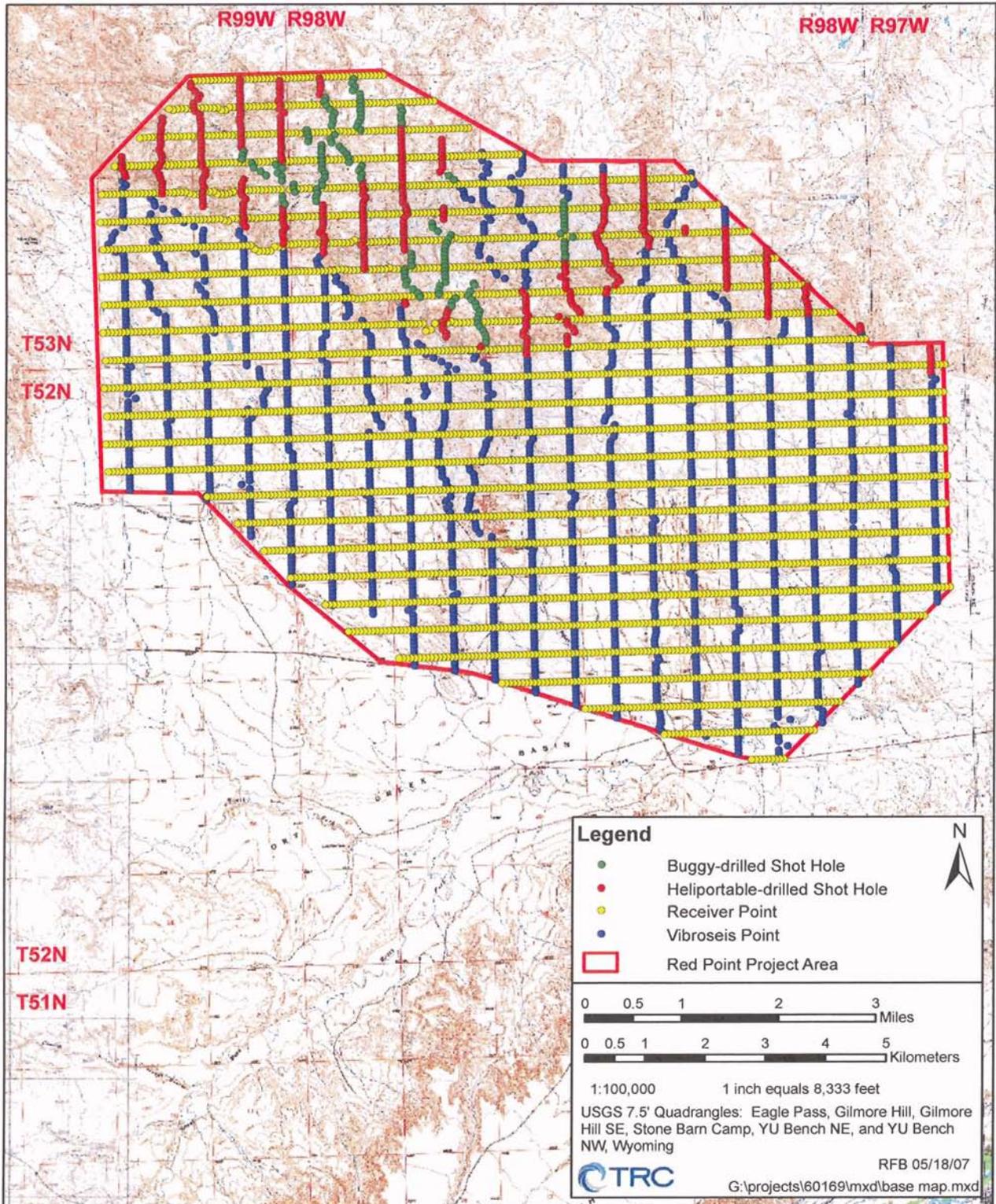
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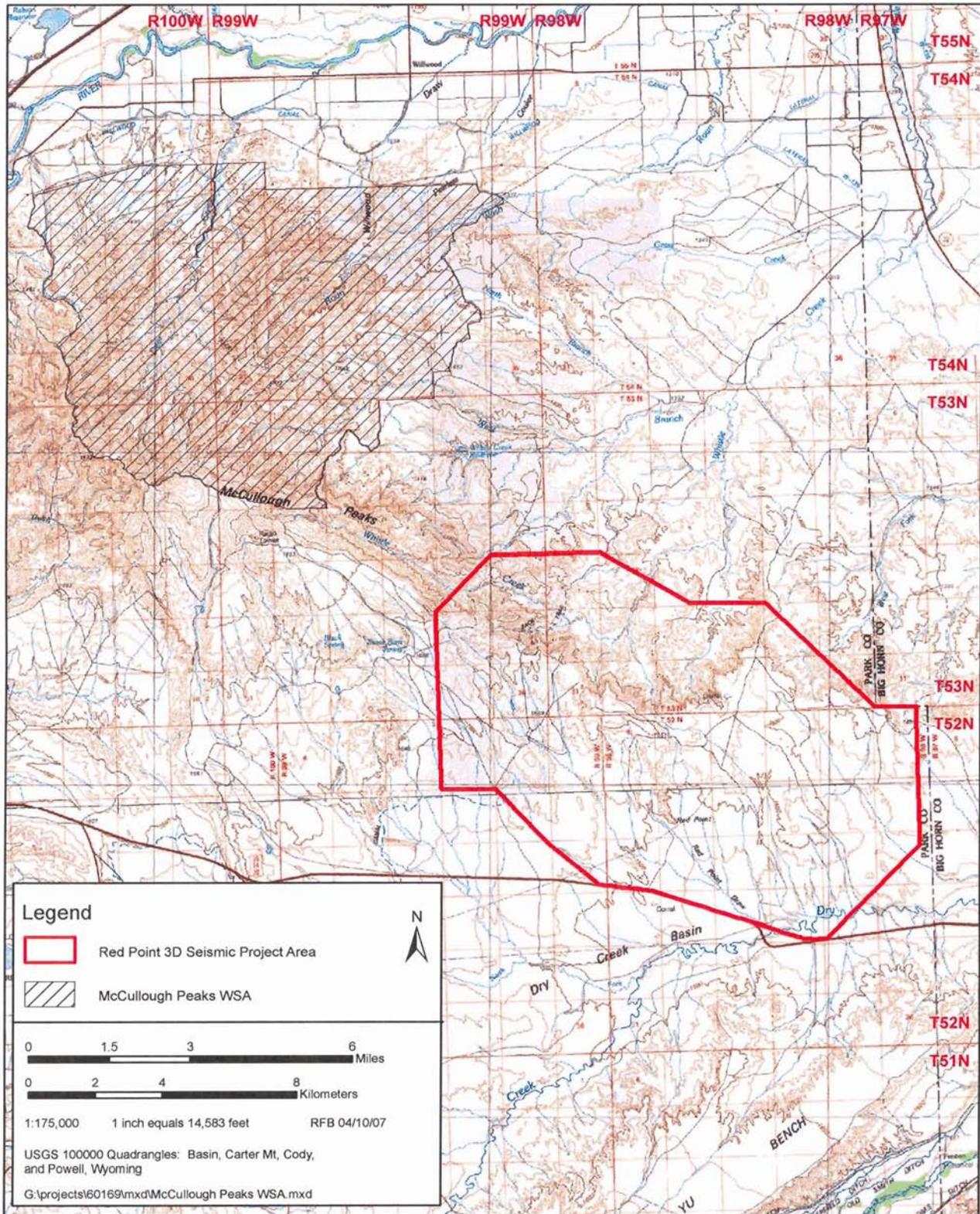
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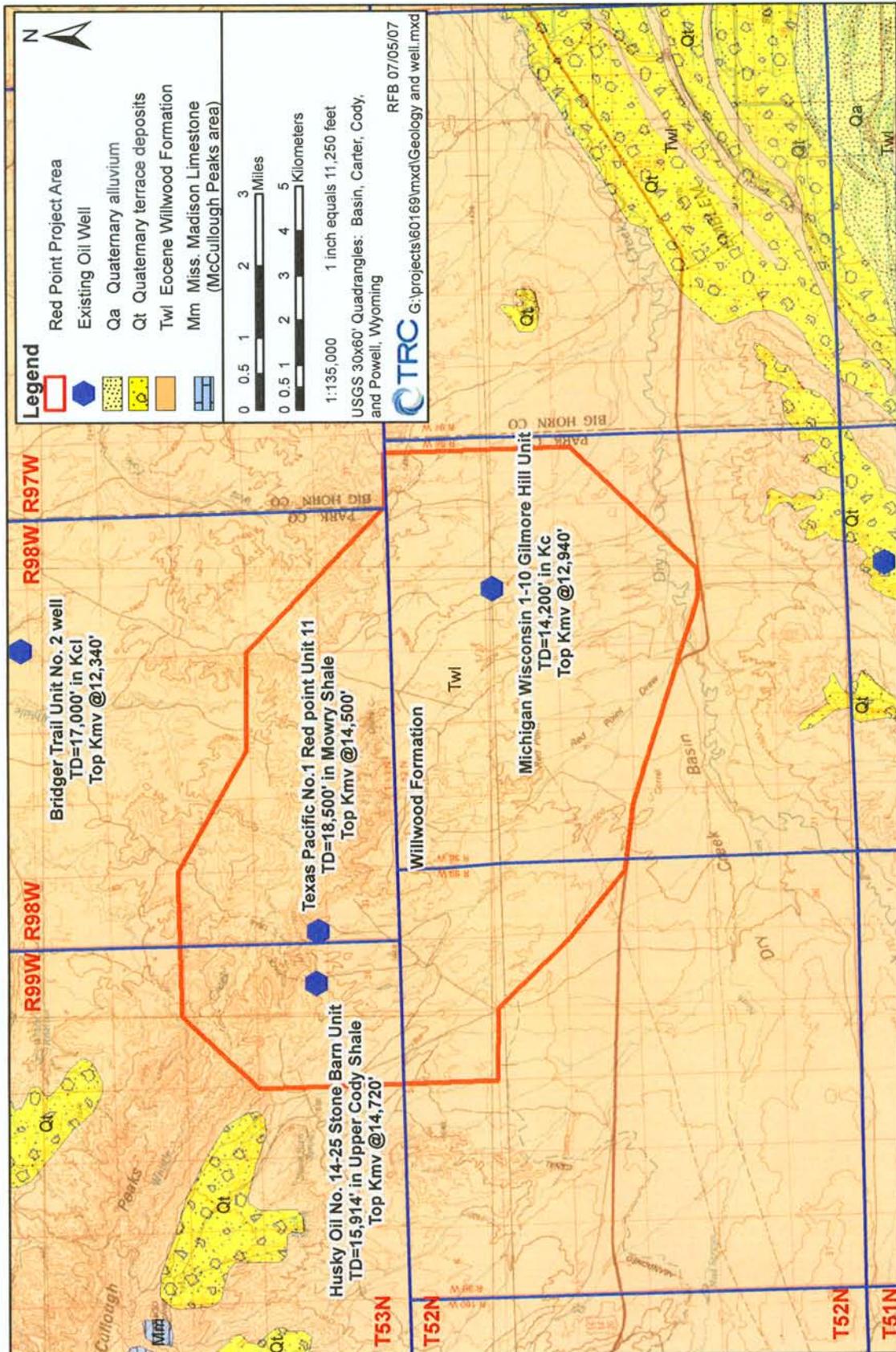
Map 1: General Vicinity



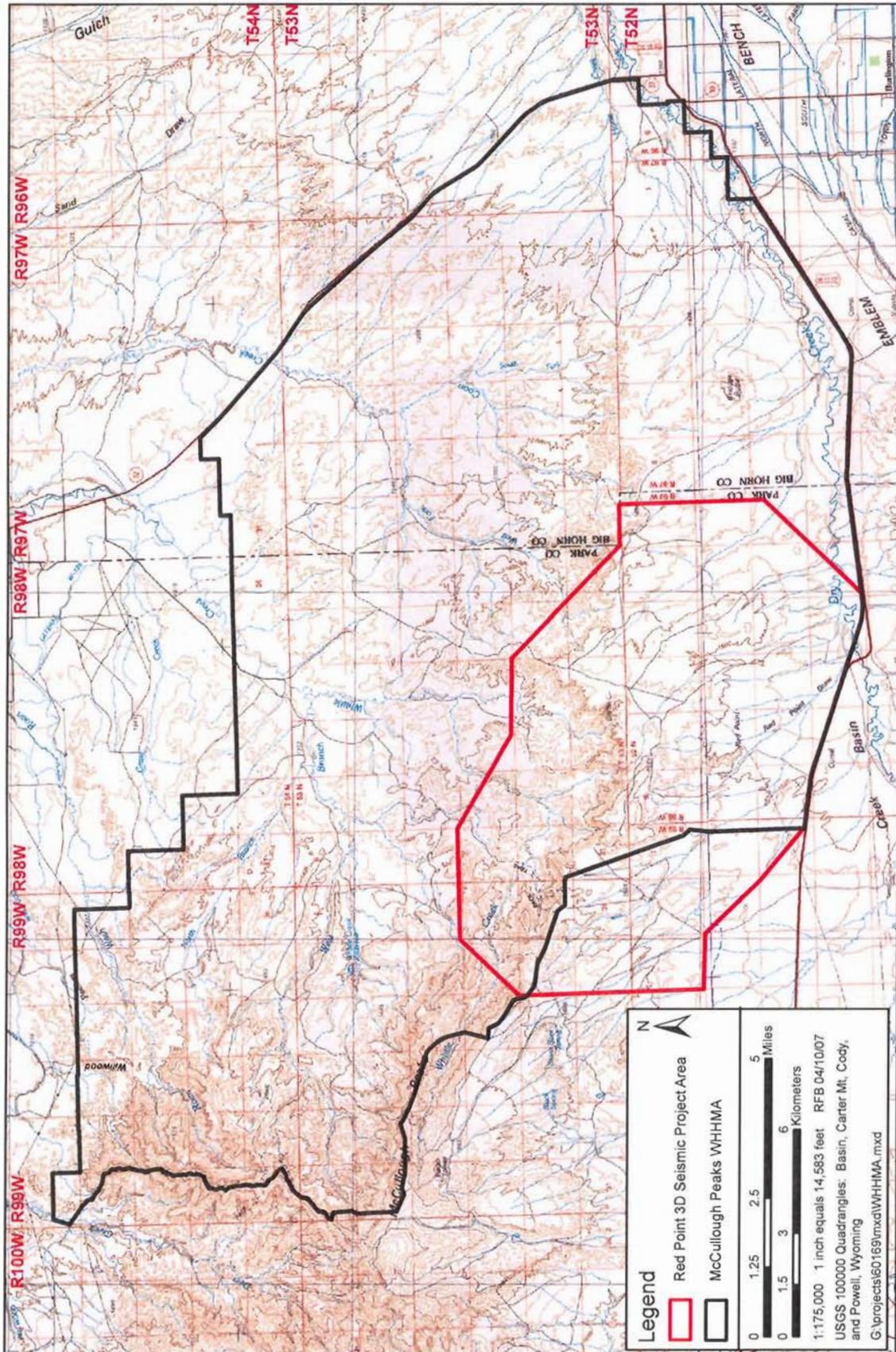
Map 2: Red Point Project Area



Map 3: McCullough Peaks Wilderness Study Area



Map 4: Surface Geologic Map of the Project Area



Map 5: McCullough Peaks Wild Horse HMA

APPENDIX B

Project Design Features

PROJECT DESIGN FEATURES

Introduction

Project Design Features (PDFs) are appropriate actions or measures to avoid, minimize, rectify, reduce, eliminate or compensate for adverse environmental impacts (40 CFR 1508.20). These PDFs were an integral part of the proposed action design (and alternatives) prior to completing the effects analysis. These PDFs reflect requirements of federal, State of Wyoming and local laws; regulatory requirements; management plan requirements; as well as best management practices, surface use requirements, protective measures, and standard operating procedures based on scientific research data and past experience with similar actions. The literature cited in Section 6.0 of the EA and BLM monitoring and evaluation reports, as well as past experience relating to resource protection and other similar geophysical projects where these PDFs have been implemented, monitored and evaluated, support the contention that they are highly effective. All PDFs are an integral part of the selected alternative, will become conditions of approval contained in the authorization allowing the geophysical activity, and will be implemented as part of this action.

The BLM will have an agency representative (permit administrator, compliance specialist/inspector) during field operations on BLM-administered public lands to inspect, monitor and administer the permit/field operation. The agency representative will work with the applicant to ensure total implementation and compliance with all PDFs, to monitor their effectiveness in eliminating or reducing environmental impacts based on direct observation and assessment of their implementation, and to alter implementation and direct immediate changes to PDFs as necessary and appropriate to insure their maximum effectiveness in the protection of resources and users. The designated agency representative, will not be able to shut down the project unless/until they have notified and received concurrence from the Authorized Officer (AO). The AO is the Field Manager, Michael P. Stewart, or his acting when he is not available.

While geophysical seismic survey operations are underway, the agency representative will prepare a daily monitoring report. A final monitoring and compliance report will be prepared at the conclusion of the project. In addition to ensuring implementation/compliance, monitoring will allow gathering of additional information on the actual impacts resulting from such a project, and will provide additional information as to the relevance, applicability, and effectiveness of the PDFs as applied to future projects.

The BLM will also conduct a post-project assessment/final inspection of the seismic lines (both source and receiver lines) to determine if any mitigation/rehabilitation is necessary on public lands. Should the BLM identify areas requiring mitigation/rehabilitation (i.e., trails created as a result of operations, etc.) during or post-operation, the authorized operator shall work with the BLM to develop an acceptable mitigation plan.

General Conditions

1. Compliance. The applicant is responsible for complying with all federal, state and local laws and regulations.
2. Violations. For willful, flagrant, or major violations of the terms of the NOI, the offending individual (pilot, crew members, drill operators, etc.) as well as the applicant will be issued a warning notice, a violation notice, or cited into court, depending on the severity of the infraction.
3. Indemnification. The applicant shall indemnify the United States against any liability for damage to lives or property arising from the occupancy or use of federal lands under this authorization.
4. Operator representative. The applicant or their designated representative(s) shall be present on the premises at all times when the operations are being conducted on federal lands. The applicant will notify the AO or his/her designated representative in writing advising who their representative(s) will be.
5. Final NOI and project maps. When the project has been finalized in design and routes have been selected based on resource concerns or avoidance, the proponent shall furnish the BLM with a revised NOI and final project maps.
6. Pre-work coordination. The applicant and their selected geophysical contractor will be present at a pre-field work meeting with BLM to read all stipulations of the permit.
7. GPS mapping in helicopter. A GPS unit will accompany the helicopter and a weekly map depicting flight paths will be sent to the BLM GIS coordinator during activities. The file format should be a projected shapefile or ArcInfo coverage, which is consistent with Bureau policy.
8. Notification to proceed. The applicant shall inform the AO or his/her designated representative 3 days in advance of when work will begin on the project.
9. Daily progress reports. Daily progress reports shall be submitted to the AO or his/her designated representative providing information on the following:
 - Progress of the day - shot hole, vibroseis, and buggy.
 - Projection of the next day's schedule and area to conduct exploration.
 - Charges that have been shot, and the area cleared of all explosives, litter, and other materials used during the operation.
 - Blowouts that have been (or need to be) plugged.

- Misfires.
 - What worked/what did not work.
10. Project completion statement. When the statement of project completion is submitted, it shall state, *“All explosives stored or not used in the blasting operation have been destroyed or removed from federal lands”*.
 11. Land survey markers. The applicant shall protect all land survey markers.
 12. Cutting of trees/shrubs. No cutting of trees/shrubs will be authorized for this action.
 13. Crew camping. Crews shall not camp or reside on federal lands during the course of the project.
 14. Extension of operating period. No extension is stated or implied. Any extension of time beyond the expiration date must be in compliance with this site-specific NEPA documentation relative to the project. If due to unforeseen circumstances, an extension in time to complete the project is requested by the applicant, and that extension of time intrudes into the period of time outside of that evaluated in this document; additional site-specific NEPA analysis and a separate decision document will be required to address the proposal.

Right to Suspend Operations

1. Flagrant or willful violations. Operations will be suspended for flagrant or willful violations of terms of the NOI that are rated as “hazardous” or “major” until such time as the problem is cured to the satisfaction of the AO or his/her designated representative.
2. Public health and safety. Operations will be suspended when in the opinion of the AO or his/her designated representative such action is necessary to insure public health and safety.
3. Fire danger. The AO may suspend operations during periods of extreme fire danger, when warranted by conditions, (i.e., large fire activity on unit, severe shortage of resources, high potential for fire starts, fuel moistures are extremely low, etc.).
4. Game and fish violations. Operations may be suspended for game and fish statute violations (i.e., harassment with aircraft), as the applicant is responsible to insure employees on duty adhere to all state and federal wildlife laws.
5. Soil resource protection. Operations will be suspended if when in the opinion of the AO or his/her designated onsite representative determines that weather conditions or soil/slope conditions may result in unacceptable soil damage in excess of that analyzed in the EA document.

6. Wild Horse and Burro Act violations. Operations will be suspended under the “Wild Horse and Burro Act”, as defined in 43 CFR § 4700.0-5(f), which states, “...*any intentional or negligent action or failure to act that causes stress, injury, or undue suffering to a wild horse...and is not compatible with animal husbandry practices accepted in the veterinary community*”.

Cultural/Historical Resource Protection

1. Site avoidance. Standard site avoidance (by all vehicles including ORVs) entails a 32.8-meter (100 foot) or more buffer zone around all eligible and unevaluated sites. Vehicle/equipment traffic on federal lands will be confined to a corridor 100 feet wide (50 feet either side of the flagged centerline) along off-road routes and roads and trails which have been inventoried for cultural resources and which are free of significant or unevaluated cultural resources. Avoidance of cultural sites not located near or accessed by existing roads will be achieved by means of flagged cross-country site avoidance routes.
2. Employee notification. All of the applicant’s employees and their contractors shall be informed before commencement of project operations of critical elements of compliance with the Archeological Resources Protection Act (ARPA) and the National Historic Preservation Act (NHPA); and that any effects on, defacement of, or removal and/or disturbance of archaeological, historical, or sacred material shall not be permitted. Violation of the laws that protect these resources will be treated as a law enforcement/administrative disciplinary action.
3. Discovery of cultural resources. If subsurface cultural resources are found during project operations, all work in the vicinity of the resource shall cease and the applicant shall notify the AO immediately. The applicant shall implement appropriate measures requested by that agency to protect the resource until it can be adequately evaluated.
4. Discovery of human remains. If human remains are encountered during project operations, all work in the vicinity of the remains shall cease and the remains shall be protected from further exposure or damage. The applicant shall notify the AO immediately of such a discovery.
5. Native American Religious Concerns. Sites of potential Native American concern are subject to special measures, as specified below:
 - Avoidance offset distance - cairns and/or stone circles. Regardless of surface ownership, all known sites containing prehistoric cairns and/or stone circles shall be avoided by all vehicles by a minimum distance of 100 feet. If features are located near an existing roadway, a temporary fence/barrier will be erected, and the existing road will continue to be used.
 - Avoidance offset distance - rock art. Regardless of surface ownership, all known sites containing rock art shall be avoided by all vehicles by a minimum distance of ¼ mile (1,320 feet). If rock art is located near an existing roadway, a temporary fence/barrier will be erected, and the existing road will continue to be used.

- Discovery of new sites. If any additional sites of potential Native American religious concern (e.g., rock art, vision quest structures, human burial sites, prehistoric cairns, stone circles) are identified by the applicant's personnel within 500 feet of any proposed off-road travel route regardless of surface ownership, the AO shall be promptly notified. The need for special mitigative measures and/or additional Native American consultation shall be determined by the AO.

Explosives Handling and Blasting Operation Requirements

1. Standard operating procedure. The applicant shall perform all work with explosives in such a manner as not to endanger life or property.
2. Transportation/storage/marketing. The method of storing and handling explosives and flammable materials shall be in accordance with Occupational Safety and Health Administration (OSHA), U.S. Bureau of Alcohol, Tobacco, and Firearms (BATF), and U.S. Department of Transportation (DOT) regulations. Explosives and detonator caps shall be stored in a designated area in secure magazines. Signage for the magazines shall not be placed on the magazines, but on adjacent posts or other permanent structures. All storage places for explosives and flammable material shall be marked in accordance with applicable regulations.
3. Loss/theft of explosives. In case of the loss or theft of explosives, the BLM and the Park County Sheriff shall be notified immediately.
4. Blasting in/near ROWs. Flagmen or warning devices shall be used while operations are being conducted within or adjacent to road right-of-ways.
5. Safety personnel requirement. Observers, guards, or flagmen shall be posted at safe distances during blasting operations. There shall be a minimum of two crew members observing each detonated shot hole. The shot point coordinator shall wear PPE as prescribed by regulation or Company policy. The shot point coordinator shall ascertain that no personnel, public, wildlife or livestock are within 200 feet or the visual horizon of the hole to be detonated prior to detonation.
6. Posting of operating area. Roads/trails leading into the area shall be posted by the permittee stating, "Seismic Crew Ahead" or some similar verbiage.
7. Disposal of litter. No explosives boxes or prima cord reels shall be left in the field nor may they be burned on federal lands.

Fire Prevention and Reporting Measures

1. Emergency fire response plan. The applicant shall coordinate project activities with appropriate fire-response agencies. The applicant shall prepare a brief but specific instruction plan (crew contingency plan) for emergency fire response and shall submit it to the AO or his/her

designated representative for concurrence. The crew contingency plan will include a fire communications protocol for contacting the BLM and/or other appropriate agencies (i.e., Park County) in the event of a fire.

2. Fire reporting. The applicant shall report all fires to the Fire Dispatcher in Cody, Wyoming at 307-578-1250 or 1-800-295-9954.
3. Fire extinguishers. All vehicles shall be equipped with fire extinguishers and shovels.
4. Staging areas and water buckets. Helicopter landing zones at each staging area shall be equipped with fire extinguishers. In addition, each helicopter shall have a 100-gallon water bucket should the helicopters be needed to fight a fire in the area, regardless of the fire's source.
5. Buggy requirements. Off-road buggies shall be diesel powered (no catalytic converters).
6. Vehicles with catalytic converters. Vehicles with catalytic converters will be restricted to existing roads and motorized trails; parking or idling will not be permitted in portions of roads or trails with taller vegetation as determined by the AO or his/her designated representative.
7. Portable generators. Portable generators used in the project area will be required to have spark arresters.
8. Personnel fire briefing. The following direction shall be provided to all field personnel:
 - Vehicle fire prevention inspections. All brush build-up around mufflers, radiators, headers, and other engine parts will be avoided; periodic checks shall be conducted to prevent this build-up.
 - Smoking. Smoking will only be allowed in company vehicles and/or designated smoking areas; all cigarette butts shall be placed in appropriate containers and not thrown on ground or out windows of vehicles.
 - Fires. Cooking, campfires, or fires of any kind will not be allowed.
9. Spark arresters. All ATVs will be equipped with spark arresters.

Floodplains, Wetlands, and Riparian Zone Protection

1. Shot hole restrictions. Drilling of shot holes for geophysical exploration is prohibited where:
 - Artesian wells are suspected.
 - In wetland or riparian areas where perennially high water tables exist.
 - In areas where and when soils are saturated.

- Immediately upslope from springs or bogs.
- 2. Surface disturbance. Drilling, off-road vehicular use (including ATVs), or any other surface-disturbing activity will be prohibited within 150 feet of the high water mark of any perennial body of water or riparian/wetlands areas on federal lands. Helicopters shall be used to drop equipment to support placement of recording lines to reduce surface disturbance. Intermittent and ephemeral channels shall be avoided.
- 3. Stream crossings. All vehicle stream crossings will be designated and approved by the AO or his/her designated representative prior to use. All stream crossings will be selected to minimize streambed and bank damage.
- 4. Vegetation removal. No wetland/riparian vegetation shall be removed during any phase of the project.
- 5. Drill hole log. A log of all holes drilled shall be kept; noting the presence of water, the depth if possible, and if an artesian aquifer has been tapped.

Geology/Mineral Facilities Protection

1. Offset from oil/gas facilities. Shot holes shall be located a minimum of 300 feet from oil/gas wells and pipelines, unless written permission to encroach closer has been given by the owner.
2. Offset from mining operations. No shot holes shall be placed in any active mining operation, including gravel pits.

Helicopter Operation Requirements

1. Discretionary authority to require helicopter support. The AO or his/her designated representative will have the discretionary authority to require helicopter drilling or helicopter support at any time as conditions dictate, in order to protect resources or provide for human health and safety.
2. Helicopter use. Helicopter landing, loading, and staging areas, and aerial flight line avoidance, shall be coordinated with the AO or his/her designated representative to insure public safety and minimize wildlife/wild horse disturbance prior to use.
3. Staging area locations. Landing/staging areas for support of operations will be located as to allow a reasonable distance for gaining the required altitude for over flights.
4. Over-flights of developments. Direct over-flights of buildings, dwellings, developed areas, recreation areas, and other areas of human concentration shall be avoided.

5. Avoidance of occupied raptor nests. No helicopter activities will be permitted within three quarter (3/4) mile or the visual horizon (whichever is closer) of active raptor nests during the July 1 to July 31 time period, in accordance with CRA RMP ROD (Raptor Decisions). Flights will be re-routed around nest sites if they are occupied.
6. Over-flights of private lands. Helicopters shall maintain FAA required distances for over-flights of residences, buildings, and other private land facilities.
7. Over flights of unoccupied raptor nests. Direct helicopter over-flights of unoccupied raptor nests will not be permitted.
8. Wildlife and wild horse disturbance. Helicopters shall not harass or disturb wildlife species and/or wild horses to the maximum extent possible. This means helicopter pilots shall not go out of their way to observe or photograph wildlife/wild horses; helicopter pilots shall take deliberate evasive action to avoid wildlife/wild horses when observed.
9. Daily work hours. Helicopter use in support of operations on federal lands, excluding travel to/from overnight parking areas and operational staging areas, shall be limited to the time period beginning one hour after sunrise and ending one hour before sunset in order to minimize disturbance to public land users and wildlife/wild horses. The excluded crepuscular hours represent important wildlife activity periods.
10. Dropped loads. Any sling loads or other materials intentionally jettisoned for safety purposes or accidentally dropped from helicopters shall be immediately retrieved.

Livestock /Range Facility Protection

1. Notification of grazing permittees. The applicant is charged with the responsibility of notifying grazing permittees prior to entering their allotments. Affected grazing permittees are listed in the EA; addresses are available from the AO upon request.
2. Fence crossings. The applicant shall make every effort to avoid disturbing or altering fences. Gates shall be used when possible. All gates within the project area shall be left as they are found, with the exception of those gates along U.S Highway 14, 16, 20 and Wyoming Highway 32, which will require gates to be closed at all times. If a fence must be crossed, it shall be let down or cut (as determined by the AO or his/her designated representative), crossed, and immediately put back to original functionality.
3. Gates to be shut at all times along highway. All gates along U.S. Highway 14, 16, 20 and Wyoming Highway 32 must be in a closed position at all times.
4. Livestock water facility offset. Shot holes shall be located a minimum of one-quarter (1/4) mile from any water well, flowing spring, reservoir or stock water pipeline, regardless of ownership, in accordance with WOGCC Guidelines [Chapter 4, Sect. 6 (r)(i)], unless written consent to encroach closer is obtained from the surface owner.

5. Repair of range/livestock facilities. Any and all facilities damaged, destroyed or removed in connection with this geophysical exploration operation shall be immediately restored to original condition or replaced with a similar facility.
6. Personnel instruction. Personnel associated with the project shall be instructed to minimize contact with and avoid harassment of livestock.

Night Time Activities

1. Twenty-four (24) hour notice. The BLM will require 24 hours advance notification for areas where night time work is expected to occur.
2. Areas where night-time activities are not allowed. In specified areas, as mapped on the Cody Field Office GIS database, night time activities will not be allowed unless permission is granted by the BLM otherwise.
3. BLM approved biologist. A BLM approved wildlife biologist or trained personnel may be required to survey prior to night time operations, to identify potential concerns and avoidance measures or verify species are not present.

Paleontological Resource Protection

1. Collecting. The project proponent/Operator is responsible for informing all persons associated with this project including employees, contractors and subcontractors under their direction that they shall be subject to prosecution for damaging, altering, excavating or removing any vertebrate fossil objects on site. Collection of vertebrate fossils (bones, teeth, turtle shells) is prohibited without a permit. Unlawful removal, damage, or vandalism of paleontological resources will be prosecuted by federal law enforcement personnel.
2. Discovery. If vertebrate paleontological resources (fossils) are discovered on BLM-administered lands during 3D seismic project operations, the Operator shall suspend operations that could disturb the materials, and immediately contact the AO or his/her designated representative. The AO would arrange for evaluation of the find within an agreed time frame and determine the need for any mitigation actions that may be necessary. Any mitigation would be developed in consultation with the Operator, who may be responsible for the cost of site evaluation and mitigation of project effects to the site. If the operator can avoid disturbing a discovered site, there is no need to suspend operations; however, the discovery shall be immediately brought to the attention of the AO.
3. Avoidance. All vertebrate or scientifically important paleontological resources deemed to be of scientific value found as a result of the project baseline inventory will be avoided during operations. Avoidance in this case means “No vibroseis or heli-portable drilling/shot hole source generation within a distance of at least 50 linear feet of the outer edge of the paleontological locality as marked on the ground”.

Public and Crew Safety

1. Advance notice of operations. The applicant shall notify the AO or his/her designated representative in advance of conducting operations, and provide notice of all locations and times that work is being planned.
2. Avoidance of public land users and/or recreationists. The applicant shall avoid, to the maximum extent possible, working in the immediate vicinity of hunters, hikers, and other public land users known to be utilizing the area. Survey crew/staff shall keep the public a safe distance away from all shooting and all buggy activity.
3. Vehicle limitations. With the exception of buggies and ORV support vehicles (ATVs) as approved in the decision, vehicle traffic (excluding ORVs) will be limited to existing open roads and two-track trails. Vehicles shall travel at speeds within set speed limits of main access roads, and at slower speeds appropriate for conditions on more remote roads and two-track trails.
4. Signs. Safety-warning signs shall be placed on main access roads to make the public aware of road traffic related to project activities. Signs warning the public of project activity shall be located at the closest primary road intersections on either side of the next day's planned drilling activity. No road closures are proposed, and any short-term delays on use of roads shall be communicated to the public by signs and flagmen.
5. Wearing of safety vests. The applicant shall require all crew members to wear orange and yellow safety vests to make them easily visible to all recreationists for safety purposes.
6. Helicopter over flights. Helicopters are prohibited from flying directly over developed recreation areas, trailheads, parking areas, or recreationists in accordance with FAA regulations.

Reclamation

1. 3150 Manual. The Project Design Features of the approved NOI are considered met if there is evidence that the disturbed area is stable and that vegetation is or will become established to the same degree as the immediately adjacent area. Vegetation establishment normally takes two years or longer following reseeding. While BLM is waiting for vegetation to become established, bond liability is not released. A letter to the operator explaining the reason for the delay in bond release will be sent. If reclamation is inadequate the operators bond should not be attached until all attempts to notify them of the need to correct a deficiency is exhausted.
2. Seed mixture. The BLM will provide the operator with an approved seed mixture prior to the commencement of reseeding activities.
3. Reclamation locations. The locations for reclamation efforts will be discussed and agreed upon between the BLM and the operator during or after the completion of the project.

Rights-of-Way Protection

1. Offset from rights-of-way. Shot holes shall be offset at industry accepted distances from rights-of-way, as set forth by the International Association of Geophysical Contractors to avoid disturbance to utility, access road, canal/drainage, and other land and realty features.

Sanitation, Clean-up and Rehabilitation Requirements

1. Cleanup scheduling. The project clean-up phase shall proceed concurrently with the recording phase. Equipment, pin flags, lathe, flagging, trash and any other materials brought in by the seismic crews shall be removed as the recording crew works through the project area.
2. Proper trash disposal. Trash shall not be burned or buried. Trash shall be packed out and disposed of properly at a Wyoming DEQ approved disposal site. No explosives boxes or prima cord reels shall be left in the field nor may they be burned on federal lands.
3. Staging area trash disposal. Storage containers are required for all refuse or garbage that may contain attractants. At staging areas, litter containers (for non-attractant litter) with functional, protective lids from wind shall be in use at all times. Litter shall be placed in containers immediately and not left on the ground to be policed at a later time.
4. Sewage disposal. Self-contained portable sewage disposal units shall be provided and used at staging areas. Contents of these units shall be disposed of at appropriate facilities. Away from staging areas, individuals shall bury human waste in holes six to eight inches deep.

Soils Protection

1. Offset from bodies of water:
 - a. Drilling, off-road vehicular use, or any other surface disturbing activity is prohibited within 150 feet of the high water mark of any perennial body of water on federal lands to minimize impacts to soils in areas with high water erosion potential.
 - b. Drilling of shot holes in or within 25 feet of intermittent and ephemeral channels shall be avoided.
 - c. Channels having banks two feet or greater will not be crossed.
 - d. Washes or alluvial valleys will not be crossed when wet.
2. ORV slope restrictions. No off-road vehicle use will be permitted on slopes greater than 30 percent (RMP guideline) or where terrain or soils dictate otherwise. Equipment deployment,

- pickup, troubleshooting, and other operations will be accomplished on foot and/or with helicopter support on slopes greater than 30%.
3. Offsetting ATV routes. Vehicle travel along shot point and receiver lines shall be limited to the minimum number of passes necessary to accomplish project objectives. Should multiple passes become necessary in any given area, vehicle travel paths shall be offset along seismic lines and access routes to minimize compaction.
 4. Suspension during wet weather. The applicant shall not conduct vehicle operations during periods of saturated ground conditions when surface rutting could occur. Operations will be suspended if the AO or his/her designated representative determines that weather conditions or soil/slope conditions may result in rutting beyond that analyzed in the EA document.
 5. Vehicles. The spinning of all vehicle wheels shall be avoided where possible to minimize the potential for soil displacement and impacts to soils.
 6. Dust abatement. If the need arises as a result of seismic traffic, as determined by the AO or his/her designated representative, water shall be applied to roads and staging areas to reduce fugitive dust resulting from vehicle traffic. Chemicals that may be damaging to existing plant life or subsequent efforts to rehabilitate disturbed areas, such as staging areas, will not be used.

Vegetation Protection

1. General vegetation:
 - a. Vehicle pass limitations. Off-road vehicle travel along shot hole source lines, receiver lines, and access routes shall be limited to the minimum necessary to accomplish project objectives.
 - b. Vehicle track offsets. Should more than one vehicle pass be necessary in any given area, vehicle paths shall be offset where practical to minimize impacts to vegetation.
 - c. Discretionary authority to require helicopter support. The AO or his/her designated representative will have the discretionary authority to require helicopter drilling or helicopter support at any time as conditions dictate, in order to protect resources or provide for human health and safety.
2. Noxious plants//Invasive, non-native species:
 - a. Equipment washing prior to entering project area. To prevent the introduction and spread of new weeds, all equipment, including on-road and off-road equipment, shall be thoroughly power-washed to remove weed seed and soil (that may contain weed seed) prior to transporting the equipment to the project area and commencing operations on public lands.

- b. Crew training. Crew members shall be provided with information, including photographs, on noxious weeds known or with potential to occur in the project area so they can identify and avoid areas of infestation.
 - c. Cleaning after weed contamination. Should crew members encounter existing noxious weeds within the project area; equipment and/or vehicles exposed to the weeds shall be cleaned using compressed air prior to entry into other areas.
 - d. Reclamation/reseeding. The applicant shall reclaim and reseed all off-road areas disturbed by geophysical operations as directed by the AO or his/her designated representative. Reclamation efforts may include disking or ripping the ground surface, reseeding and mulching. Best management practices will be used in the re-vegetation efforts to insure a higher success rate in problematic weed areas (i.e., south facing slopes and high wind and water erosion areas).
3. Trees and Timber:
- a. Tree avoidance. Shot holes and vehicle traffic shall be offset around individual trees and, where possible, entire tree stands, as these can sometimes occur in tight clusters.
 - b. Cutting of trees. Cutting of trees shall not be permitted.

Visual Impact Minimization Requirements

1. Offsetting off-road vehicle travel paths. Vehicle travel paths shall be offset to minimize visual as well as soil/water impacts. To the maximum extent feasible, the applicant shall offset side-by-side all off-road vehicle traffic (buggies and ATVs) over a 50-foot wide swath on either side of the staked seismic line, so that one vehicle does NOT drive the same path as another vehicle to prevent the creation of trails or two-track roads.
2. Maintaining visual quality of fences. When crossing fences, crews shall use gates whenever possible and shall notify the AO or his/her designated representative if fences need to be cut for access. All fence crossings where fences are cut shall be rebuilt and stretched back to original conditions immediately after crossing to minimize impacts to visuals and livestock containment.
3. Slope limitation for wheeled vehicles. In order to minimize visual impacts as well as to minimize impacts to soil/water, no off-road drill buggy or ORV operations will be conducted in areas containing slopes greater than thirty percent (30%).
4. Suspending operations during wet conditions. Use of roads, other than those adequately protected by an all weather surface, shall be prohibited when the road prism is wet to prevent visual impacts and impacts to soil/water caused by rutting and gullyng. Use of maintained roads may be necessary to move/evacuate personnel when wet, and if rutting in excess of that analyzed occurs, such roads will be rehabilitated as soon as practical thereafter. These conditions generally occur from late March to late June, but can occur at any time of the year.

The AO or his/her designated representative will temporarily suspend operations requiring ground-based vehicles when these conditions exist.

5. Rehabilitation. Roads or areas damaged by vehicle use shall be rehabilitated to minimize visual impacts in accordance with specifications established by the AO or his/her designated representative.
6. Drill hole cuttings. Hand raking of topsoil and the remaining cuttings at drill holes shall be conducted to minimize visual impacts as determined by the AO or his/her designated representative.
7. Raking of tracks. Driving of any wheeled vehicles in areas void of vegetation and having soils where tracks could be long-lasting (i.e. bentonite) shall be avoided, or the area hand-raked immediately after use to reduce the visual impact. Buggy drill operators shall approach open road and trail crossings at reduced angles to make tracks less noticeable to recreationists. When deemed necessary by the AO or his/her designated representative, all visible vehicle tracks departing from existing roads shall be raked out to the original contour to disguise the seismic lines and discourage use by off-road vehicles (ORVs).
8. Signing/barricading line entry points. In order to discourage the future use of seismic lines for unauthorized ORV/ATV travel, signs and barricades shall be placed at access points to seismic lines as deemed necessary by the AO or his/her designated representative. Natural barriers such as rocks and/or dead vegetation will also be used to the extent available in place of signs and/or artificial barriers.

Wastes (Hazardous or Solid) Requirements/Reporting

1. Storage. Storage of fuel and lubricants shall be temporarily stored in transportable containment trailers at locations within staging areas to minimize potential for accidental releases/spills.
2. Hazardous waste spills. Major hazardous waste spills shall be reported immediately to the AO or his/her designated representative, and the applicant shall clean up spills in accordance with all applicable regulatory guidelines and as outlined in the applicant's Emergency Response/Contingency Plan, which is on file with the BLM.
3. Minor spills. All spills or leaks of diesel fuel, hydraulic fluid, lubricating oil, and coolant, including contaminated soil material, shall be excavated to an appropriate container and transported to an approved disposal site.
4. Site cleanup. The applicant shall clean up all project lath, flagging, solid waste, and incidental trash as operations proceed through an area. The collected trash shall be hauled to a WDEQ approved disposal site.

Water Quality Protection - Ground Water

1. Shot hole offset distance. Shot holes shall be located a minimum of one-quarter (1/4) mile away from any water well, flowing spring, reservoir or stock water pipeline regardless of ownership, in accordance with Wyoming Oil and Gas Conservation Commission (WOGCC) guidelines [Chapter 4, Section 6(r)(i)], unless written consent to encroach closer is obtained from the affected surface owner.

BLM has given permission to reduce this setback to 500 feet for water wells and springs and 100 feet for dams on federal lands.

2. Shot hole plugging. All shot holes shall be plugged in accordance with WOGCC rules and regulations, in order to prevent the potential interchange of surface and ground water.
3. Vibroseis offset distance. Vibroseis sites will be at least 200 feet from springs and water wells.
4. Vibroseis offset distance. Vibroseis sites will be at least 50 feet from dams.

Water Quality Protection - Surface Water

1. Shot hole offset distance. Surface-disturbing activities (i.e., shot hole drilling or ground vehicle use) shall not be conducted within 150 feet of the ordinary high water mark of live waters.
2. Stream crossings. All vehicle stream crossings will be designated and approved by the AO or his/her designated representative prior to use. All stream crossings will be selected to minimize streambed and bank damage.
3. Crossing washes. Washes or alluvial valleys shall not be crossed if water is visible in the channel.
4. Water sources. Water shall be collected from the closest approved source as needed, as approved by the appropriate onsite designated agency representative.
5. Vibroseis offset distance. Vibroseis sites will be at least 200 feet from springs and water wells.
6. Shot hole offset distance. Shot holes shall be located a minimum of 100 feet from dams.
7. Vibroseis offset distance. Vibroseis sites will be at least 50 feet from dams.

Wildlife Protection Requirements

1. Compliance with wildlife laws. The applicant shall observe all applicable wildlife restrictions. The applicant's crew members shall not harass, injure, or destroy wildlife within the project

- area. The applicant is responsible for ensuring that all crew members on duty adhere to all wildlife laws.
2. Helicopters and wildlife (also see helicopter section):
 - a. Wildlife disturbance. Helicopters shall not harass or disturb wildlife species to the maximum extent possible. This means helicopter pilots shall not go out of their way to observe or photograph wildlife; helicopter pilots shall take deliberate evasive action to avoid wildlife when observed, even if the possibility of disturbance is minimal.
 - b. Helicopter coordination. Helicopter landing, loading, and staging areas, as well as flight lines, shall be coordinated with the AO or his/her designated representative to insure public safety and to minimize wildlife disturbance prior to use.
 - c. Flight hours. All geophysical exploration operations using helicopters shall be limited to the time period from 1 hour after sunrise to 1 hour before sunset to minimize disturbance to wildlife and humans. The excluded crepuscular hours represent important wildlife activity periods.
 3. Raptor nests. No vehicle activities shall occur within 220 feet (1 receiver station) of an occupied raptor nest, and helicopters shall avoid direct over flights of unoccupied raptor nests to protect their structural integrity. No vehicle, drilling, or helicopter activities shall be conducted within three quarter (3/4) mile or the visual horizon (whichever is closer) of active nests during the July 1 to July 31 time period, in accordance with CRA RMP ROD (Raptor Decisions). Flights shall be rerouted around nest sites if they were occupied. The applicant shall have surveys conducted by qualified biologists to determine the status of nests present within the project area prior to conducting any ground or aerial activities within three quarter mile of any nest location during the restricted period.
 4. Sagebrush protection. To protect wildlife cover, vehicle routes shall, to the maximum extent practicable, avoid stands of tall sagebrush. Responsibility for this avoidance falls primarily on the survey crew. Stands of tall sagebrush are defined as areas in which the majority (more than 50%) of sagebrush plants are 18 inches or taller. Where sagebrush cannot be avoided the staggered formation for vehicles is preferred.
 5. Mountain plover/long-billed curlew nesting/brood rearing habitat. No geophysical exploration operations shall be conducted within one-quarter (1/4) mile of any active nests during the nesting season from April 10 through July 10. Should activities in suitable mountain plover/long-billed curlew habitat occur prior to July 10, the applicant shall have field surveys conducted by a qualified biologist, as necessary, to identify active nests for avoidance.
 6. Prairie dog protection. Shot holes shall not be drilled within 50 feet of known prairie dog burrow locations or within active colonies.

7. Sage grouse. Surface use is prohibited within a 2-mile radius of sage grouse leks from February 1 through July 31; as mapped on the Cody Field Office GIS database in order to protect sage and sharp tailed grouse nesting sites.
8. Burrowing owl. To protect important burrowing owl nesting habitat, activity or surface use will not be allowed from April 15 to August 15 within ¼ mile of active burrows.
9. Exception, waiver, or modification. Exception, waiver, or modification of limitations in any year may be approved in writing including documented supporting analysis, by the AO.
10. Timing restriction exceptions. If the proponent wishes to conduct surveys to verify presence or absence of wildlife species protected by timing stipulations; timing stipulations may be waived if the species is not present in the project area, as verified by the surveys.

Wild Horse Protection Requirements

1. Compliance with the Wild Horse and Burro Act. The applicant shall observe all applicable wild horse restrictions. The applicant's crew members shall not harass, injure, or destroy wild horses within the project area. The applicant is responsible for ensuring that all crewmembers on duty adhere to all wild horse laws, acts, or stipulations. Wild horses are federally protected and citations will be issued as appropriate.
2. Avoidance. Low-level flights over horses are prohibited unless absolutely necessary (eg., safety, accidents, etc.); the AO or his/her designated representative will be notified immediately of this type of incident. The pilot should allow for a minimum ½ mile buffer from helicopter to horse. If the helicopter causes the horses to run, the buffer may be increased. Helicopter flights are allowed only in the project area and outside the HMA (also see the Helicopter Operation Requirements).
3. Aerial operations. Aerial operations will be conducted in a manner that will minimize stress levels. Avoid unnecessary displacement and agitation of the horses and potential separation of small foals from their mares. Overall avoidance of the horse bands is the key.
4. When helicopter use is not appropriate. If helicopter activities are found incompatible with wild horses, use of foot, truck, or ATV may be substituted.
5. Helicopter flights. Helicopter flights will not begin until after July 15th, which is the nationally recognized end of the foaling season. However, this specific HMA may still have foaling mares.

APPENDIX C

Key Issues and Concerns Identified During the Scoping Period

KEY ISSUES AND CONCERNS IDENTIFIED DURING THE SCOPING PERIOD

ISSUE	BRIEF DESCRIPTION OF ISSUE	WHERE IS ISSUE ADDRESSED IN EA
Comments by Specific Resource Component		
Air Quality	Consider air, light, noise and water pollution	Chapter 3, Section 3.2.1; Appendix B
Cultural and Paleontological Resources	Potential impact to the Bridger Trail	Chapter 3, Section 3.3.1; Chapter 4, Section 4.2.1; Appendix B
	Protection of prehistoric cultural sites and artifacts	Chapter 3, Section 3.3.1; Chapter 4, Section 4.2.1; Appendix B
	Minimize damage to Willwood Formation	Chapter 3, Section 3.3.1; Chapter 4, Section 4.2.1; Appendix B
Fisheries	Potential impacts to native fish species	Not addressed as native fish species will not be impacted by project related activities
Geology and Minerals	No specific issues identified	Not applicable
Range Management	Interruption of livestock grazing	Chapter 3, Section 3.5.1; Chapter 4, Section 4.4.1; Appendix B
Invasive, Non-Native Species	Introduction and spread of weeds	Chapter 3, Section 3.5.2; Chapter 4, Section 4.4.2; Appendix B
Public Health and Safety	Increase awareness of hazards to the public	Chapter 2, Section 2.2.2.1; Appendix B
	Maintain safe working conditions in storage areas, particularly fuel storage	Chapter 2, Section 2.2.2.2; Appendix B
	Potential contamination from human waste	Appendix B
	Use of explosives	Chapter 2, Section 2.2.2.1; Appendix B
Recreation	Consider SRP/touring groups - give them alternative routes during geophysical activities	Outside the scope of this document
	Consider a study of recreation money verses oil and gas royalties	Outside the scope of this document
	Effects on hikers, mountain bikers and wild horse viewers during this tourist season	Chapter 3, Section 3.6; Chapter 4, Section 4.5; Appendix B
	Effects on area tourism	Outside the scope of this document
Soils	Minimize or do not allow damage to fragile soils	Chapter 3, Section 3.7; Chapter 4, Section 4.6; Appendix B
	Minimize impacts to soils from creation of new roads and two-track trails	Chapter 2, Section 2.2.7; Chapter 4, Section 4.4.1; Appendix B
	Potential contamination from equipment (oil/hydraulic) fluids	Appendix B
	Use wooden geo-mats for roads in sensitive soils	Not practical and outside the scope of this document
Vegetation	Consider reseeding all roads and two-track trails when done	Appendix B
Visual Resources	Effects of geophysical activity on open spaces and the aesthetics of the area	Chapter 3, Section 3.2.3
	Impacts in a Class II VRM area	Chapter 3, Section 3.2.3
	Potential impacts to the visual integrity of the area	Chapter 3, Section 3.2.3
Water Quality	Consider air, light, noise and water pollution	Chapter 3, Sections 3.2.1 and 3.2.4; Appendix B
	Potential contamination of surface water sources	Chapter 3, Section 3.2.4; Appendix B
Wetland/Riparian Habitat	Potential impacts to riparian areas	Chapter 3, Section 3.2.5; Appendix B

KEY ISSUES AND CONCERNS IDENTIFIED DURING THE SCOPING PERIOD

ISSUE	BRIEF DESCRIPTION OF ISSUE	WHERE IS ISSUE ADDRESSED IN EA
Comments by Specific Resource Component- Continued		
Wetland/Riparian Habitat	Potential impacts to water sources including ephemeral drainages	Chapter 3, Section 3.2.5; Appendix B
Wilderness Study Area	No seismic exploration in the McCullough Peaks WSA	Chapter 3, Section 3.2.6
	Maintain the wilderness characteristics of the McCullough Peaks WSA	Chapter 3, Section 3.2.6
Wild Horses	Consider cleaning and filling existing earthen reservoirs in the project areas	Chapter 2, Section 2.4.1; Chapter 4, Section 4.8.1
	Create buffer area/zones around foaling and rearing areas (i.e., safe zone)	N/A: Intensive geophysical activities will not be conducted during the foaling season
	Potential impacts to wild horse habitat and loss thereof	Chapter 4, Section 4.8
	Potential impacts to pregnant mares during foaling season	N/A: Intensive geophysical activities will not be conducted during the foaling season
	Potential for injury to or death of wild horses	Appendix B
	Provide alternate water sources during geophysical operations	Chapter 2, Section 2.4.1; Chapter 4, Section 4.8.1
	Restrict commercial wild horse tours during geophysical activities	Separate action – outside the scope of this document
	Consider addressing appropriate AML with the loss of habitat as a result of this project	Outside the scope of this document
Wildlife	Effects of geophysical activities on sage grouse breeding and nesting	Chapter 4, Section 4.9.1.2
	Potential for habitat fragmentation	N/A: no surface disturbance = no habitat fragmentation
	Potential impacts to big game parturition	N/A: intensive geophysical activities will not be conducted during the foaling season
	Potential impacts to pronghorn habitat including winter range	N/A: no mapped crucial big game winter range in the RP3DSS project area
	Potential impacts to migratory birds	Chapter 4, Section 4.9.1.3
	Potential impacts to nesting raptors	Chapter 4, Section 4.9.1.1; Appendix B
Non-Specific Comments		
BMP's and Mitigation	BLM should ensure enforcement of/compliance with BMP's, stipulations and mitigation measures	Appendix B
	Use USDA/USFS BMP's	Appendix B
BCA Proposed Wilderness Area	Potential Impacts to Wilderness (Study) Area proposed by BCA	Chapter 3, Section 3.2.7
Geophysical Activity	Do not allow seismic activity in this area	Outside the scope of this document
Oil/Gas Drilling	Impacts of drilling on McCullough Peaks area and wild horses	No oil/gas drilling proposed - outside the scope of this document
	Require directional drilling from a single well pad	No oil/gas drilling proposed - outside the scope of this document
Renewable Energy	Consider renewable energy instead of oil and gas exploration	Outside the scope of this document
Survey/Pre-work	Explain casual use and the Cody Field Office's interpretation of casual use	See definitions contained in 43 CFR § 3150.0-5

APPENDIX D

Descriptive Photographs of Various Project Components



Photo #1: Typical vibrator buggy in operation.



Photo #2: Vibrator buggies working in a staggered formation.



Photo #3: Vibrator buggies working.



Photo #4: Vibrator buggies working in formation - notice light tracks behind.



Photo #5: Vibroseis source generation activities – sagebrush crushing after one pass.



Photo #6: Buggy drill moving down existing two-track trail.



Photo #7: Typical buggy drill.



Photo #8: Heli-portable drilling equipment at staging area.



Photo #9: Aerial delivery of heli-portable drills to shot point.



Photo #10: Self-leveling portable drill rig with “lip” for stabilization.

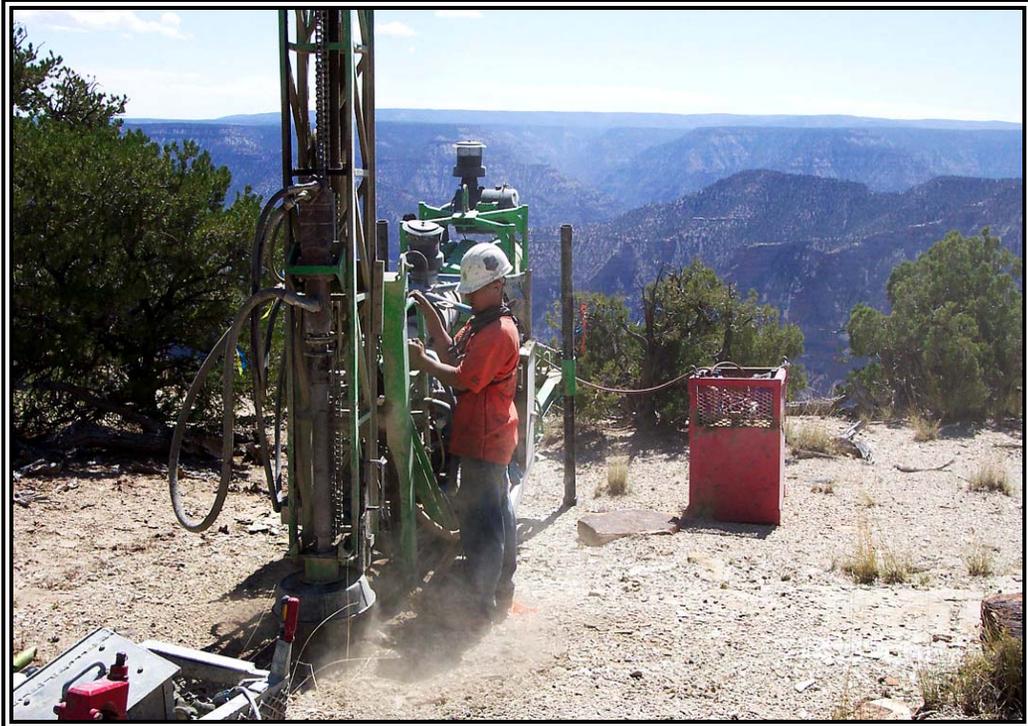
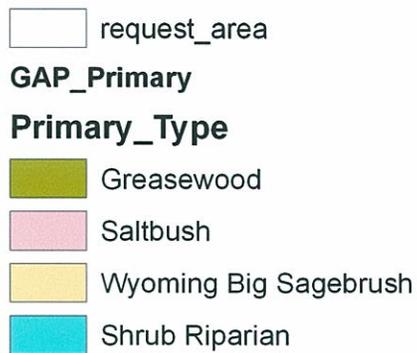
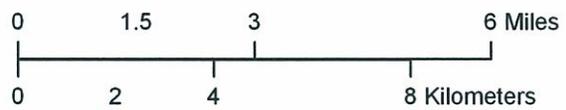
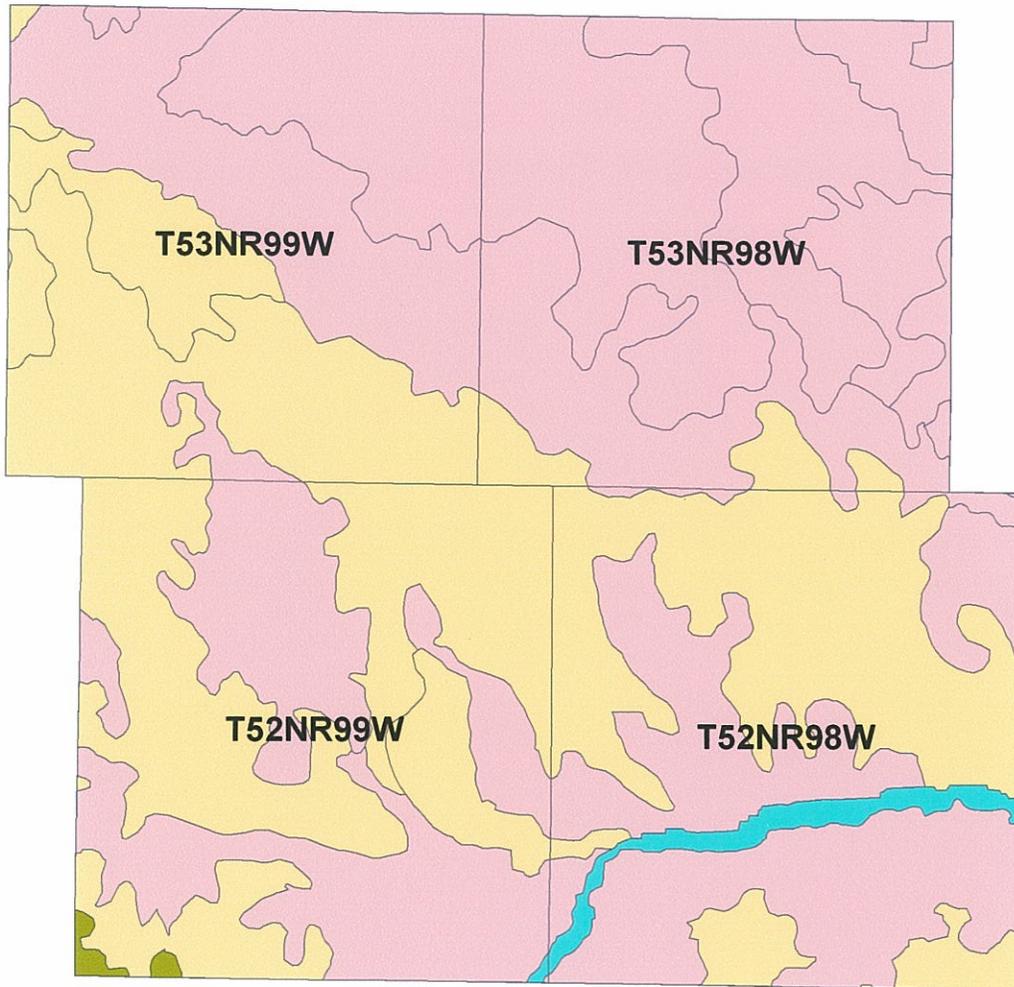
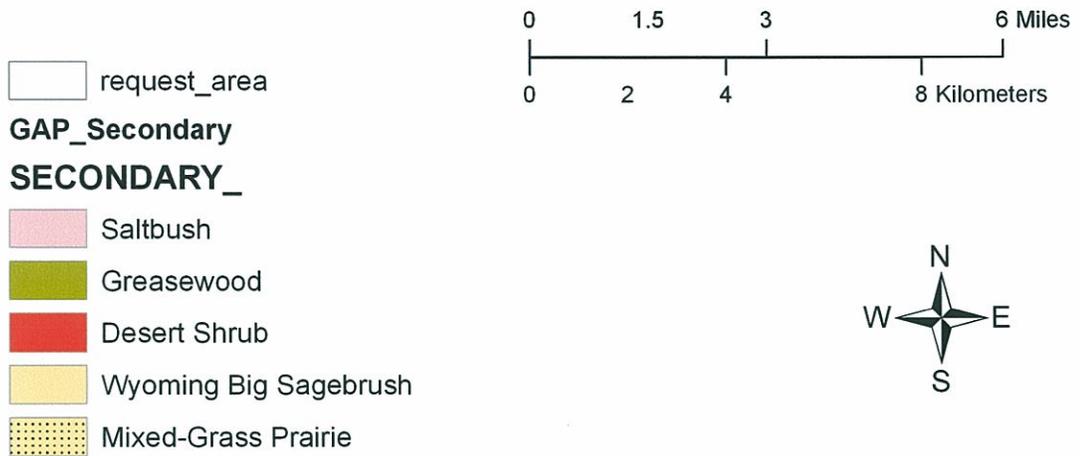
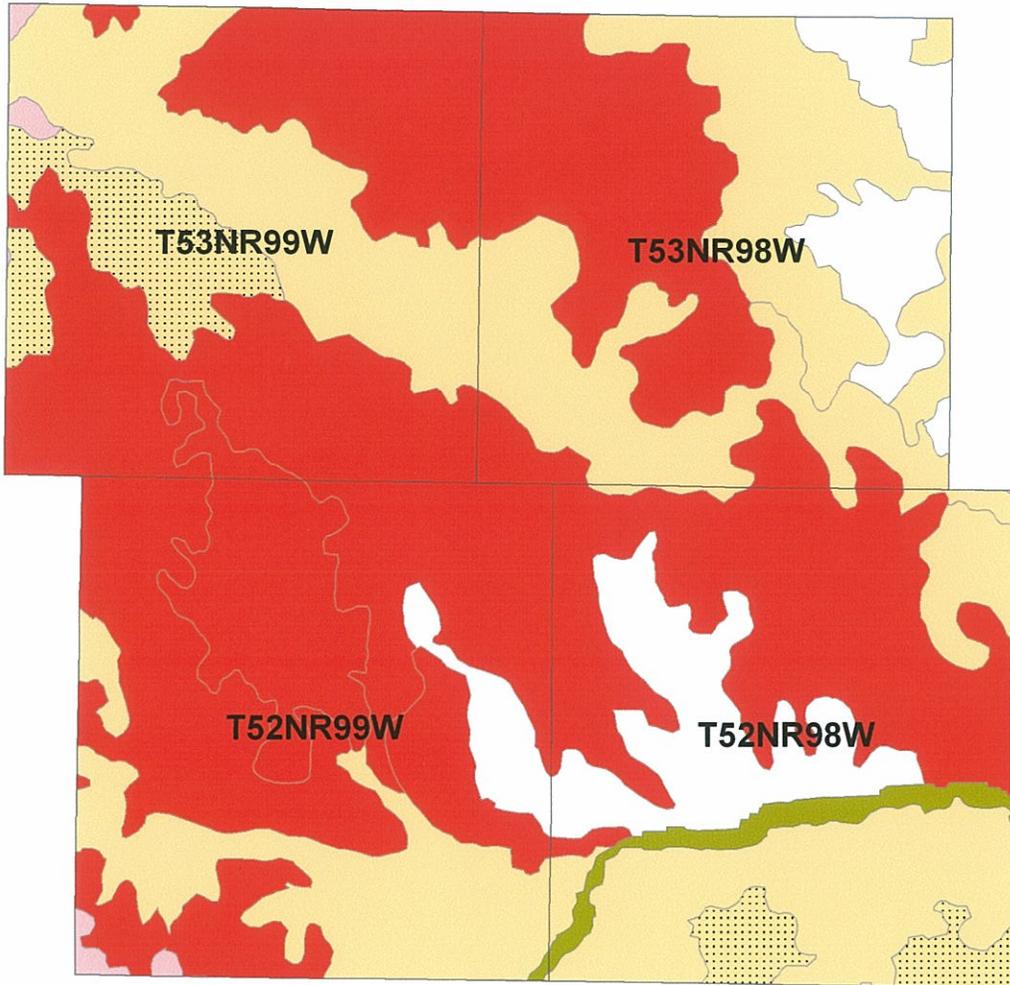


Photo #11: Portable drilling operations underway.

APPENDIX E

Wyoming GAP Analysis Cover Types for the Project Area





APPENDIX F

Monitoring Plan

MONITORING PLAN

Bill Barrett Corporation Red Point 3-D Seismic Survey Project

Overview and Administration

Monitoring is conducted to ensure that mitigative/protective measures discussed and analyzed in the Environmental Assessment (EA) as part of the proposed action (e.g., project design features, stipulations and/or terms and conditions of NOI approval) are implemented in the field.

Monitoring is also helpful for the project proponent, in that it will allow for on-site communication with the BLM on a regular basis should questions arise concerning the practical application of the mitigative/protective measures.

Agency representatives (CYFO-BLM), would inspect a portion of receiver lines, source lines and access routes during all phases of the project (including geophone placement, shot hole drilling and subsequent source acquisition). They would also monitor staging areas, helicopter use, wheeled vehicle use, vibroseis use, safety procedures, and other aspects of the operation (sanitation, communications, etc.).

The following monitoring measures will be undertaken as a framework for compliance during the seismic project:

1. At least one BLM designated representative will perform monitoring duties during work hours each day, seven days a week during operations until project completion and rehabilitation is completed.
2. Monitoring will be at the discretion of the Authorized Officer (AO) based on project status and resource risk.
3. While performing monitoring duties, each BLM designated representative will retain a copy of the NOI with the mitigative/protective measures. A copy of the Project Design Features from the EA will also be required during monitoring.
4. Each employee performing monitoring will write a monitoring report for the administrative file, for each day they monitor. The report should describe daily observations, problems, solutions, and any other items of note.
5. A BLM uniform will be worn by the BLM designated representative while performing field monitoring.

Monitoring Goals

Goals of project monitoring are geared towards:

- 1) operator compliance,
- 2) protection of public land resources, and
- 3) the improvement of future decision making.

Monitoring will also serve to foster innovative approaches for the resolution of operational issues should any develop during geophysical operations.

Goals are as follows:

1. Adequate communication, coordination and immediate correction of any unacceptable performance during seismic operations.
2. The agency representative will be familiar with the seismic project manager, permit agent and/or company representative. They will also have knowledge of the project area, access roads, restricted areas, and potential problem areas by requiring a brief on-the-ground tour of the project area prior to the start of operations.
3. The agency representatives should be in attendance and participate in planning/safety meetings during project operations.
4. The agency representatives should follow the same rules (terms and conditions of the NOI) as the operator.
5. Key road/line crossings and other key resource issues will be photographed; before and after.
6. Particular attention will be paid to the interaction between project helicopters and wild horse behavior.