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Geothermal Technical Partners, Inc.  
5301 Simons Drive  
Reno, NV 89523  
June 11, 2010

U.S. Bureau of Land Management  
5100 East Winnemucca Blvd.  
Winnemucca, NV 89445

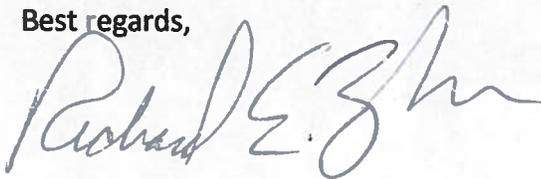
**Re: Temperature Gradient Drilling at McGee Mountain**

Hello, Marcie:

Attached you'll find documentation for a temperature gradient drill hole program at our McGee Mountain property in Humboldt County, Nevada. We would like to permit 9 sites on BLM land where we have geothermal leases, for the purposes of drilling 750 foot air rotary holes. All drill sites are on existing roads or reachable via 'tracks' requiring no road building equipment. We are in the process of going ahead with the bonding requirements and filing applications with the Nevada Division of Minerals.

As we have tailored this program to avoid impacts that would require an Environmental Assessment, we hope to be able to drill this summer. We would therefore appreciate your input as to the steps and timeframe necessary for us to get permitting completed in a timely manner. Much of our data on McGee Mountain is in the form of GIS layers, so do not hesitate to ask for anything in that regard that facilitates your permitting.

Best regards,



Richard Zehner  
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# Caldera Geothermal, Inc. Temperature Gradient Hole Program

## I. PROJECT DESCRIPTION

### A. Introduction and Location

Caldera Geothermal, Inc. proposes to drill temperature gradient holes at its McGee Mountain project in T45N, R27E, Humboldt County, Nevada. The project entails air drilling of nine holes with total depths of 750'. All drill sites are reachable either by existing road or by tracks that require no road building equipment. All holes will be drilled similarly, as detailed below.

Surface Owner: Bureau of Land Management  
Geothermal Lessee: Caldera Geothermal, Inc.  
BLM Lease Numbers: NVN-74308, NVN-74309, and NVN-86867

In short, the program to drill each hole will consist of the following:

1. Cement 60 feet of 8 inch conductor in a 12 1/4 inch hole.
2. Drill  $\pm 7 \frac{7}{8}$  inch hole to  $\pm 750$  ft with air or LSND mud
3. Mud up and condition hole with bentonite mud system for running tubing.
4. Run  $\pm 2$  inch steel tubing to TD.
5. Rig down and move rig off location
6. Run temperature Logs.

*excess equipment?  
will need to be staged  
if so then show on a map!*

### B. Proposed Well Site and Access Roads

Access to the well site will be on existing dirt roads, and/or tracks that reach the drill sites without any road building equipment (in places small boulders will need to be moved by hand). Figure 1A shows details of the proposed location and tracks for sites TG2, TG3, TG4, TG5, TG6, and TG11. Figure 1B shows location and tracks for sites TG7, TG8, and TG9. Table 1 gives detailed location coordinates for each drill site. The proposed well site layout is outlined on the attached sketch; "Typical temperature gradient hole well site layout". Drilling water will be obtained from private sources, including the Gridley Lake warm spring in SW/SW Section 12, T44N, R27E (water rights controlled by Alder Creek Denio Ranch LLC).

### C. Drilling Process

The well will be drilled with a truck mounted rotary drilling rig. The rig will be equipped with diesel engines, storage tanks, mud pumps, air compressors and other typical auxiliary equipment. The drilling program involves drilling a 12 1/4 inch hole to 60 feet, setting 60 feet of 8 inch conductor, and cementing it in place. A gate valve will be installed on the 8 inch casing in order to control the well in the event of unexpected artesian flow in encountered. A 7 7/8 inch hole will then be drilled to 750 feet with air. If the flow line temperature exceeds 150 degrees Fahrenheit while drilling with air, the circulating medium will be converted to mud. If the flow line temperature exceeds 150 degrees Fahrenheit while drilling with mud, a mud cooling system will be installed in order to maintain flow line temperatures below 150 degrees Fahrenheit. At TD, the hole will be conditioned to run steel (~ 2 inch) tubing. The tubing will be capped at the bottom and filled with clear water. A schematic showing the completion for the proposed gradient hole is attached (Figures 2A and 2B).

*What will be done w/ the mud? ask for?  
Spreading  
bury cuttings*

*Where will  
extra equipment  
be stored  
Calc road distance  
for overland travel  
7 1/2 hrs to rig  
facilities not  
included  
drilling period  
# of times well  
will be monitored*

**Surface Formation and Estimated Geologic formation Tops:**

Surface: Quaternary sand, gravel

TD: Tertiary Volcanic Rocks

**Proposed Casing and Cementing Program:**

|           | hole<br>size | casing<br>size | depth           |
|-----------|--------------|----------------|-----------------|
| Conductor | 12 1/4 "     | 8"             | 60 feet         |
| Tubing    | 7 7/8"       | 2" Tubing      | surface to 750' |

**D. Circulating System**

The well will be drilled with an air circulating system. In the event that the well begins producing more water than can be contained on location (while air drilling), or in the event that the flow lined temperatures exceed 150 degrees Fahrenheit, the circulating medium will be converted to a clay based (bentonite) mud system. Flowing (artesian) conditions are not anticipated; however, if flowing conditions are encountered while drilling with air the circulating medium will be converted to mud and the mud weight will be balanced to control any potential under balanced conditions. Flow line temperatures will be kept below 150 degrees Fahrenheit by using mud coolers if necessary.

**E. Observation and Monitoring of well.**

Temperature logs will be acquired at various points in time after completion of the well.

**F. Well Control**

Artesian flowing conditions are not anticipated. Flow line temperatures will be monitored continuously, and if flow line temperatures reach 150 degrees Fahrenheit while drilling with air, drilling will be terminated and the circulating medium changed over to mud. If while drilling with mud, the flow line temperature ever exceeds 150 degrees Fahrenheit, drilling will be terminated and a mud cooler will be installed in order to keep flow line temperatures below 150 degrees Fahrenheit. In the unlikely event that artesian flow is encountered while drilling with air, the well will be shut in after tripping out of the hole and shutting the well head gate valve. A bentonite mud system will be prepared with an adequate mud weight to control the flowing conditions, and drilling will be resumed. In the unlikely event that artesian flow is encountered while drilling with mud, the well will be shut in after tripping out of the hole and shutting the well head gate valve. Kill fluid (cold water or heavy mud) will be pumped down the 2" kill to kill the well; the mud weight will be increased in the circulating system and drilling will be resumed without flowing conditions.

**II. PROTECTION OF THE ENVIRONMENT**

All CALDERA GEOTHERMAL, INC. and drilling contractor personnel will be informed of CALDERA GEOTHERMAL, INC.'s policy regarding undue degradation of the environment. These measures are intended to prevent all unacceptable impacts from occurring as a result of these drilling operations.

**A. Fire Prevention**

Fire extinguishers will be available on the site and around the drilling rig. Water that is used for drilling will also be available for fire fighting.

**B. Prevention of Soil Erosion**

Minimal soil erosion problems are anticipated from this project due to minimal road building-repairs or site construction. Any cut and fill slopes will be kept at a minimum. In addition, runoff will be channeled to energy dissipaters to minimize erosion.

**C. Surface and Ground Water Quality Protection**

Steel conductor casing cemented to 60 feet will protect the ground water from surface water.

**D. Air Quality Protection**

Road watering as necessary will minimize fugitive dust generation while using access roads.

**E. Prevention of Noise**

To abate noise pollution, mufflers will be utilized on engine-driven equipment.

**F. Protection of Public Health and Safety**

Public health and safety will be protected through instructions to work crews and contractors regarding compliance with State, Federal, County, and OSHA regulations.

**G. Protection of Fish, Wildlife, and Botanical Resources**

Direct impacts to wildlife habitat and botanical resources will be minimized by limiting surface disturbance.

**H. Protection of Cultural Resources**

If unexpected cultural resources are observed during construction or reclamation, operations will be suspended in the vicinity of the discovery and the Nevada State Historical Preservation Office (SHPO) and Bureau of Land Management will be promptly notified.

**I. Waste Disposal**

Solid waste materials (trash) will be deposited at an authorized dump by a disposal contractor.

**J. Environmental Monitoring**

Regular visual inspection of the drill site and access road will be conducted by the on-site operational personnel to quickly detect and correct any operational problems that could lead to environmental problems.

**K. Well Monitoring**

After completion of drilling, and the 2 inch tubing is set in place, temperature logs will be acquired from the hole for an indefinite period of time.

**L. Well Abandonment**

Pull 2 inch tubing, set cement surface plug set from 80 feet (20feet below shoe of surface casing) to ground level.

*change description of monitoring*

**SURFACE USE PLAN**

**1. EXISTING ROADS**

All existing roads used by this drilling operation will be maintained in the same or better condition as were existing prior to entry.

**2. PLANNED ACCESS ROADS**

Existing roads will be used to access the proposed location. All vehicles will stay on the designated access road to the drilling site.

### 3. WATER SUPPLY

Drilling water will be acquired and transported by private sources.

### 4. PLANS FOR RECLAMATION

A: Topsoil will be stockpiled and used for reclamation. The disturbed area will be returned to original contour, topsoil will be replaced, and the area will be rehabilitated in accordance with BLM recommendations (re-seeding, etc.).

B: All cellars, rathole and other bore holes unnecessary for further lease operations will be backfilled immediately after the drilling rig is released.

C: Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris and material.

Figure 1A: Location Map for Sites TG2, TG3, TG4, TG5, TG6, and TG11

Figure 1B: Location Map for Sites TG7, TG8, and TG9

Table 1: Site location information for planned gradient holes

Figure 2A: Schematic of proposed temperature gradient hole while drilling.

Figure 2B: Schematic of completed temperature gradient hole.

Figure 3: Well Site Layout

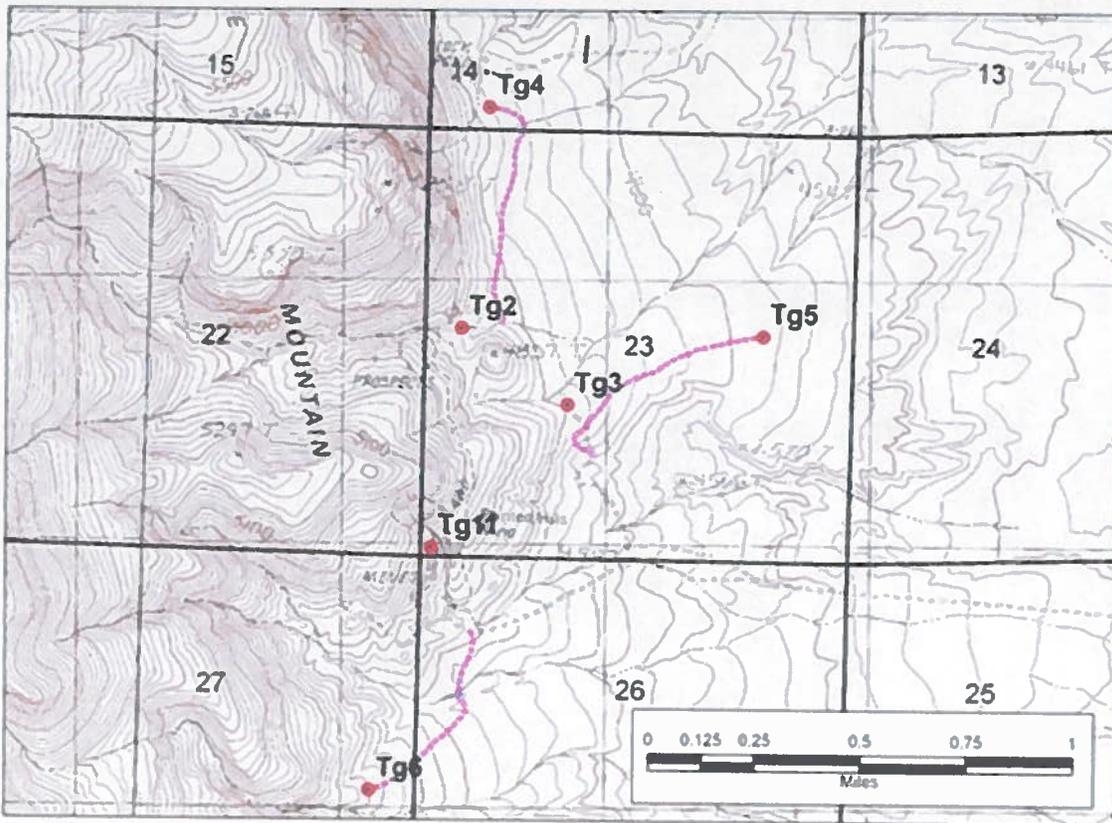


Figure 1A. Location of temperature gradient sites TG2, TG3, TG4, TG5, TG6, and TG11. Sections shown are in T45N, R27E, MDM. Most existing roads are shown, except for a small portion of existing road that continues north-northwest from Site TG3 to Site TG2. Proposed roadless tracks to sites TG4, TG5, and TG6 are shown in pink.

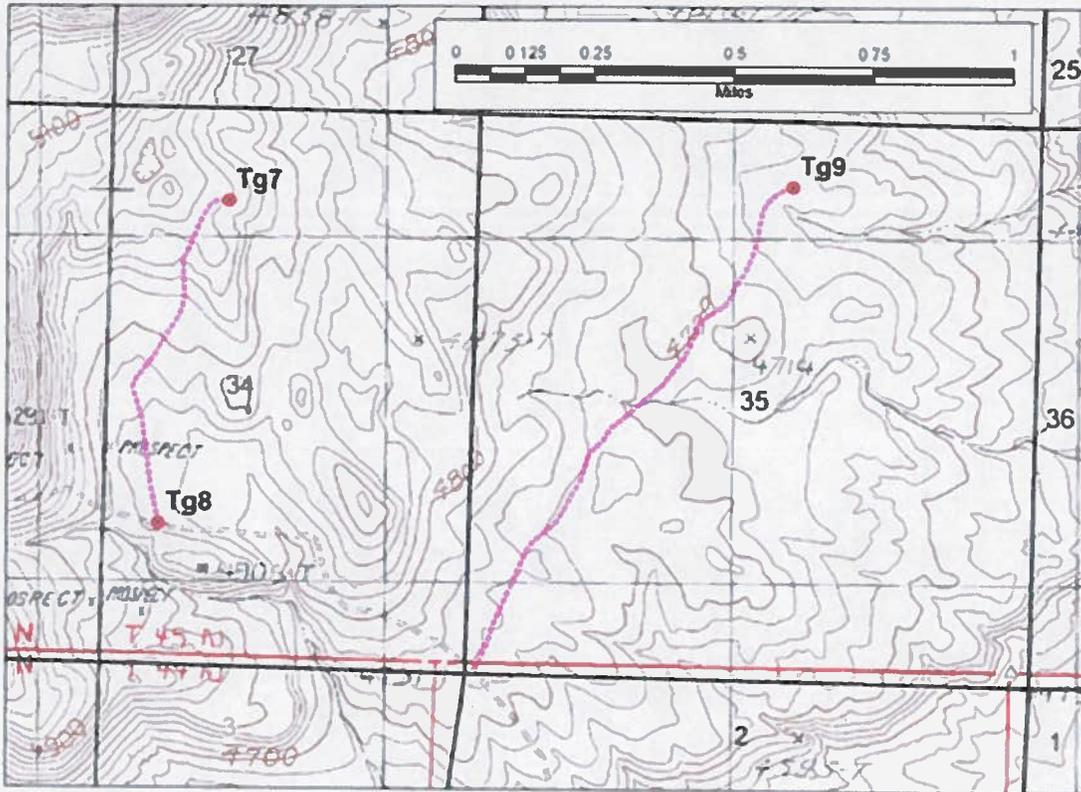
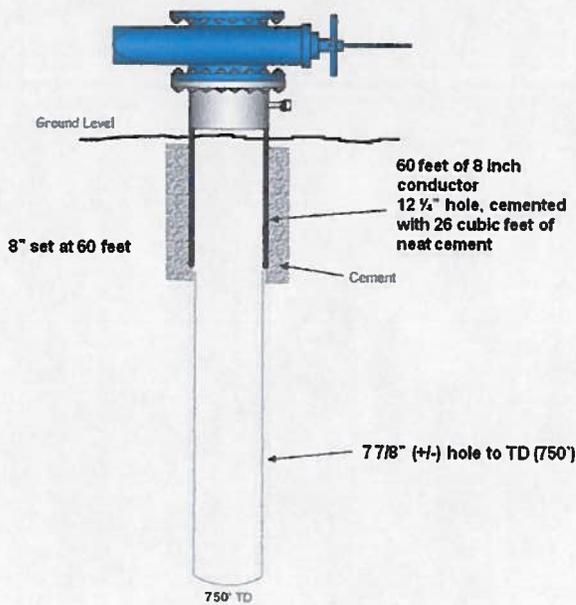


Figure 1B. Location of temperature gradient sites TG7, TG8, and TG9. Sections shown are in T45N, R27E, MDM. Site TG8 is located on existing roads. Proposed roadless tracks to sites TG7 and TG9 are shown in pink.

| Hole             | Site | Lease     | Easting | Northing  | Section | Q/Q section |
|------------------|------|-----------|---------|-----------|---------|-------------|
| McGee 2 (14-23)  | TG2  | NVN 74308 | 345,370 | 4,631,015 | 23      | SW/NW       |
| McGee 3 (36-23)  | TG3  | NVN 74308 | 345,770 | 4,630,725 | 23      | NE/SW       |
| McGee 4 (28-14)  | TG4  | NVN 86867 | 345,470 | 4,631,850 | 14      | SW/SW       |
| McGee 5 (74-23)  | TG5  | NVN 74308 | 346,510 | 4,630,990 | 23      | SE/NW       |
| McGee 6 (85-27)  | TG6  | NVN 74309 | 346,025 | 4,629,260 | 27      | NE/SE       |
| McGee 7 (52-34)  | TG7  | NVN 74309 | 344,460 | 4,628,300 | 34      | NW/NE       |
| McGee 8 (47-34)  | TG8  | NVN 74309 | 344,260 | 4,627,360 | 34      | NE/SW       |
| McGee 9 (51-35)  | TG9  | NVN 74309 | 346,100 | 4,628,350 | 35      | NW/NE       |
| McGee 11 (18-23) | TG11 | NVN 74308 | 345,260 | 4,630,180 | 23      | SW/SW       |

Table 1. Site locations for the 9 proposed 750' TD temperature gradient holes. All holes are in Township T45N, Range 27 East, Mount Diablo Meridian. Eastings and Northings are in UTM Zone 11, NAD83 projection and indicate the center of the drill site.

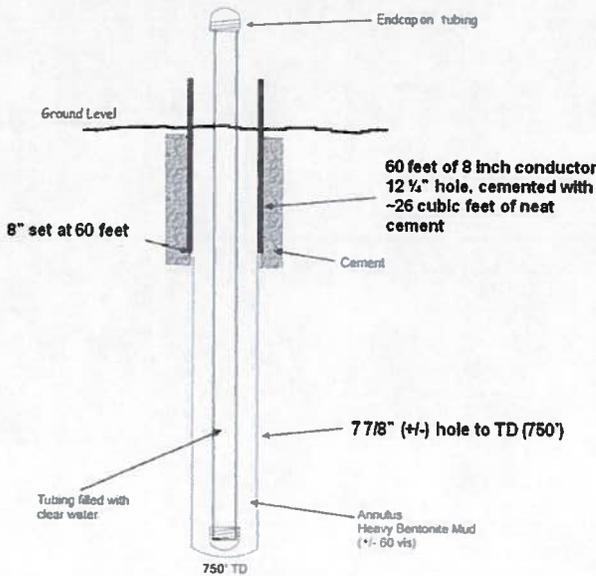
Figure 2A: Proposed temperature gradient hole design while drilling.



**Condensed drilling program**

1. Drill 12 1/2" hole to 60'
2. Run 8" casing to 60' and cement in place
3. Wait on Cement 6 hours
4. Install 2" kill line; 8" flange on surface casing; gate valve
5. Drill 7 7/8" hole to 750' with air or LSNG bentonite mud
6. Mud up with 60 vis. (+/-) mud
7. Run 2" tubing
8. Remove gate valve, rig down

Figure 2B: Proposed completed temperature gradient hole.

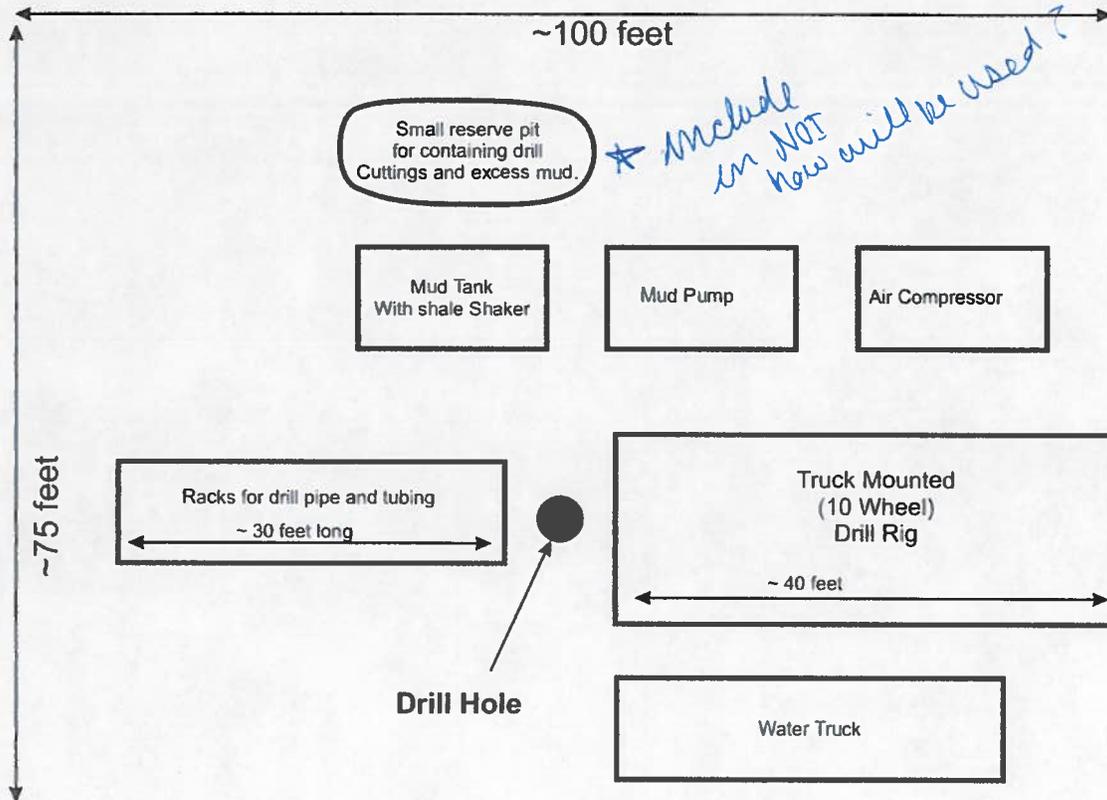


**Condensed drilling program**

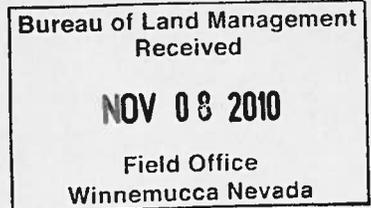
1. Drill 12 1/2" hole to 60'
2. Run 8" casing to 60' and cement in place
3. Wait on Cement 6 hours
4. Install 2" kill line; 8" flange on surface casing; gate valve
5. Drill 7 7/8" hole to 750' with air or LSNG bentonite mud
6. Mud up with 60 vis. (+/-) mud
7. Run 2" tubing
8. Remove gate valve, rig down

Completed temperature gradient hole  
(not drawn to scale)

Figure 3: Proposed well site lay out for temperature gradient hole.



**Typical Temperature Gradient Hole  
Wellsite Layout**  
(Not drawn to scale)



## Caldera Geothermal, Inc. Temperature Gradient Hole Program

### I. PROJECT DESCRIPTION

#### A. Introduction and Location

Caldera Geothermal, Inc. proposes to drill temperature gradient holes at its McGee Mountain project in T45N, R27E, Humboldt County, Nevada. The project entails air drilling of nine holes with total depths of 750'. All drill sites are reachable either by existing road or by overland tracks that require no road building equipment. All holes will be drilled similarly, as detailed below.

Surface Owner: Bureau of Land Management  
Geothermal Lessee: Geothermal Technical Partners, Inc., a subsidiary of Caldera Geothermal, Inc.  
BLM Lease Numbers: NVN-74308, NVN-74309, and NVN-86867

In short, the program to drill each hole will consist of the following:

1. Cement 60 feet of 8 inch conductor in a 12 1/4 inch hole.
2. Drill  $\pm 7 \frac{7}{8}$  inch hole to  $\pm 750$  ft with air or LSND mud
3. Mud up and condition hole with bentonite mud system for running tubing.
4. Run  $\pm 2$  inch steel tubing to TD.
5. Rig down and move rig off location
6. Run temperature Logs.

#### B. Proposed Well Site and Access Roads

Access to the well site will be on existing dirt roads, and/or overland tracks that reach the drill sites without any road building equipment (in places small boulders will need to be moved by hand). Approximately 5.9 km of overland track would be required totaling 1.38 hectares or 3.43 acres of area temporarily disturbed. Figure 1A shows details of the proposed location and tracks for sites TG2, TG3, TG4, TG5, TG6, and TG11. Figure 1B shows location and tracks for sites TG7, TG8, and TG9. Table 1 gives detailed location coordinates for each drill site. The proposed well site layout is outlined on Figure 3, and includes a 10' x 6' x 6' deep sump to catch drill fluids and cuttings. Drilling water will be obtained from private sources, probably the Gridley Lake warm spring in SW/SW Section 12, T44N, R27E (water rights controlled by Alder Creek Denio Ranch LLC).

#### C. Drilling Process

We anticipate that drilling each hole and mobilizing to the next hole will take approximately 4 days. Each drill shift will be 12 hours, centered on daylight hours, and crews will lodge offsite overnight. The crew will consist of two drillers and one geologist; supervisors for the drilling company and/or Caldera may make occasional visits. Vehicles will consist of the drill, water and pipe truck, two pickup trucks, and an ATV.

The well will be drilled with a truck mounted rotary drilling rig. The rig will be equipped with diesel engines, storage tanks, mud pumps, air compressors and other typical auxiliary equipment. The drilling program involves drilling a 12 1/4 inch hole to 60 feet, setting 60 feet of 8 inch conductor, and cementing it in place. A gate valve will be installed on the 8 inch casing in order to control the well in the event of unexpected artesian flow in encountered. A 7 7/8 inch hole will then be drilled to 750 feet with air. If

the flow line temperature exceeds 150 degrees Fahrenheit while drilling with air, the circulating medium will be converted to mud. If the flow line temperature exceeds 150 degrees Fahrenheit while drilling with mud, a mud cooling system will be installed in order to maintain flow line temperatures below 150 degrees Fahrenheit. At TD, the hole will be conditioned to run steel (~ 2 inch) tubing. The tubing will be capped at the bottom and filled with clear water. A schematic showing the completion for the proposed gradient hole is attached (Figures 2A and 2B).

**Surface Formation and Estimated Geologic formation Tops:**

Surface: Quaternary sand, gravel

TD: Tertiary Volcanic Rocks

**Proposed Casing and Cementing Program:**

|           | hole size | casing size | depth           |
|-----------|-----------|-------------|-----------------|
| Conductor | 12 1/4 "  | 8"          | 60 feet         |
| Tubing    | 7 7/8"    | 2" Tubing   | surface to 750' |

**D. Circulating System**

The well will be drilled with an air circulating system. In the event that the well begins producing more water than can be contained on location (while air drilling), or in the event that the flow lined temperatures exceed 150 degrees Fahrenheit, the circulating medium will be converted to a clay based (bentonite) mud system. Flowing (artesian) conditions are not anticipated; however, if flowing conditions are encountered while drilling with air the circulating medium will be converted to mud and the mud weight will be balanced to control any potential under balanced conditions. Flow line temperatures will be kept below 150 degrees Fahrenheit by using mud coolers if necessary.

**E. Well Control**

Artesian flowing conditions are not anticipated. Flow line temperatures will be monitored continuously, and if flow line temperatures reach 150 degrees Fahrenheit while drilling with air, drilling will be terminated and the circulating medium changed over to mud. If while drilling with mud, the flow line temperature ever exceeds 150 degrees Fahrenheit, drilling will be terminated and a mud cooler will be installed in order to keep flow line temperatures below 150 degrees Fahrenheit. In the unlikely event that artesian flow is encountered while drilling with air, the well will be shut in after tripping out of the hole and shutting the well head gate valve. A bentonite mud system will be prepared with an adequate mud weight to control the flowing conditions, and drilling will be resumed. In the unlikely event that artesian flow is encountered while drilling with mud, the well will be shut in after tripping out of the hole and shutting the well head gate valve. Kill fluid (cold water or heavy mud) will be pumped down the 2" kill to kill the well; the mud weight will be increased in the circulating system and drilling will be resumed without flowing conditions.

**F. Drill Cuttings**

A small proportion of the drill cuttings will be sampled in both chip trays and cloth bags that will be removed from the project site. The remaining cuttings, wet or dry, with or without mud, hot or cold, will be directed to the 10'x6'x6' sump which will be reclaimed after hole completion.

**G. Staging Area**

A temporary staging area will be set up at the west end of the E-W road leading to the Painted Hills mine (345,320E, 4,629,925N, UTM11 NAD83; see shapefile) at a wide road

junction. This is a previously disturbed area and all staging activity will be limited to it. Drilling equipment, fluids, and cement will be stored at this site during the duration of the drilling program. Tarps will be laid out to prevent soil contamination of drilling fluids or cement.

## **II. PROTECTION OF THE ENVIRONMENT**

All CALDERA GEOTHERMAL, INC. and drilling contractor personnel will be informed of CALDERA GEOTHERMAL, INC.'s policy regarding undue degradation of the environment. These measures are intended to prevent all unacceptable impacts from occurring as a result of these drilling operations.

### **A. Fire Prevention**

Fire extinguishers will be available on the site and around the drilling rig. Water that is used for drilling will also be available for fire fighting.

### **B. Prevention of Soil Erosion**

Minimal soil erosion problems are anticipated from this project due to minimal road building-repairs or site construction.

### **C. Surface and Ground Water Quality Protection**

To eliminate the potential for groundwater contamination, steel conductor casing will be cemented to 60 feet. To minimize surface water runoff, a sump 10' long by approximately 6' wide by approximately 6' deep ("small reserve pit" on Figure 3) will be dug by a backhoe to contain cuttings and drilling fluids. After drilling is completed, this sump will be reclaimed by a backhoe to approximate natural contours and re-seeded by a BLM approved seed mixture.

Under ordinary drilling conditions described above, only air, water, cement, and bentonite will be injected into drill holes. Should drilling encounter adverse conditions, only environmentally benign and approved materials will be injected into the hole.

### **D. Air Quality Protection**

Road watering as necessary will minimize fugitive dust generation while using access roads.

### **E. Prevention of Noise**

To abate noise pollution, mufflers will be utilized on engine-driven equipment.

### **F. Protection of Public Health and Safety**

Public health and safety will be protected through instructions to work crews and contractors regarding compliance with State, Federal, County, and OSHA regulations.

### **G. Protection of Fish, Wildlife, and Botanical Resources**

Direct impacts to wildlife habitat and botanical resources will be minimized by limiting surface disturbance.

### **H. Protection of Cultural Resources**

If unexpected cultural resources are observed during construction or reclamation, operations will be suspended in the vicinity of the discovery and the Nevada State Historical Preservation Office (SHPO) and Bureau of Land Management will be promptly notified.

### **I. Waste Disposal**

Solid waste materials (trash) will be deposited at an authorized dump by a disposal contractor.

**J. Environmental Monitoring**

Regular visual inspection of the drill site and access road will be conducted by the on-site operational personnel to quickly detect and correct any operational problems that could lead to environmental problems.

**K. Well Monitoring**

Temperature logs will be acquired at various points in time after completion of the well. After completion of drilling, and the 2 inch tubing is set in place, temperature logs will be measured from the hole for a period of time until the temperatures stabilize, up to six months after hole completion. Well monitoring will consist of placing a temperature measuring device (thermocouple or RTD) on a cable down the 2" steel tubing at periodic intervals, waiting for the temperature reading to stabilize, then taking the measurement. Access will be on a 4WD vehicle that will remain on the existing roads or overland tracks. Several measurements will be made per hole over this six month period to ensure reliability.

**L. Well Abandonment**

Pull 2 inch tubing, set cement surface plug set from 80 feet (20feet below shoe of surface casing) to ground level.

**III. SURFACE USE PLAN**

**1. EXISTING ROADS**

All existing roads used by this drilling operation will be maintained in the same or better condition as were existing prior to entry.

**2. PLANNED ACCESS ROADS**

Existing roads or overland tracks will be used to access the proposed location. All vehicles will stay on the designated access road or track to the drilling site. Approximately 5.9 km of overland track totaling 1.38 hectares or 3.43 acres of area temporarily disturbed will be required to reach the drill sites (see Figures 1A and 1B). The disturbances to the overland tracks are probably proportional to the numbers of times vehicles utilize them, and are typical of other mineral and geothermal drilling programs. A backhoe will come in and out of each drill site twice to dig out the sumps and reclaim them afterwards. The drill will drive in and out once per hole. The water truck will drive in and out to get water at a nearby location; when/if drilling with water, the water truck could make several trips in and out each day. The two pickups will drive in and out once each day and may occasionally go to the staging location for drilling supplies. After the hole is completed, several additional trips will be made to measure down-hole temperatures and attend to reclamation. Thus, an overland track might experience perhaps 10-15 round trips by a vehicle before the project is complete.

**3. WATER SUPPLY**

Drilling water will be acquired and transported by private sources from off the project area.

**4. PLANS FOR RECLAMATION**

A: Topsoil will be stockpiled and used for reclamation. The disturbed area will be returned to original contour, topsoil will be replaced, and the area will be rehabilitated in accordance with BLM recommendations (re-seeding, etc.).

B: All cellars, rathole and other bore holes unnecessary for further lease operations will be backfilled immediately after the drilling rig is released.

C: Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris and material.

Figure 1A: Location Map for Sites TG2, TG3, TG4, TG5, TG6, and TG11

Figure 1B: Location Map for Sites TG7, TG8, and TG9

Table 1: Site location information for planned gradient holes

Figure 2A: Schematic of proposed temperature gradient hole while drilling.

Figure 2B: Schematic of completed temperature gradient hole.

Figure 3: Well Site Layout

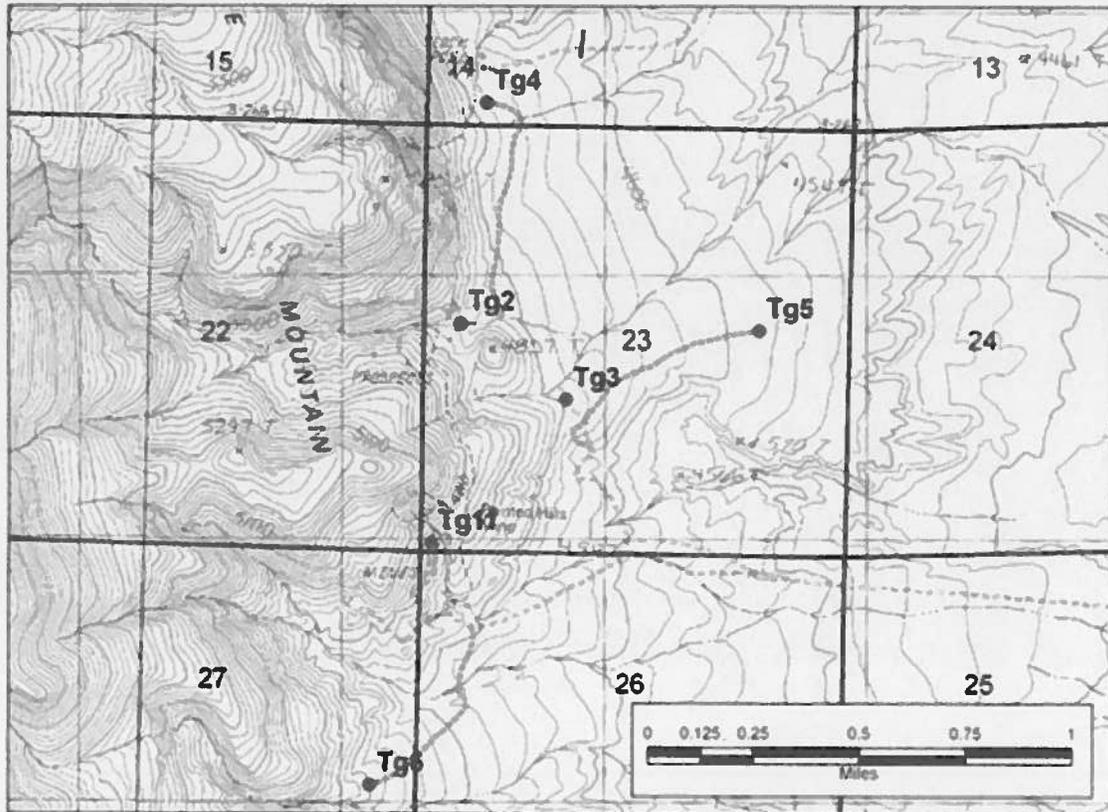


Figure 1A. Location of temperature gradient sites TG2, TG3, TG4, TG5, TG6, and TG11. Sections shown are in T45N, R27E, MDM. Most existing roads are shown, except for a small portion of existing road that continues north-northwest from Site TG3 to Site TG2. Proposed roadless tracks to sites TG4, TG5, and TG6 are shown in pink.

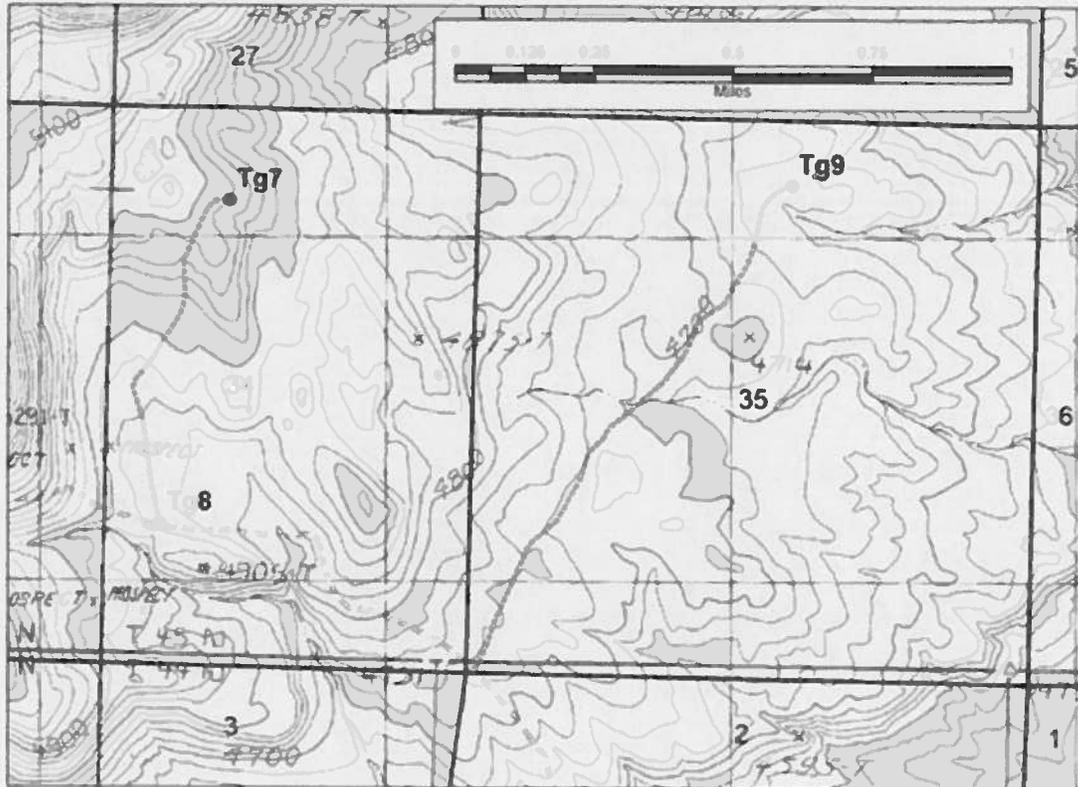
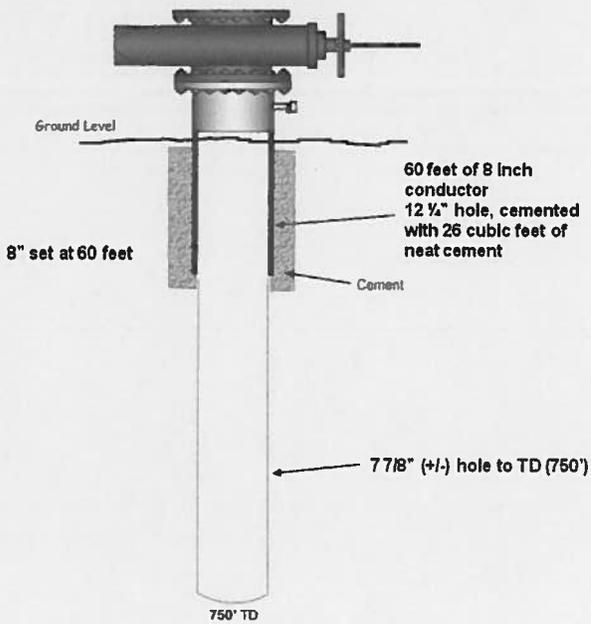


Figure 1B. Location of temperature gradient sites TG7, TG8, and TG9. Sections shown are in T45N, R27E, MDM. Site TG8 is located on existing roads. Proposed roadless tracks to sites TG7 and TG9 are shown in pink.

| Hole             | Site | Lease     | Easting | Northing  | Section | Q/Q section |
|------------------|------|-----------|---------|-----------|---------|-------------|
| McGee 2 (14-23)  | TG2  | NVN 74308 | 345,370 | 4,631,015 | 23      | SW/NW       |
| McGee 3 (36-23)  | TG3  | NVN 74308 | 345,770 | 4,630,725 | 23      | NE/SW       |
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| McGee 11 (18-23) | TG11 | NVN 74308 | 345,260 | 4,630,180 | 23      | SW/SW       |

Table 1. Site locations for the 9 proposed 750' TD temperature gradient holes. All holes are in Township T45N, Range 27 East, Mount Diablo Meridian. Eastings and Northings are in UTM Zone 11, NAD83 projection and indicate the center of the drill site.

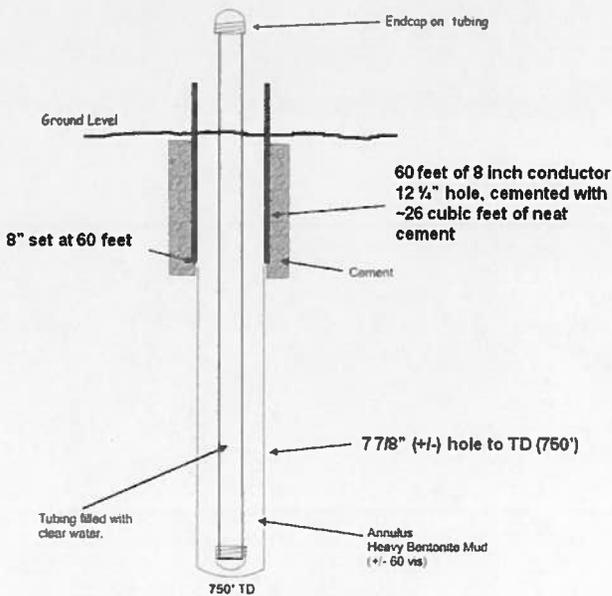
Figure 2A: Proposed temperature gradient hole design while drilling.



**Condensed drilling program**

1. Drill 12 1/4" hole to 60'
2. Run 8" casing to 60' and cement in place
3. Wait on Cement 6 hours
4. Install 2" kill line; 8" flange on surface casing; gate valve
5. Drill 7 7/8" hole to 750' with air or LSNG bentonite mud
6. Mud up with 60 vis. (+/-) mud
7. Run 2" tubing
8. Remove gate valve, rig down

Figure 2B: Proposed completed temperature gradient hole.

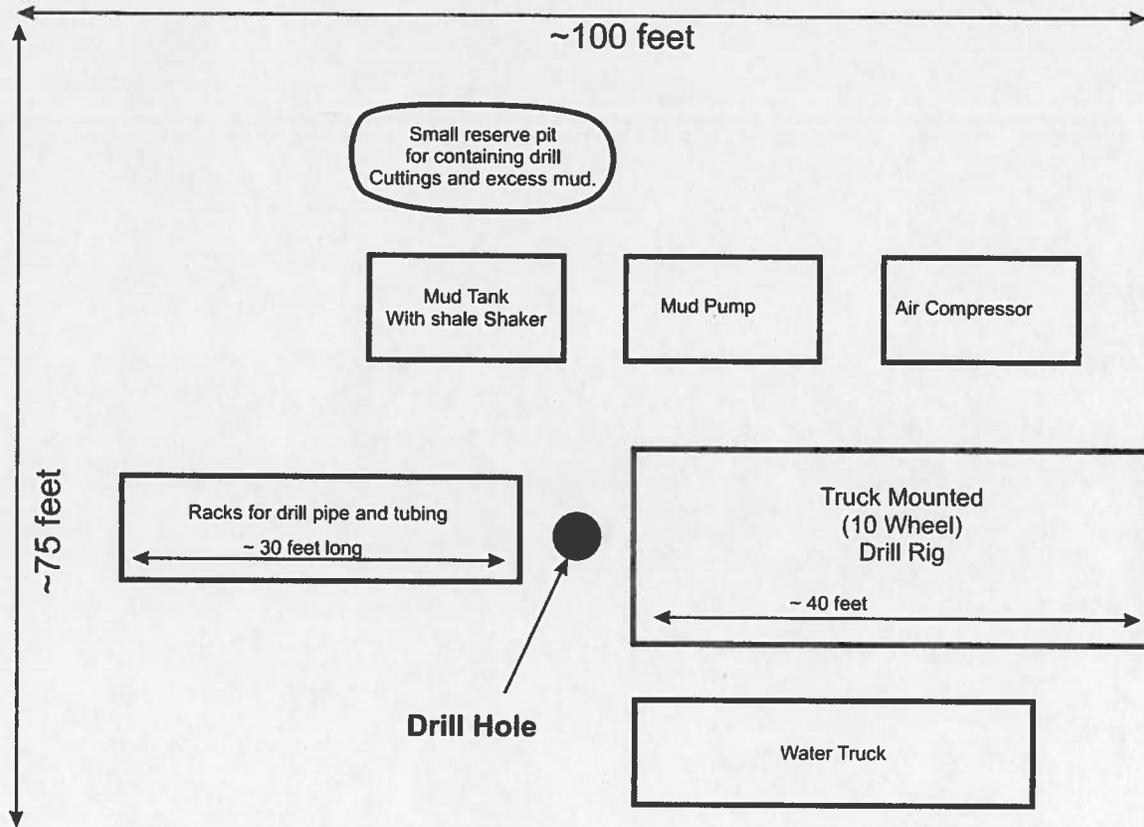


**Condensed drilling program**

1. Drill 12 1/4" hole to 60'
2. Run 8" casing to 60' and cement in place
3. Wait on Cement 6 hours
4. Install 2" kill line; 8" flange on surface casing; gate valve
5. Drill 7 7/8" hole to 750' with air or LSNG bentonite mud
6. Mud up with 60 vis. (+/-) mud
7. Run 2" tubing
8. Remove gate valve, rig down

Completed temperature gradient hole  
(not drawn to scale)

Figure 3: Proposed well site lay out for temperature gradient hole.



**Typical Temperature Gradient Hole  
Wellsite Layout  
(Not drawn to scale)**