
Tuleyome, Inc.
607 North Street
Woodland, CA 95695



Corona and Twin Peaks Mercury Mines, Napa County, California

Site Preparation Plan

Prepared by

**Burleson Consulting, Inc.
950 Glenn Drive, Suite 245
Folsom, California 95630**

And

Justin Smith

August 2016

Introduction

Site preparation includes the following activities:

1. Improve Access Road.
2. Improve run-on and run-off controls.
3. Consolidate Mine Waste.
4. Revegetate Mining Units.
5. Stabilize Slopes.
6. Install Fences and Gates to Control Access.

These activities will be completed by the project team in accordance with Table 1 (Corona Mine) and Twin Peaks Mine (Table 2). The schedules in each table are approximate and actual performance will vary with site conditions.

Health & Safety: Safety is the first consideration during any project work. All site activities will be completed in accordance with the site specific HSP checklist for Site Surveys and Sampling Activities. Personnel will work in accordance with the buddy system (no solo work). All on-site activities will be coordinated with Justin Smith (telephone: (707)486-6367; Email: jsoathill@gmail.com). In an emergency, 911 should be used to contact appropriate support (fire suppression, law enforcement, and/or medical response)

Fire: Maintain high level of fire preparedness by having a mobile water storage available as much as possible (coordinate with Justin Smith). Keep high capacity fire extinguishers and equipment such as shovels in vehicles at all times. Keep water truck hoses and nozzles in a well-marked location with other tools. Post a map with locations of escape routes and monitor any local fire warnings during the fire season (May through October).

Each site preparation activity is described below.

Site Preparation Activities:

1. **Improve Access Road:** Improve upper road from former Amex Geothermal staging area to upper Corona Mine drilling locations. Push out brush, establish compacted fills in rocky stretches, widen narrow sections for convenient passage of vehicles and loaded trucks.
2. **Improve Run-on and Run-off Controls:** Corona Mine (Figure 1): Line channel of drainage at Boilerhouse Portal to prevent infiltration of run-on into mine waste, install and maintain check dams at calcine pile, divert run-on away from Upper Corona collapse features. Twin Peaks Mine (Figure 2): Install and maintain check dams at calcine pile, divert run-on away from waste rock piles.
3. **Mine Waste Consolidation and Stabilization.** Move areas of mine waste at the Corona (Figure 1), and Twin Peaks (Figure 2) mines onto adjacent mine waste piles to reduce the footprint of mine waste available for infiltration and/or erosion.

Mine waste slopes at each mine will be stabilized through use of best management practices including benching, straw wattles, sediment basins, gabion baskets, and revegetation

as shown on the attached Figures 1 and 2. Revegetation is being conducted under a separate revegetation plan.

4. **Mine Waste Revegetation.** Currently barren areas, consolidation areas, and other areas disturbed during mine waste consolidation and stabilization will be revegetated in accordance with the revegetation plan.
5. **Stabilize Process Area Slope.** At the Corona Mine, a fallen tree will be removed and the retaining wall will be reinforced to prevent slope failure.
6. **Installing fences and gates to prevent unauthorized access.** As shown on Figure 1 and 2 fences will be installed to prevent unauthorized access to mine features, gates will be installed to prohibit unauthorized vehicle access.

Table 1. Corona Mine Site Preparation Plan

Task	Description	Subtasks	Compliance Requirements	Schedule	Monitoring and Evaluation
1: Improve Access Road	Regrade existing road from Hydrothermal Drill Pad to improve site safety by providing alternate access and egress.	Not any	1. Preconstruction biological survey 2. Erosion Control BMPs associated with road maintenance	May 2016	Pre and post grading photographs
2: Improve Run-on and Run-off Controls	Implement best management practices to reduce run-on and minimize erosion and runoff of mine waste.	1. Line channel of drainage between the culverts at the Boilerhouse portal. 2. Install additional check dams at calcine pile. 3. Clean out existing check dams at calcine pile. 4. Divert runoff away from Upper Corona Pit and collapse features.	1. Construction SWPPP	By September 2016	Pre and Post storm season inspections
3: Consolidate and Stabilize Mine Waste	Consolidate up to 200 cubic yards of mine waste at calcine pile to reduce area covered in mine waste.	1. Prepare consolidation area (grade to create benches) 2. Install drainage crossing 3. Consolidate mine waste south of drainage onto consolidation area 4. Move material from slope below road onto consolidation area 5. Stabilize disturbed areas 6. Revegetate disturbed areas	1. Napa County Grading Plan 2. Construction SWPPP 3. Preconstruction biological survey	By September 2016	Pre and post consolidation maps of mine waste to document the reduction in waste area covered. Pre and post consolidation photographs of the disturbed areas. Conduct annual surveys and photo comparisons.
4: Revegetate Mining Units	Increase vegetation cover on slopes with sparse grasses to reduce erosion.	1. Place sediment over mine waste to reduce erosion and transport. 2. Reduce erosion of mine waste along north side of the Corona Calcines with straw wattles and rock check dams.	1. Napa County Grading Permit 2. Construction SWPPP 3. Preconstruction biological survey	By September 2016	Conduct annual surveys and photo comparisons.
5: Stabilize Process Area Slope	Design and implement retaining wall reinforcement to prevent slope failure	1. Identify appropriate reinforcement method 2. Design reinforcement 3. Install reinforcing system	1. Napa County Grading Permit 2. Construction SWPPP 3. Preconstruction biological survey	By September 2017	Annual inspection and maintenance.
6: Install Fences and Gates to Control Access	Restrict casual access to historical mining equipment	1. Install fences and gates at locations identified on attached figure.	1. Preconstruction biological survey	By September 2017	Annual inspection after construction

Notes:

Work Locations are shown on the attached figure.

All work to be conducted in accordance with attached Napa County Grading Permit No.....

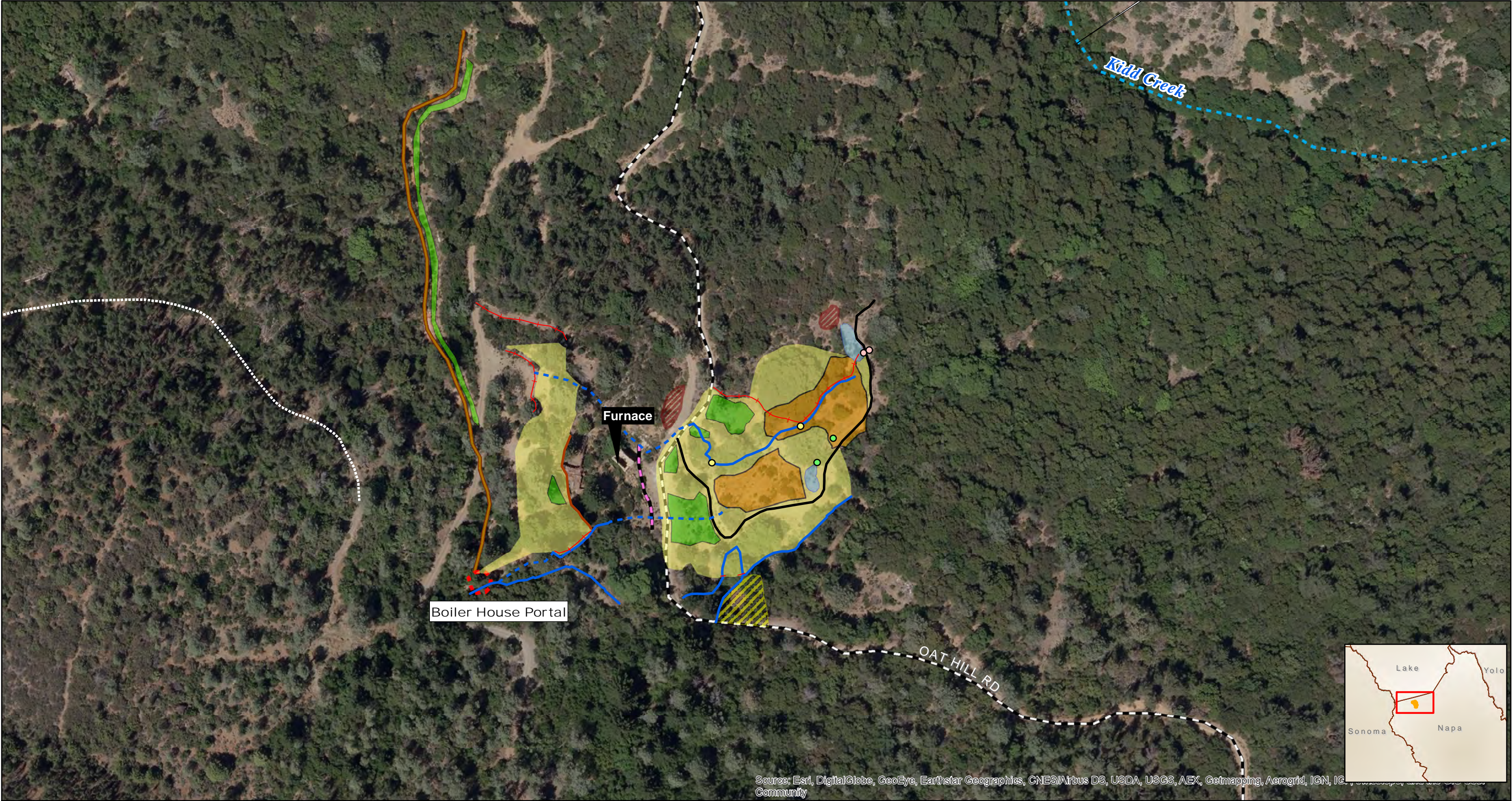
All work to be conducted in accordance with attached Construction SWPPP, Permit No.....

Table 2. Twin Peaks Mine Site Preparation Plan

Task	Description	Subtasks	Compliance Requirements	Schedule	Monitoring and Evaluation
2: Improve Run-on and Run-off Controls	Implement best management practices to reduce run-on and minimize erosion and runoff of mine waste.	1. Install additional check dams at calcine pile. 2. Clean out existing check dams at calcine pile. 3. Divert run-on away from waste rock piles	1. Construction SWPPP	By September 2016	Quarterly Inspections Pre and Post storm inspections
3: Consolidate and Stabilize Mine Waste	Consolidate up to 100 cubic yards of waste rock adjacent to Oat Hill Road.	1. Prepare consolidation area (grading to create bench) 2. Install rock filled gabions or similar barriers at bench 3. Stabilize disturbed areas 4. Revegetate disturbed areas	1. Napa County Grading Plan 2. Construction SWPPP 3. Preconstruction biological survey	By September 2016	Pre and Post consolidation maps of mine waste to document the reduction in waste area covered. Pre and Post consolidation photographs of the disturbed areas. Conduct Annual surveys and photo comparisons.
4: Revegetation of Mining Units	Slopes with sparse grasses require increased vegetation cover to reduce erosion.	1. Construct benches on bare area in calcines. 2. Sediment placement over mine waste locations to reduce erosion and transport. 3. Stabilize disturbed areas 4. Revegetate disturbed areas	1. Napa County Grading Permit 2. Construction SWPPP 3. Preconstruction biological survey	By September 2016	Conduct Annual surveys and photo comparisons.
6: Install Fences and Gates to Control Access	Minimize casual access to historical mining equipment	Install fences and gates at locations identified on attached figure.	1. Preconstruction biological survey	By September 2017	Annual inspection after construction

Notes:

Work Locations are shown on the attached figure.
All work to be conducted in accordance with attached Napa County Grading Permit No.....
All work to be conducted in accordance with attached Construction SWPPP, Permit No.....



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGC, Swire, GeoEye, AeroGRID, IGN, IGC, Community

Legend

- | | | | |
|-------------------------------|-------------------------------------|----------------------------------|--|
| ○ Culvert | ▬▬▬ Creeks | ▬ Timber Wall (TASK 5) | ▨ Borrow Area |
| ● Existing Check Dam (TASK 2) | ▬ Drainage | ▬ BMP | ▨ Material To Be Consolidated (TASKS 3 & 4) |
| ○ Proposed Check Dam (TASK 2) | ▬▬▬ Pre Diversion Drainage (TASK 2) | ▬ Existing Mine Road | ▨ Consolidation Area & Revegetated (TASKS 3 & 4) |
| ▬ Existing Trench | | ▬▬▬ Improve Access Road (TASK 1) | ▨ Revegetation (TASK 4) |
| ▬▬▬ Future Settling Basin | | ▬▬ Main Road | ▨ Settling Basin |
| ▬▬▬ Future Fence (TASK 6) | | | ▨ Mine Waste |



0 75 150 300
Feet

Figure 1 Corona Mine

Site Preparation Plan

Source: Bing Maps aerial imagery
web mapping service;
Napa County GIS Department 2011;
Burleson Consulting 2012.



Burleson Consulting, Inc.



Legend

50ft Contour

Roads

Creeks

Consolidation/Stabilization (TASK 3)

Revegetation (TASK 4)

Stabilization/Revegetation (TASK 3/4)

TP Access Gate (TASK 4)

Pre Diversion Drainage (TASK 2)

BMP

Existing Infiltration Trench

Settling Basin

Approximate Limit of Mine Waste

Post Diversion Inlet

Post Diversion Outlet

Adit

Portal

Twin Peaks Mine

Site Preparation Plan

Source: Bing Maps aerial imagery
web mapping service;
Napa County GIS Department 2011;
Burleson Consulting 2012.

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