



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652
www.co.blm.gov

CATEGORICAL EXCLUSION

NEPA LOG NUMBER: DOI-BLM-CO-N040-2011-0088-CX

Background

BUREAU OF LAND MANAGEMENT (BLM) OFFICE: Colorado River Valley Field Office (CRVFO), Silt, Colorado

CASEFILE/PROJECT NUMBER:

COC0001523 (Oil & Gas Lease)	COCC33291 (Oil & Gas Lease)	COC059136 (Oil & Gas Lease)
COC027823 (Oil & Gas Lease)	COC064157 (Oil & Gas Lease)	COC058670 (Oil & Gas Lease)
COC023443 (Oil & Gas Lease)	COC067090 (Oil & Gas Lease)	

PROPOSED ACTION TITLE/TYPE: Proposal to Conduct Geophysical Operations on Federal Surface and/or Minerals near the Pete & Bill Creek Area Authorized by Notice of Intent and Authorization to Conduct Oil and Gas Geophysical Exploration Authorizations (NOI).

LOCATION OF THE PROPOSED ACTION: Township 7 South (T7S), Range 96 West (R96W), Section 36; T7S, Range 96 West (R95W), Sections 31, 32, 27, and 28; Township 8 South (T8S), R95W, Sections 1, 5, 6, 7, 8, 16, 17, 18, 19, and 20; T8S, R96W, Sections 1, 13, and 14, Sixth Principal Meridian. Exploration would occur on Federal surface and private surface with underlying Federal minerals. Figure 1 is a project location map.

APPLICANT: Noble Energy, Inc.

DESCRIPTION OF PROPOSED ACTION: Noble Energy Piceance seismic program is being undertaken to better characterize the subsurface structure of the rock formations that have prospective for oil and gas development on Noble energy leases and minerals in the 3D seismic area (see Figure 1).

Noble's proposal for 3D work includes using a vibroseis energy source on the open farmed and ranch lands on the western end of the project area and shot hole dynamite as an energy source on the Federal lands and where appropriate on other lands due to accessibility. The shot hole work should require 2 to 3 months beginning in the mid to late summer to drill the required shot holes. The proposed timeframe would be Fall 2011. Availability of shot hole drilling rigs could affect the start date and time needed to drill each hole approximately 60 feet deep. The recording operations would take approximately 2 to 4 weeks and partially overlap with the time the shot holes are being drilled. Shot hole drilling would be conducted predominately using heliportable drilling rigs to reduce the impacts on the surface but also because most of the area is only accessible with heliportable operations.

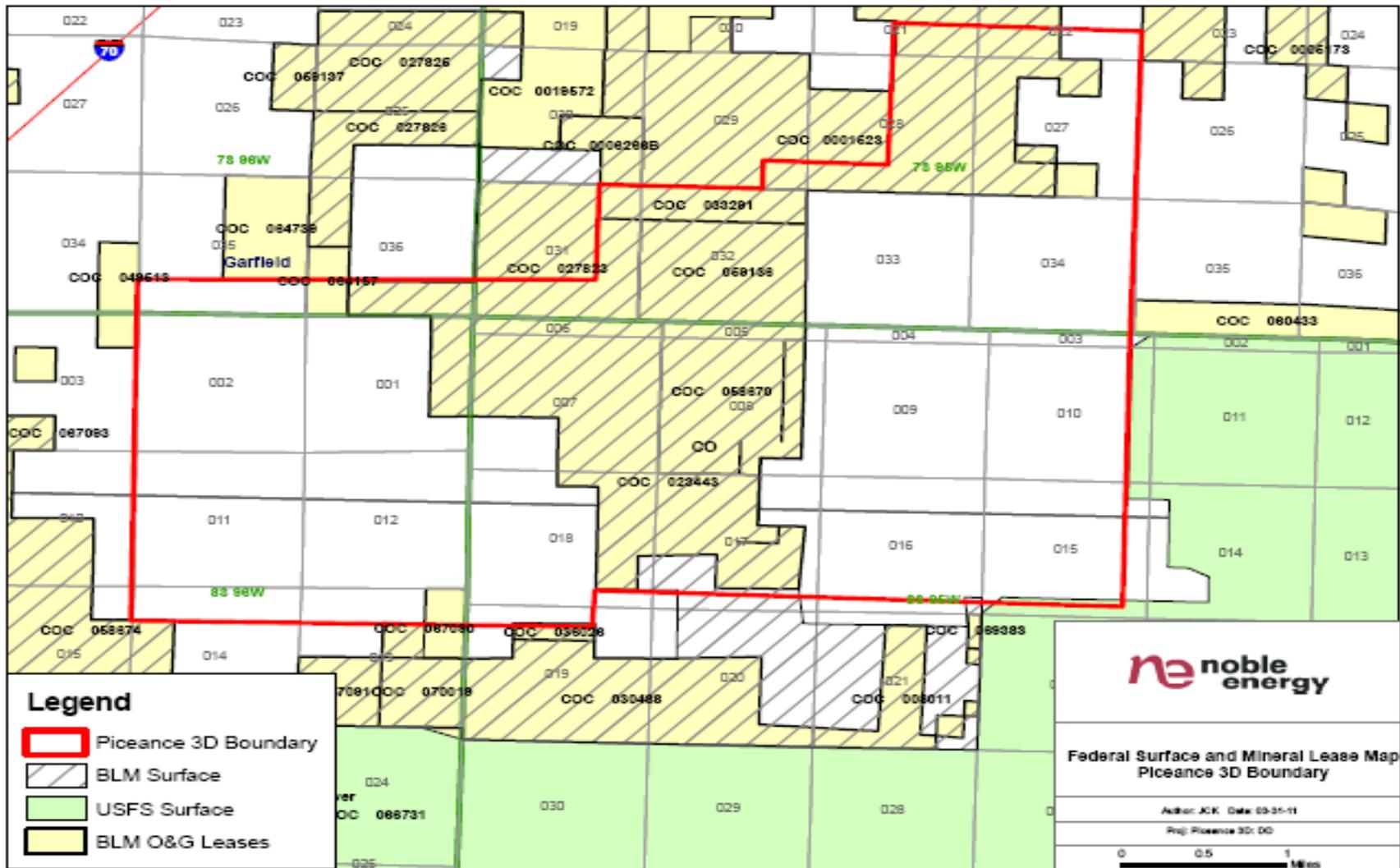


Figure 1. Location Map for Noble 3D Seismic Project

Survey Type

The proposed 3D survey grid design would have parallel receiver lines running north-south and source (shot hole and vibroseis) lines running east to west. The project would involve three phases. During the first phase, surveyors would survey specific locations of predetermined source points (along source lines) and geophone receiver points (along receiver lines). In the event there are identified locations (e.g., archaeological sites) that must be avoided, the locations are surveyed in and seismic survey locations are moved. Second phase begins after the NOI is approved. Crews would begin the drilling work within the project area. The last phase, once drilling is far enough along or completed, seismic crews mobilize to the project location and begin laying out equipment to start the recording phase of the project.

Survey Methods

Recording operations would take approximately 2 to 4 weeks and would partially overlap with the time that shot holes are being drilled. Drilling operations and recording operations would occur 7 days a week during daylight hours. Surveying would be by foot with transportation on existing roads or by helicopter if needed. Drilling would be primarily heliportable, with some buggy drilling where accessible. Recording operations would be helicopter supported and deployed.

Transport Methods

During drilling operations, traffic in the area would be light, to and from a staging area at the beginning and end of the day with light pick-ups. Most travel within the project area would be via helicopter with limited travel on established roads. During recording operations, there would be more traffic in the general area of the survey, but travel within BLM administered lands would still be mostly on foot with helicopter support for the deployment of recording equipment.

Operation Procedures

The shot hole drilling would predominantly be done using heliportable drilling rigs. This would be done to reduce the impact on the surface lands and because in some areas this would be the only access available. Helicopters would be staged off of Federal surface while going to and from pick-up locations. Buggy drill rigs may be used for limited operations if the terrain and access allow for their use.

Heliportable shot hole rigs would have a small impact on the surface lands. The shot holes to be drilled would be roughly 60-feet deep and 3-inches in diameter. All shot holes would be backfilled with cuttings from the hole once the charge is loaded. Extra cutting would be dispersed over the surface to reduce impact of any cuttings on the surface lands. The shot hole rigs themselves should only leave temporary disturbance by crushing vegetation but not uprooting any vegetation.

No camps, powder magazines, or helipads would be located on Federal lands. No new construction of roads and/or trails would occur. All trash would be removed from surface, both Federal and private, along with recording equipment at the end of the project.

Land Use Plan Conformance

The Proposed Action is subject to and has been reviewed for and is in conformance with (43 CFR §1610.5 and § 2800, BLM 1617.3) the following plan:

Land Use Plan (LUP) Name: The current land use plan is the *Glenwood Springs Resource Management Plan* (RMP) (BLM 1984, revised 1988). Relevant amendments include the *Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan* (BLM 1991) and the *Oil & Gas Leasing & Development Record of Decision and Resource Management Plan Amendment* (BLM 1999).

Date Approved/Amended: *Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan* (BLM 1991) – approved November 27, 1991; *Oil & Gas Leasing & Development Record of Decision and Resource Management Plan Amendment* (BLM 1999) – approved March 24, 1999.

Determination of Conformance: The 1991 plan amendment for oil and gas (BLM 1991) included the following at page 3: “697,720 acres of BLM-administered mineral estate within the Glenwood Springs Resource Area (GSRA) are open to oil and gas leasing and development, subject to lease terms and (as applicable) lease stipulations” (BLM 1991, page 3). This decision was carried forward into the 1999 plan amendment for oil and gas. The 1999 plan amendment for oil and gas (BLM 1999) included the following at page 15: “In areas being actively developed, the operator must submit a Geographic Area Proposal (GAP) that describes a minimum of 2 to 3 years of activity for operator controlled leases within a reasonable geographic area.” The 1999 plan amendment for oil and gas (BLM 1999) included the following at page 2-4: “The BLM transfers to the lease holder the right to explore and develop all the oil and gas resources, subject to the stipulations attached to the lease” (BLM 1999, page 2-4). Exploration activities are provided for under the current plans and amendments above for the public domain lands involved. The action would not result in land use allocation decisions and would not limit the choice of reasonable alternative actions relative to the land use decisions being examined. Therefore, the project conforms to the current LUP, as amended.

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) (replacing the previous list of the BLM CXs at 516 DM 11.5). “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 CX may be used for compliance with NEPA when analyzing Notices of Intent to Conduct Geophysical Exploration (NOI). Instruction Memorandum (IM) No. 2009-044 establishes policy and provides guidance to BLM for the new geophysical exploration Categorical Exclusion (CX) finalized August 14, 2007. This CX is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The Proposed Action has been reviewed, and none of the extraordinary circumstances described in 516 DM 2 applies (Table 1). Any “Yes” answers in Table 1 preclude use of the CX.

Table 1. Extraordinary Circumstances		
1. May have significant impacts on public health and safety.	Yes	<u>No</u>
2. May have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild and scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 119880; national monument; migratory birds; and other ecologically significant or critical areas.	Yes	<u>No</u>
3. May have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA Section 102 (2) (E)).	Yes	<u>No</u>
4. May have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.	Yes	<u>No</u>

Table 1. Extraordinary Circumstances		
5. May establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.	Yes	<u>No</u>
6. May have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.	Yes	<u>No</u>
7. May 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.	Yes	<u>No</u>
8. May 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.	Yes	<u>No</u>
9. May violate a Federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment.	Yes	<u>No</u>
10. May have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).	Yes	<u>No</u>
11. May 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).	Yes	<u>No</u>
12. May contribute to the introduction, continued existence, or spread of noxious weed 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).	Yes	<u>No</u>

Persons and/or Agencies Consulted

Judi Kohn, Noble Energy, Inc.

Interdisciplinary Review

BLM staff from the CRVFO listed in Table 2 participated in the preparation of this SCX, including review of survey results submitted by the Operator’s consultants, evaluation of impacts likely to occur from implementation of the Proposed Action, and identification of appropriate COAs.

Table 2. BLM Interdisciplinary Team Authors and Reviewers		
<i>Name</i>	<i>Title</i>	<i>Areas of Participation</i>
DJ Beaupeurt	Realty Specialist	Right-of-Ways, Realty Actions
Beth Brenneman	Ecologist	Invasive Non-native Species, Special Status Plants, Vegetation
John Brogan	Archaeologist	Cultural Resources, Native American Religious Concerns
Allen Crockett, Ph.D.	Supervisory NRS/Phys. Sci.	NEPA Review
Shauna Kocman, Ph.D.	Hydrologist	Air Quality, Noise, Soils, Surface Water, Waters of the U.S.
Julie McGrew	Natural Resource Specialist	Visual Resources
Sylvia Ringer	Wildlife Biologist	Migratory Birds, Special Status Species, Aquatic and Terrestrial
Rebecca Rutan	Natural Resource Specialist	Project Lead, Access & Transportation, Range Management, Socio-Economics
Todd Sieber	Geologist	Geology and Minerals, Groundwater, Paleontology

The Proposed Action was presented to the Colorado River Valley Field Office interdisciplinary team on June 22, 2011.

Remarks/Mitigation: Conditions of approval to be attached to the individual NOI are listed in Attachment A.

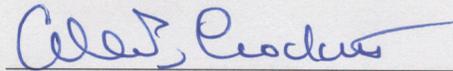
Name of Preparer: Rebecca Rutan, Natural Resource Specialist

Date: June 22, 2011

Decision and Rationale: I have reviewed this categorical exclusion record and have decided to implement the Proposed Action.

I have reviewed Section B, Land Use Plan Conformance, and Section C, Compliance with NEPA, and have determined that the Proposed Activity is in conformance with the applicable land use plan(s) and referenced NEPA documents. This action is listed in the Department Manual as an action that may be categorically excluded. I have evaluated the action relative to the 12 criteria listed above and have determined that it does not represent an exception and is, therefore, categorically excluded from further environmental analysis.

Signature of Authorized Official:


Supervisory Natural Resources Specialist

Date Signed: 10-24-11

Surface-Use Conditions of Approval DOI-BLM-CO-N040-2011-0088-CX

1. Administrator Notification. The operator shall contact the Field/District Office at least 48 hours prior to the start of the project to schedule a pre-work conference. The crew supervisor and additional crew chiefs (if needed) will attend the pre-work conference to discuss the terms and conditions for this operation.
2. Cultural Education/Discovery. All persons in the area who are associated with this project shall be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons will be subject to prosecution.

Pursuant to 43 CFR 10.4(g), the BLM authorized officer shall be notified by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (c) and (d), activities shall stop in the vicinity of the discovery, and the discovery shall be protected for 30 days or until notified by the BLM authorized officer to proceed.

If in connection with operations under this contract, the operator, its contractors, their subcontractors, or the employees of any of them discovers, encounters, or becomes aware of any objects or sites of cultural value or scientific interest such as historic ruins or prehistoric ruins, graves or grave markers, fossils, or artifacts, the operator shall immediately suspend all operations in the vicinity of the cultural resource and shall notify the BLM authorized officer of the findings (16 USC 470h-3, 36 CFR 800.112). Operations may resume at the discovery site upon receipt of written instructions and authorization by the BLM authorized officer. Approval to proceed will be based upon evaluation of the resource. Evaluation shall be by a qualified professional selected by the BLM authorized officer from a Federal agency insofar as practicable. When not practicable, the operator shall bear the cost of the services of a non-Federal professional.

Within five working days, the BLM authorized officer will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- what mitigation measures the holder will likely have to undertake before the site can be used (assuming that *in-situ* preservation is not necessary)
- the timeframe for the BLM authorized officer to complete an expedited review under 36 CFR 800.11, or any agreements in lieu thereof, to confirm through the SHPO State Historic Preservation Officer that the findings of the BLM authorized officer are correct and that mitigation is appropriate

The operator may relocate activities to avoid the expense of mitigation and delays associated with this process, as long as the new area has been appropriately cleared of resources and the exposed materials are recorded and stabilized. Otherwise, the operator shall be responsible for mitigation costs. The BLM authorized officer will provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM authorized officer that the required mitigation has been completed, the operator will be allowed to resume construction.

Antiquities, historic ruins, prehistoric ruins, and other cultural or paleontological objects of scientific interest that are outside the authorization boundaries but potentially affected, either directly or

indirectly, by the Proposed Action shall also be included in this evaluation or mitigation. Impacts that occur to such resources as a result of the authorized activities shall be mitigated at the operator's cost, including the cost of consultation with Native American groups.

Any person who, without a permit, injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law (16 USC 433, 16 USC 470, 18 USC 641, 18 USC 1170, and 18 USC 1361).

3. Rights-of-Way. The operator will obtain permission from right-of-way holders prior to drilling and setting charges within authorized limits of the rights-of-way.
4. Access and Transportation. Existing routes and trails will be used to the maximum extent possible. The heliportable drill or other BLM approved technique will be used on the areas with steep slopes and rough terrain. Attempts to traverse irregular, soft, or steep slopes and terrain by all vehicles and equipment shall be kept to a minimum to avoid excessive rutting, soil erosion, excessive crushing of vegetation, and excessive visual impacts. Vehicular travel along the flagged lines will be kept to a minimum and be in a zigzag pattern between source points to reduce straight line disturbances. This procedure does not apply to vehicles following trails or roads.

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. Staging Areas. The staging area(s) will be situated with good, safe access to county roads or state highways. The fuel truck for the helicopter will also be utilized at the staging area(s).

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. Road Construction. Roads will not be constructed for geophysical projects authorized under a categorical exclusion.
7. Maintenance of Existing Range Improvements. 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, after equipment has passed through.
8. Reclaiming Shot Holes. Shot holes will be backfilled and plugged, in accordance with state regulations, after they are loaded with the explosive charge. Any cuttings resulting from shot hole drilling and not used in backfilling the shot hole will be scattered about the immediate area to blend with natural terrain and reduce visual impacts.
9. Vegetation Removal. Geophysical equipment may encounter congested areas with trees requiring one or more trees to be removed and/or limbed. If such action is needed then the tree(s) and/or limb(s) shall be less than eight (8) inches at diameter breast height (dbh) or at the base of the branch. Trees to be cut or limbed which are located adjacent to public roads, communities, and/or public facilities shall be immediately cut into smaller pieces so that it is not aesthetically displeasing and dispersed within the immediate vicinity.

10. Reclamation. If soil is disturbed to the extent that erosion is likely or visual impacts are readily apparent, the disturbed areas shall be rehabilitated utilizing the following techniques:

- ✓ Ruts and vehicle tracks shall be filled with soil and/or obliterated by either hand raking or similar method. When completing this work, care shall be taken to minimize disturbance to surrounding lands that have not been disturbed. All areas where rehabilitation work is accomplished will be reseeded. Any and all tire tracks 100 feet or longer leading away from an established dirt or two-track road on public lands shall be hand raked to blend into the surrounding soil surface.
- ✓ A seed mix consistent with BLM standards in terms of species and seeding rate for the specific habitat type shall be used on all BLM lands affected by the project (see Attachments 1 and 2 of the latter provided to operators dated May 1, 2008). Note that temporary seeding no longer allows the use of sterile hybrid non-native species. For private surface, the menu-based seed mixes are recommended, but the surface landowner has ultimate authority over the seed mix to be used in reclamation. The seed shall contain no noxious, prohibited, or restricted weed seeds and shall contain no more than 0.5 percent by weight of other weed seeds. Seed may contain up to 2.0 percent of “other crop” seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended. Seed tags or other official documentation shall be submitted to BLM at least 14 days before the date of proposed seeding for acceptance. Seed that does not meet the above criteria shall not be applied to public lands.
- ✓ Seeding shall be conducted no more than 24 hours following completion of final seedbed preparation. The seed shall be certified pure live seed, and seed tags shall be available if requested by the authorized office. Certified weed-free seed shall be used to rehabilitate disturbed land.
- ✓ The seeded area shall be hand raked to ensure that seed is covered with approximately 0.25 to 0.5 inch of soil. This seeding should be accomplished during the late fall, in September or October, before moisture conditions become prohibitive.
- ✓ If interim revegetation is unsuccessful, the operator shall implement subsequent reseedings until interim reclamation standards are met.

11. Setbacks and Buffers: The operator will adhere to setbacks or “buffer zones” that are set forth in the following tables (Tables 3 and 4).

Table 3. Offset (in Feet) from Certain Objects								
Object	Pounds of Explosive Charge							
	0.5	1	2	3	5	6 - 10	11 - 15	16 - 20
Pipeline <6 in. diameter	50	100	150	150	200	250	300	400
Pipeline 6-12 in. diameter	75	150	200	200	300	400	500	600
Pipeline >12 in. diameter	100	200	250	250	300	500	600	800
Telephone Line	20	20	30	40	40	50	50	50
Railroad Track or Paved Highway	50	100	150	150	150	220	280	350
Electric powerline (Shot holes not to exceed 200 ft. depth)	75	100	200	200	200	200	250	300

Table 3. Offset (in Feet) from Certain Objects								
Object	Pounds of Explosive Charge							
Water wells, buildings, underground cistern, and similar objects	225	300	400	450	700	800	1,000	1,200
Brick and/or concrete block buildings	275	400	500	600	800	1,000	1,200	1,500
Producing oil and gas wells	250	450	600	700	800	900	1,000	1,000
Irrigation wells	500	800	1,000	1,200	1,500	2,000	2,500	2,500

Table 4. Minimum Safe Offset In Feet for Vibrator Truck Operations	
Structures	Distance (feet)
Residences, Buildings, Concrete Base Structures	300
Water Wells	350
Concrete Water Pipeline	100
PVC/Plastic Water Pipeline	20
Oil or Gas Well	250
Oil or Gas High Pressure Pipelines	30
High Voltage Power Lines	0
Local Transmission Power Lines	0

15. Riparian Areas. No equipment, only foot traffic laying receiver lines, will be used in swampy/wetland areas.
16. Migratory Birds. Visible migratory bird nests will be avoided and not disturbed.
18. Noxious and Invasive Weeds. All equipment will be power washed prior to entering Federal lands to help mitigate the spread of noxious plants.
19. Wildlife. In order to minimize watershed damage and disturbance to game animals utilizing important seasonal wildlife habitat, seismic activity will only be allowed during the period from May 15 to December 15. Exceptions to this limitation may be specifically approved by the authorized officer.
20. Fire Conditions. When fire conditions reach high, the helicopter, vehicles, and equipment will carry water, shovels, and other firefighting equipment to extinguish any fires that are accidentally started by the seismic operations.
21. Spill and Leakage Protection. If oil, lubricants and other petroleum or man-made products are accidentally spilled onto the ground surface, the BLM will be contacted and provided specific information about the spill and/or leak. Spills or leaks will be cleaned from the soil and any contaminated material will be bio-remediated or disposed of at an authorized landfill.
22. Removal of Materials. All flagging, lath, pin flags, and similar materials used in the seismic project will be removed from public land and disposed of at an authorized landfill.

23. Helicopter Operations. The helicopter used in this project shall be compliant with NFPA 407 as well as SPCC rules and shall have an engineer stamped SPCC Plan under which all refueling operations take place.

All non-certified, unnecessary personnel shall remain outside of the helicopter work area at all times.

The helicopter pilot shall contact the Grand Junction Fire Dispatch at 970-257-4800 and inform them of the flight plan and hours of operations so that Dispatch can inform other aircraft working in the area.

Appropriate Dispatch shall have constant communication with the pilot.

Appropriate Helicopter Safety and Operational Concerns Training shall be administered to all ground crews and other personnel working with the helicopter and in the vicinity of the helicopter. Evidence of such training shall be provided immediately upon request.

The altitude at which the helicopter will fly shall be determined by the appropriate interagency dispatch personnel since the area is used as an “air tanker transport route.”

Customer’s employees shall be trained to handle any “ground crew” jobs required (i.e. static electricity, multiple riggings, etc.). Documentation shall be provided for each trained employee.

A mechanic and a fuel truck shall be on-site during the use of the helicopter.

24. All Applicant-Committed Environmental Protection Measures documented in the applicant’s NOI will be complied with in addition to these terms and conditions.