



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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MANUAL TRANSMITTAL SHEET

Subject

H - 3150-1- ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION SURFACE MANAGEMENT REQUIREMENTS (PUBLIC)

CHANGE: This change is being added to the existing H-3150 Handbook for Onshore Oil and Gas Geophysical Exploration Surface Management Requirements. Under Insert please add Illustration 16, "Standard Terms and Conditions".

1. Explanation of Material Transmitted:
Illustration 16, "Standard Terms and Conditions", these requirements apply to all Notices of Intent to conduct geophysical operations utilizing a categorical exclusion for National Environmental Policy Act compliance.
2. Reports Required:
None.
3. Material Superseded
None.
4. Filing Instructions
File as directed below, immediately following Manual Illustration 15, "Example of an Inspection Notification Letter".

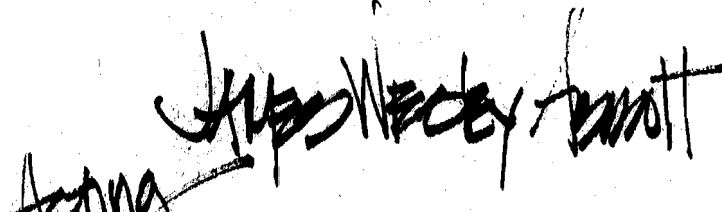
Remove:

None

Insert:

All of Illustration 16

(Total: 2 Sheets)

Acting

 Assistant Director,
 Minerals, Realty and Resource Protection

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Glossary of Terms

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Illustrations

1. Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations, Form 3150-4
2. Filing Procedures for Oil and Gas Geophysical Exploration on Public Lands
3. Sundry Notices and Reports on Wells, Form 3160-5
4. Terms and Conditions for Notice of Intent to Conduct Geophysical Exploration, Form 3150-4a
5. Model Format for Approval for Use of Earthmoving Equipment
6. Checklist for Oil and Gas Geophysical Exploration
7. Listing of ALMRS (Case Recordation) Data Element (DE) 2910 Action Codes Applicable to Geophysical Exploration in the Lower 48 States
8. Receipt of Notice of Intent Letter
9. Cultural Resource Procedures for Geophysical Operations
10. Resource Protection Offsets for Cultural Resource Structures and Other Facilities
11. Compliance Inspection for Oil and Gas Geophysical Exploration Operations
12. Request for Status of Operations
13. Notice of Completion of Oil and Gas Exploration Operations, Form 3150-5
14. Example of a Receipt of Notice of Completion Letter
15. Example of an Inspection Notification Letter

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I. Operator Filing Procedures. All oil and gas geophysical exploration operations on surface administered by the Bureau of Land Management (BLM) shall be authorized using the Notice of Intent (NOI) process. In those situations where Federal minerals are underlying private surface and the private surface owner's consent is obtained, the BLM is not to become involved. However, when landowner consent for access to the surface cannot be obtained for geophysical exploration operations on a Federal lease by the lease operator, the geophysical operation is to be authorized using the Sundry Notice process.

Adequate bonding for all operations must be provided by the operator.

A. Notice of Intent Form. The operator shall complete, sign, and file an NOI, Form 3150-4 (Illustration 1). The submittal shall include maps (minimum scale of 1/2 inch equals 1 mile or 1:100,000) showing the location of the activity and proposed access routes on public lands, if maps are available. Pursuant to this requirement, a memorandum dated April 29, 1975, from the Rocky Mountain Regional Solicitor on Geophysical Exploration Operations states, ". . . if requiring the operator to file maps giving the location of his exploration line and access routes and requiring prior written approval for other type dirt work and requiring advance written notice of any proposed changes in the operator's exploration plan are necessary for the District Manager's proper supervision of the operator's exploration operations, then you have full authority to require these things of the operator."

Filing procedures are summarized in Illustration 2 and may be provided to operators as a useful guide.

B. Sundry Notice Process. A Federal oil and gas lease allows the lessee/operator to conduct geophysical exploration operations as a part of lease exploration. A lessee may conduct exploration on Federal, private, or State surface in pursuit of Federal oil and gas lease exploration/development. A Sundry Notices and Report on Wells, Form 3160-5 (Illustration 3) is to be submitted, along with the NOI describing the proposed operation. This process is to be required for approval of geophysical exploration operations that occur in conjunction with lease or unit exploration/development. For operations on private surface where access is denied, the mineral lessee/operator must provide the surface owner with copies of the Sundry Notice, NOI, proof of bonding, and notification of their intent to enter onto the lands to conduct lease/unit operations.

The BLM shall not become involved in resolving differences between a private surface owner/lessee and the operator. If the private surface owner/lessee denies access after all negotiations with the operator have failed, the procedures set out in Federal regulations 43 CFR 3814 and as follows apply:

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Where the minerals and the right of access have been reserved by the United States [e.g., Act of July 17, 1914 (43 CFR 3813), the Stockraising Homestead Act of 1916, the Desert Land Act of 1877, as amended (43 CFR 2520), mineral estate reserved under FLPMA, etc.], the lessee or the lessee's designated operator must employ one of the following methods to acquire access to private or State surface:

1. Sundry Notice. When the geophysical exploration operator is the Federal lessee or designated operator of the lessee, it is to file a Sundry Notice (Form 3160-5) with the BLM and provide notification to the surface owner by certified mail that it intends to enter onto the lands and conduct lease operations. The lessee/operator must then submit proof to the BLM authorized officer that the surface owner has been notified. The lessee/operator must also submit proof to the BLM authorized officer that it has a current and adequate bond payable to the United States for use by the surface owner for damages caused during the exploration operations. The authorized officer must give the surface owner 30 days to comment on the proposed action before approving the Sundry Notice.

2. BLM Denied Access. When BLM personnel are denied access to a Federal lease, the authorized officer is to notify the surface owner of the pertinent regulations and document all contacts with the surface owner. If all efforts of negotiation for entry of BLM personnel onto the private surface fail, an order from the District Court is needed. The first step is to advise the appropriate Regional or Field Solicitor of the situation. A certified copy of the original patent for the lands and signed notarized affidavits from each BLM employee who has been refused entry onto the private surface are needed to initiate court action. It may be helpful in prosecuting the BLM case to obtain affidavits from operators who may have also been denied access. The affidavits must explain the reason(s) why entry is needed for each person, the dates and times the surface owner was contacted, and the date entry was refused.

3. Lessee Denied Access. When a lessee/operator is denied access, it should follow a similar process as described in I.B.2., above. In the event the lessee/operator must obtain a court order, the lessee/operator will be required to file the same proof for right of entry. It is not the BLM's role to file documents on behalf of the lessee/operator.

C. Pework Conference. The operator shall attend a prework conference or participate in a field inspection unless it is deemed unnecessary by the authorized officer. Written documentation of the waiver shall be provided in the case file. The terms and conditions for geophysical operations, Form 3150-4a (Illustration 4) shall be completed and signed prior to starting exploration operations.

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A model format for approval for use of earthmoving equipment (Illustration 5) shall be used for approval by the authorized officer when such equipment is to be used during geophysical operations. Approval is required prior to the operator commencing dirt work, snow removal, or cutting and removal of vegetation. Offices may adopt their own format, as appropriate.

D. Notification. After the NOI is approved, the operator shall notify the BLM at least 3 days, and no more than 14 days, before entering onto public lands. If weather or environmental conditions have changed, additional protection measures may be necessary.

II. Approval Procedures. A sample checklist for tracking work completed within the office on a filed NOI is provided in Illustration 6. No nationwide format will be developed, but local offices can develop such a checklist as needed.

A. Adjudication.

1. Date stamp the NOI and all attached material.
2. Assign serial number: Access Automated Land and Mineral Record System (ALMRS) Case Recordation and assign serial number.
3. An example of a suggested file folder label format is:

3150	ALMRS Serial No. _____
_____ OPERATOR NAME	State No. 005-88001 (optional)
4. Confirm State number with appropriate State agency, if applicable.
5. Verify that the type and amount of the bond is appropriate. See Manual Section 3104 and Handbook H-3104-1 - Bonds. In most cases, the geophysical contractor will be the bonded party and, thus, the operator. When an oil company (lessee) is the bonded party, the geophysical contractor must provide a written statement from the lessee describing the contractor as the designated agent and provide proof of notification to the bonding company for this action.

The regulations at 43 CFR Subpart 3154 address bonds for geophysical exploration operations. Bonds for statewide/nationwide exploration operations are handled by the State Office staffs. Bonds for single exploration operations are handled by the District or Resource Area Office staffs.

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Holders of individual, statewide, or nationwide lease bonds are allowed to conduct exploration operations on their leaseholds without separate bond coverage. Holders of statewide and nationwide lease bonds wishing to conduct exploration operations on lands they do not have leased either may obtain a rider to their bond to include oil and gas exploration operations, or obtain separate geophysical exploration bond coverage. In either situation, the BLM must ensure that adequate bond coverage exists to address all exploration liabilities. In addition, a lessee must provide written notification of the designated agent to the bonding company, with a copy to the BLM, prior to BLM accepting the bond.

6. Enter information in the Resource Area Oil and Gas Exploration Operations Log. Enter the information into ALMRS Case Recordation in Case Type 315100. The appropriate action codes for data entry are listed in Illustration 7.

B. Compliance With 5-Working-Day Notification Requirement. 43 CFR 3151.1 provides that the NOI must be processed and the terms and conditions attached within 5 working days or the operator must be notified in writing of the reasons for the delay. It is an objective of the BLM that most proposed operations within a resource area be authorized within that timeframe. Delayed operations should be the exception rather than the rule. A prework conference shall be held unless there is a specific need to waive it.

1. All NOI's shall be reviewed promptly upon their receipt to determine if they are complete. If the authorized officer determines an NOI is not complete, the operator shall be notified within 5 working days, by telephone and in writing (certified mail, return receipt requested), of the deficiencies and steps needed to correct them.

2. If there are no deficiencies in the NOI, the operator shall be notified by the authorized officer within 5 working days to schedule a prework conference or field inspection prior to beginning of field operations. When, in unusual circumstances, the prework conference is waived by the authorized officer, a date shall be set to mail the Terms and Conditions (Form 3150-4a) to the operator for signature. Written documentation of the waiver shall be provided in the case file.

3. If the NOI cannot be processed within 5 working days of the filing date, the authorized officer shall specify:

- a. The reason for the delay.
- b. When the processing will be completed.

For instance, the notification may include a discussion of the reasons why the BLM staff is unable to complete the cultural, biological, etc., evaluations within the 5 working days. The notice shall indicate that the operator may request a status report as needed.

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4. An informal telephone call to the operator, accompanied by a telephone confirmation memorandum to the file, may be all that is necessary to correct any deficiencies, schedule prework conference, or document that the NOI cannot be processed within 5 working days. If the operator wants the request in writing, or if the authorized officer requires written documentation from the operator, a letter containing the information described above should be sent. A sample format for a letter that has been used successfully is provided in Illustration 8.

C. Review of Existing Information.

1. Determine land status including surface ownership, existence of any surface use restrictions by BLM concerning oil and gas leasing, or withdrawals by other Federal agencies. However, be aware of the policies established in BLM Manual 3150. Lands are not automatically closed to geophysical exploration operations when they are closed to leasing or surface occupancy.

2. Identify any potential surface use conflicts between the proposed operation and land use plan restrictions, wildlife habitat areas, range improvements, rights-of-way structures, fire danger, populated areas, hunting seasons, off-road vehicle restrictions, or any other special designations. The potential conflicts between resource values and geophysical operations can usually be reconciled.

See Illustrations 9 and 10 for relevant information. Illustration 10 only considers direct effects to historic properties. Consultation with the State Historic Preservation Officer (SHPO) concerning determinations of effect must consider indirect effects as well. In addition, such consultations should also be used to determine if there are specific historic property types not referred to in Illustration 10 that have been identified and require different considerations.

3. Assemble existing environmental information. Note the policies concerning existing information established throughout BLM Manual 3150. One purpose of the environmental review process is to develop mitigation measures or avoidance alternatives rather than to generate additional inventories of Federal lands. A clear understanding of this distinction will affect the nature and extent of data collection activities which may be required.

a. Determine if the proposed geophysical activity is a casual use or is otherwise exempt from the National Environmental Policy Act of 1969 (NEPA). If so, document the finding and issue the NOI.

b. Determine if the proposed geophysical activity is categorically excluded from NEPA. If so, document the finding and issue the NOI.

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c. Review relevant existing EA's and EIS's to determine if the proposed action is already fully covered. If an existing EA or EIS fully covers the proposed action, then a decision on the action may be made without any further NEPA analysis. Document this finding through an Administrative Determination and issue the NOI.

4. Notify other agencies as necessary.

5. If special resources have been identified in the area of the survey, environmental reviews should then be initiated. As mentioned previously, a majority of geophysical operations can proceed without an extensive environmental review process, particularly since mitigation measures and avoidance alternatives can often be readily devised.

D. Environmental Analysis and Documentation. The NOI's on public lands under BLM jurisdiction must be reviewed for NEPA compliance. The EA process need not be time-consuming nor complicated. The level of assessment should be commensurate with the anticipated impacts and the degree of public concern. The manager responsible for preparing the EA determines the appropriate format within established standards. The EA's may range from a short (1 or 2 pages) finding of no significant impact (FONSI)/Decision Record document characterized by only a few headings to a relatively long (10 to 15 pages) document characterized by several headings and subheadings. Refer to BLM Handbook H-1790-1 - National Environmental Policy Handbook, Chapter IV, for more information on formats. The environmental effects of most geophysical proposals can be adequately addressed by using the short document format.

Each resource specialist should independently evaluate and complete a resource assessment as soon as the NOI is filed. This review should be conducted simultaneously by the various disciplines in order to speed up the review process. Any review methods developed in the resource area in advance of NOI filings is encouraged. Some resource areas have developed an overlay listing appropriate stipulations that pertain to potential geophysical operations.

In addition, all resource evaluations, including informal and formal consultations with outside parties (e.g., SHPO, FWS) shall begin as soon as the NOI is filed.

Follow the steps below in performing the analysis and documentation:

1. Preparation of environmental assessment.

a. Review existing information to determine if:

(1) there are resource conflicts present along the proposed survey line. Note the specific policies established in BLM Manual 3150.21D and 3150.32C.

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(2) the information demonstrates that the resources present along the proposed survey line are likely to be adversely affected by the type of survey planned.

b. If a review of the existing information by BLM, including informal consultations with outside agencies, does not demonstrate the presence of a resource conflict and likely adverse effects, document the information reviewed and complete the processing of the EA and NOI.

c. If a review of the existing information by BLM does demonstrate the presence of a resource conflict and likely adverse effects, document the information.

d. Immediately inform the operator of the nature and known extent of the potential impact, and where possible suggest avoidance procedures that would mitigate potential resource impacts.

e. Obtain input from other surface management agencies when BLM is processing a NOI for them.

f. Prepare the EA and appropriate documentation.

2. Evaluate the standard terms and conditions on Form 3150-4a (Illustration 4) to determine if they adequately mitigate potential resource impacts identified in the EA.

3. Establish special conditions which may be needed or recommended as a result of the environmental analysis or land use plan.

4. Prepare the FONSI and Decision Record for the authorized officer's signature.

E. Prework Conference or Field Inspection.

1. Schedule and conduct a prework conference and/or field inspection. The terms and conditions must be signed by the party chief/manager. The person who submits the NOI may not be available when the crew begins work. It is imperative that the party chief/manager understand how and where terms and conditions apply.

2. If, in unusual circumstances, the prework conference is waived, mail a copy of the terms and conditions to the operator for signature.

3. Contact affected agencies and land users regarding any modifications, as appropriate.

4. Document all coordination activities and provide copies to interested parties.

5. Obtain approval of BLM authorized officer.

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III. Monitoring During Exploration Operations.

A. Compliance Inspections.

1. Make periodic field inspections during the operation to ensure compliance with the terms and conditions (e.g., material storage, distance from water wells, proper hole plugging, reclamation, clean-up, etc.).

2. When noncompliance items are discovered, notify the operator verbally and then follow up with written notification by certified mail, return receipt requested. For a complete breakdown of noncompliance procedures, see VI. of this Handbook.

3. Document compliance inspections with photos and written reports. An example is provided with Illustration 11. No nationwide form will be developed, but a copy of a form used successfully in some other States is provided for information purposes. Offices may adopt their own format, as appropriate.

4. If the operation appears to be completed and a Notice of Completion (NOC) has not been received, ask the operator for the status. A sample format for a letter that has been used successfully is provided in Illustration 12. It is a Request for Status of Operations Letter, mailed certified to the operator, stating that the NOC must be sent within 30 days.

B. Coordination.

1. Contact the State, other affected agencies, and land users, as appropriate, regarding any modification and/or noncompliance encountered during geophysical activity.

2. Document all coordination activities and provide copies to interested parties with a letter to the file.

IV. Operator Procedures for Completion. Within 30 days after completion of operations, including appropriate reclamation activities, the operator shall submit a Notice of Completion of Oil and Gas Exploration Operations (NOC), Form 3150-5 (Illustration 13) to the appropriate BLM office. A source point or field map (minimum scale of 1:24,000) showing source points, surveyed line locations, and any access routes on public lands shall be attached to the NOC.

V. BLM Procedures for Completion.

A. Administrative Procedures. Upon receipt of an NOC, the BLM will:

1. Date Stamp. Date stamp NOC, maps, and any other attachments.

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2. Log. Log in Resource Area Oil and Gas Exploration Operations Log Control Register. Enter the information into ALMRS Case Recordation in accordance with State and Bureauwide guidance. The appropriate action codes for data entry are listed in Illustration 7.

B. Review.

1. Completeness. Check the NOC for completeness and adequacy of maps and information.

2. File. Attach the NOC to the case file.

3. Review. Determine if project has been inspected and released by the State or other agencies as appropriate.

C. Compliance Monitoring.

1. Response. Send the operator a Receipt of NOC Letter with a copy to the State or other agencies as appropriate. No nationwide form will be developed, but an example of a form letter successfully used by several offices is provided (Illustration 14) for information purposes. Offices may adopt their own format, as appropriate. If necessary schedule a final compliance inspection.

2. Inspection. Conduct a final inspection for compliance with the terms and conditions. Document the inspection by completing Compliance Inspection for Oil and Gas Exploration Operations (Illustration 11), and attach any necessary photographs.

Note: Final inspection must be completed within 30 days of receipt of the NOC unless weather conditions are such that an adequate inspection cannot be conducted within that timeframe (see 43 CFR 3151.2).

The Rocky Mountain Regional Solicitor's memorandum dated April 29, 1975, states ". . . that an extension of the 90-day period is only permissible if weather conditions make it actually or practically impossible to carry out the required inspection within this time limit. The mandated time limit cannot be extended simply because BLM has a personnel shortage [sic] which makes meeting the deadline difficult. If the opposite were true, the operator would have no way of knowing when he could expect the release of his bond."

If weather conditions delay completion of the final inspection beyond the 30-day time limit, the operator shall be notified when the inspection is rescheduled for completion.

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Should the authorized officer fail to notify the operator of additional requirements within 90 days of the filing of the NOC, liability for that particular exploration operation shall automatically terminate. See 43 CFR 3154.3. A 75-day rotation call-up system shall be established in each office for NOC's so the 90-day notification requirement mentioned above will not be overlooked. If BLM is unable to conduct a final field inspection of the survey lines because of adverse weather or other unforeseeable situations, the geophysical operator will be notified in writing every 75 days by certified mail, return receipt requested. BLM will explain why the inspection was not conducted, give an anticipated date for completion, and a statement that bond liability is not released.

3. Compliance. If the operation is found to be in compliance with the terms and conditions during the compliance inspection, notify the operator. An example of an Inspection Notification Letter (Illustration 15) is provided. Send a copy to the State government if necessary. Enter the information into ALMRS Case Recordation in accordance with State and Bureauwide guidance. The appropriate action codes for data entry are listed in Illustration 7.

When noncompliance items are discovered, notify the operator verbally and then follow up with written notification by certified mail, return receipt requested. For a complete breakdown of noncompliance procedures, see Chapter VI of this Handbook.

VI. Noncompliance. Noncompliance includes trespass, violations of the terms and conditions, failure to meet reclamation or drill hole plugging standards, causing unnecessary degradation, and breaking Federal, State, or local laws. Upon discovery of noncompliance, the following procedures shall be followed.

A. Documentation. If the operation is found not to be in compliance during the compliance inspection, ensure that complete documentation, including photographs and necessary mitigation measures, is included in the case file.

B. Notification. Notify the operator by telephone within 5 days and follow up with a letter. The letter must specify the exact work that is required, timeframes to commence and complete the work, and that failure to perform the required work may result in attachment of the bond. This letter shall be sent by certified mail, return receipt requested.

If the operator does not respond within the timeframes given in the notification, a copy of this letter shall be sent to the bonding company and client company, as applicable, by certified mail. A copy shall also be sent to the appropriate State agency.

C. Coordination. Notify appropriate agencies and land users of the noncompliance.

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D. Loaded Shot Holes. When unsecured loaded shot holes, not in conformance with State or ATF standards, are encountered by a BLM employee or identified and reported to a BLM employee, the following procedures shall be followed, as appropriate, within 24 hours following the incident report:

1. File Search. Conduct a file search to identify the geophysical operator and probable date of the geophysical activity.

2. Location. Confirm the exact location, operator, and whether the noncompliance actually exists. Document with photographs and a narrative description of the site and the kind of activity.

3. Contact. Contact the operator by telephone. Provide a complete description of the incident and location of the explosives. Notify them of the need to deactivate the site.

4. Notification. Contact the Special Agent-in-Charge, State BLM office by telephone or radio. Provide a complete description of the incident and location of the explosives.

5. Deactivation. A BLM employee should be present at the deactivation activities.

6. Compensation. Monetary compensation shall be provided for explosive deactivation by the responsible geophysical operator or, if necessary, the operator's bond may be attached unless the operator performs the deactivation.

E. Reclamation. The terms and conditions 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. When 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 operator's bond should not be attached until all attempts to notify them of the need to correct a deficiency is exhausted.

F. Bond Attachment. If the operator fails to respond or fails to perform the required work within the specified timeframe, notify the District and/or the State Office staffs that work with bond attachment as outlined in BLM Oil and Gas Manual Handbook 3104-1, Section X.

G. Inspection Notification. When the operation is found to be in compliance with the terms and conditions, notify the operator, and send a copy to the State, where appropriate.

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-A-

authorized officer: any employee of the Bureau of Land Management authorized through delegations of authority to perform the duties described in this Handbook. Usually, the Area Manager is the authorized officer.

-C-

casual use: activities that involve practices which do not ordinarily lead to any appreciable disturbance or damage to lands, resources, and improvements. For example, activities that do not involve use of heavy equipment or explosives and that do not involve vehicular movement except over established roads and trails are casual use. For the purpose of illustration in this Handbook, gravity or magnetic surveys, the placement of recording equipment devices, and activities that do not involve vehicle operations that would cause significant compaction or rutting are generally considered as casual use.

consultation: a process that involves informal discussions between BLM and the U. S. Fish and Wildlife Service (FWS) regarding the impact of an action on proposed species or proposed Critical Habitat and recommendations to minimize or avoid the adverse effects.

critical habitat: specific areas, designated by the Secretary of the Interior as part of the listing process concerning Threatened and Endangered species. Such areas are essential to the conservation of the species and may require special management considerations or protection. It also includes areas not occupied by the Threatened and Endangered species at the time of listing but which the Secretary has determined are essential to the conservation of the species. See 50 CFR Part 17 and 226.

-D-

deep holes: deep holes are defined, for the purposes of this document, as any hole that exceeds the conventional hole depths for geophysical shot hole acquisition. For most areas conventional depths are less than 500 feet, but in some areas (e.g., portions of California and the overthrust belt of Wyoming) conventional shot-hole depths may be as much as 700 feet. Geophysical data collection may also occur in deeper holes for the purposes of velocity surveys or vertical seismic profiles.

-F-

Federal minerals: any lands where the minerals are owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management.

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formal consultation: a component of the Endangered Species Act, Section 7 consultation process that commences with the BLM's written request for consultation after it has been determined that its action may affect listed species or Critical Habitats.

-G-

geophone (seismometer, jug): an instrument used to transform seismic energy into an electrical impulse. A "listening" device for seismic energy.

gravity method: a prospecting method that detects micro-variations in gravitational attraction caused by the differences in the density of various types of rock. The instrument used for gravity surveys is a small portable device called a gravimeter.

-H-

historic property: any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places under 36 CFR 60.4 or Section 101 (d)(6) of the 1992 amendments to the National Historic Preservation Act.

-I-

informal consultation: a component of the Endangered Species Act, Section 7 consultation process that includes all discussions, correspondence, etc., between the FWS and the BLM agency or the designated non-Federal representative prior to initiation of formal consultation.

-M-

magnetic method: this process is most commonly used for locating metallic ore bodies, but is also used in oil and gas exploration. Magnetic surveys use an instrument called a magnetometer to detect small magnetic anomalies caused by mineral variations in the earth's crust.

magnetotellurics method: a geophysical procedure that utilizes a magnetometer to measure variations in the earth's magnetic field caused by changes in magnetic properties of subsurface rocks.

-N-

Notice of Completion (NOC): the form or process by which a geophysical operator notifies the BLM that geophysical exploration operations, as approved under an application, have been completed in accordance with the terms and conditions of the approved application.

Notice of Intent (NOI): the form or process by which a geophysical operator requests authorization to conduct geophysical exploration on Federal lands.

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-O-

oil and gas geophysical exploration: activity on the Federal lands relating to the search for evidence of oil and gas. It requires a physical presence upon the land and may result in disturbance to the land or other resources. It includes, but is not limited to, geophysical operations, and cross country transit of vehicles over such lands. It does not include core drilling for subsurface geologic information or drilling for oil and gas.

-P-

peak particle velocity: the maximum ground displacement measured at a specified distance from an energy source.

poulter method: this is a method that is similar to the drill or shot-hole method, except the charges are placed above the ground, to generate seismic waves that are recorded by a seismograph.

-R-

receiver: See geophone.

recording truck (doghouse): a vehicle containing the seismograph equipment for recording a geophysical survey in the field.

-S-

seismic reflection method: use of an energy source, usually either an explosive charge or vibroseis, to send acoustic energy into the earth. The energy is reflected from subsurface layers and recorded at the surface with geophones. The data collected are then processed by computer to create an image of the subsurface geology.

seismic survey, 2D: a seismic program carried out with shots (energy sources) and receivers (listening devices) arranged along the same line.

seismic survey, 3D: a seismic program with shots and receivers arranged in an areal pattern on the surface. Can vary considerable in dimension and distances between shots and receivers.

shot-hole method (via truck or helicopter): utilizes holes drilled in a variable spacing pattern by a truck mounted drill rig. The holes are usually less than 250 feet deep, with a diameter of 3.5 to 8 inches. An explosive charge is placed in the holes and detonated to generate seismic waves that are recorded by a seismograph. The helicopter portable drill rig method uses the same procedures as the truck mounted method, except the drill rig breaks down into components and is transported via helicopter. The maximum diameter of heliportable drill holes is 4 inches.

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SURFACE MANAGEMENT REQUIREMENTS

source point interval: the distance between adjacent locations where seismic energy is introduced into the earth. Usually try to keep constant along a seismic line.

surface disturbance: any physical disturbances that directly or indirectly impacts biological and physical surface resource values.

surface shots: See poulter method.

-T-

trespass: a trespass occurs when a geophysical operator conducts operations on public lands, other than casual use, without filing an NOI or having other legal authorization from the Bureau of Land Management.

-U-

undertaking: a project, activity, or program funded in whole or part, under the direct or indirect jurisdiction of a Federal agency, including:

1. Those carried out by or on behalf of the agency.
2. Those carried out with Federal financial assistance.
3. Those requiring a Federal permit, license, or approval.
4. Those subject to State or local regulations administered pursuant to a delegation or approval by a Federal agency.

-V-

velocity survey: geophysical information collected for the purpose of obtaining velocity information. Usually involves drilling a borehole 500 feet to 1000 feet in depth, placing geophones in the hole, and discharging an energy source adjacent to the hole. Alternatively, the energy source can be placed in the hole, with the resultant seismic signal recorded by geophones placed on the surface. Velocity surveys are often conducted concurrently with or along planned, existing, or past seismic lines.

vertical seismic profile (VSP): a geophysical survey collected in a borehole using a receiver located in the hole and an energy source adjacent to the hole.

vibroseis method: one to six trucks or buggies usually work close together in a line with this method. The trucks are equipped with metal pads that vibrate the ground to produce acoustic waves. The reflected acoustic waves are recorded by a seismograph.

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 SURFACE MANAGEMENT REQUIREMENTS

Notice of Intent to Conduct Oil and Gas
 Geophysical Exploration Operations

Form 3150-4
 (July 1993)

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

NOTICE OF INTENT TO CONDUCT OIL AND GAS
 GEOPHYSICAL EXPLORATION OPERATIONS

FORM APPROVED
 OMB NO. 1004-0162
 Expires: April 30, 1996

BLM Case No.

State Case No.

Company Name		Project Name	
Address		Type of Bond	Amount
City	State	Bond Number/Where Filed	
Zip Code	Phone No. (Include area code)	Crew Number	

LOCAL INFORMATION

Contractor/Client		Crew Chief	
Address		Address	
City	State	City	State
Zip Code	Phone No. (Include area code)	Zip Code	Phone No. (Include area code)

I hereby file this Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations across and upon Public Lands (give description of lands by Township(s), Ranges(s), and Section(s)): A map shall be furnished showing the approximate location of the lines to be used on Public Lands. The map shall be of a minimum scale of one-half inch to the mile for the general location, and should be at least two and one-half inches to the mile for specific project location to accompany the Notice of Completion.

Approximate Date of Commencement of Operations:

The type of operation to be conducted is:

- | | |
|--|---|
| <p>TECHNIQUE</p> <p><input type="checkbox"/> Shot hole</p> <p><input type="checkbox"/> Vibroseis</p> <p><input type="checkbox"/> Other (explain)</p> | <p>METHOD</p> <p><input type="checkbox"/> Surface shot</p> <p><input type="checkbox"/> Truck Mounted</p> <p><input type="checkbox"/> Portable</p> <p><input type="checkbox"/> Buggy</p> |
|--|---|

Type and amount of Explosive:

Shotpoint pattern:

Shot hole Depth:

No. Source Points/Mile:

Provide diagram if multi-hole pattern:

The undersigned agrees that the oil and gas exploration operations shall be conducted in compliance with all Federal, State and local laws, ordinances or regulations which are applicable. Federal regulations are contained in 43 CFR 3150. The Crew Chief, Party Manager, or other responsible representative shall attend a pre-work conference prior to entering onto the public land to sign the general terms and conditions relative to this project, and any site specific special conditions developed by the local Authorized Officer.

(Signature of Appropriate Geophysical Representative)

(Signature of Bureau of Land Management Authorized Officer)

(Title)

(Title)

(Date)

(Date)

(Continued on reverse)

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Notice of Intent to Conduct Oil and Gas
Geophysical Exploration Operations

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this Notice of Intent to Conduct Geophysical Exploration Operations.

AUTHORITY: 30 U.S.C. 181 et seq.

PRINCIPAL PURPOSE: The information will be used to process your Notice.

ROUTINE USES: (1) The processing of the operator's Notice of Intent to Conduct Geophysical Exploration Operations. (2) To determine that mitigating measures are made to protect the environment. (3) Transfer to appropriate Federal agencies when concurrence is required prior to granting a right in public lands or resources. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the information is voluntary. If all the information is not provided, your right to conduct geophysical exploration activities may be revoked.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) requires us to inform you that:

This information is being collected in accordance with 43 CFR 3151.
This information will be used to process geophysical exploration notices.
Response to this request is required to obtain a benefit.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 1 hour per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing of the form. Direct comments regarding the burden estimate or any other aspect of this form to the U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 1849 C Street, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0162), Washington, D.C. 20503.

U.S. GOVERNMENT PRINTING OFFICE 1993-839 345

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Filing Procedures for Oil and Gas Geophysical Exploration on Public Lands

BLM Serial No. _____

State No. _____

1. Provide a Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations (Form 3150-4) containing the following information:
 - a. The permit number issued by the State to conduct seismic operations if available.
 - b. Company name and permanent mailing address.
 - c. Name and telephone number of local representative.
 - d. Crew/party number.
 - e. Line numbers/project name.
 - f. Type of exploration (please be specific): shot hole, vibroseis, surface shot, etc. If shot hole, include hole size, depth, charge, shots per mile, and State-required marks to be used on nonmetallic plugs.
 - g. Estimated date work will start.
 - h. A map showing the intended route of the seismic line(s). The map (minimum scale 1:100,000) must indicate public lands crossed.
 - i. Written approval must be obtained for use of a bulldozer, earthmoving equipment, or vegetation removal. If such work is intended, submit two copies of an approval for use of earthmoving equipment.
2. Prior to starting exploration operations on public lands, the party chief/manager will attend a prework conference and sign the terms and conditions for the exploration project unless this requirement is waived by the authorized officer.
3. Notify the BLM at least 3 days, and no more than 14 days, before entering onto public lands. If weather or environmental conditions have changed, additional protection measures may be necessary.
4. Following completion of operations, reclamation, and compliance with the Terms and Conditions, promptly submit to the BLM:
 - a. A Notice of Completion of Oil and Gas Exploration Operations (Form 3150-5).

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SURFACE MANAGEMENT REQUIREMENTS

- b. A topographic map (minimum scale 1:24,000) showing the actual route of the seismic line(s) and indicating public lands crossed.
5. If no actual operations were conducted, notification by letter to the authorized officer is needed.

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 SURFACE MANAGEMENT REQUIREMENTS

Sundry Notices and Reports on Wells

Form 3160-5
 (June 1990)

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

FORM APPROVED
 Budget Bureau No. 1004-0135
 Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS
 Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
 Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No.
2. Name of Operator	6. If Indian, Alloway or Tribe Name
3. Address and Telephone No.	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)	8. Well Name and No.
	9. API Well No.
	10. Field and Pool, or Exploratory Area
	11. County or Parish, State

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recumpletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

13. Describe Proposed or Completed Operations (Clearly state all pertinent details and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and other pertinent to this work.)

14. I hereby certify that the foregoing is true and correct

Signed _____ Title _____ Date _____

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

Title 18 U.S.C. Section 1001 makes it a crime for any person knowingly and willfully to make to any Department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Sundry Notices and Reports on Wells

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special in-

structions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

SPECIFIC INSTRUCTIONS

Item 4—If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 13—Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive

zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well, and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 36 U.S.C. 181 et. seq., 351 et. seq., 25 U.S.C. et. seq.; 43 CFR 3160.

PRINCIPAL PURPOSE — The information is to be used to evaluate, when appropriate, approve applications, and report completion of secondary well operations, on a Federal or Indian lease.

ROUTINE USES:

- (1) Evaluate the equipment and procedures used during the proposed or completed subsequent well operations.
- (2) Request and grant approval to perform those actions covered by 43 CFR 3162.3-2(2).
- (3) Analyze future applications to drill or modify operations in light of data obtained and methods used.
- (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION — Filing of this notice and report and disclosure of the information is mandatory once an oil or gas well is drilled.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501, et. seq.) requires us to inform you that: This information is being collected in order to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

This information will be used to report subsequent operations once work is completed and when requested, to obtain approval for subsequent operations not previously authorized.

Response to this request is mandatory for the specific types of activities specified in 43 CFR Part 3160.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0135), Washington, D.C. 20503.

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
 SURFACE MANAGEMENT REQUIREMENTS

Terms and Conditions for Notice of Intent
 To Conduct Geophysical Exploration

Form 3150-4a
 (July 1993)

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 TERMS AND CONDITIONS FOR NOTICE OF INTENT
 TO CONDUCT GEOPHYSICAL EXPLORATION

FORM APPROVED
 OMB NO. 1004-0162
 Expires: April 30, 1996
 BLM Case No.
 State Case No.

Company Name		Date NOI Filed	
Address		Company Project Name	
City	State	Client	
Zip Code	Phone No. (Include area code)	Crew Number	

GENERAL

1. A copy of the approved Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations and Terms and Conditions shall be kept in the field with each seismic crew.
2. The BLM shall be notified at least 3 days and no more than 14 days before entering onto public lands. If conditions have changed, additional terms and conditions may be necessary.
3. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are discovered, the operator is to immediately stop work that might further disturb such materials, and contact the Authorized Officer (AO). Within five working days the AO will inform the operator as to:
 - Whether the materials appear eligible for the National Register of Historic Places;
 - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - A timeframe for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume operations.
4. Due care must be taken to safeguard all livestock, wildlife, and wild horses in the vicinity of the exploration operations. Measures to mitigate adverse effects on protected or threatened/endangered species will be determined by the AO after consultation with the operator.
5. Operations shall be suspended when in the judgment of the Authorized Officer they have the possibility of unduly harming the surface during periods of wet weather.
6. Range improvements (fences, reservoirs, etc.) or land treatment projects (contour furrowing, seeding, or range monitoring sites) shall not be disturbed or altered without prior written approval of the Authorized Officer.
7. Federally owned or controlled water shall not be used without written permission of the Authorized Officer.
8. All fires set or caused as a result of these exploration operations shall be extinguished without expense to the government. All fires shall be reported to the BLM as soon as possible.
9. The operator shall notify the Authorized Officer in writing of any changes in the original application and secure written approval for the changes before proceeding.
10. When it is determined that activities will come closer than one quarter (1/4) mile of developed recreation sites, historic trails, springs or flowing water wells the Authorized Officer will be consulted to determine if the action is permissible.
11. Advanced written permission shall be obtained before conducting surface disturbing activities. This includes, but is not limited to: towing with a tractor, blading, dozing, snow removal, and vegetation removal.
12. Powder magazines and explosives shall be stored and handled according to U.S. Bureau of Alcohol, Tobacco and Firearms (ATF) standards. As required by ATF, loaded shotholes shall not be left unsecured.

(Continued on reverse)

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Terms and Conditions for Notice of Intent
To Conduct Geophysical Exploration

RECLAMATION/CLEANUP

1. Reclamation of disturbed areas shall be done concurrently with the geophysical operation, in-so-far as possible.
2. Shallow hole plugging shall be completed using the guidelines developed by the appropriate State/local regulatory agency or agencies and the Bureau of Land Management State Office. The requirements vary from State to State; therefore, those specific to the State the project is being conducted in will be followed.
3. Where appropriate, disturbed areas shall be reseeded, as directed by the Authorized Officer, until vegetative cover is established that is commensurate with pre-survey conditions. In areas where reseeded is not appropriate, the authorized officer shall determine what steps should be taken.
4. All trash, flagging, tath, etc. shall be removed and hauled to an authorized disposal site.
5. No oil or lubricants shall be drained onto the ground surface.
6. The operator shall notify the Authorized Officer of the date operations are completed.

COMPLETION OF PROCEDURES

1. A Notice of Completion (NOC) (Form 3150-5) shall be filed within 30 days of completion of operations including reclamation. A map (minimum scale of 1:24,000) must be attached to the NOC showing public lands crossed and the final location of source points.

I understand and agree to comply with these terms and conditions and any attached special conditions.

(Signature of Appropriate Representative)

(Date)

Special Conditions Attached

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SURFACE MANAGEMENT REQUIREMENTS

Model Format for Approval for Use of Earthmoving Equipment

BLM Serial No. _____
State No. _____

Company Name _____ Subcontractor _____
Address _____ Address _____
City _____ State _____ City _____ State _____
Zip Code _____ Telephone _____

Company Project Name _____
Equipment Operator _____
Telephone Number _____

Legal Description: _____

Approved Activity:

_____ Use of crawler tractor without blade for towing and trail
breaking.

_____ Snow removal--provided the blade is equipped with shoes or
skids that keep the blade a minimum of _____ inches above the soil
surface.

_____ Cutting and removal of trees or other vegetation.

_____ Other (please specify): _____

_____ Terms and Conditions: _____

This approval expires on _____ (date) _____.

I hereby agree to conduct operations only as described above and as approved
by the authorized officer.

Equipment Operator Date Crew Chief Date

Approved

Bureau of Land Management Date
Authorized Officer

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Checklist for Oil and Gas Geophysical Exploration

BLM Serial No. _____
State No. _____

Company _____
Party Chief _____ Telephone _____
Bond Number _____ Company Telephone _____

1. _____ Date NOI Received and Stamped.
5-Day Call-up date assigned
2. _____ Date operator notified of receipt of NOI
(Form 3150-4). Any additional information needed.
3. _____ Date environmental resource reviews requested.

Received

- a. Cultural _____
- b. Range _____
- c. Wildlife, T&E Species _____
- d. Wilderness/WSA _____
- e. Other _____
4. _____ Date environmental document completed.
5. _____ Terms and conditions completed and ready for
party chief signature.
6. _____ Date prework conference held or Terms and
Conditions mailed to operator for signature.
7. _____ 15-day call-up date established following the
scheduled starting date.
8. _____ Date exploration operations started.
9. _____ Date of inspection.
10. _____ Date NOC received.
11. _____ Date of inspection.
12. _____ Date bond liability released.

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SURFACE MANAGEMENT REQUIREMENTS

Listing of ALMRS (Case Recordation) Data Element (DE) 2910 Action Codes
Applicable to Geophysical Exploration in the Lower 48 States

CASE TYPE 315100 - O&G GEOPHYSICAL EXPL-EXCP AK

DE 2910

040 COMPL EXAM/RPT RQST/INIT
041 COMPL EXAM/RPT COMPLETED
042 CASE SENT TO
103 ADDTL INFO RECD
104 ADDTL INFO RQSTD
114 AMEND/CORR APLN RECD
115 AMEND/CORR APLN RQSTD
116 AMENDMENT APPV
119 APPEAL DISMISSED
120 APPEAL FILED
122 EXT OF TIME RQSTD
125 APLN REJ/DENIED
126 APLN REJ/DEN IN PART
127 ACTION SUSPENDED
130 APLN WITHDRAWN
131 APLN WITHDRAWN IN PART
134 APPROVAL GIVEN #
136 STAY REQUESTED
137 STAY GRANTED
138 STAY DENIED
149 CASE RECEIVED FROM
163 CASE SENT TO NARA
186 DEBT DCLRD UNCOLLECTIBLE
188 DEC VACATED/RESCINDED
199 CANCELED
200 CANCELED IN PART
203 EXT OF TIME GRANTED
228 EXT OF TIME DENIED
247 FUTURE ACTION SUSPENSE
298 PROTEST DISMISSED
299 PROTEST FILED
349 CASE RECALLED
361 DEC AFFIRMED
365 DEC REMANDED
366 DEC REVRSD & REMANDED
375 PROTEST SUSPENDED
376 BOND FILED
377 BOND TERMINATION RQSTD

DE 2910

378 BOND PERIOD TERMINATED
383 BOND RETURNED
387 CASE ESTABLISHED #
393 DEC ISSUED
399 BOND NO LONGER REQUIRED
421 PLAN OPER/EXPL/DEV FILED
422 PLAN OPER/EXPL/DEV APPV
423 PLAN OPER/EXPL/DEV REJ
424 PLAN OPER/EXPL/DEV WDN
441 RECONSIDERATION RQSTD
451 DEFAULT DETERMINED
452 DEFAULT CORRECTION REQD
453 DEFAULT CORRECTED
463 BOND TERMINATION DENIED
474 NOTICE OF NONCOMPLIANCE
477 BOND ADJUSTMENT REQUIRED
486 PMT BY SURETY/PRINCIPAL
487 REMAND REQUESTED
678 SUSP LIFTED
748 PROTEST WITHDRAWN
885 CASE DESTROYED
909 BOND ACCEPTED
910 REPORT REQUESTED
911 REPORT RECEIVED
930 APPEAL WITHDRAWN
949 PROTEST UPHELD
951 EXT OF TIME TERMINATED
967 CLOSED WITHOUT ACTION
970 CASE CLOSED #
974 AUTOMATED RECORD VERIF
992 RIDER FILED
993 RIDER ACCEPTED
994 RIDER UNACCEPTABLE
995 RIDER RETURNED

Mandatory entry of action code required.

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Receipt of Notice of Intent Letter

BLM Serial No. _____

State No. _____

(Date)

Dear _____:

The enclosed Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations was received in this office on _____ (date) _____. This project has been assigned Serial Number _____.

_____ No further information is required at this time. The terms and conditions will be ready for your party chief's signature on _____ (date) _____.

The following additional information is required prior to commencing operations:

_____ If available, send the permit number issued by the State to conduct a seismic operation.

_____ Submit Proof of Bonding for Oil and Gas Exploration (Form 3000-4a) or a copy of your State or nationwide bond.

_____ Send a letter authorizing your company to act as an agent for use of this exploration project. Send a copy to their bonding company.

_____ A map (minimum scale of 1:100,000) of the seismograph line(s) indicating the public lands crossed.

_____ Significant cultural resources listed or eligible for inclusion in the National Register are likely to occur along portions of the proposed route of the survey. Prior to conducting the proposed geophysical exploration operations, a Class III Cultural Resource Inventory shall be completed on the following lands:

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

The purpose of such an avoidance survey is to ensure that geophysical operations will be offset from such cultural resources by an appropriate distance. The _____ (Area) BLM archaeologist will be able to schedule and conduct this survey by _____ (date) _____. If this timeframe does not meet your needs, you may have an archaeologist with a current Federal Antiquities Permit conduct this survey and submit the report to the authorized officer.

The portions of the geophysical survey route that are not affected by this cultural resource evaluation may be completed when cleared by the authorized officer.

_____ An evaluation of your geophysical exploration project in light of existing information indicates that threatened or endangered species or their critical habitat have been identified along the proposed route of the survey, and that such species or habitat may be affected by your action. That data indicates it is necessary to offset the type of survey you have proposed by _____ feet to avoid adversely affecting the species or habitat. Based on that information, the following lands where the species or habitat are present must be inspected prior to starting operations to identify the locations where operations must be offset from such species and their habitat by an appropriate distance: _____

The _____ (Area) BLM wildlife biologist will be able to complete this inspection by _____ (date) _____. If this timeframe does not meet your needs, you may have a qualified environmental consultant conduct the inspection and submit a report identifying the locations and proposed offsets to the authorized officer.

The portions of the geophysical survey route that are not affected by this cultural resource evaluation may be completed when cleared by the authorized officer.

Please refer to the assigned Serial Number in all correspondence. If you have any questions concerning this matter, please contact _____ at _____, or the above address.

Sincerely,

Area Manager

Enclosure

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Cultural Resource Procedures for Geophysical Operations

Consult BLM Manual Section 3150 for a discussion of factors affecting whether or not a cultural resource inventory will be necessary for a given geophysical operation. The BLM, in consultation with the State Historic Preservation Officer (SHPO) or in accordance with State-specific programmatic agreements, will determine the need for a cultural survey as well as the type and intensity of the inventories when they are required.

A lack of inventory data shall not, in itself, cause the BLM to recommend to the SHPO that a cultural resource survey is necessary. The BLM in its consultations with the SHPO will take the position that, because the proposed undertaking cannot affect historic properties, no cultural resource inventories will be required unless historic properties are:

1. Known or are likely to exist within the proposal's area of potential effect, and
2. The type of operation is likely to result in changes in character or use of such historic properties.

The determination of the likelihood that unidentified historic properties exist in the area of potential effect must be based on direct comparisons with existing inventory information of areas with similar environmental characteristics. These characteristics include but are not limited to slope, aspect, vegetation, land form, geology, and soils. The factors described in the decisionmaking process of BLM Manual Section 3150 shall be used when determining the level of cultural resource inventory.

If the timeframes for the BLM to complete cultural resource surveys are unacceptable to the operator, the operator has the option of providing the necessary surveys. If such cultural surveys require the use of cultural resource permittees, the operator shall be responsible for issuing and managing the contract with the cultural resource permittee. The cultural resource permittee shall have a current cultural resource use permit from the BLM. The BLM will still retain the responsibility for all official Section 106 consultations with the SHPO and the Advisory Council on Historic Preservation.

When historic properties are to be avoided during a geophysical undertaking, procedures for SHPO consultation regarding determinations of effect and eligibility will follow either applicable Programmatic Agreement (PA) procedures or 36 CFR 800. If avoidance of adverse effects to historic properties is not feasible, consultation with the SHPO regarding treatment will follow either applicable PA procedures or 36 CFR 800.

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SURFACE MANAGEMENT REQUIREMENTS

Where a Class III survey has been determined necessary, it will cover 50 feet on either side of center line or at least 25 feet beyond the limits of anticipated vehicular activities/surface disturbance created by projects that affect more than a 100-foot-wide survey area. A minimum of a 100-foot-wide survey is required. Additional inventory may be required for the shot-hole or poulter exploration methods in areas where historic properties may be affected beyond these limits (see Illustration 9). When it is necessary for vehicles to drive outside the area that received the original cultural inventory, whether because of topographic obstacles, manmade barriers, or to avoid a historic property, the path used to drive around the problem area will also be surveyed to the same standards employed during the original cultural resource survey described above. The operator may choose to flag the centerline and/or outer boundaries of the project area before the cultural survey is performed.

A Class III survey will not be performed until at least 70 percent of the immediate area to be inventoried is snow-free. In those conditions where a Class III is otherwise required, geophysical operations may be conducted without a Class III inventory if the ground is frozen or there is sufficient snow cover to avoid rutting of the underlying soil and those conditions will exist during the time of the operation. This determination should be made in consultation with the SHPO or pursuant to an appropriate PA.

Typical effects from common geophysical operations will provide guidance for cultural resource reviews. For the vibroseis method, consideration should be given to adverse effect through compaction and subsequent erosive rutting by heavy vehicular traffic, generally including above-ground structural features and subsurface sites in areas of wet, subirrigated, or loosely consolidated soils such as, but not restricted to, sand dunes. For the shot-hole method, consideration should be given to adverse effect through the passage of a heavy drill truck (if such is used), vibrations from high particle velocities to sites or site matrices without elasticity, and direct blast effects from shallow shot holes (5 to 10 feet below the surface) on properties buried at that depth (charges placed more than 10 feet below the surface are unlikely to affect buried cultural properties). For the poulter method, consideration should be given to adverse effect from direct blast effect or air overpressure.

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SURFACE MANAGEMENT REQUIREMENTS

Resource Protection Offsets for Cultural Resource
Structures and Other Facilities

This addresses the immediate physical effects of vibrations on standing structures and rock art. The objective of developing the tables that follow is to establish recommendations for appropriate operating parameters. If the operator proposes to operate closer to a cultural resource structure or other facility than the identified distances, the burden is on the operator to demonstrate insignificant effects on those resources that BLM has previously identified along the survey route. If the BLM or other interested parties wish the operator to conduct operations farther from an identified resource, the burden is on the BLM or other interested party to demonstrate that an extended distance is necessary to provide adequate protection for such identified resources.

Peak particle velocities at the base of standing structures and rock art should not exceed 0.75 in./sec. (suggested maximum for drywall structures as published by the Office of Surface Mining Reclamation and Enforcement). Similarly, 140 dB is the OSHA-established maximum for impulsive sound. The following tables were derived from studies on effects to commonly investigated contemporary structures (for example, houses, water wells, pipelines, and springs) with additional buffers built in to protect more fragile cultural resources. Normal environmental conditions to which these resources are subjected on a daily basis and which cause similar effects include wind, temperature changes, humidity changes, and vibrations from aircraft, vehicle, and train traffic. It is unnecessary to add additional buffers to the established distances for either cultural resources or other facilities. Distances may need adjustment in saturated soils or extreme weather conditions. Under those circumstances, the BLM will be responsible for demonstrating that extended distances are needed to protect the resource.

Whereas particle velocities generated by dynamite are primarily a function of distance, shot-hole depth, and charge size, particle velocities generated by vibroseis activity are the result of many complex interacting factors. These factors include source frequency bandwidth, sweep length, type of sweep, size and make of vibrators, number of vibrators, orientation and configuration of vibrators, source components (compressional or shear), and drive level. These factors in turn will be affected by soil types and seasonal conditions. It is not possible to devise a simple chart that takes all of these factors into account. Based on studies of vibration activity, a distance of 300 feet, under normal operating conditions, is recommended to ensure that the 0.75 in./sec. threshold will not be exceeded. As discussed in paragraph one, the burden of proof for increasing or decreasing this suggested distance is the responsibility of the agency or interested party wishing to make the change.

The tables below reflect direct effects only. Additional information on vibration sources and effects can be found in Blasting Guidance Manual, March 1987, from the Office of Surface Mining Reclamation and Enforcement.

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SURFACE MANAGEMENT REQUIREMENTS

Resource Protection Offsets for Cultural Resource
Structures and Other Facilities

TABLE I: RECOMMENDED SAFE DISTANCES FROM SURFACE SHOTS TO CULTURAL RESOURCE STRUCTURES AND OTHER FACILITIES

Maximum decibels at these distances will not exceed 140 DB under normal conditions. This Table uses a scaled distance of 470.

CHARGE SIZE (LB)	.33	.5	1	3	5	10	15	20	30	40	50	75
DISTANCE (FT)	325	373	470	678	804	1013	1159	1276	1460	1607	1731	1982

TABLE II: RECOMMENDED SAFE DISTANCES FROM BURIED SHOTS TO CULTURAL RESOURCE STRUCTURES AND OTHER FACILITIES

Under normal conditions peak particle velocity at these distances will be below 0.75 in/sec. This Table uses a scaled distance of 65.

CHARGE SIZE (LBS)	.33	.5	1	3	5	10	15	20	30	40	50	60	75
DEPTH (FT)													
5	37	*46	*65	*112	*145	*205	*252	*291	*356	*411	*460	*503	*563
10	36	45	64	*112	*145	*205	*252	*291	*356	*411	*460	503	* 563
15	34	43	63	112	*145	*205	*251	*290	*356	*411	*459	*503	* 563
20	32	41	62	111	144	*205	*251	*290	*355	*411	*459	*503	* 563
25	28	39	60	110	143	*204	*250	*290	*355	*410	*459	*503	* 562
30	22	35	58	109	142	*203	*250	*289	*355	*410	*459	*503	* 562
40	-	23	51	105	140	202	*249	*288	*354	*409	*458	*502	* 561
50	-	-	42	101	136	199	247	*286	*352	*408	*457	*501	* 561
75	-	-	-	84	124	191	240	281	348	*404	*453	*498	* 558
100	-	-	-	52	105	180	231	273	342	399	449	493	554
125	-	-	-	-	74	163	219	262	333	392	442	488	549
150	-	-	-	-	-	141	202	249	323	383	434	481	543
175	-	-	-	-	-	108	181	232	310	372	425	472	535
200	-	-	-	-	-	47	153	211	295	359	414	462	526
225	-	-	-	-	-	-	113	184	276	344	401	450	516
250	-	-	-	-	-	-	30	148	253	326	386	437	504
275	-	-	-	-	-	-	-	94	226	306	368	422	491
300	-	-	-	-	-	-	-	-	192	281	348	404	476
325	-	-	-	-	-	-	-	-	145	252	325	385	460
350	-	-	-	-	-	-	-	-	65	216	298	362	441
375	-	-	-	-	-	-	-	-	-	168	266	336	420
400	-	-	-	-	-	-	-	-	-	95	226	306	396
450	-	-	-	-	-	-	-	-	-	-	94	226	338
500	-	-	-	-	-	-	-	-	-	-	-	59	259
550	-	-	-	-	-	-	-	-	-	-	-	-	120
600	-	-	-	-	-	-	-	-	-	-	-	-	-
650	-	-	-	-	-	-	-	-	-	-	-	-	-
700	-	-	-	-	-	-	-	-	-	-	-	-	-
750	-	-	-	-	-	-	-	-	-	-	-	-	-
800	-	-	-	-	-	-	-	-	-	-	-	-	-

* Some charge sizes, although safe from a distance standpoint, may be more prudently detonated in deeper boreholes.

- For the depth and charge size listed, no surface location should experience a peak particle velocity over 0.75 in/sec.

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Compliance Inspection for Oil and Gas Geophysical Exploration Operations

BLM Serial No. _____
State No. _____

Resource Area: _____ Date of Application: _____

District: _____ Date of NOC: _____

Type of Operation: _____ Date of Inspection: _____

Inspection Location: _____

Deficiencies Noted: _____

Recommended Actions: _____

Remedial Action Taken: _____

Date Operator Notified: _____

Date Deficiencies Corrected: _____

Inspected By: _____ Date _____

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Request for Status of Operations

BLM Serial No. _____

State No. _____

(Date)

Dear _____:

A Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations
(copy enclosed) was filed in our office on _____ (date) _____ for Serial Number
_____.

If the exploration operations and reclamation have been completed and the
Terms and Conditions complied with, please submit the enclosed Notice of
Completion of Oil and Gas Geophysical Exploration Operations (Form 3150-5)
along with a copy of your shot point or field map (minimum scale 1:24,000).

If the operations were not conducted, please notify us by return mail.

Please refer to the above serial number in all correspondence. If you have
any questions, please contact _____ at
_____ or the above address.

Sincerely,

Area Manager

Enclosure(s)

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Notice of Completion of Oil and Gas Exploration Operations

Form 3150-5
(July 1993)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0162
Expires: April 30, 1996

NOTICE OF COMPLETION OF OIL AND GAS EXPLORATION OPERATIONS

Company Name		BLM Case Number	
Address		Crew Number	
City	State	Crew Chief	
Zip Code	Phone Number (include area code)		

1. List the public lands described in the Notice of Intent to Conduct Oil and Gas Geophysical Exploration Operations that were crossed by the geophysical activities. Give description of lands by Township(s), Range(s), and Section(s).

2. Number of miles of line completed on public land: _____

3. Attach shot point or field maps showing actual line locations and any access routes. The map(s) must be a minimum scale of 1:24,000 (7 1/2 minute USGS quadrangle or equivalent). If reproductions are used, they must be good quality and legible. Public lands that are crossed must be indicated.

4. Describe the hole plugging process used, if appropriate to the project.

5. If requested by the Authorized Officer, attach a copy of the "Hole Plugging Log" describing each hole for all shot-lines. Specify whether holes were wet or dry, identify static water level, flowing holes, breached or caved holes, lost hole locations, etc.

6. Describe surface disturbance other than source points and the reclamation performed.

I CERTIFY That the oil and gas exploration operations approved under the Notice of Intent, Case No. _____ and described above were completed on _____. All Terms and Conditions attached to the approved Notice were complied with.

(Signature of Appropriate Geophysical Representative) _____ *(Date)*

(Title)

Title 18 U.S.C. Sec. 1001 makes it a crime for any person knowingly and willfully to make to any Department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on reverse)

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Notice of Completion of Oil and Gas Exploration Operations

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this Notice of Completion of Oil and Gas Exploration Operations.

AUTHORITY: 30 U.S.C. 181 et seq.

PRINCIPAL PURPOSE: The information will be used to process your Notice.

ROUTINE USES: (1) The processing of the operator's Notice of Completion of Oil and Gas Exploration Operations. (2) To determine that mitigating measures are made to protect the environment. (3) Transfer to appropriate Federal agencies when concurrence is required prior to granting a right in public lands or resources. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the information is voluntary. If all the information is not provided, your right to conduct geophysical exploration activities may be revoked.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) requires us to inform you that:

This information is being collected in accordance with 43 CFR 3151.
This information will be used to process geophysical exploration notices.
Response to this request is required to obtain a benefit.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 20 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing of the form. Direct comments regarding the burden estimate or any other aspect of this form to the U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 1849 C Street, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0162), Washington, D.C. 20503.

U.S. GOVERNMENT PRINTING OFFICE 1993 - 839 347

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Example of a Receipt of Notice of Completion Letter

BLM Serial No. _____
State No. _____

(Date)

Dear _____:

Your Notice of Completion for Oil and Gas Geophysical Exploration Operations concerning Serial Number _____ was received in this office on _____ (date).

These lines are scheduled for inspection for compliance with the provisions listed on the Notice and in the terms and conditions applied to your NOI signed by _____ (Crew Chief) on _____ (date). You will be notified regarding the findings of our field inspection by _____ (date).

_____ Existing weather conditions have not allowed us to inspect your exploration project for compliance with the terms and conditions applied to your NOI and signed by _____ (Crew Chief) on _____ (date). Weather permitting, we will inspect these lines by _____ (date) and you will be notified of our findings.

_____ The information you submitted was inadequate or incomplete. We need the following information before we can schedule this exploration project for inspection.

_____ Submit a shot point or field maps showing actual line locations, shot points, and any access routes. The map(s) must be at a minimum scale of 1:24,000 (7.5-minute USGS quadrangle or equivalent). If reproductions are used, they must be of good quality and legible. Public lands that are crossed must be indicated.

_____ Submit a copy of the "Hole Plugger's Log" describing each hole for all shot lines, i.e., whether holes were wet or dry, static water level if appropriate, any flowing holes, breached or caved holes, volume of bentonite used per hole, any lost hole locations, etc.
(Note: This need not be requested for each survey.)

If you have any questions concerning this case, please contact _____ at _____, or the above address.

Sincerely,
Area Manager

H-3150-1 - ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS

Example of an Inspection Notification Letter

BLM Serial No. _____

State No. _____

(Date)

Dear _____:

We received your Notice of Completion for Oil and Gas Geophysical Exploration Operations (NOC) on _____ (date), concerning operations conducted under the NOI to Conduct Oil and Gas Geophysical Exploration Operations, Serial Number _____, dated _____, located in the _____ Resource Area of the _____ District.

The public lands over which you conducted your operations were inspected for compliance with the provisions listed on the NOI and the terms and conditions on _____ (date).

It has been determined that:

_____ The terms and conditions concerning the above geophysical operations have been complied with to the extent that a surface examination can disclose. You are hereby released from bond liability for causes of action accruing after this date in connection with operations conducted under the cited NOI to Conduct Oil and Gas Exploration Operations. This does not release you from civil or criminal liability for failure to comply with the terms and conditions of the NOI.

_____ You have not complied with the terms and conditions attached to the NOI. The corrective actions required are listed below. Please notify this office when the required actions have been completed. In accordance with 43 CFR 3154.3, your bond obligation will not be released until the listed deficiencies have been corrected.

If you have any questions on this matter, please contact _____ at _____, or the above address.

Sincerely,

Area Manager

**H-3150-1 – ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS (PUBLIC)**

BLM Standard Terms and Conditions

1. 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. The operator's representative will attend a meeting with the BLM to discuss cultural artifacts and potential penalties for tampering with cultural artifacts. The meeting can be held as part of the pre-work conference.
3. 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. 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.
5. 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.
6. 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).
7. 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.
8. Roads will not be constructed for geophysical projects authorized under a categorical exclusion.
9. 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.
10. 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

**H-3150-1 – ONSHORE AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS (PUBLIC)**

backfilling the shot hole will be scattered about the immediate area to blend with natural terrain and reduce visual impacts.

11. 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.

12. Any and all tire tracks one hundred feet (100'), leading away from an established dirt or two-track road situated on public lands, will be hand raked to blend into the surrounding soil surface.

13. 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 mixtures specified below:

Seed Mix

(To be provided by the local BLM Field/District Office.)

The seeded area should be hand raked to assure the seed is covered with approximately ¼ to ½ inch of soil. This seeding should be accomplished during the late fall, in October or November, before moisture conditions become prohibitive.

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.

14. Setbacks and Buffers: the operator will adhere to setbacks or “buffer zones” that are set forth in the following tables.

**H-3150-1 – ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS (PUBLIC)**

**Offset in Feet, from Certain Objects
(based on pounds of explosive charge)**

Object	½ lb	1 lb	2 lbs	3 lbs	5 lbs	6 to 10 lbs	11 to 15 lbs	16 to 20 lbs
Pipeline less than 6" diameter	50'	100'	150'	150'	200'	250'	300'	400'
Pipeline 6" to 12" diameter	75'	150'	200'	200'	300'	400'	500'	600'
Pipeline greater than 12" diameter	100'	200'	250'	250'	300'	500'	600'	800'
Telephone line	20'	20'	30'	40'	40'	50'	50'	50'
Railroad Track or main paved Highway	50'	100'	150'	150'	150'	220'	280'	350'
Electric Powerline (Shot holes not to exceed 200' depth)	75'	100'	200'	200'	200'	200'	250'	300'
Water wells, buildings, underground cistern, and all other similar objects	225'	300'	400'	450'	700'	800'	1000'	1200'
Brick and/or concrete block buildings	275'	400'	500'	600'	800'	1000'	1200'	1500'
Producing oil and gas well	250'	450'	600'	700'	800'	900'	1000'	1000'
Irrigation wells	500'	800'	1000'	1200'	1500'	2000'	2500'	2500'

Minimum Safe Offset In Feet for Vibrator Truck Operations

Structures	Distance (ft)
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. No equipment, only foot traffic laying receiver lines, will be used in swampy/wetland areas.

**H-3150-1 –ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION
SURFACE MANAGEMENT REQUIREMENTS (PUBLIC)**

16. If any unanticipated prehistoric or historic archaeological sites or paleontological sites are encountered during the geophysical work, the work shall stop and the appropriate BLM archaeologist at the Field/District Office will be contacted. If a site is found, it will be recorded. The BLM will assume responsibility for evaluation and determination of significance, related to the historical or archaeological site. All known cultural resources sites will be avoided. Collection of any cultural or paleontological artifacts, bones or fossils from Federal lands is specifically prohibited.
17. Visible migratory bird nests will be avoided and not disturbed.
18. All equipment will be power washed prior to entering Federal lands to help mitigate the spread of noxious plants.
19. 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. When fire conditions reach high, the helicopter, vehicles, and equipment will carry water, shovels, and other fire fighting equipment to extinguish any fires that are accidentally started by the seismic operations.
21. 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. 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. All Applicant-Committed Environmental Protection Measures documented in the applicant's NOI will be complied with in addition to these terms and conditions.