

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**CULTURAL RESOURCES INVENTORY NEEDS ASSESSMENT.**

Proponent fills out 1-3

Requested by: Sheila Mallory

1. BLM Office: NV020
2. Project Name Number, and Description: 2-meter temperature gradient wells, NVN-087792

TGP is proposing to map temperature variations below the earth's surface by installing 2-meter temperature gradient probes placed on a ¼ mile grid out a ¾ mile distance (see attached map). The surveyors would implant 2.2 m long, ¼ inch diameter steel probes into the ground surface at depths of up to 2 meters. The probes would be driven into the ground using a handheld ¾ inch demolition hammer. Power for the hand held hammer would be supplied by a 2.4 kW generator. The probe would remain in the ground for approximately one hour to ensure temperature stabilization. Upon stabilization, a thermocouple would be inserted into the probe and readings would be taken. Some thermocouples would remain in the ground for up to 24 hours. A GPS will be used to record the coordinates of all temperature measurement locations. A car jack would be used to remove the rod from the ground if it cannot be removed by hand. The probes, thermocouple, data loggers, demolition hammer, generator, and other equipment would fit into an ATV, and the tailgate of the ATV would serve as a working platform for hammering the probes into the ground.

No new roads or pads would be constructed for this project. ATVs would use existing roads where possible; however over land travel would also be required. ATVs would not pass over the same area more than twice. In addition, the ATVs would be equipped with balloon tires to prevent rutting and minimize erosional and vegetation impacts. All holes would be filled in.

It is anticipated that the survey would take approximately two weeks. The proponent would like to begin the project between June 22 and July 31, 2009.

3. Legal Location, Land Status, Map References. Attach 1:24,000 topo map with accurate map plot of project. Location: T. 25 N., R. 35 E., sections 1, 2, 10, 12, 22, 28, and 32; T. 25 N., R. 36 E., section 2, 4, and 6; T. 26 N., R. 35 E., Section 24, 27, 32, and 36; T. 26 N., R. 36 E., section 10, 22, 26, 28, 34, and 36

USGS Quads: Cornish Peak and Logan Peak, Dixie Hot Springs NE, West of McKinney Pass (1:24,000)

Inventory Type Needed: (File Search determines the level of inventory needed.)

1. None
2. Categorical Exclusion (Number: c.3 )
3. Records Check/Class I
4. Reconnaissance
5. Class II
6. Class III

X

List results of file search here and recommended level of inventory:

Results of Previous Inventories: Drill holes are not in previously inventory areas. None of the proposed temperature gradient holes are located in known sites. However, they are near one National Register listed TCP, the Dave Canyon TCP, as well as 5 other TCPs recommended by the Tribes—the Hughs Canyon, New York Canyon, Kitten Springs, Fencemaker, and Red Hill Logan Springs TCPs.

Expectations: N/A

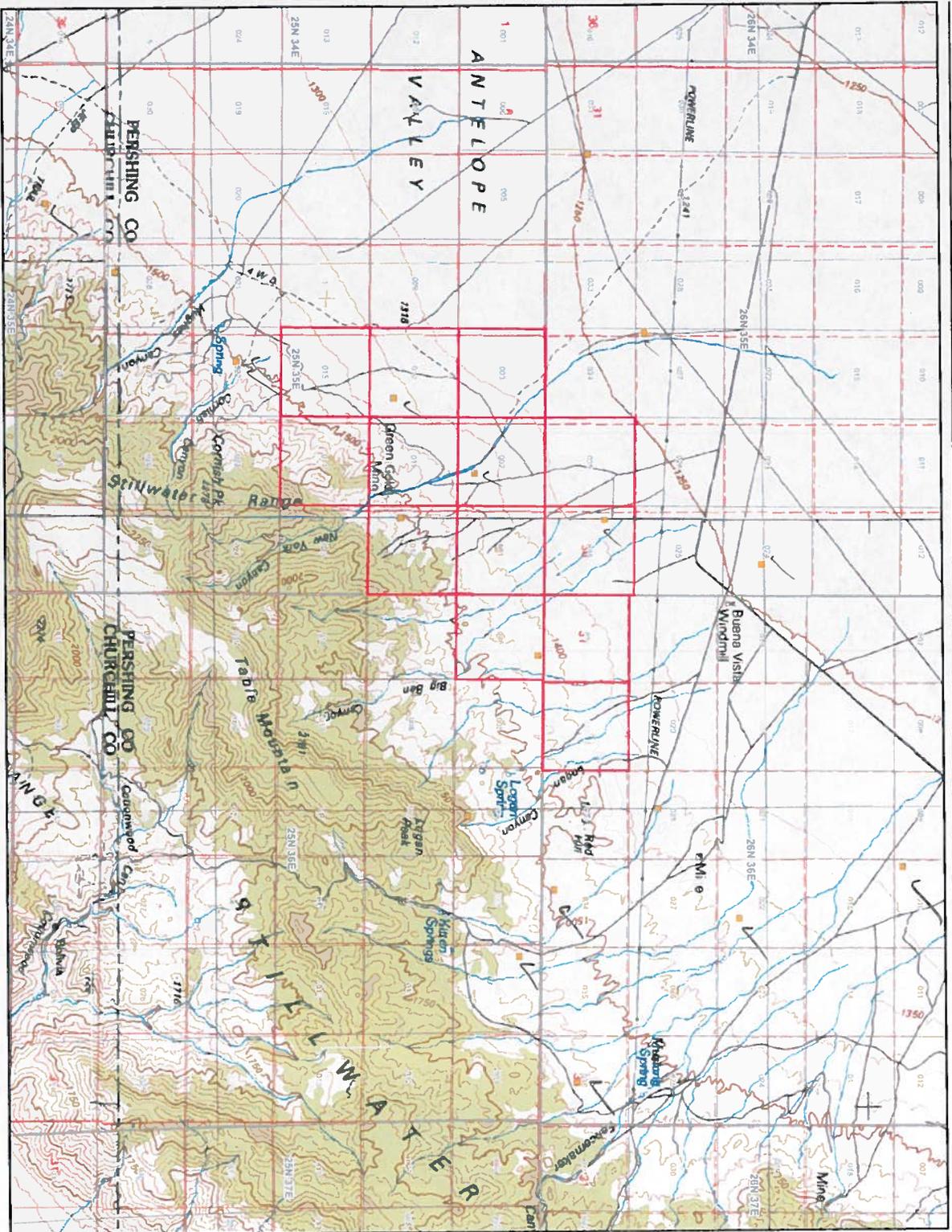
Rationale: Disturbance be restricted to 1/4 inch holes. Holes are not in known sites. ATVs will be used. There will be no staging area. Therefore a Class III inventory is not required.

Archaeologist: *Peggy McQuelmin*

Date: *7-8-09*

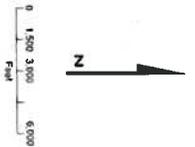
Manager: *Scott R. Riches*

Date: *7/8/2009*



- New York Canyon Lease
- 2 M Temperature Gradient Well (40'x40')
- Township/Range Boundary
- Section Boundary

Lease Numbers:  
 N-74854  
 N-76298  
 N-76299  
 N-76300  
 N-76301



Terra-Gen Power, LLC  
 Northern Nevada Geothermal Project  
 Two Meter Temperature Gradient Wells



COURTESY OF TERRACON CONSULTING ENGINEERS ARCHITECTS AND PLANNERS  
 2500 W. 10TH AVENUE, SUITE 200, DENVER, CO 80202  
 TEL: 303.733.1100 FAX: 303.733.1101  
 WWW.TERRACON.COM