

INVENTORY NEEDS ASSESSMENT FORM
Bureau of Land Management Nevada State Office
Cultural Resources Inventory Needs Assessment

BLM Office: Winnemucca District Office/Humboldt River Field Office

To be completed by Project Lead/Manager:

1. Name of Project Lead/Manager: Marcie Purkey
2. Project Name: Brady Hot Springs-Seismic Orientation Survey
3. Project Description: This Notice of Intent to conduct a geophysical reflection survey has been issued a U.S. Department of Energy (USDOE) geothermal research grant. The overall purpose of this geophysical survey is divided into two specific tasks: (1) Seismic Noise Monitoring, and (2) Seismic Orientation Survey.

Task 1: Seismic Noise Monitoring-June 2010

This task entails collecting noise at six locations within the overall study area. Each site would have up to twenty 3-component geophone stations laid out on two legs that are 90 degrees apart (Figure 1). Station spacing would be 55 feet, which makes each leg of each monitoring array 1100 feet long. Station locations would be marked with pin flags. The geophones and cable would be laid out by up to four people using ATVs, resulting in minimal surface disturbance. Any area that has volcanic fumaroles, dense vegetation or steep terrain would be accessed on foot. Any areas identified as biologically or archeologically sensitive would be avoided completely. Activity would be limited to a width of about 10 feet along each leg of each profile. The survey would require approximately 4 hours per site. The entire survey would take approximately 1 week to complete. Upon completion, all flagging and equipment would be removed.

Task 2: Seismic Orientation Survey-June-September 2010

This task would consist of a seismic survey along up to four seismic lines. The data acquired through Task 1 would determine the actual number of seismic lines required for additional data acquisition. The lines are located within the main portion of the Brady Hot Springs Geothermal area. Where possible, each of the profiles would be located along existing dirt or paved roads, many of which currently exist in the area. Activity along each line would be limited to a width of 20 feet. Each line would require about one week to complete. Receiver and source stations along each line would be marked with numbered pin flags. Receiver station spacing will be either 10 or 20 foot intervals, and source points (vibration points) would be 20 or 40 foot intervals. Four passes along each line would be required. Pass 1 would be to survey in the stations by ATV or foot. Pass 2 would be to lay out the cable and geophones and would utilize about four people with two ATVs with attached trailers. Pass 3 would be with the vibrator machine to acquire the data. Pass 4 would be to pick up all of the flagging and equipment; similar to Pass 2.

The seismic (vibration) source will be a Bolt LSS-3B air-impact source mounted on a John Deere Company 540B log skidder that is self-propelled (Figure 2). The Bolt has 28 inch

To be completed by Cultural Resource Specialist (CR):

Area of Potential Effect:

APE Acreage: 1,800 acres

Records Check:

Records Examined: CR2-1369(N), 2-2966(P); NSM 1-232, 1-288, 1-358, 1-364; (determined from BLM overlays & databases; NVCRIS).

Results: The southernmost NW-SE line will cut across the California Emigrant Trail (CrNV-02-3305).

Inventory Type Needed:

None _____

Categorical Exemption (Number _____)

Reconnaissance _____

Class I X

Class II _____

Class III X

Architectural _____

Rationale for Inventory Type determination: For the current routes of the seismic testing trucks (see map), routes through T22N R26E Section 11 and Section 14, and T22N R27E Section 07 are in areas where there has been no Class III survey. A Class III survey has not been done in the privately held area of T22N R26E Section 12. A Class III survey has not been done for the seismic route in areas west of I-80 in T22N R26E Section 1, and for most of the seismic route in T22N R27E Section 6, SW ¼.

Tribal Notification/Consultation Needs: none

Rationale: No sites will be impacted by this phase of the project.

Tribe(s) to be contacted:

Public Notification Needs: none

Rationale: There will be no environmental or cultural impacts from this project.

Person(s), group(s) to be contacted:

CRS Approval:

Field or other appropriate Manager Concurrence:

Date:

Date:

Mark E. Hall

[Signature]

5/17/2010

5-17-2010

ADDITIONAL:

As noted above, the southernmost NW-SE line cuts across the California Emigrant Trail (CrNV-02-3305). The proponent must re-route and/or otherwise insure that no effect occurs to the trail. Re-routing of any other seismic lines must insure that no NRHP/NRHP eligible sites are impacted.