

D R A F T

BLM Cultural Resource Requirements for Oil and Gas Operations in Montana

These requirements are intended for cultural resource consultants hired by oil and gas operators in Montana. They supplement the *Guidelines for Identifying Cultural Resources H-8110-1* (the handbook), which remains the basic guidance for cultural resource work completed for BLM undertakings. Notice to Lessees, NTL-MSO-1-85, provides guidelines to operators when they are required to conduct cultural resource inventories. The NTL establishes the minimum survey area of 10 acres centered on each proposed well plus the access road, pipeline and ancillary areas subject to surface disturbance. Washington Office Instruction Memorandum (IM) No. 2003-147 recommends block surveys ranging from 40 acres for individual wells to entire lease or full field development areas for large-scale projects to improve the Application for Permit to Drill (APD) process. Block surveys offer many advantages including reducing the probability that multiple surveys will be required to site a single project. Additionally, operators are encouraged to complete cultural resource surveys prior to the onsite inspection. This will allow the well location and/or access route to be sited prior to the onsite in order to avoid adverse effects on cultural resources and reduce the likelihood of having to change a location due to a cultural resource conflict discovered later in the APD review process.

Before initiating fieldwork

Before conducting fieldwork, complete a file search of the CRIS and CRABS databases maintained by the SHPO. This file search is needed to assess the location of previously recorded cultural resources and previous work that has been completed in the project's area of potential effects. The file search is also necessary to identify what level of inventory, if any, may be required for an undertaking, while avoiding duplication of fieldwork. When all or part of the project area has been previously surveyed, contact the BLM cultural resource specialist to discuss whether additional inventory is required.

Submit a "Fieldwork Authorization Request/Notification of Records Search Completion Form" (Attachment 1). List each oil and gas project to be inventoried by name or number and the project location by township, range and section (give aliquot parts of the section if possible, *i.e.*, SE1/4 SE1/4) and who is sponsoring the project. The form may be submitted to the BLM via regular mail, e-mail or fax. Submit this form for all projects, regardless of surface ownership. By submitting the form, the consultant is acknowledging that the CRIS and CRABS file search has been completed for the project. The BLM will acknowledge receipt of the form and fax a fieldwork authorization for projects located on the public lands. Call the field office if BLM has not responded in five working days.

The BLM assesses the potential for traditional cultural properties to be located in or near the proposed oil and gas undertaking when reviewing the Fieldwork Authorization Request/Notification of Records Search Completion Form for oil and gas undertakings. If a project is in or near an area of concern to Native American tribes, the BLM will notify the operator and alert the cultural resource consultant. Even in the absence of such notification, the consultant must report evidence of traditional cultural use observed in or near project areas to the BLM (*e.g.*, sweat lodges, prayer flags and tobacco offerings). The BLM is responsible for consulting with the tribes regarding issues of concern to them.

DRAFT

Cultural resource inventory and recording procedures

Block survey at proposed well sites

Unless the operator chooses to inventory a larger area, cultural resource inventory is to be completed on a 10-acre unit with the well location in the center of the unit square. (The BLM may require block surveys of 40 acres or more if warranted by resource concentration or sensitivity.) Orient the block survey unit toward true north. Stake the corners of the survey unit before starting the inventory and leave the stakes in place. Use linear transects to survey the area unless topography prevents such transects.

If all or part of the survey area in an upland setting lies within cultivated areas, crested wheatgrass plantings and chisel-plowed areas, contact the field office cultural resource specialist to confirm the level of survey required. Within these previously disturbed uplands, documented reconnaissance inventory to determine the presence of standing structures and homestead remains may be all that is warranted.

Linear survey for access roads and pipelines

Centerlines of proposed pipelines and access routes must be staked before cultural resource inventory begins, unless they follow existing roads or trails. Inventories must include proposed access corridors where no road or trail currently exists and all trails and roads, other than those that are crown-and-ditch, from the well to the lease boundary (the specific lease on which the well is located). Surveys for connecting pipelines include a corridor from the proposed well to an existing pipeline or well, including areas beyond the lease boundary, regardless of surface ownership.

Additional inventory may be required for access routes beyond the lease boundary, if the operator must obtain a right-of-way from the BLM or if the BLM analyzes effects beyond the lease boundary in its environmental assessment (EA). Inventories for access rights-of-way include proposed access corridors on public lands; trails and roads, other than crown-and-ditch roads, as well as corridors where no road or trail currently exists are to be inventoried.

The standard area to be surveyed for access roads and small gathering pipelines is 50 feet on both sides of the centerline of the road and pipeline corridor (total 100 feet). The BLM may require a wider inventory corridor when a construction right-of-way width is 50 feet or more. Reroutes must be flagged in such a way as to be easy to follow from the points where the reroute leaves and rejoins the original line. Map data for pipeline and access route centerlines must be obtained with GPS hardware and software capable of 1-3 meter precision with differential correction.

Recording cultural resources

Record cultural resource sites using the guidance in the BLM handbook. Record stone feature sites as detailed in the BLM's "Requirements for the Recordation of Archaeological Properties

DRAFT

with Stone Features”, called here the “stone feature requirements” (BLM Handbook, Appendix 6). Mark the location of tipi rings and other stone features with a surveyor’s nail and aluminum tag identifying the site field number and feature number. Sites that extend beyond the survey area must be recorded to 100 feet outside of the survey area boundary. If the site continues still farther from the survey boundary, indicate the direction and estimate the distance to the site boundary. Report this boundary information on the site form and illustrate it on the site map. Discuss proposed changes to the boundaries of previously recorded sites with the BLM cultural resource specialist before making such changes.

Before recording cultural resource sites, establish a datum outside of the area that would be disturbed during construction. The datum may be rebar or pvc pipe with an aluminum identification tag attached. Reference all cultural features from the datum. Map data will be obtained from measured distances using a tape or surveyors wheel and recording azimuth or bearing from the datum stake. In lieu of using a compass and tape, map data may be obtained from a GPS unit with 1-3 meter precision after differential correction. Record the site boundary as a polygon. (See also the requirements for the site map on page 7).

Determining effects to cultural resources

When determining effects to cultural resources, the BLM will generally require surface-disturbing activities related to well construction to be a minimum of 100 feet from a site boundary. Where surface disturbance from construction and/or use of access roads and pipelines will not exceed 15 feet on both sides of the centerline (total 30 feet), the site boundary must be at least 50 feet from the centerline. The BLM may require the operator to place temporary barriers or use a monitor to ensure the protection of sites within the survey area during project construction. Archaeological testing may be required if proposed surface disturbing activities are closer to, or within, site boundaries.

Reporting procedures

Cultural resource inventory reports are to be completed according to requirements in the BLM handbook. Use the Small Scale and Negative Inventory/Monitoring Report Form (Attachment 2) to report surveys covering 80 acres or less and larger inventories in which no cultural resources were found. Do not use this form when a context must be developed to evaluate cultural resources or when a traditional cultural property is within or near the proposed project area. All inventory reports must document the nature of the project, specific field methods and cultural resources in sufficient detail that a reader who is unfamiliar with the undertaking can understand what was found and make rational and defensible resource management decisions. Submit three (3) copies of the report, two (2) copies of site forms, and one (1) copy of the CRABS data entry form to the BLM field office. Do not attach or bind the site forms to the report.

Negative report

When no cultural resources other than isolated finds are found in the survey area, the inventory report shall consist of the completed Small Scale and Negative Inventory/Monitoring Report Form (Attachment 2), a 1:24,000 map of the project area and a photograph or digital image of

DRAFT

the project area. Submit isolated find forms with the report as needed (do not attach). An acceptable negative inventory report must conform to the format in Attachment 2 as follows:

1. BLM Report Number: This is a unique identifying number issued by the BLM office after receiving the report from the consultant.
2. Cultural Resource Use Permit Number and Expiration Date: Self-explanatory.
3. Report Title (Project Title): The name given the report should convey information about the specific project (*e.g.*, "Cultural Resource Inventory of the Far North Energy 1123-2 Well, Access and Pipeline").
4. Fieldwork Date(s): Give the dates on which fieldwork was completed for the specific project.
5. Report Date: Self-explanatory.
6. Consultant Name and Address: Self-explanatory
7. Acreage: Note the total number of acres inventoried, then break the total down into "Federal", "State" and "Private" to the nearest acre. Also specify the number of acres inventoried as a block (*e.g.*, the 10 acres surrounding a proposed well) and the size of the impact area within the survey block. The impact area includes all terrain where the surface may be altered by project activities such as excavation, drilling, vehicular travel, materials stockpiling, etc. Next, list the number of acres inventoried for linear projects that lie outside of the block survey area (*e.g.*, access roads, pipelines) and note the impact area within the linear corridors surveyed.
8. Sponsor Name and Address: The sponsor is the individual or firm seeking a land use authorization from the BLM who has hired the cultural resource consultant.
9. Location: This is the legal location of the proposed undertaking.
10. Records Search: Note the date on which the CRIS and CRABS records search was received from the SHPO. Also list the sites (by site number) found to be within ½ mile of the proposed undertaking. Show all sites within 1/4 mile of the proposed undertaking on the 1:24,000 topographic map (see page 5).
11. Environmental Setting: Briefly describe the topography, surface geology, plant community, etc. of the project area. Note whether all or part of the project area has been previously cultivated or disturbed by other modern activities. Estimate surface visibility at the time of the inventory.
12. Description of the Undertaking: Describe the proposed project in enough detail to convey how it would affect the surface. Note the nature of the access route from the lease boundary to the well location (bladed, unimproved two-track, crown-and-ditch, native prairie, cultivated field, etc.) and provide details regarding road construction, if planned. Describe the nature of roads or trails for which BLM has required a right-of-way for access beyond the lease boundary

DRAFT

and discuss road construction or maintenance plans. Describe the pipeline route, briefly state how the pipeline would be constructed and note the size of the pipe. If the operator does not intend to identify a pipeline route until after the well is drilled, indicate that cultural resource inventory will be needed before the BLM approves the pipeline.

13. Field Methods: Self-explanatory.

14. Cultural Resource Summary: For a negative report, simply state that no cultural resources were found. Show the location of isolated finds on the project map. Include isolated find forms with the report.

15. Management Summary/Recommendations: For a negative report, state that no cultural resource issues would preclude approval of the undertaking.

16. Sign and date the document as the archaeologist responsible for the report.

Topographic Map: Place the location of the project and inventory area boundaries on a 1:24,000 scale topographic map. Show the lease boundary and access route from the lease boundary to the well and any roads or access routes for which the BLM has required the operator to obtain a right-of-way beyond the lease boundary. Display the pipeline route clearly from the well to its connecting point with an existing pipeline. Plot previously recorded sites located within 1/4 mile of the survey area. Topographic maps of pipeline and access routes must be generated from GPS data and a mapping program. When using GPS data with a mapping program, ensure the map scale is 1:24,000. Identify in the map legend the make and model of the GPS unit and the name of the mapping program used.

Accurate placement of the proposed well, access and pipeline on the topographic map is very important. During BLM's review, this map is compared with the map supporting the operator's land use application (*i.e.*, APD, sundry notice, right-of-way). The project location identified in the cultural resource inventory report must correspond to the operator's mapped location or the project will be delayed until the discrepancy is explained and corrected.

Positive report

When cultural resources other than isolated finds are in the survey area, the inventory report shall consist of a completed Small Scale and Negative Inventory/Monitoring Report Form (Attachment 2), a 1:24,000 topographic map and photograph or digital image of the project area, and a project map. Submit site records and isolated find forms with the report (do not attach). An acceptable positive inventory report must conform to the format in Attachment 2 as described for the Negative Report above with the following additional information:

14. Cultural Resource Summary/Finding of Effects: As needed, add summary information to item 14, briefly describing and evaluating cultural resources found (the detailed description and evaluation should be in the site form only). Clarify the spatial relationship of sites to the proposed project with reference to the project map.

DRAFT

15. Management Summary/Recommendations: State whether the project, as planned, has the potential to affect eligible or potentially eligible cultural resources. If eligible or potentially eligible resources could be affected, recommend what should be done to avoid or reduce adverse effects to cultural resources. When recommending avoidance, be specific about distances and methods of avoiding the resources. If a well pad must be relocated, specify the direction and distance it should be moved. If available, include engineering station numbers in the description of reroutes for linear corridors. In most cases, significant resources should be avoided by at least 100 feet in the well construction area and 50 feet by pipelines and access roads. If you propose the use of site protection barriers, describe the type of barriers and their locations. Plot the barrier locations on the project map. If you recommend construction monitoring, be very specific about when it is required and how it should be conducted.

Topographic Map: Complete the topographic map per instructions for a negative report and plot the location of newly recorded sites.

Project Map(s) (drawn to scale): The purpose of the project map is to show the relationship between the proposed project and sites recorded in the survey area. Include the boundaries of the inventory block and/or linear corridor, whichever is nearest the sites. Indicate the outer limits of the area subject to surface disturbance from project construction and use. Also include the boundaries of sites and the location of isolated finds. Depending on where cultural resource sites are located, the project map would show the block survey area and/or a segment of the road or pipeline survey. Reroutes must be shown with engineering stations, if available, and noted in the report text.

If project map data was acquired with a compass and tape, attach a list indicating the distance and direction (azimuth or bearing) from the well center stake to each site datum within the survey block. Also indicate the distance and direction from the well center stake to the ends of any recommended site protection barriers. If using GPS data, include the UTM coordinates for the well center stake, survey block corners, barrier corners and site datums. For sites along the proposed access road or pipeline, list the shortest distance from the site boundary to the centerline. Ensure the map scale is adequate to show detailed spatial relationships within the survey area. Include contour lines on project maps made with GPS data and a mapping program. Identify in the map legend the make and model of the GPS unit and the name of the mapping program used.

Monitoring Report

When no cultural resources are disturbed or discovered during monitoring, report the results on the Small Scale and Negative Inventory/Monitoring Report Form (see also page 8).

Site Record Forms

Follow the instructions in the BLM handbook and stone feature requirements for completing site forms. Submit two copies of each site form with the inventory report (do not attach them to the report). Forms for sites previously recorded in the survey area must be updated if they do not accurately reflect the nature of the site or distribution of features in the survey area. Submit a

DRAFT

copy of the original site form with the revised form.

Site Map(s): Site maps must be scale drawings from compass and tape data or produced from a mapping program with differentially corrected GPS data. At a minimum, they must include the following:

1. Site number, date, name of recorder, north arrow and scale.
2. Site datum.
3. Site boundary
4. Locations of all features and artifact concentrations.
5. Locations of collected artifacts.
6. Modern features such as roads, fences, power lines and dams.
7. Topographic features using approximations of contour lines.
8. Natural features such as potholes, streams, and springs.
9. Make and model of the GPS unit and name of the mapping program used.

If site map data was acquired with a compass and tape, attach a list indicating the distance and direction (azimuth or bearing) from the site datum to each cultural feature, artifact concentration and the location of collected artifacts. If map data was acquired with a GPS unit, include the UTM coordinates for the site datum, cultural features, artifact concentrations and the location of collected artifacts. Include contour lines on site maps made with GPS data and a mapping program.

Site testing and evaluation

Evaluate cultural resource sites for which enough information is available without testing. Sites that cannot be avoided by redesigning the project may also have to be evaluated; contact the appropriate BLM cultural resource specialist to determine testing needs. Follow the instructions in the BLM handbook for completing site testing and evaluation. For tipi ring sites, use the testing and evaluation procedures in the BLM's requirements for stone feature sites.

Submit a Fieldwork Authorization Request Form 8151-3 to the BLM field office before initiating archaeological testing. A testing plan must accompany the request which includes (1) the purpose of the testing proposed, (2) the location of the testing on a plan view site map and/or topographic map, (3) an explanation of field methods and excavation strategy and (4) a description of analyses to be completed on samples/specimens collected. Testing proposals shall be consistent with the guidance in the BLM handbook and requirements for stone feature sites. The BLM field office will review the testing proposal and discuss any outstanding issues with the consultant. A fieldwork authorization will be issued after BLM completes any necessary environmental review and/or Native American consultation.

Testing reports must clearly describe field methods, what was found, analyses performed, results of analyses and conclusions about the potential of the site to yield important information. Where appropriate, use photographs, drawings and tables to illustrate the data and information recovered. Provide maps that clearly and accurately identify where the work took place.

DRAFT

Monitoring

Monitoring means an archaeologist meeting the requirements for an excavation-level cultural resource use permit must be present while surface disturbing activities related to oil and gas development occur. The BLM may determine an archaeologist needs to be on site to ensure permit conditions of approval or stipulations to a right-of-way designed to protect eligible or potentially eligible cultural resources are met. For example, monitoring may be required when surface disturbance related to well pad construction is less than 100 feet from a site boundary or other conditions suggest cultural resources could be affected.

When contacted by the operator to arrange for monitoring, the consultant should obtain a copy of the special conditions attached to the operator's land use authorization and submit a Fieldwork Authorization Request/Notification of Records Search Completion Form to the BLM field office. When no cultural resources are disturbed or discovered during monitoring, report the results on the Small Scale and Negative Inventory/Monitoring Report Form.

If buried cultural deposits are exposed by construction activity, operations must stop in the vicinity of the discovery and the discovery must be reported to the BLM immediately. Surface disturbing activities may resume no closer than 100 feet from the discovery area. Construction shall not resume in the discovery area until it is authorized by the BLM.

Data recovery

Follow instructions in the BLM handbook and stone feature requirements to obtain a cultural resource use permit and to plan, conduct and report a data recovery project.

Timely reporting

The consultant is responsible for ensuring cultural resource inventory; testing and monitoring reports are submitted to the BLM within 60 days of completing fieldwork. If a report is likely to be submitted late, notify the BLM field office at least two days before the due date, explain the reason for the delay and provide a date when the report will be submitted. Send the notification via regular mail, fax or e-mail. The BLM will acknowledge receipt of the message. Granting additional time for reporting is at the BLM's discretion, based on the reason for the delay. Acceptable reasons for delay include such circumstances as reporting an unusually complex project, awaiting the arrival of carbon 14 dating results or other necessary information. A pattern of late reporting may result in permit suspension or revocation.

Coal Bed Natural Gas (CBNG)

The basic cultural resource guidance for Coal Bed Natural Gas projects can be found in Appendix E of the *Coal Bed Natural Gas APD and Project POD Guidance Manual*. This document is available online at <http://www.mt.blm.gov/mcfo/cbng/index.html>.

DRAFT

Based on our current experience with CBNG projects we now believe that Class III block inventories, generally corresponding to the footprint of the Plan of Development (POD), should be used for CBNG projects. This reduces the number of individual reports for a given POD where changes to the POD are common and necessary. It also reduces the potential costs of cultural resource work by the operator by limiting the number of individual field inspections. Block inventories should include all well locations, access roads, pipelines, water discharge lines, electrical lines, facility buildings and all other operations involving surface disturbance.

In addition to Class III block inventories, each POD area should be reviewed by the cultural resource consultant for its potential to contain historic and/or cultural landscapes. The Tongue River Valley, with some exceptions, remains much like it was 100 years ago with many ranches consisting of historic buildings and related facilities that date as early as the late 1800s. Consultants should evaluate whether such landscapes exist within individual PODs and then document those findings in their Class III cultural resource reports. Guidance on the identification and evaluation of historic landscapes can be found in the National Park Service publication *Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes*, Preservation Briefs No. 36 and in the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (NPS 1966).