

Table of Contents
Planning Commission Meeting

June 6, 2023

FILE NUMBER:	IS #2021-006; RP #2021-003; UP #2021-009
OPERATOR:	Geofortis Minerals, LLC
PROPERTY OWNER	Avalanche Funding, LLC; Bureau of Land Management
TYPE OF APPLICATION:	Initial Study, Reclamation Plan, Use Permit

Staff Report.....	001
Draft Resolution.....	005
Vicinity Map.....	007
Reclamation Plan Application	008
Mining Plan.....	017
Notice of Intent to Access Property and Permit Mine	078
Initial Study Application.....	079
Use Permit Application.....	082

Please find the following on our website under Environmental Documents, Noticing and Attachments (<https://www.lassencounty.org/dept/planning-and-building-services/environmental-documents-noticing-and-attachments>):

- Application Package
- Initial Study #2021-006
- Notice of Intent to Adopt a Mitigated Negative Declaration
- Notice of Informal Consultation 2022 & 2018 Comments
- Division of Mine Reclamation Comments
- Technical Review Comments
- Appendices
 - Chico State Northeast Information Center Letter (archaeological records)
 - Final Hydrology Report Package
 - Biological Survey Report
 - Haul Road Drainage Study

LASSEN COUNTY PLANNING COMMISSION
STAFF REPORT
June 6, 2023

FILE NUMBER: IS #2021-006, UP #2021-009, RP #2021-003
 PROPERTY OWNER/Administrator: Avalanche Funding, LLC/Bureau of Land Management
 OPERATOR/APPLICANT: Geofortis Minerals, LLC
 TYPE OF APPLICATION: Initial Study, Use Permit, Reclamation Plan
 GENERAL LOCATION: The project site is in Lassen County approximately 5.5 miles north of the intersection of US Highway (Hwy) 395 and California State Route 70
 ASSESSOR'S PARCEL NUMBER(S): 145-030-016-000; 145-050-004-000, 145-050-012-000, and 145-030-017-000
 PROJECT SITE ZONING: A-1 (General Agricultural District)
 GENERAL PLAN: Extensive Agriculture
 ENVIRONMENTAL DOCUMENT: Initial Study
 APPEAL: Board of Supervisors, Lassen County Environmental Review Guidelines Section 6(f), 10 days
 STAFF CONTACT: Cortney Flather, Natural Resources Coordinator

AUTHORITY FOR APPLICATION:

Lassen County Environmental Review Guidelines (Board of Supervisors Resolution No. 01-043) section 7(a)(1) establishes the procedure for the Mitigated Negative Declaration process.

REGULATING AGENCIES:

<u>Agency</u>	<u>Identified Permits / Approvals</u>
Planning Commission	Approval
Department of Conservation, Division of Mine Reclamation	Review and Approval
Lassen County Air Pollution Control District (APCD)	Authority to Construct/Permit to Operate
Lahontan Regional Water Quality Control Board (LRWQCB)	Permit for Storm Water Discharges associated with Construction and Land Disturbance
Lassen County Environmental Health Department	Permit Issuance (storing hazardous materials)
California Department of Transportation (Caltrans)	Encroachment Permit
California Department of Fish and Wildlife (CDFW)	Lake and Streambed Alteration Permit/Agreement
U.S. Army Corps of Engineers	Permitting under §404 of the Clean Water Act

PROJECT DESCRIPTION:

Proposal for a Use Permit and Reclamation Plan for an approximately 83-acre pozzolan (solid material commonly used in concrete as a replacement or a supplement for Portland cement) surface mine. If approved, the permit would allow for mining and screening operations up to seven days a week (7 a.m. to 7 p.m.) and allow for approximately 10.61 million cubic yards (500,000 cubic yards annually) of material to be mined with a proposed end date of 2070. Reclamation is proposed to be concurrent with mining operations and the proposed use after mining is wildlife habitat/open space.

PROJECT AND SUROUNDING SITE CHARACTERISTICS:

The proposed Project site is located on vacant land off of Hwy 395, approximately 14 miles south of Doyle and approximately 5.5 miles north of the intersection of US Hwy 395 and California State Route 70. The proposed mine would be located on four separate parcels owned by Avalanche Funding LLC and one parcel administered by the Bureau of Land Management (BLM). The privately-owned parcels are split-estate land where the Federal Government retains the mineral rights administered by the BLM.

The proposed Project site is undisturbed (apart from some roadways and power transmission corridors) with a cover of sagebrush, grasses and dispersed Utah juniper (*Juniperus osteosperm*). The general topography of the area is hilly terrain and generally slopes to the north.

White woolly buckwheat, also known as ochre-flowered buckwheat, (*Eriogonum ochrocephalum* var. *ochrocephalum*) was found in several areas throughout the Project site. This species is considered 'rare, threatened or endangered' in California and is rated 2B.2 by the California Native Plant Society (CNPS). Species with this rating are eligible for state listing under the California Endangered Species Act.

GENERAL PLAN AND ZONING:

The subject parcels are zoned A-1 which includes all the unincorporated territory of the county not indicated specifically to be used for precise districts of agriculture, residential, commercial, manufacturing, open space, institutional, conservation, timber production, floodplain or airport (Lassen County Code 18.16.010). Mining or processing of precious metal or mineral resources, including sand and gravel mining and hot plants is a use allowed by use permit for parcels zoned A-1.

The site has a land use designation of Extensive Agriculture (Lassen County General Plan, 2000) which accommodates natural resource-related production facilities, including but not limited to: mineral extraction and processing, including asphalt and similar plants.

SURROUNDING PROPERTIES:

Adjacent lands are primarily zoned as A-1 with one property to the south zoned as A-1/U-C (Upland Conservation District). Many of the surrounding parcels are administered by the BLM. The land

where the project is located is not designated as prime agriculture or as an agricultural preserve (Williamson Act contract).

The closest residences are approximately 2.6 miles south of the Project site on the west side of Hwy 395 and approximately 3 miles south of the Project site on the east side of Hwy 395.

DISCUSSION:

The BLM completed a common variety determination on September 11, 2020 which verified that certain deposits underlying the claims consist of an uncommon variety mineral material subject to location under the General Mining Law of 1872. This mining law opened public lands of the United States to mineral acquisition by the location and maintenance of mining claims (in this case, Geofortis, LLC acquired the mining claims). Mineral deposits available for acquisition through this act are commonly called “locatable minerals” which are: (a) recognized as a mineral by the standard experts, (b) are not subject to disposal under some other law, and (c) make the land more valuable for mining than for farming.

Civil Code Section 848 reads, in part, that “*the owner of mineral rights, as defined by Section 883.110, in real property shall give a written notice prior to the first entry to the owner of the real property who is listed as the assessee on the current local assessment roll...*” Geofortis Minerals, LLC, sent Avalanche Funding, LLC a “Notice of Intent to Access Property and Permit Mine” on December 15, 2021.

The project site is within a geographic area that has been identified as traditionally and culturally affiliated with the Washoe tribe which requires notice to any tribe, pursuant to Assembly Bill 52. Letters pursuant to Assembly Bill 52 were sent on August 20, 2018 and March 28, 2022.

ENVIRONMENTAL DOCUMENT:

The Environmental Review Officer prepared an Initial Study, which identifies potentially significant impacts in the following categories, and mitigation measures have been identified to reduce said impacts to a less than significant level:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources (Paleontological Resources)
- Population and Housing
- Public Services
- Utilities and Service Systems

Due to these potentially significant impacts being reduced to less than significant with mitigation measures incorporated, the ERO has prepared a Mitigated Negative Declaration. Please refer to the attached Initial Study for additional information.

TECHNICAL REVIEW FINDINGS and/or RECOMMENDATIONS:

A Technical Review request letter was sent out on April 25, 2023. The recommended findings and conditions can be found in the attachments.

PLANNING COMMISSION ACTION:

Pursuant to section 15074(b), prior to approving a project, the decision-making body of the lead agency shall consider the proposed negative declaration or mitigated negative declaration together with any comments received during the public review process. The decision-making body shall adopt the proposed negative declaration or mitigated negative declaration only if it finds on the basis of the whole record before it (including the initial study and any comments received), that there is no substantial evidence that the project will have a significant effect on the environment and that the negative declaration or mitigated negative declaration reflects the lead agency's independent judgment and analysis.

STAFF RECOMMENDATION:

Staff has reviewed the enclosed Use Permit 2021-009 and Reclamation Plan 2021-003 and has found it to be consistent with Lassen County Code, Section 9.60.040 and Public Resources Code, Section 2710 et seq. (SMARA). Staff recommends that the Planning Commission adopt a resolution approving Use Permit #2021-009, Reclamation Plan #2021-003, with conditions, and the Mitigated Negative Declaration as the environmental document for this project.

MANDATORY FINDINGS:

The following findings shall be made by the Planning Commission or Board of Supervisors, as applicable, in conjunction with any other findings which may be considered for the approval or denial of a use permit amendment:

- (a) That the project will or will not, under the circumstances of the particular case, be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such use, nor be detrimental or injurious to property and improvements in the neighborhood or to the general welfare.
- (b) That the project is or is not consistent with the Lassen County General Plan, 2000.

RESOLUTION NO. _____

RESOLUTION OF THE LASSEN COUNTY PLANNING COMMISSION APPROVING EXTENSION TO INTERIM MANAGEMENT PLAN #5-01-87, VIEWLAND LLC, FOR APPROVED RECLAMATION PLAN #3-01-88.

WHEREAS, the Planning Commission of Lassen County, after due notice has considered on June 6, 2023 the extension to approved Interim Management Plan #5-01-87, Viewland LLC, to allow for a continued temporary plan of mining operations to be in effect during idle production periods. The proposed extension to the Interim Management Plan is to be in effect for no more than five years and must address the requirements of Public Resources Code 2770(h). The existing mining operation is located off Highway 395, 5 miles northeast of Litchfield, CA. A.P.N.: 119-190-05; and

WHEREAS, the Planning Commission of Lassen County is responsible for the consideration and approval of the proposed extension to approved Interim Management Plan #5-01-87; and

WHEREAS, the Environmental Review Officer of the County of Lassen has determined that Interim Management Plans, and therefore extensions to Interim Management Plans, are not subject to the California Environmental Quality Act (CEQA) as they are not considered a “project” as defined by Section 15378 of the Guidelines and SMARA Section 2770(h)(1).

NOW, THEREFORE, BE IT RESOVED AS FOLLOWS:

1. The foregoing recitals are true and correct.
2. The Lassen County Planning Commission finds as follows:
 - a. The proposed extension to Interim Management Plan #5-01-87 is consistent with Lassen County Code, Section 9.60.120 Interim Management Plans (d).
 - b. The proposed extension to Interim Management Plan #5-01-87 will be in effect for no more than five years from the date of its approval and will address the requirements of Public Resources Code, Section 2770(h).
 - c. The proposed extension to Interim Management Plan #5-01-87 shall be considered void should the associated Use Permit expire or be revoked, regardless of the status of the approved Interim Management Plan.

RESOLUTION NO. _____

3. The Planning Commission hereby concurs with the Environmental Review Officer that the Interim Management Plan, and therefore the extension to that Interim Management Plan, is not subject to the California Environmental Quality Act (CEQA) as it is not considered a “project” as defined by Section 15378 of the Guidelines and SMARA Section 2770(h)(1).

4. The Planning Commission hereby approves the extension to Interim Management Plan #5-01-87, Viewland LLC, subject to conditions established in the original Interim Management Plan approval, through Resolution No. 6-01-13 (Exhibit A).

PASSED AND ADOPTED at the regular meeting of the Planning Commission of the County of Lassen, State of California, on the 6th day of June, 2023, by the following vote:

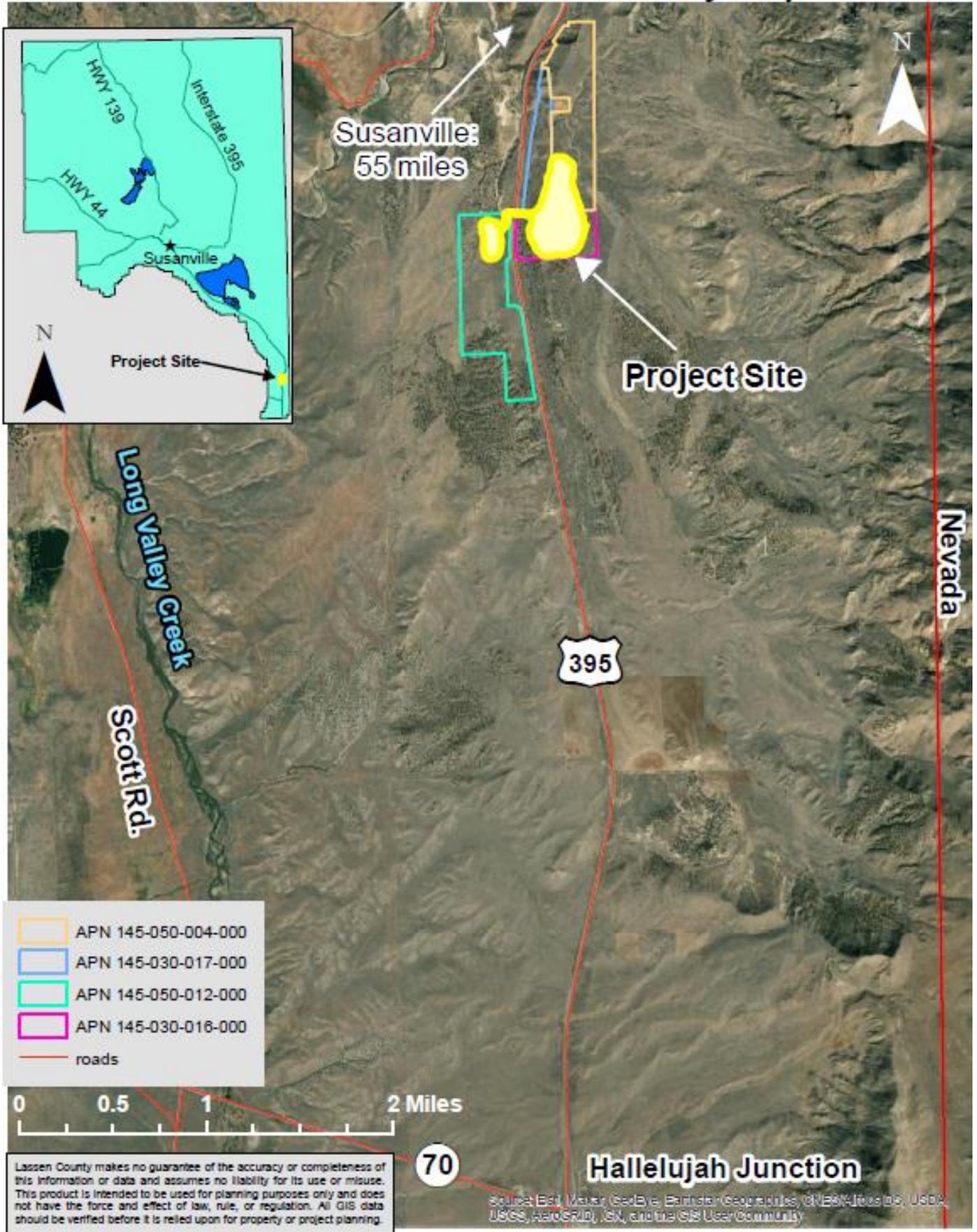
AYES: _____
NOES: _____
ABSTAIN: _____
ABSENT: _____

Chairman
Lassen County Planning Commission

ATTEST:

Maurice L. Anderson, Secretary
Lassen County Planning Commission

Geofortis Pozzolan Mine Vicinity Map





SURFACE MINE RECLAMATION PLAN APPLICATION

FILING FEE: \$900 + \$150/ac over 5 ac total disturbed area to \$1,800 max.
 With Use Permit: \$1,200 + \$200/ac over 5 ac total disturbed area to \$2,400 max.
 DEPARTMENT OF PLANNING AND BUILDING SERVICES
 707 Nevada Street, Suite 5 · Susanville, CA 96130-3912
 (530) 251-8269 · (530) 251-8373 (fax)
 www.co.lassen.ca.us

RECEIVED

FEB 03 2022

Form must be typed or printed clearly in black or blue ink. All sections must be completed in full.
 This application consists of one page; only attach additional sheets if necessary.

LASSEN COUNTY DEPARTMENT OF
 PLANNING AND BUILDING SERVICES
 FILE NO. _____

1) Property Owner/s Mineral Claims Name: Geofortis Minerals LLC Mailing Address: 30 S. Tooele Blvd. City, ST, Zip: Tooele, UT 84074 Telephone: 925-348-3535 Fax: Email: dmcmurtry@geofortis.com SIGNATURE OF PROPERTY OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date: 1/11/22	Property Owner/s Surface Estate Name: Avalanche Funding Mailing Address: 5040 Acoma Street City, ST, Zip: Denver, CO 80216 Telephone: Fax: Email: fred@5040group.com SIGNATURE OF PROPERTY OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date:
2) Owner of Mineral Rights (if different than property owner, The record owner of mineral rights must sign below) Same as Property Owner: <input checked="" type="checkbox"/> Name: Geofortis Minerals, LLC Mailing Address: 30 S. Tooele Blvd. City, ST, Zip: Tooele, UT 84074 Telephone: 925-348-3535 Fax: Email: dmcmurtry@geofortis.com SIGNATURE OF MINERAL RIGHTS OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date: 1/11/22	3) Mine Operator Same as Applicant: <input checked="" type="checkbox"/> Correspondence also sent to: <input type="checkbox"/> Name: Mailing Address: City, ST, Zip: Telephone: Fax: Email: MINE OPERATOR(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date:
4) Applicant/Authorized Representative* Same as Property Owner: <input checked="" type="checkbox"/> Name: David McMurtry, Geofortis Minerals, LLC Mailing Address: 30 S. Tooele Blvd. City, ST, Zip: Tooele, UT 84074 Telephone: 925-348-3535 Fax: Email: dmcmurtry@geofortis.com *SIGNATURE OF APPLICANT/AUTHORIZED REPRESENTATIVE (Representative may sign application on behalf of the property owner only if Letter of Authorization from the owner/s is provided). I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date: 1/11/22	Agent (Land Surveyor/Engineer/Consultant) None: <input type="checkbox"/> Correspondence also sent to: <input type="checkbox"/> Name: Mailing Address: City, ST, Zip: Telephone: Fax: Email: License #: <p style="color: green; text-align: center;"> This application consists of 9 pages. Both the Applicant and Property Owner (unless the same) shall initial at the bottom of pages 2 through 7 where indicated. </p>

5) Assessor's Parcel Number(s):	145- 030 016	145- 050 004	145 - 050 012
145-030-017	- -	- -	- -

6) Project address or specific location:

Deed Reference: Book: _____ Page: _____ Year: _____ Doc#: _____

Zoning: Agriculture **A-1 (General Agriculture)** General Plan Designation: **Extensive Agriculture**

Parcel Size (acreage): _____ Section: 11 & 14 Township: 23N Range: 17E

7) Present use of the site: Vacant

8) Present use of land surrounding the site: Vacant

9) Distance and direction to nearest residence (identify the owner and provide the Assessor's Parcel Number):
 2.6 miles south, on Hwy 395, APN 145 - 01 (Section 26 SE 1/4 of SE 1/4 of T23N R17E **APN 145-070-002-000**
Dellis Bone

MINE OPERATION INFORMATION

10) Proposed name of mine: Geofortis Pozzolan Mine

11) Proposed starting date (or date current operation began): 2022

12) Proposed termination date: 2070

13) List the mineral commodity(ies) to be mined: Lassenite™ pozzolan

14) Maximum quantity of mineral commodity to be mined (in terms of production as defined by the State Mining and Geology Board):
 Annually 500,000 cu. yds. / _____ tons Project Total cu. yds. / 8,610,000 tons
 Describe the maximum slopes and erosion controls for stockpiled mined material: 2:1 slopes
 During mining and reclamation a SWPPP plan will be implemented to control runoff and minimize erosion. The mining plan attached details BMP required.

15) Approximate quantity of overburden to be removed (not including top soil):
 Annually minimal cu. yds. Project Total _____ cu. yds.
 Describe the use, maximum slopes and erosion controls for stockpiled overburden: _____
Limited stockpiles will be interim seeded with a BLM approved seed mix. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface runon and runoff. Topsoil stockpiles will be identified and segregated on the ground.

16) When and how will top soil be salvaged and how will it be stored and identified? _____
Very little topsoil because mineral is exposed at the surface in most areas. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface runon and runoff. Topsoil stockpiles will be identified and segregated on the ground.

17) Approximate quantity of top soil (top surface layering in which plants are growing) to be removed:

Annually minimal cu. yds. Project Total _____ cu. yds.

Describe the use, maximum slopes and erosion controls for stockpiled top soil: 2:1 slopes

Very little topsoil because mineral is exposed at the surface in most areas. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface runoff and runoff. Topsoil stockpiles will be identified and segregated on the ground.

18) Will supplemental material be imported to the site during mining (such as aggregates, cement, asphalt, oil, production or dust control water, etc.)?

x NO

____ YES. Please describe the type and quantity of material(s) to be imported: _____

19) Explain the mining methods proposed (for example "open pit excavation resulting in a subgrade pit"; or "excavation of a hillside resulting in side and back highwalls with an open floor"; stream dredge, etc.): _____

Excavation of a hillside and open pit excavation resulting in a subgrade pit with sloped highwalls. See Mine Plan attached.

20) Describe the maximum depth of mine pit (for subgrade pit) in relation to a verifiable benchmark or height of walls (for hillside excavation) and maximum pit wall slopes:

Depth of Pit (or height of walls) 145 feet Benchmark _____ Max Slope 1.5:1 (horizontal / vertical)

Will pit slopes (walls) be benched? Explain: slopes 1.5:1 with benches every 15 feet

21) a) Check all on-site processing proposed:

x Excavation _____ Blasting x Loading

x Crushing _____ Screening _____ Washing

_____ Concrete Production _____ Asphalt Production

_____ On-site Fuel Storage x Stockpiling

_____ On-site Equipment Maintenance, Storage and/or Fueling

_____ Other (explain): _____

b) List all equipment to be used on site: _____

Equipment to be used on site includes: Loader(s), Skid Steer, Haul Trucks, Dozer, Excavator, Water Truck / Pull for Dust Control, Service equipment as necessary (crane, service / fuel / lube truck, pick-ups & employee vehicles), Traditional crushing and screening equipment for production of aggregates, Crushing and Screening Plant, Conveyors & Stacking Conveyors, Dozer Trap Feeder.

22) Mined material will be used for: Supplementary Cementitious Material in Concrete

23) Indicate how much surface area (in acres) will be used for the following activities:

Extraction:	Currently <u>0</u>	Annually <u>5</u>	Total <u>86</u>
Processing:	Currently <u>0</u>	Annually <u>2</u>	Total <u>2</u>
Stockpiles:	Currently <u>0</u>	Annually <u>2</u>	Total <u>2</u>
Haul Roads:	Currently <u>0</u>	Annually <u>1</u>	Total <u>1</u>
Equipment Storage:	Currently <u>0</u>	Annually <u>1</u>	Total <u>1</u>
Offices(s):	Currently <u>0</u>	Annually <u>0</u>	Total <u>0</u>
Scale(s):	Currently <u>0</u>	Annually <u><1</u>	Total <u><1</u>

Other (explain): _____

0 Total project area to be used: Currently 0 acres Total 86 acres

24) Will any settling ponds be constructed? No

25) Describe any temporary stream and watershed diversions and their construction: _____

See Section 3.4 of the Mining Plan. No stream diversions for stormwater control.

26) Describe the mining time schedule and how it provides for completion of mining on each segment so that reclamation can be concurrent or phased: Mining will be in phases and reclamation progressing during mining.

27) How much area will be disturbed before reclamation begins?

35 acres

28) How will any potential public health and safety concerns that may arise due to exposure of the public to the site be addressed?

See Mining Plan Section 2.2.13.

29) Describe the geology of the site and vicinity (for geologic maps contact the Department of Conservation Division of Mines and Geology, Geologic Information and Publications Office, 801 K Street, MS 14-33, Sacramento, CA 95814-3532, (916) 445-5716) (attach pages as needed): See Mining Plan Section 2.2.4.

30) Describe the following characteristics of the project site (if the site has already been disturbed, you may describe adjoining lands similar to the mine site. Attach additional pages as needed):

a) **Vegetation:** Include an inventory of plants found on or near the site. It is strongly suggested that the applicant work with a qualified biologist/botanist in developing the vegetation inventory and the revegetation plan (attach pages as needed):

Plant Type (common name OK)	Density (% cover for grasses)	Location / Aspect
See Mining Plan Section 2.2.13		
See BEC Biological Survey Report, May 2020		

b) **Wildlife in and around the site:** See Mining Plan Section 3.5 and BEC Biological Survey Report, May 2020

c) **Known rare, endangered and threatened species of plants and animals occurring on or near the site (contact the Department of Fish and Wildlife, Redding Office at (530) 225-2360, or Wendel Office at (530) 254-6808) (show location on site map):** See Mining Plan Section 3.5 and 3.6 and BEC Biological Survey Report, May 2020

d) **Wetlands, wet areas and surface drainage system(s), including intermittent drainages (include on site map):** _____
No Wetlands are present. Drainage is shown on maps in Mining Plan Section 2.2.6

e) **Include copies of any reports, surveys, or other documents related to the characteristics of the site, used in your description.**

31) **How will any sensitive species, wildlife habitat, or wetlands be protected or mitigated?** _____
See Mining Plan Section 3.0 and Section 2.2.13

32) **Describe the proposed use of the mine site after mining has ended and reclamation is complete:** _____
Open space/wildlife habitat.

33) **Describe how reclamation of the mine site will affect future mining in the area (consider whether the proposed reclamation plan will allow or preclude future mining on site or in the area. For example, will this operation deplete on-site mineral reserves? Will the proposed end use prevent future mining by construction of houses, other buildings, reservoirs, etc.?):** _____
Reclamation will not affect future mining of this site or area.

34) **Describe any impacts of reclamation on surrounding land uses:** _____
No high walls will be left and slopes will be stable. No negative impacts.

ATTACH THE FOLLOWING TO THE APPLICATION

35) ATTACH SEPARATE PAGES DESCRIBING HOW THE MINED LANDS WILL BE RECLAIMED. ADDRESS AT LEAST THE FOLLOWING ACTIVITIES (using corresponding numbers), TAKING INTO CONSIDERATION THE RECLAMATION STANDARDS SET FORTH IN THE STATE MINING AND GEOLOGY BOARD RECLAMATION REGULATIONS (California Code of Regulations (CCR) Section 3700 – 3713, available from the Lassen County Planning and Building Department):

A. EARTH WORK

1. How will the pit walls, waste dumps, tailings, haul roads, etc. be regraded and reshaped?
2. What will be the source and disposition of fill materials used for back filling or grading?
3. How will slopes be stabilized?
4. What is the proposed final grade of pit slopes, highwalls, waste piles, etc.?

B. SEEDBED PREPARATION AND REVEGETATION

1. The California Code of Regulations Section 3705(b) requires that test plots be established while the mining operation active, in order to determine the best revegetation species and methods for the site. Describe the location of and methods to be used in test plots.
2. Will top soil be reapplied during reclamation? When? Where? To what depth? Please explain. (Sample: "The top 10 inches, estimated at 10,000 cubic yards, will be scraped, stored and reapplied to regraded slopes and pit floor to a depth of 6 inches" or "crusher fines with organic material added will be redistributed to a depth of 12 inches" or "10,000 c.y. of top soil will be imported (indicate source of imported material) and distributed to a depth of 6 inches.")
3. Describe how soil conditioners, mulches, imported topsoil will be used (include plan for soil analysis if required).
4. How will compacted soils (in processing areas, roads, pit floor, benches, etc.) be decompacted in preparation for planting? (Sample: "All compacted surfaces will be ripped to a depth of 12 inches prior to application of top soil")
5. What plant species will be planted on slopes; pit floor; haul roads; etc.?
6. How many pounds of seed (for each species) will be planted per acre; how many seedlings per acre; etc.?
7. What method(s) will be used for planting (e.g broadcast, drill seeding)? What time of year will planting take place?
8. How will new vegetation be protected until it is established and how will weeds be monitored and managed?
9. Will the site be irrigated to help establish plants? For how long?
10. Describe research used in the selection of revegetation methods and species, given the topography, resoiling characteristics, and climate of the areas to be mined.
11. What are the revegetation success standards proposed and how/when will success be monitored? The success standards should include vegetative cover, density and species richness and be based on the vegetation inventory. (For example, if grass cover was 30% and there were 75 bitterbrush plants per acre before mining, you might propose 15% grass cover and 35 bitterbrush plants within five years of reclamation as meeting the success standard)

C. EROSION CONTROLS

1. How will slopes be protected from erosion during and after mining?
2. How will runoff and process water be controlled and treated to prevent sediment and pollution from being discharged off site?
3. Describe site-specific sediment and erosion control criteria and how the site will be monitored for said criteria.
4. What measures will be taken to protect onsite and downstream beneficial uses of water (including groundwater recharge potential)?
5. How will any affected streambeds, banks, channels, or drainages be rehabilitated?
6. How will contaminants (fuel, oil, asphalt oil, process chemicals) be controlled?

D. MONITORING

1. How, and by whom, will the regrading and revegetation effort be monitored?
2. How long will monitoring be needed before the reclamation success standards are expected to be met?
3. Who shall prepare monitoring reports and how often will they be submitted to the lead agency?

E. OTHER:

1. How will mine waste material (if any) be disposed of or treated?
2. What is the anticipated reclamation schedule?
3. What will be done with any equipment and structures left on site when mining and reclamation are complete?
4. What will be done with any on-site water wells after mining and reclamation are complete?
5. How will underground openings be treated to prevent public entry and preserve access for wildlife (e.g. bats)?

MAPS AND DIAGRAMS (ONE SET OF ALL MAPS MUST BE SUBMITTED ON PAPER NO LARGER THAN 11" X 17" TO ALLOW REPRODUCTION) It is strongly suggested that the applicant work with a qualified engineer or surveyor in preparing mine site maps, plans, and diagrams.

36) SUBMIT MAPS DRAWN TO SCALE OF THE FOLLOWING (All maps must include a bar (graphic) scale)

A. VICINITY MAP(S):

1. Vicinity map showing general location of the site, nearest community, major roads, etc. (a Lassen County Road Map Or the USGS Topographic Quad may be used);
2. Assessor's Parcel Map(s) showing the boundaries of the entire parcel(s) and portions(s) thereof involved in mining and related activities.

B. TOPOGRAPHIC MAPS:

1. Topographic map(s) of the site BEFORE mining and AFTER reclamation. Contour intervals should be appropriate for the site, generally in the range of five to twenty feet;
2. Cross-section(s) of mining site, including elevations BEFORE mining and AFTER reclamation.

C. SITE MAP(S) SHOWING:

1. Property lines, setbacks, current and/or pre-SMARA disturbance boundaries (if applicable), and proposed final boundary of mining operation.
2. Location of streams, drainage channels, ponds and lakes, wetlands, roads, railroads, utilities, buildings, etc., on and immediately adjacent to the site.
3. Location of existing and proposed new access/haul roads. Identify the public road(s) that provide access to and from the site and show the proposed route from the site to the public road; identify access roads, temporary roads to be reclaimed and any roads remaining for the end use.

D. SITE PLAN(S) SHOWING:

1. Property lines, setbacks, current and/or pre-SMARA disturbance boundaries (if applicable), and proposed final boundary of mining operation.
2. Excavation/pit area(s);
3. Waste dumps (if any);
4. Processing area(s) including all stockpiles (by type), equipment storage, fuel tanks, crusher, screening area, etc.;
5. Settling ponds (if proposed), drainage channels and sediment control facilities;
6. All structures proposed;
7. Existing or planned utilities;
8. Existing or planned wells serving the site;
9. The site plan should also show areas within the project site that WILL NOT be disturbed, and therefore will not be subject to reclamation. (Unless otherwise shown on the site plan and/or phasing plan, the County will assume that the entire site will be disturbed and subject to reclamation and overage in the financial assurance);
10. Operation phases (if phasing is proposed);
11. Other details as appropriate

*Please Include with Maps the Size and Legal Description of Lands Affected by Surface Mining Operations.

*All maps, diagrams, or calculations that are required to be prepared by a California-licensed professional shall include the preparer's name, license number, signature and seal.

STATEMENT OF RESPONSIBILITY

I, David McMurtry, on behalf of Geofortis Minerals LLC, do hereby accept full responsibility for
(print name)
reclaiming the lands herein described in accordance with the reclamation plan and all conditions
approved for this operation by Lassen County as lead agency.



(Signature)

1/11/22

(Date)

Position/Relationship to Operation: Vice President, Corporate Affairs

FINANCIAL ASSURANCES

Upon approval of the surface mining permit and reclamation plan, and prior to issuance of an "Authorization To Operate," financial assurance(s) ensuring that reclamation will be carried out in accordance with the approved reclamation plan must be submitted to and approved by Lassen County. Assurances may take the form of surety bonds, irrevocable letters of credit, certificates of deposit, or other forms of financial assurance acceptable to the State Mining and Geology Board and Lassen County.

Financial assurance instruments shall be made payable to "Lassen County and the Department of Conservation." Financial assurances, along with copies of the itemized estimate of reclamation costs (based on the approved reclamation plan) must be submitted to Lassen County for review and approval prior to issuance of the "Authorization To Operate." Reclamation assurances are subject to annual review and adjustment in consideration of operation compliance, inflation, reclamation performed, etc.

The permit application should be accompanied by a DETAILED itemized estimate of reclamation costs (using the current FACE form approved by the State Mining and Geology Board) including labor, equipment, mobilization and removal, materials such as seedlings, seed, fertilizer, mulch, irrigation system, top soil, etc., profit, overhead, long term monitoring (at least three years after reclamation is complete) and contingency. The assumption when preparing the estimate is that the mine operator is gone and the County or State must hire an independent contractor to do all reclamation work from beginning to end.

REPORTING RESPONSIBILITIES (Public Resources Code Section 2207)

Each operator is responsible for submitting a New Mining Operation Report to the lead agency and the Department of Conservation, Division of Mine Reclamation within 30 days of approval of a mining permit, reclamation plan, or financial assurance (CCR § 3697(a)); and to report annually thereafter by July 1st. Reporting forms and State reporting fees information are available from the Division of Mine Reclamation, 801 K Street MS 09-06, Sacramento, CA 96814-3529; telephone (916) 323-9198. The County also requires annual fees for mine administration and operations monitoring. Payment forms are sent by the County with the payment due date specified. Information can be obtained by phoning the Lassen County Department of Planning and Building at (530) 251-8269.

OTHER PERMITS REQUIRED

The operator is responsible to obtain all other permits from responsible agencies. For a sample list of other possible permit requirements please contact the Lassen County Department of Planning and Building at 707 Nevada Street, Susanville, CA 96130; telephone (530) 251-8269.

Mining Plan for SMARA Application

Geofortis Minerals, LLC

Cal Min Claims 121, 124-126, 131-132, 137, 159

January 2022

Submitted by:

Geofortis Minerals LLC
30 S Tooele Blvd.
Tooele, UT 84074

Prepared by:

Broadbent and Associates, Inc.
8 West Pacific Avenue
Henderson, Nevada 89015
Broadbent Project No. 14-01-173-701

Submitted to:

Lassen County
Department of Planning and Building Services
707 Nevada Street, Suite 5
Susanville, CA 96130-3912

Geofortis Minerals, LLC
Cal Min 121, 124-126, 131-132, 137, 159
Mining Plan

Table of Contents

INTRODUCTION	1
1. Operator/Claimant Information	2
1.1. Operator Information	2
1.2. Corporate Information.....	2
1.3. Claimant/Claim Information	3
1.4. Private Land Owner.....	3
2. Description of Operations	4
2.1. Legal Description.....	4
2.2. Description of Operations.....	4
2.2.1. Maps and Plans	4
2.2.2. Equipment	4
2.2.3. Operating Practices	5
2.2.4. Mining Operations.....	5
2.2.5. Ancillary Facilities	6
2.2.6. Water Management Plan	7
2.2.7. Access and Other Roads	8
2.2.8. Use and Occupancy	9
2.2.9. HAZMAT/Spill Contingency Plans.....	9
2.2.10. Rock Characterization and Handling Plans.....	9
2.2.11. Quality Assurance Plan.....	9
2.2.12. General Schedule of Operation from Start through Closure	9
2.2.13. Environmental Protection Measures	10
2.2.14. Land Disturbance.....	12
3. Reclamation Plan.....	13
3.1. Drill-Hole Plugging.....	13
3.2. Regrading and Reshaping.....	13

3.3.	Mine Reclamation	14
3.4.	Riparian Mitigation	15
3.5.	Wildlife Habitat Mitigation	15
3.6.	Topsoil Handling and Revegetation	16
3.7.	Isolation and Control of Acid-Forming, Toxic, or Deleterious Materials	18
3.8.	Removal or Stabilization of Buildings, Structures, and Support Facilities	18
3.9.	Post-Closure Management	18
3.10.	Public Safety.....	19
4.	Monitoring Plan	20
4.1.	Monitoring Plan Requirements.....	20
5.	Interim Management Plan	22
5.1.	Measures to Stabilize Excavations and Workings.....	22
5.2.	Measures to Isolate or Control Toxic or Deleterious Materials.....	22
5.3.	Provisions for the Storage or Removal of Equipment, Supplies, and Structures.....	22
5.4.	Measures to Maintain the Project Area in a Safe and Clean Condition	23
5.5.	Plans for Monitoring Site Conditions during Periods of Non-Operation	23
5.6.	Schedule of Anticipated Periods of Temporary Closure	23
6.	Reclamation Cost Estimate.....	24
6.1.	Overview	24
6.2.	Equipment Mobilization/Demobilization.....	24
6.3.	Agency Administrative/Management.....	24
6.4.	Equipment Operating Rates and Costs	25

Appendix A: Figures

Appendix B: Cost Estimate

Appendix C: Claim Information

Appendix D: Spill Contingency Plan

Appendix E: Woolly Buckwheat Information

Appendix F: Land Owner Notification

Geofortis Minerals, LLC
Cal Minerals Claims 121, 124-126, 131-132, 137, 159
Mining Plan

INTRODUCTION

This Mining Plan (Plan) is submitted by Geofortis Minerals LLC (Geofortis) to Lassen County (County) for Geofortis' Claims CAL MIN 121, 124-126, 131-132, 137, 159 (Project), in accordance with the BLM Surface Management Regulations 43 Code of Federal Regulations (CFR) 3809 and State of California regulations.

The Project is located on private land where the mineral rights were reserved and on public land administered by the BLM in part or all of the E½ SE¼ & SW¼ SE¼ of Section 11, and N½ NE¼ & NE¼ NW¼ of Section 14, all within T. 23 N., R. 17 E. M.D.B.&E. in Lassen County, California. The Project Area consists of mining claims CAL MIN 121, 124-126, 131-132, 137, and 159, which totals approximately 160 acres of land, and associated access routes. Approximately 20 acres within mining claim 159 and portions of the access routes are on public land, with the remaining 140 acres on private land. The Project Area can be accessed from US Highway 395, approximately 5.5 miles north of the intersection of US Highway 395 and California State Route 70. Please refer to Figure 1 for the Project Area.

Geofortis proposes to establish an 83-acre pozzolan materials mining operation within the Project Area under this Plan. The Project will be a year-round operation, with mining and screening operations generally on a seasonal schedule, and loading and hauling operations on a year-round schedule. The proposed operation will include excavations through three (3) Phases and will include a mobile crushing and screening spread as well as stockpiling and hauling operations. Phase I mining operations will be located on mining claims 124-126, 131, 132, 137, and 159 and may produce 3.45 million cubic yards of pozzolan material. Phase II mining operations will be located on mining claims 124-126 and may produce 4.49 million cubic yards of pozzolan material. Phase III mining operations will take place on mining claim 121 and may produce 0.67 million cubic yards of pozzolan material. The entire operation may produce a total of 8.61 million cubic yards of pozzolan material. At full production, the mining operation is expected to produce an average of 250,000 cubic yards and a maximum of 500,000 cubic yards of pozzolan materials per year. Actual phasing may vary depending on site conditions.

Geofortis proposes to construct a new access road to the mining operation by amending the existing CalTrans Encroachment Permit (0295-6RM-0163). An existing road approaches US Highway 395 from the west at postmile 10.1. The proposed 1000-foot access road will extend due east from postmile 10.1 to the Project Area Boundary in mining claim 131. Haulage traffic will occur on southbound US Highway 395 to an off-site mill located in Stead, Nevada. Geofortis will apply for a right-of-way for the access road through BLM land. This roadway will be on CalTrans right-of-way and BLM land. A portion of the roadway will be excavated through a ridge line to allow access to the Project Area. The ridge line will serve a natural barrier between the US Highway 395 corridor and the proposed Project Area in order to minimize views of the mining operation from the highway.

1. Operator/Claimant Information

1.1. Operator Information

Operator Name: Geofortis Minerals, LLC

Mailing Address: 30 S. Tooele Blvd.
Tooele, UT 84074

Phone Number: 925-348-3535

Tax Payer Identification Number: 47-5166521

Point of Contact: David McMurtry
30 S. Tooele Blvd.
Tooele, UT 84074
Office: 925-348-3535
Cell: 925-348-3535

1.2. Corporate Information

Corporation: Geofortis Minerals, LLC
30 S. Tooele Blvd.
Tooele, UT 84074
Office: 925-348-3535

President/CEO & Treasurer: David Jarrett
Office: (907) 278-6100

Secretary: Jim Bowen
Office: 305-509-1615

1.3. Claimant/Claim Information

<u>Claimant:</u>	Geofortis Minerals LLC 30 S. Tooele Blvd. Tooele, UT 84074 Office: 925-348-3535
<u>Claim Name:</u>	CAL MIN 121, 124-126, 131-132, 137, 159
<u>Claim Type:</u>	Placer
<u>BLM Serial Number of Mining Claims:</u>	CA056029 See Figure 1 for Location of Claims
<u>Location of Claim (Township, Range, Section):</u>	E½ SE¼ & SW¼ SE¼ of Section 11, N½ NE¼ & NE¼ NW¼ of Section 14, all within T 23 N, R 17 E MDB&E
<u>Primary Commodity:</u>	Pozzolan Materials

1.4. Private Land Owner

<u>Owner:</u>	Avalanche Funding 5040 Acoma Street Denver, CO 80216 Attn: Fred Orr
---------------	--

2. Description of Operations

2.1. Legal Description

The Project is located on private land and on public land administered by the BLM in part or all of the E½ SE¼ & SW¼ SE¼ of Section 11, and N½ NE¼ & NE¼ NW¼ of Section 14, all within T. 23 N., R. 17 E. M.D.B.&E. in Lassen County, California. The Project Area may also be described as part of or all of Parcel Numbers 145-030-16-11, 145-050-04-11, and 145-050-12-11. The Project Area contains approximately 160 acres, of which 20 acres within mining claim 159 are on public land and the remaining 140 acres on private land, with portions of the associated access routes will be located on public land. There are no portions of the Project Area Boundary on National Forest System or State lands. Please refer to Figure 1 for the Project Area Boundary.

2.2. Description of Operations

The following section describes the proposed mining activities within the Project Area encompassing Claims CAL MIN 121, 124-126, 131-132, 137, 159.

2.2.1. Maps and Plans

The following figures detail the proposed mining activities and supporting facilities for the Project. Please refer to Appendix A for the figures.

Figure 1: Project Area Boundary

Figure 2: Process Flow Diagram

Figure 3: Mine Plan Phase I & II

Figure 4: Mine Plan Phase III

2.2.2. Equipment

Equipment to be used on site includes:

- Loader(s)
- Skid Steer
- Haul Trucks
- Dozer
- Excavator
- Water Truck / Pull for Dust Control
- Service equipment as necessary (crane, service/ fuel/ lube truck, pick-ups & employee vehicles)
- Traditional crushing and screening equipment for production of aggregates
 - Crushing and Screening Plant
 - Conveyors & Stacking Conveyors
 - Dozer Trap Feeder

2.2.3. Operating Practices

On-site operations will include the mining of pozzolan materials using dozers to rip and push materials, and excavators mining on a moving wall. An on-site, mobile crushing and screening spread will crush the material, typically to ¾" minus. It is expected that an average of 250,000 cubic yards of pozzolan material can be produced each year, with a maximum production up to 500,000 cubic yards each year. The pozzolan material will be stockpiled onsite, where a small dozer will regularly turn the stockpile to dry the material. The operation will be capable of processing materials 7 days a week. Haul trucks will move material on southbound US Highway 395 to an off-site mill located in Stead, Nevada for further processing 5 days a week. The off-site mill and route are not located on public land. A portion of the access road to the mining operation is located on public land. It is expected that approximately 70 truckloads per day would move material off-site at full capacity.

2.2.4. Mining Operations

Lassenite™ is a pozzolan deposit of lacustrine tuffaceous sediments, typically a combination of volcanic ash and diatoms. It contains high concentrations of silica dioxide and alumina oxides. Sedimentary deposits in the Long Valley area were briefly described by Van Couvering (1962) while mapping an area west of Long Valley. The first detailed examination was performed for Cherokee Industries, Inc. (Goodman et al., 1974), and included geologic mapping, drilling, paleontology, laboratory analyses, and geophysics. The most recent work by Downey and Kohler (2001) drew heavily on that report and described the pozzolan potential in Long Valley. These two reports and Bonham and Papke (1969) provide the basis for following descriptions of the depositional environment.

Long Valley is one of many depositional basins in northeastern California and northwestern Nevada. These basins formed over the last several million years as a result of downward movement along broadly north-south trending fault zones. Rocks underlying Long Valley consist of Cretaceous quartz monzonite, a type of granitic rock, and the Hartford Hill Rhyolite, a volcanic deposit widespread in the region. The quartz monzonite is roughly 60 million years old (myo), and the Hartford Hill, about 11 myo.

As the basin subsided, alluvial sediments were deposited from the adjoining highlands. At the edges of the basin, these often consisted of coarse-grained gravel to boulder conglomerate on alluvial fans. The sediments became finer-grained toward the basin center, and there were often dominated by arkose, a type of sandstone. During this process, the climate fluctuated, and at times the basin contained a lake that varied in extent and depth. Locally within the lake were bedrock highlands, some of which appear to have been islands.

Over time, depositional conditions in the lake were generally quiescent, though intervals of high-energy sedimentation are evident from associated local deltaic and stream deposits. Volcanic ash of rhyolitic composition from multiple eruptions fell into the lake and accumulated as massive to laminated siltstone and shale, often containing the skeletons (frustules) of diatoms, which are

microscopic single-celled plants. It is this material that produced the pozzolan deposits that were marketed as "Lassenite" by Cherokee Industries and others.

Aquatic fossils indicate that the lake contained fresh water and was well-aeriated during sedimentation. At times, the lake was very shallow and may have vanished altogether. Mammal fossils found during the Goodman et al. (1974) study suggest that the Lassenite sedimentation probably took place about 3 million years ago and may have persisted for a million years or more. The precise duration is not known, and at present can only be inferred from the thickness of these units. Eventually, the climate again changed, and as the basin continued to subside, the lake received increasing amounts of high-energy coarse sediments, predominantly arkose and conglomerate along its edges. This change was gradual, so that pozzolanic layers are sometimes found interbedded with arkose and siltstone. The basin gradually filled, and coarse material from adjoining mountains was deposited throughout much of the valley.

The proposed open pit mining operation will commence as three phases as shown on Figure 1. Phase I mining operations will be located on mining claims 124-126, 131, 132, 137, and 159 on the east side of US Highway 395. A moving wall excavation will commence on the east side of the ridge located in mining claim 131. The ridge will serve as a natural barrier to minimize views from US Highway 395. The moving wall will continue north and east from the access road into claims 132, 137, and 159. The Phase I project area covers an area of 34.47 acres and may produce 3.45 million cubic yards of pozzolan material. The Phase I operation has an expected lifetime of 7-14 years.

Phase II mining operations will be located on mining claims CAL MIN 124-126 on the east side of US Highway 395, where a moving wall will continue south across the mining claims. The ridge running through claims 123 and 124 will serve as a natural barrier to minimize views from US Highway 395. The Phase II project area covers an area of 34.93 acres and may produce 4.49 million cubic yards of pozzolan material. The Phase II operation has an expected lifetime of 9-18 years.

The phase III site will be accessed from the existing intersection at postmile 10.1 on US Highway 395, which is permitted through TR-0120 Encroachment Permit (Permit No. 0295-6RM-0163) issued by the California Department of Transportation. Refer to Figure 4 for the location of the access road. The moving wall will continue south across the mining claims. The Phase III project area covers an area of 13.37 acres and may produce 0.67 million cubic yards of pozzolan material. The Phase III operation has an expected lifetime of 1-3 years.

A mobile crushing and screening spread will process pozzolan materials from all three phases of the mining operation. Crushed $\frac{3}{4}$ " minus pozzolan materials will be stockpiled for hauling off-site.

2.2.5. Ancillary Facilities

The mobile crushing and screening spread will consist of a portable crusher and screening plant capable of processing up to 100,000 cubic yards per month. Two conveyor systems will be utilized

to form stockpiles for processed pozzolan materials and for reject materials. Stockpiles will be located near the access road to allow for quick loading of hauling vehicles. Power for the mobile crushing and screening spread may be provided by a generator permitted through the Lassen County Air Pollution Control District or through CalEPA Air Resources Board's (ARB) Statewide Portable Equipment Registration Program (PERP).

Additional structures may include a mobile administration building to provide office space, break room for personnel, and storage of plans and permits. Portable restrooms will be provided and serviced weekly. Fencing and gates will be installed at the new access road.

A maintenance shop will not be established at the facility. A mobile maintenance truck will be utilized to service equipment. Small storage containers and fuel tanks may be placed at the facility for maintenance and refueling of equipment. A truck scale will be provided at the egress of the mining operation. No waste will be disposed of onsite and will be handled in accordance with state and local health and safety regulations.

Stormwater diversion structures will be implemented as Phase I of the mining operation moves toward a wash and Phase III of the mining operation disturbs a wash. The diversion structures are further described in Section 2.2.6.

2.2.6. Water Management Plan

Stormwater Management

The proposed Project Area is undisturbed with a cover of sagebrush, sparse grasses and dispersed small trees. The general topography of the area is hilly terrain and generally slopes to the north. Several ephemeral washes run through the Project Area, which will be diverted away from active mining areas. Refer to Figures 3 and 4 for the locations of the washes and proposed diversionary structures.

Site drainage in Phase I is by sheet flow to an ephemeral wash that traverses the site through mining claims 132 and 137. The wash is located east of proposed mining activities, which will not divert, alter, or in any way disturb this wash. Temporary berms will be constructed along the edges of the active mining areas to prevent storm flow from entering the area, if needed. The berms will be approximately 60 inches in height and will be constructed from mined reject materials. In addition, the proposed access road crosses a wash on the west side of Phase I operations. A culvert and headwalls will be installed to direct stormwater under the access road.

Onsite drainage in Phase II is by sheet flow to the ephemeral wash. However, two tributaries convey offsite flows through the proposed Project Area in mining claims 125 and 126. A diversionary ditch will be constructed along the southern boundary of Phase II, to divert stormwater flows around the mining activities and discharge into the wash to the east.

Site drainage in Phase III is by sheet flow to the northeast, where flows enter into three washes that converge into a single wash within the Project Area. A berm is proposed along the southern

boundary of Phase III to prevent stormwater from entering the Project Area. In addition, a diversion channel will be constructed within one of the benches to divert water from the mining area. The wash continues north and crosses under the existing access road through an existing culvert.

The Project Area is not located within a 100-year flood zone per FEMA Map Panel No. 06035C2800D. A 50-year, 24-hour design storm event in the area is expected to yield 4-6 inches of rainfall. This design storm event will be used to size diversion channels, culverts, and the detention basin in the Hydrology Report.

Dust Control

Water will be provided to the facility for use as dust control from an existing industrial well leased to Geofortis. The well is identified as 23N17E02N001M with the California Department of Water Resources. The well is located in Section 2 of T23N, R17E MDB&E, being further described at coordinates Lat. 39.87° N, Lon. 120.05° W. Water trucks will draw water from the well and deliver to the Project Area. At full production, it is expected that 15,000 gallons per day are required for dust control operations.

2.2.7. Access and Other Roads

Geofortis holds a TR-0120 Encroachment Permit (Permit No. 0295-6RM-0163) through the California Department of Transportation at postmile 10.1 on US Highway 395. The Encroachment Permit serves an existing access road to existing claims in the name of Interest Income Partners under Surface Mining Plan #95004. Geofortis will modify the Encroachment Permit to establish a new intersection on the east side of US Highway 395. This intersection will service all three Phases of the Project.

Geofortis will construct a 1000-foot long, gravel access road from US Highway 395 to mining claim 131. This road will serve as an access and haul road during Phases I and II of the mining operation on the east side of US Highway 395. The proposed road will be located along the northern boundary of the NW¼ NE¼ of Section 14, T. 23 N., R. 17 E., M.D.B.&E. through BLM land. The access road will be 35 feet wide and have a 12% slope upon entering the Project Area. The side slopes for the access road will be 1.5:1 with 10-ft wide benches every 15 vertical feet. Refer to Figure 3 for the location of the proposed access road.

The existing Encroachment Permit and the existing access road to the Interest Income Partners claims on the west side of US Highway 395 will serve as an access and haul road during Phase III of the mining operation. The existing road will be extended to provide access to the mining claims south of the existing access road. The 700-foot long, gravel access road will extend into mining claims 121. The access road will be 35 feet wide and have a 12% slope upon entering the Project Area. The side slopes for the access road will be 1.5:1 with 10-ft wide benches every 15 vertical feet. Refer to Figure 1 for the location of the proposed access road.

Mining and screening operations are anticipated to operate seasonally from April-November. Deliveries to the Project are estimated to be up to 1 trip per day. Employee travel is initially estimated at approximately 15 roundtrips per day. Loading and hauling operations will occur on a year-long basis. Approximately 70 truckloads per day, on a 5 day per week schedule, will be required to haul processed pozzolan materials during normal operations. Roadways will be maintained and regraded as necessary. Loading and hauling operations will occur year-round and on weekends depending on market demand or weather conditions.

2.2.8. Use and Occupancy

Residential buildings or structures will not be utilized in the Project. A mobile office building may provide office space, break room for personnel, and storage of plans and permits. Portable restrooms will be provided and serviced weekly.

2.2.9. HAZMAT/Spill Contingency Plans

No chemicals or hazardous materials will be utilized at the Project. The only potential spills on the Project site could come from equipment fuel and oil. These will be cleaned up in accordance with the Spill Contingency Plan provided in Appendix D.

2.2.10. Rock Characterization and Handling Plans

There are no materials within the Project Area that have the potential to generate acid or deleterious leachate. Therefore, acid mine drainage is not a part of this Plan.

2.2.11. Quality Assurance Plan

The proposed mining plan does not have permanent structures or proposed mining operations that require complex design or monitoring. The mining operation will be completely above ground and traditional grading equipment will be used. There will be no leaching pads or tailings piles as part of the operation. No industrial ponds are proposed. An industrial Stormwater Pollution Prevention Plan (SWPPP) will be required to prevent contamination of the runoff from the site. No chemicals will be brought onsite to be used in the mining operation.

2.2.12. General Schedule of Operation from Start through Closure

Mining and screening operations will generally be a seasonal operation from April-November, whereas loading and hauling operations will be conducted year-round, 5-days a week. Loading and hauling operations will occur year-round and on weekends depending on market demand or weather conditions. The following general schedule of operations will commence upon approval of this Plan by the County and BLM and completion of processing capacity offsite.

Access Road Construction:	Year 1
Crushing and Screening Spread Mobilization:	Year 1

Utilities Construction (if applicable):	Year 1
Mining	January – December, Each Year
Loading and Hauling Operations	January – December, Each Year
Interim Mining Closure:	December – March, Each Year

Phase I and II mining will commence in the first two years with concurrent reclamation occurring within areas considered inactive or completed, starting in the second year of mining. The expected start date of Phase III mining is Year 39. Similarly, Phase III reclamation will be concurrent in nature.

2.2.13. Environmental Protection Measures

Geofortis has prepared an Environmental Assessment (EA) for this project with the Bureau of Land Management (BLM) as the lead agency (DOI-BLM-NV-0020-2020-0026 EA). All environmental protection measures described in that document are adopted in this mining plan.

Water Quality

- Floodplains- The analysis for surface water resources includes floodplains. According to FEMA Map (Panel No. 06035C2800D), the project area is outside of 100-year floodplain areas.
- Riparian/Wetlands – No surface water resources have been identified. The Long Valley Creek does not flow immediately adjacent to the mining operation.
- Stormwater BMPs will be utilized at the mining operation to minimize the potential contamination of stormwater and to minimize runoff erosion from stormwater.
- Geofortis will follow the provisions of the Spill Contingency Plan provided in Appendix D.

Migratory Birds

Geofortis will comply with the Migratory Bird Treaty Act and avoid potential impacts to protected birds within the project area. A list of those protected bird species is provided in 50 CFR 10.13. When surface disturbances are created during avian breeding season (March 1 through August 31, may vary), a qualified biologist will survey the area prior to land clearing activities. If an active nest is observed within the project area, all construction activity will stop immediately in the vicinity of the nest and the BLM Biologist and County will be contacted. A protective buffer (size depending on the habitat of the species) will be delineated by the BLM, in coordination with other state and federal wildlife agencies. The area will be avoided to prevent the destruction or disturbance to nests until they are no longer active.

All infrastructure will be designed and constructed in a manner that does not allow open pipes that birds and other wildlife could be trapped in. This includes fencing, gates, or other materials with open holes. All pipes will be capped or secured so that wildlife cannot be confined. This will

not include culverts larger than 12-inches in diameter.

Cultural and Paleontological Resources

Efforts will be taken to preserve surface and subsurface cultural and paleontological resources that may be encountered within the project area. Any finds will be left intact and undisturbed and all work in the area will stop immediately and the BLM Archaeologist and County will be contacted. A Paleontological Resources Protection Plan (PRPP) will be prepared by a qualified paleontologist prior to ground disturbance and will be submitted to the County and BLM for approval.

- Pursuant to 43 CFR 10.4(g), Geofortis will notify the County and BLM authorized officers, by telephone, and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4 (c) and (d), the operator will immediately stop all activities in the vicinity of the discovery and not commence again for 30 days or until notified to proceed by the County authorized officer.
- In the event that previously undiscovered cultural or paleontological resources (as defined in the PRPP) are discovered in the performance of any surface disturbing activities, the item(s) or condition(s) will be left intact and immediately brought to the attention of the authorized officer of the BLM. If significant cultural or paleontological resources are found, then all operations will be suspended in the immediate area of such discovery and protected until an evaluation of the discovery can be made by the authorized officer. This evaluation will determine the significance of the discovery and what mitigation measures are necessary to allow activities to proceed. Geofortis is responsible for the cost of evaluation and mitigation. Operations may resume only upon written authorization to proceed from the authorized officer of the County.
- Training program will be provided to all workers at the mine site.

Public Safety and Access

- Public safety will be maintained throughout the duration of the Project. All structures, equipment, and other facilities will be maintained in a safe and orderly manner.
- Hazardous sites or conditions resulting from operations will be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and state laws and regulations.
- Egress(es) to the mining operation will be adequately fenced and gated to preclude access.
- Any survey monuments, witness corners, or reference monuments will be protected to the extent economically and technically feasible.
- All solid wastes will be disposed of in a state, federal, or local designated site.
- Pursuant to 43 CFR 8365.1-1(b)(3), no sewage, petroleum products, or refuse will be dumped from any trailer or vehicle.

- Geofortis will comply with all applicable state and federal fire laws and regulations and all reasonable measures will be taken to prevent and suppress fires in the Project Area.

Air Quality

The mining operation is located within the California Air Basin No. 7, known as the Northeast Plateau Basin (Lassen County, 2000). According to Erik Edholm of Lassen County, the basin is currently in attainment for pollutants (June 2021).

The Lassen County Air Quality District is responsible for the permitting of projects with respect to air quality in the basin. County regulations require that fugitive dust be controlled and that an ongoing program to prevent particulate matter from becoming airborne be instituted.

Equipment associated with crushing and screening operations will be permitted through the Lassen County Air Quality District or CalEPA PERP. Emissions of fugitive dust from disturbed surfaces will be minimized by the application of water from a water truck as a method of dust control.

Noxious Weeds

The Federal Noxious Weed Act, Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a Federal program to control the spread of noxious weeds. Executive Order 13112 issued February 3, 1999 further defines the responsibilities of Federal Agencies to prevent the introduction of invasive species and provide for their control by minimizing the economic, ecological and human health impacts that invasive species cause. The approval of the proposed alternative for this project requires the proponent to comply with the Executive Order 13112 and prevent the spread or introduction of invasive species and noxious weeds.

Noxious weeds will be controlled through implementation of the following BMPs: concurrent reclamation efforts; operator control; removal of invasive, nonnative, and noxious weeds on reclaimed areas; washing heavy equipment prior to entering the Project Area; and avoiding areas of known invasive, nonnative, and noxious weeds during periods when the weeds could be spread by vehicles.

2.2.14. Land Disturbance

The Project Area has not been previously disturbed. Approximately 83 acres of land is proposed to be disturbed. Approximately 5 acres of land disturbance will be on public land within mining claim 159. No National Forest System or State lands will be impacted by the proposed Project. Temporary access will be limited and barriers will be installed if necessary.

3. Reclamation Plan

This section describes the measures to be taken to prevent unnecessary or undue degradation and the proposed activities for reclamation to be undertaken during and after completion of the mining operations.

Reclamation will be completed to the standards described in 43 CFR 3809.420 and NAC 519A. Reclamation will meet the reclamation objectives as outlined in the U.S. Department of Interior Solid Minerals Reclamation Handbook #H-3042-1 (BLM 1992), Surface Management Handbook H-3809-1 (BLM 2012), and California's Surface Mining and Reclamation Act of 1975 (SMARA 1975).

Disturbed areas will be reclaimed at the earliest feasible time, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands. Reclamation will commence upon completion of each Phase of the Project. Upon completion of reclamation activities, an authorized officer of the BLM and the County will be notified so that an inspection of the area can be made.

3.1. Drill-Hole Plugging

Drill-holes may be used to explore the depth and distribution of pozzolan materials ahead of the moving wall mining operations. All drill-holes and mining activities will take place above the groundwater table. Drill-holes will be plugged by placing drill cuttings or inorganic fill material into the total depth of the hole. In the unlikely event that groundwater is encountered during drilling, the drill-hole will be cemented to at least 50 feet above the aquifer and will require a 3-foot cement surface plug.

3.2. Regrading and Reshaping

During mining and reclamation activities, Geofortis will implement best management practices (BMPs) to control erosion, landslides, and water runoff in accordance with a site-specific Stormwater Pollution Prevention Plan (SWPPP). Erosion and sedimentation of surface waters will be controlled through the use of weed-free straw wattles and/or silt fencing along the boundary of the facility and along steep slopes. These BMPs are designed to minimize the erosion of materials on the site and the transport of sediment off of the site. BMPs that may be used during this portion of the regrading include:

- Earth dikes and drainage swales- Earth dikes and drainage swales are used to divert off site runoff around the site, divert runoff from stabilized areas and disturbed areas, and direct runoff into sediment traps or basins.
- Velocity dissipation device- A physical device composed of rock, grouted riprap, or concrete rubble which is placed at the outlet of a pipe or channel to prevent scour or the soil caused by concentrated, high velocity flows.

- Slope Drains- Slope drains are used with earth dikes and drainage ditches to intercept and direct flow away from slope areas to protect cut or fill slopes.
- Non-vegetative stabilization- These materials are used for temporary or permanent stabilization of areas prone to erosion and should be used only where vegetative options are not feasible.
- Silt fence- A silt fence is made of woven geotextile that has been entrenched, attached to supporting poles, and sometimes backed by plastic or wire mesh for support. The silt fence detains sediment laden water, promoting sedimentation behind the fence.
- Sediment basin- A temporary basin formed by excavation or by constructing an embankment so that sediment-laden runoff is temporarily detained allowing sediment to settle out before runoff is discharged.
- Check dams- A small barrier constructed of rock, gravel bags, sandbags, fiber rolls, or other materials, placed across a construction swale or drainage ditch to control erosion and head-cutting.
- Fiber rolls- A fiber roll consist of straw, coir, or other biodegradable materials bound into a tight tubular roll wrapped by netting, which can be placed across a slope to capture sediment and reduce runoff velocity.

Other BMPs can be found in the California Stormwater Quality Association Construction Handbook.

Regrading and reshaping of all disturbed areas will be completed to approximate the surrounding topography. The reclaimed areas will be stable and will not exhibit large rills or gullies, perceptible soil movement or head cutting in drainages, slope instability on or adjacent to the reclaimed area. Fill material will be pulled onto the roadbeds to fill the road cuts and restore the slope to natural contours. Should any drainage be disturbed, they will be re-shaped to approach the pre-construction contours. The resulting channels will be of the same capacity as up and downstream reaches and will be made to prevent erosion and ultimately revegetated. Following completion of earthwork, all disturbed areas will be broadcast seeded.

3.3. Mine Reclamation

Geofortis will conduct concurrent reclamation on previously mined areas where possible to minimize the area of surface disturbance during the development of the Project from phase to phase. Reject materials will be placed over the open pit floor and limited stockpiled topsoil will be graded over the backfilled areas. There will be no highwalls in the Project Area. The reclaimed land will be contoured to satisfy post-mining land use to minimize views from US Highway 395.

The site will not be backfilled. The proposed mining plan will not result in any highwalls left after the mining is completed. The proposed mining cross section is 1.5:1 with 10-foot benches every

15 vertical feet. During reclamation, the benches will be smoothed with a resulting slope between 2:1 and 2.5:1. Due to the low rainfall levels and typical sparse vegetation, this configuration should be successful. The limited salvaged topsoil will be used in selected areas to enhance revegetation. This slope is stable in the material expected to be encountered and will not pose a significant safety risk. All proposed mining is above the water table and a pit lake is not expected to form.

Stormwater will either be routed around the mining operation or allowed to pass through the area with suitable hydraulic controls. In areas of high energy, riprap may be required to prevent erosion. In limited, select areas culverts may be necessary.

3.4. Riparian Mitigation

There are no surface water resources identified within the Project Area. Long Valley Creek does not flow immediately adjacent to the mining operation. Several ephemeral washes run through the Project Area. Phase I mining activities will approach the wash, but are not expected to divert, alter, or in any way disturb the wash. Phase II mining activities will disturb two tributaries to the wash, which will be diverted around the Project Area and back into the main wash. Phase III mining activities will significantly disturb three washes that merge into a single wash within the proposed Project Area. Geofortis proposes to construct a berm and channel to prevent stormwater from entering the Project Area.

3.5. Wildlife Habitat Mitigation

Migratory and upland game birds are present in the area, such as sparrows, swallows, dove, grouse, chukker, and quail. Raptors consist of owls and hawks. Mule deer, antelope, coyote, rabbit, skunk, and rodents inhabit the area. There are no known threatened or endangered species that inhabit the Project Area Boundary or within the vicinity. Should rare, threatened, or endangered species occur on or near the site, the Department of Fish and Game will be contacted.

Through successful revegetation utilizing a seed mix provided and approved by the BLM and Lassen County in Section 3.6, wildlife habitat will be restored and enhanced. Reclamation will meet the objectives as outlined in revegetation success standards per Attachment B "Nevada Guidelines for Successful Revegetation for the Nevada Division of Environmental Protection, the Bureau of Land Management and the U.S.D.A. Forest Service" September 1998.

The White Woolly Buckwheat (*Eriogonum ochrocephalum* var. *ochrocephalum*) was found on the site and the revegetation plan will address protections for this perennial herb. This plant forms a thick clump or mat covered in clusters of woolly lance-shaped to oval leaves. Wild buckwheat species are often important pioneer plants after natural disturbance, and their presence may facilitate the establishment of later-successional species according to the United States Department of Agriculture *Woody Plant Seed Manual*, 2008.

3.6. Topsoil Handling and Revegetation

Limited topsoil, selected subsoils, or other reject materials suitable as a growth medium will be salvaged from areas to be disturbed, stockpiled (with signs) initially near the Phase I and II access road and managed for later use in reclamation, and wherever feasible applied directly to recontoured areas ready for reclamation. As the mining progresses, stockpile locations will vary with the progression. Topsoil to be salvaged will be placed over the pit floor, ripped to relieve compaction, and seeded with an approved seed mix. The soils will be disked into compacted areas at varying depths. It should be noted that initial geologic surveys of the Project Area indicate that pozzolan materials are present at the surface for much of the area; therefore, the amount of salvageable growth medium will be minimal.

Two separate seeding programs are proposed. The general seeding program will be used throughout the reclamation area. This seed mix has already been approved by Lassen County and includes plants consistent with the surrounding conditions. A separate seeding program is proposed for the White Woolly Buckwheat for which Geofortis will collaborate with Lassen County as the requirements for seeding may evolve during the life of the project. General seeding will be performed as concurrent excavation and reclamation advancements develop from the top down and as each panel is completed. No straw or other cellulose will be used in conjunction with the seeding activities. The general seed mix was selected by the BLM and Lassen County to establish a plant community consistent with surrounding conditions to support post-mining land use. The seed mix will provide plant species that can survive in the environment of the Project Area, have been approved for revegetation, and are native species found in the plant communities prior to disturbance. General seeding will be applied at a rate of 31.5 pounds of pure live seed (PLS) per acre. Flat areas will be drill seeded and mulched, sloped areas will be hydroseeded and benches will be planted with trees and shrubs. Geofortis will develop a pocket planting contingency plan where hydroseeding is not successful. Ponderosa and/or Jeffrey pine trees will be placed at random 50-foot spacings, and shrubs including bitterbrush and sagebrush will be planted at 25-foot spacings on the benches. Modifications to the general seed mix, application rates and cultivation methods could occur as a result of adjustments incurred to the monitoring and concurrent reclamation plan. However, changes to the general seed mix must be developed in consultation with and approval by the BLM and Lassen County. The general seed mix will represent a reclaimed desired plant community and will be appropriate for each ecological site description identified by the BLM in the Project Area. A 25-foot X 25-foot test plot will be located on Iron Cloud No. 11 to test seed mixes, seed application rates, seed application techniques and soil amendments per the Surface Mining and Reclamation Act (SMARA) of 1975. A Test Plot Plan (TPP) will be developed by Geofortis with concurrence from the BLM and Lassen County. The TPP should be developed before revegetation starts, and revegetation should be conducted on a concurrent basis commencing on the second year of operation. The BLM will work with a revegetation review team on the content of the TPP prior to their concurrence with the TPP. General seeding activities will occur primarily in the fall but may also occur in the spring based on weather conditions, previous planting success, or the data collected from the test plots.

Limited stockpiles will be interim seeded with the approved seed mix. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface run-on and runoff. Topsoil stockpiles will be identified and segregated on the ground. Upon completion of mining operations, the topsoil will be used during reclamation of the Project Area. The surface will be revegetated on a concurrent basis with activities commencing in the second year of operation to reduce further soil erosion.

Prior to ground disturbance on any portion of the project that has White Woolly Buckwheat, a project nursery will be established to allow for the transplant of all individual plants that may be impacted. Because of the tap-rooted habit, plants must be lifted carefully. Most species of wild-buckwheat are easily propagated in a nursery setting (Shaw, 1984).

During the life of the project, White Woolly Buckwheat seeds will be collected from plants not transplanted to the project nursery. Seed collection, cleaning and storage for collected natural seeds is presented in the *Woody Plant Seed Manual* prepared by the United States Department of Agriculture (USDA Manual, see Appendix D). This manual will be followed to maximize the collection of seeds from the native population.

Noxious Weeds Control Measures

Currently, no weed species listed by the BLM are located within the proposed disturbance areas. To prevent and control the introduction and spread of noxious weeds within the Project Area during construction, operation and reclamation activities, Geofortis will implement the following BMPs:

- Soil (growth media) disturbance will be minimized to the extent practicable, consistent with Project objectives. Growth media will be stockpiled and used in reclamation.
- All vehicles will stay on existing roads to and from the site. Any heavy equipment will have wheel wells, wheels and tires, bumpers, and undercarriage cleaned with high pressure water or air to remove any weed seeds prior to moving onto the site.
- Material used for reclamation will be free of weeds or weed seeds. All reclamation activities will be monitored for infestations of noxious weeds.
- Disturbed sites to be reclaimed will be revegetated as soon as practicable. Revegetation may include topsoil replacement, planting, seeding, fertilization, and weed-free mulching as necessary.
- The seed mixture will be certified pure live seed and weed free. Straw bales used for erosion control will also be certified as weed free.

Geofortis will survey the Project Area semi-annually for invasive weed species. If noxious weeds are encountered in the Project Area, documentation of their location and extent will be provided

to the BLM and County as soon as possible. If a limited amount of weeds are discovered, they will be pulled, placed in a plastic bag, sealed, and disposed of properly. For more intensive infestations, Geofortis will obtain approval from the BLM and County authorized officers prior to any herbicide application. Geofortis will contact the Sierra Front Field Office's noxious weed program lead regarding any issues concerning noxious weeds.

3.7. Isolation and Control of Acid-Forming, Toxic, or Deleterious Materials

The mining is not expected to produce significant volumes of waste material, so there are no proposed waste rock dumps. All undesirable materials (e.g., toxic subsoil, contaminated soil, drilling fluids, process residue, refuse, etc.) will be removed from the Project and disposed appropriately. There are no acid-forming materials located within the Project Boundary. Therefore, acid mine drainage controls are not a part of this Project.

Hazardous materials utilized at the Project Area will include diesel fuel, gasoline, and lubricants in conjunction with vehicle operations and maintenance. Routine vehicle maintenance including refueling will be done by mobile trucks. No permanent aboveground or belowground fuel tanks are proposed. Any containers of hazardous substances will be labeled and handled in accordance with CalEPA and MSHA. In the event that a reportable quantity of hazardous or regulated materials is spilled, measures will be taken to control the spill, and notifications will be made to the California State Warning Center, see Spill Contingency Plan (Appendix E).

3.8. Removal or Stabilization of Buildings, Structures, and Support Facilities

Upon completion of the Project, the mobile crushing and screening spread, and the mobile administration building will be removed from the facility. Portable restrooms, fencing, and gates will be removed from the Project Area. Powerlines, including all poles and cables, will be removed from the Project Area. Stormwater diversionary structures will remain in place. No other structures or support facilities will be located at the facility.

All equipment and supplies will be removed following the completion of the Project. Materials including scrap, trash, and unusable equipment will be removed on a daily or weekly basis and disposed of in accordance with federal and state regulations.

3.9. Post-Closure Management

Post-closure management will commence on any reclaimed area following completion of the reclamation work for the area. Post-closure management will extend until the reclamation of the site or component has been accepted by both the BLM and BMRR for approved post-closure land use. Management activities are further described in the Monitoring Plan (Section 4). Temporary structures such as stormflow diversionary berms or fencing may remain in place until reclamation is complete. For bonding purposes, a three-year post-closure management period is assumed following completion of reclamation construction on any site. For sites reclaimed early in the operations, management of the reclaimed sites will occur concurrently with operational site

management. Annual reports showing reclamation progress will be submitted to the BLM and BMRR.

3.10. Public Safety

No unnatural hazards will exist during or after reclamation in the disturbed/reclaimed areas.

4. Monitoring Plan

4.1. Monitoring Plan Requirements

Geofortis will perform site erosion monitoring for a period of five years after the completion of mining. This will include inspection and maintenance of any required stormwater BMP's quarterly for the first year of monitoring, and semi-annually for the remainder of the monitoring period. Any areas of erosion will be remediated at the time of the inspection and re-grading of the drainage area will be performed, after consultation with the County and BLM, if necessary. An annual report will be submitted to the County and BLM detailing the required inspections and maintenance activities performed.

Post reclamation monitoring will ensure disturbed surfaces are restored to pre-mining conditions. A five-year monitoring period is assumed but may be prolonged until reclamation is deemed complete by the County and BLM. Site monitoring inspections for stability and vegetative success will be conducted once a year, during the spring, for a minimum of five years. Pre-existing vegetative cover in the mine area was approximately 53 percent. Monitoring inspections will assess the successful establishment of the desirable species, vegetation reproduction processes, site stability and attainment of the revegetation goal. The release criteria will be considered satisfactory on establishment of 66 percent of the plantings and 75 percent of the seeding. The County and Geofortis will cooperate to inventory and monitor noxious weeds within areas of disturbance related to mining activities within the Project Area. Noxious weed infestations within the Project Area resulting from Geofortis ground disturbing activities will be promptly reported to the County. The extent of the infestation will be recorded and plotted on a map. Geofortis will treat any noxious weed infestations that result from ground disturbing activities within the Project Area for at least a five-year period following the completion of the Project. Treatments will be applied and recorded per BLM policy. The County, BLM and Geofortis will cooperate to monitor the effectiveness of treatments on noxious weeds.

Demonstrate Compliance with the Approved Plan of Operations and Other Federal and State Environmental Laws and Regulations

The proposed activities outlined in this Plan will be conducted under the County. In addition to this Plan, an Application for Surface Mining Permit and Reclamation (SMARA) Plan is being submitted to the Lassen County Planning Department, and coordination with the California Department of Conservation Office of Mine Reclamation and the State Mining Geology Board.

Provide Early Detection of Potential Problems

Monitoring will include periodic visual inspections during road construction, mining operations, and reclamation. In order to facilitate drainage and prevent erosion, all bladed roads will have waterbars constructed as specified in the BLM roads manual. BMPs for sediment control will be

utilized to minimize sedimentation from disturbed areas. Sediment control structures will include, but not be limited to, fabric and/or weed-free straw bale filter fences, siltation or filter berms, mud sumps, and downgradient drainage channels in order to prevent unnecessary or undue degradation to the environment.

If borehole drilling is performed, sediment traps will be constructed as necessary to ensure that the drill cuttings are contained and fluids are managed. Should the observed condition indicate that the sump containment is inadequate, additional sump capacity will be built and/or incorporated into the drilling fluid management system. Monitoring associated with reclamation activities is addressed in the Reclamation Plan (Section 3).

Supply Information That Will Assist in Directing Corrective Actions Should They Become Necessary

The activities outlined in the Reclamation Plan (Section 3) provide the necessary direction for corrective actions associated with the reclamation.

5. Interim Management Plan

During periods of temporary closure, including periods of seasonal closure, Geofortis will enact the following measures to prevent unnecessary or undue degradation in and around the Project Area. The Project is expected to be a year-round operation; however, mining and screening operations may operate on a seasonal schedule from April-November. Depending on market demands, operations and hauling may continue to occur between November and March.

The County and the BLM will be notified in writing within 90 days after work is suspended at the operation for more than 120 days. The Notice will state the nature and reason for the suspension of work, the anticipated duration of the suspension, and any event that will reasonably be expected to result in either the resumption of activities or the abandonment of the operation. Geofortis will not be required to notify the County nor the BLM or of temporary closure caused by weather conditions.

Geofortis will maintain a reclamation bond.

5.1. Measures to Stabilize Excavations and Workings

Areas being actively mined will be fenced off to limit access before temporary closure. Stockpiles are expected to be actively worked as loading and hauling operations continue on a year-round basis.

5.2. Measures to Isolate or Control Toxic or Deleterious Materials

There are no acid-forming materials located within the Project Boundary. Therefore, acid mine drainage controls are not a part of this Project.

All refuse generated by the project will be disposed of off-site at an authorized landfill facility, consistent with applicable regulations. No refuse will be disposed of on-site. Portable restrooms will be removed from the Project Area.

Hazardous materials utilized at the Project Area will include diesel fuel, gasoline, and lubricants in conjunction with vehicle operations and maintenance. Routine vehicle maintenance including refueling will be done by mobile trucks. No permanent aboveground or belowground fuel tanks are proposed. Any containers of hazardous substances will be labeled and handled in accordance with CalEPA and MSHA. In the event that a reportable quantity of hazardous or regulated materials is spilled, measures will be taken to control the spill, and notifications will be made to the California State Warning Center, see Spill Contingency Plan (Appendix D). No hazardous materials will be left on site during periods of temporary closure.

5.3. Provisions for the Storage or Removal of Equipment, Supplies, and Structures

Equipment associated with mining operations may be removed from the Project Area during periods of seasonal closure, including all vehicles such as excavators, dozers, and hauling vehicles. The crushing and screening spread and the mobile office will be moved off-site or secured safely

onsite during seasonal closures. All equipment will undergo regular maintenance prior to the seasonal closure of the Project Area.

5.4. Measures to Maintain the Project Area in a Safe and Clean Condition

The Project Area will be cleared of all waste, debris, and unused fuel and chemicals prior to seasonal closure. The mining operation will be adequately fenced and access gates will be locked.

5.5. Plans for Monitoring Site Conditions during Periods of Non-Operation

Geofortis will inspect the Project Area monthly during periods of non-operation, except as limited by weather and ground conditions.

5.6. Schedule of Anticipated Periods of Temporary Closure

Operations are expected to occur on a year-round basis; however, temporary closures may result from disruptions in the supply chain of products produced from the Lassenite. There is no way to anticipate or schedule such disruptions. Adverse weather conditions may curtail operations temporarily, but not for longer than a few days or weeks. Below freezing temperatures are experienced in Long Valley in the months from November-April, with an accompanying average annual snowfall in Long Valley is 20 inches. Geofortis will not be required to notify the County nor the BLM of temporary closure caused by weather conditions.

6. Reclamation Cost Estimate

6.1. Overview

Reclamation of the Project is designed to return the site to a safe, stable, and productive condition capable of supporting wildlife habitat, mineral exploration, livestock grazing, and recreation. The commitment to successfully completing this task is expressed in initial designs which facilitate ease of implementation of the Reclamation Plan, planned construction and reclamation design which minimizes surface disturbance and implementation of concurrent reclamation where appropriate. The reclamation cost estimate and bonding is regulated by Lassen County.

Geofortis will provide phased financial guarantees that cover only the current or proposed phase of the operation in accordance with 43 CFR 3809.553. The proposed mining operation will occur in three broad phases, each expected to develop over several years with small mobile equipment. The initial reclamation cost estimate assumes first year mobilization and construction of the access road to Phase I operations. The access road will be excavated through the ridge separating Highway 395 from the mining operation. The crushing and screening spread will be utilized during this excavation as much of the ridge is composed of pozzolan materials, which will be further processed off-site. This will minimize the amount of stockpiled materials to be regraded over the access road during reclamation. The proposed mining cross section is 1.5:1 with 10-foot benches every 15 vertical feet. During reclamation, the benches will be smoothed with a resulting slope between 2:1 and 2.5:1, with limited salvaged topsoil to enhance revegetation. Due to the low rainfall levels and typical sparse vegetation, this configuration should be successful. This slope is stable in the material expected to be encountered and will not pose a significant safety risk. The stormwater culvert will remain in place. There are no other structures, utilities, or fences associated with this cost. See Appendix B.

6.2. Equipment Mobilization/Demobilization

Project site reclamation equipment could be mobilized from and demobilized to Reno, Susanville, or Sacramento pending on the availability of equipment, pricing, and accessibility. Mobilized equipment will consist of an earthmoving fleet and seeding equipment for reclamation of disturbed areas. *Labor Surcharge and Equipment Rental Rates* as published by the State of California, Department of Transportation, Division of Construction, effective April 1, 2020 through March 31, 2021 were used for equipment costs.

6.3. Agency Administrative/Management

All activities, including reclamation, will be supervised by the County. The lead agency is Lassen County.

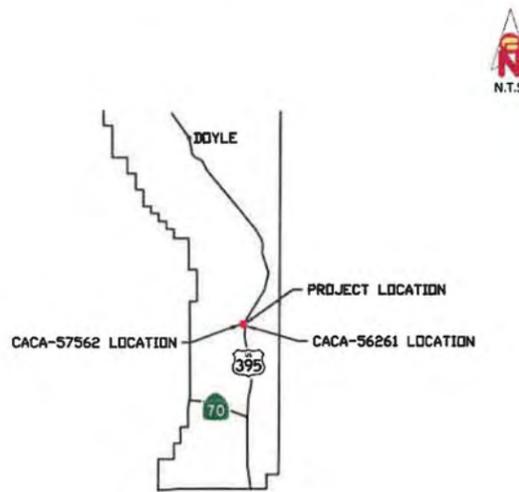
6.4. Equipment Operating Rates and Costs

The reclamation cost estimate was prepared using the State of California, Department of Conservation, Division of Mine Reclamation Financial Assurance Cost Estimate (FACE) form. *Labor Surcharge and Equipment Rental Rates* as published by the State of California, Department of Transportation, Division of Construction, effective April 1, 2021 through March 31, 2022 were used for labor and equipment costs. Some equipment costs not found in this document were estimated using the RS Means Construction Site Online Cost estimating tool.

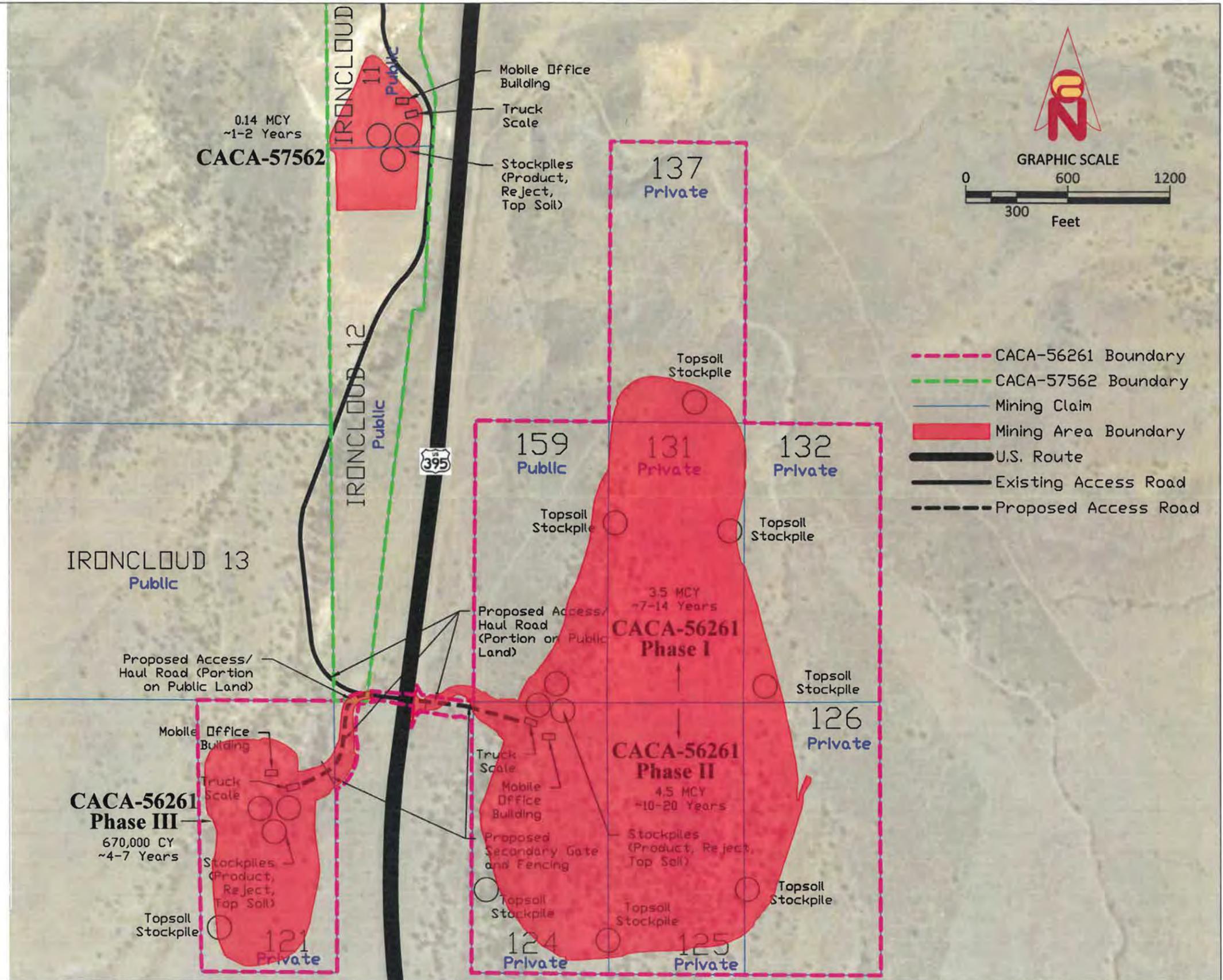
Appendix A: Figures



STATE MAP



VICINITY MAP

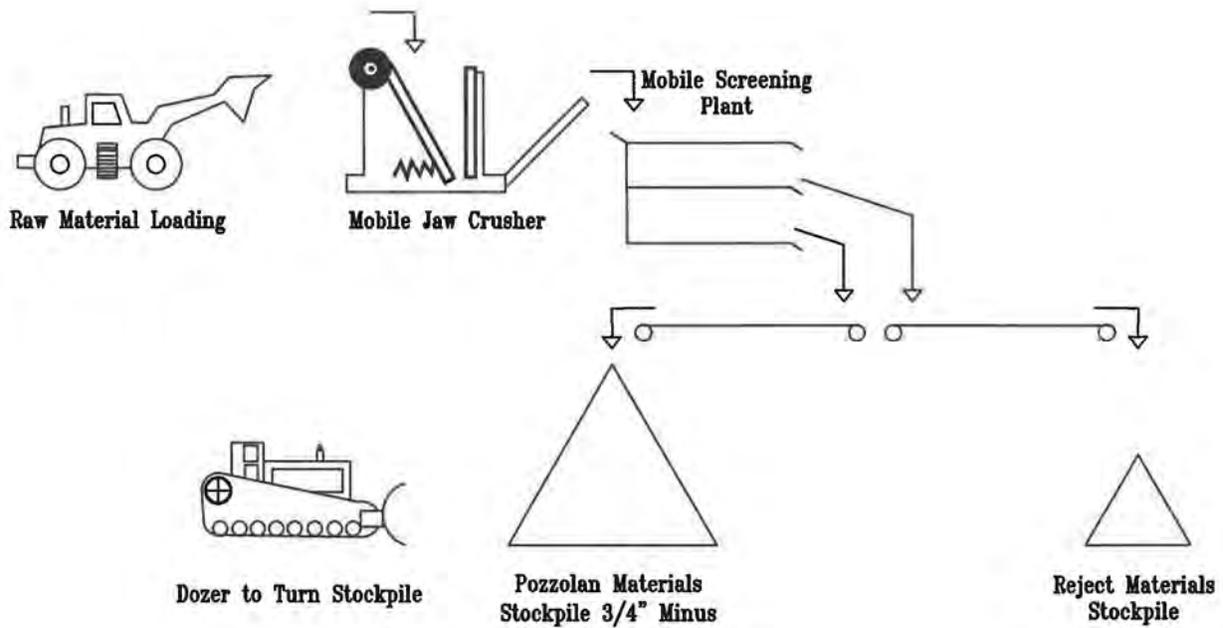


Geofortis Minerals, LLC
30 S. Tooele Blvd
Tooele, UT 84074

Project Number:
14-01-173-701

Prepared By: C. Carrier
Reviewed By: L. Roy
Date: 9/14/2015

Figure 1:
Project Area Boundary



Prepared by: CAC Approved by: LCR Date: 6/19/15

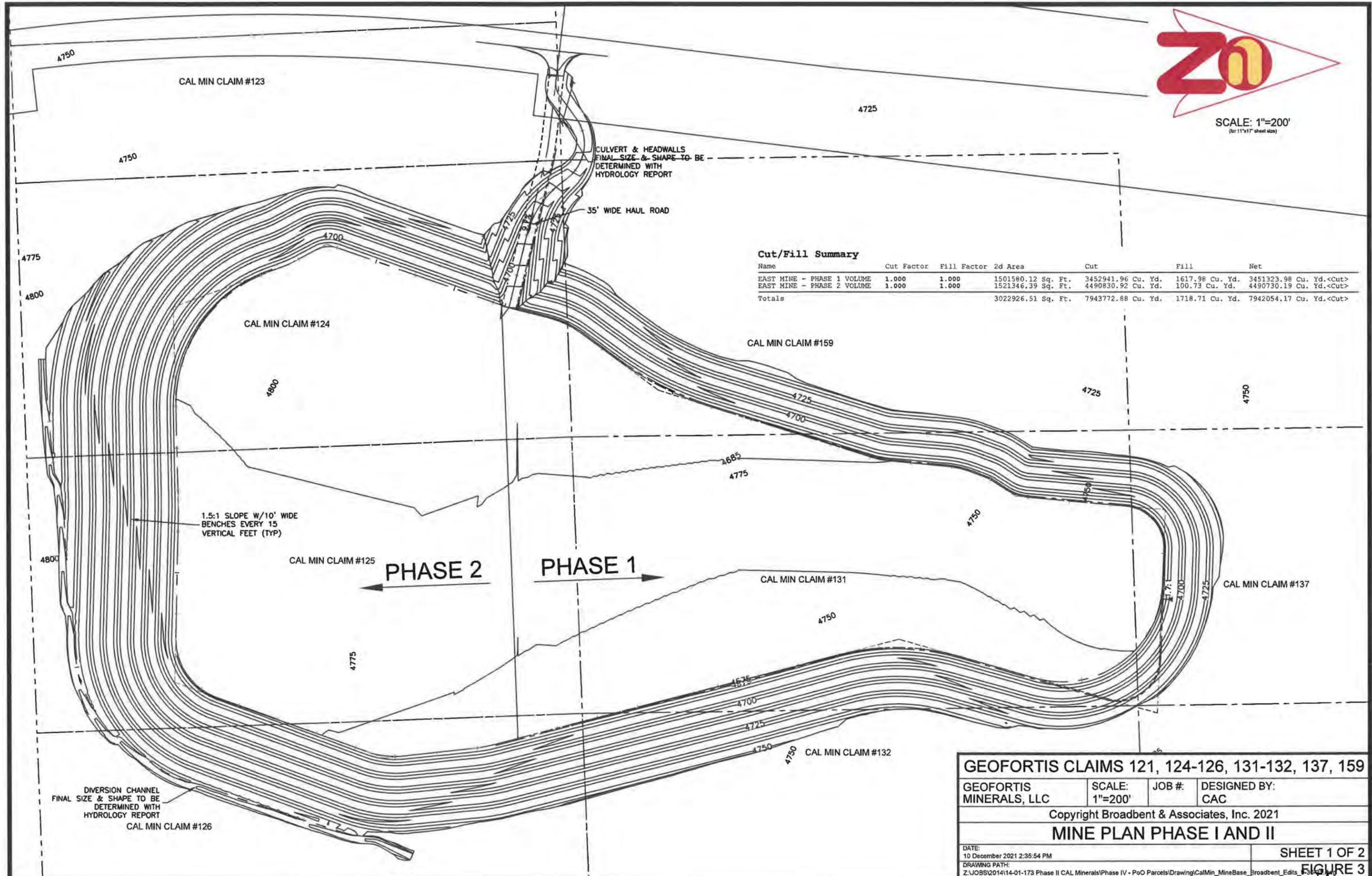
Process Flow Diagram
 Cal Minerals, Inc.
 1024 Country Club Drive
 Moraga, California 94556
 Project No. 14-01-173-701

Figure

2



SCALE: 1"=200'
(for 11"x17" sheet size)



Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
EAST MINE - PHASE 1 VOLUME	1.000	1.000	1501580.12 Sq. Ft.	3452941.96 Cu. Yd.	1617.98 Cu. Yd.	3451323.98 Cu. Yd.<Cut>
EAST MINE - PHASE 2 VOLUME	1.000	1.000	1521346.39 Sq. Ft.	4490830.92 Cu. Yd.	100.73 Cu. Yd.	4490730.19 Cu. Yd.<Cut>
Totals			3022926.51 Sq. Ft.	7943772.88 Cu. Yd.	1718.71 Cu. Yd.	7942054.17 Cu. Yd.<Cut>

1.5:1 SLOPE W/10' WIDE BENCHES EVERY 15 VERTICAL FEET (TYP)

CULVERT & HEADWALLS FINAL SIZE & SHAPE TO BE DETERMINED WITH HYDROLOGY REPORT

35' WIDE HAUL ROAD

DIVERSION CHANNEL FINAL SIZE & SHAPE TO BE DETERMINED WITH HYDROLOGY REPORT

GEOFORTIS CLAIMS 121, 124-126, 131-132, 137, 159

GEOFORTIS MINERALS, LLC	SCALE: 1"=200'	JOB #:	DESIGNED BY: CAC
-------------------------	----------------	--------	------------------

Copyright Broadbent & Associates, Inc. 2021

MINE PLAN PHASE I AND II

DATE: 10 December 2021 2:35:54 PM
DRAWING PATH: Z:\JOBS\2014\14-01-173 Phase II CAL Minerals\Phase IV - PoO Parcels\Drawing\CALMin_MineBase_Broadbent_Edits_130423.dwg

SHEET 1 OF 2

FIGURE 3



SCALE: 1"=100'
(for 11"x17" sheet size)

DIVERSION CHANNEL
FINAL SIZE & SHAPE TO
BE DETERMINED WITH
HYDROLOGY REPORT

PHASE 3

CAL MIN CLAIM #121

35' WIDE HAUL ROAD

DIVERSION BERM
FINAL SIZE & SHAPE TO
BE DETERMINED WITH
HYDROLOGY REPORT

CAL MIN CLAIM #122

GEOFORTIS CLAIMS 121, 124-126, 131-132, 137, 159

GEOFORTIS MINERALS, LLC	SCALE: 1"=100'	JOB #:	DESIGNED BY: CAC
----------------------------	-------------------	--------	---------------------

Copyright Broadbent & Associates, Inc. 2021

MINE PLAN PHASE III

DATE:
10 December 2021 2:37:11 PM

DRAWING PATH:
Z:\JOBS\2014\14-01-173 Phase II CAL Minerals\Phase IV - PoO Parcels\Drawing\CalMin_MineBase_Broadbent_Edits_5-30-21.dwg

SHEET 2 OF 2

FIGURE 4

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
WEST MINE - PHASE 3 VOLUME	1.000	1.000	587300.03 Sq. Ft.	673515.99 Cu. Yd.	1003.17 Cu. Yd.	672512.82 Cu. Yd.<Cut>
Totals			587300.03 Sq. Ft.	673515.99 Cu. Yd.	1003.17 Cu. Yd.	672512.82 Cu. Yd.<Cut>

Appendix B: Cost Estimate

FACE Backup for Initial Phase of CAL MIN claims

Labor Rates

General landscape labor rates were estimated from the California Department of Industrial Relations NC-23-102-1-2020-2 issued August 22, 2020 and good until June 27, 2021. For Area 2 (Lassen County) and Group 7, Stage 1 (Entry Level Landscape) total hourly rate was \$48.58 and Area 2 (Lassen County) and Group 7, Stage 3, total hourly rate was \$55.09 for supervision.

Equipment operation on site labor rates (motor grader, excavator, etc.) were estimated from the California Department of Labor Relations NC-63-3-75-2020-1 issued August 22, 2020 and good until June 27, 2021. For Area 1 (Lassen County) and Group 1 (Landscape Finish Operator regardless of HP) total hourly rate was \$70.73. For Area 1 (Lassen County) and Group 3 (small tractor) total hourly rate was \$62.52.

Delivery of equipment to the site, labor rates were estimated from the California Department of Labor Relations NC-23-261-2020-1 issues August 22, 2020 and good until June 30, 2021. For all locations Group 4 (Lowboy up to an including 7 axles) the total hourly labor rate was \$65.27.

Equipment Rates

All equipment rates come from the State of California, California State Transportation Agency, Department of Transportation, Division of Construction, *Labor Surcharge and Equipment Rental Rates*, effective April 1, 2021 through March 31, 2022.

Heavy Tractor, Caterpillar 814	\$103.98
Tractor, Rubber tire with backhoe, code C	\$ 36.50
Motor Grader, Caterpillar 14H	\$122.82
Trailer, Low Bed 8 tires per axle for equipment	
Delivery	\$40.86
Truck, 27216 for equipment delivery	\$65.72 (Total 106.58 for truck and trailer)

Work to be done

The first phase of the CAL MIN claims is to construct the roadway from Highway 395 to the floor of the proposed Phase I and II mining operations. This project area is approximately 600 feet long and would cut through the existing ridge. It is estimated the disturbed area would be 75 feet wide near Highway 395 and 320 feet wide on the eastern terminus of the road. The cut would be approximately 30 to 50 feet deep. For reclamation purposes it is estimated that the disturbed area is 4 acres. Small trees will be planted at random 50 foot spacings on the slopes along with small shrubs at random 25 foot spacings on the slopes. The slope areas are estimated at 2 acres (approximately 87,000 square feet).

- Estimated that 35 trees and 140 shrubs would be required for the revegetation.
- Estimated 4 acres of seeding.
- Estimated 16 hours of motor grader for recontour.
- Estimated 8 hours of heavy tractor for grading.
- Estimated 16 hours of small tractor for planting.
- Estimated 1 hour of labor per tree and .5 hour per shrub.
- Estimated 6 hours for each piece of equipment mob and demob.
- Estimated 16 hours labor to broadcast seed and cover.
- Estimated extra 24 labor hours for revegetation.
- Estimated 24 hours of supervision on labor for revegetation.

**BETA Excel Version of the FACE-1 Financial Assurance Cost Estimate Form.
Please contact DMR if errors are found in this document.**

FINANCIAL ASSURANCE COST ESTIMATE

FOR

CAL MIN Claims

(Mine Name)

CA Mine ID # 91- _____

Reclamation Plan #/Name _____

<p>Prepared by: <i>(Name & Affiliation)</i></p> <p>Lonnie Roy _____</p> <p>Broadbent & Associates, Inc. _____</p> <p>8 West Pacific Avenue, Henderson, NV 89015 _____</p> <p>_____</p> <p>Date: <u>June 18,2021</u> _____</p>	<p>This financial assurance cost estimate prepared and submitted pursuant to <i>(choose one)</i> :</p> <p><input checked="" type="checkbox"/> A new or amended reclamation plan approved on (Date): <u>DRAFT</u> _____</p> <p><input type="checkbox"/> An annual mine inspection performed on (Date): _____</p> <p><input type="checkbox"/> Other: Please Specify: _____</p>
---	--

Most Recent Approved Financial Assurance Cost Estimate

Date: None _____

Amount: \$ _____

Amount of existing Financial Assurance Mechansim(s)

Date: None _____

Amount: \$ _____

I. SUPPORTING DOCUMENTS

This estimate represents the cost of conducting and completing reclamation in accordance with the Surface Mining and Reclamation Act (SMARA) and the following supporting documents:

Reclamation Plan Approval Date and Number

The reclamation plan has not been approved as of this date.

Permits and/or Environmental Documents Approved as, or Conditional upon, the Reclamation Plan

An Environmental Assessment has been prepared and approved by the Bureau of Land Management (DOI-BLN-NV-C020-2020-0026EA). A Mining Plan and application have been submitted to Lassen County (Mining Plan for SMARA Application, Geofortis Minerals, LLC, Cal Min Claims 121,124-126,131-132,137,159, June 2021).

Other Agency Financial Assurances Securing Reclamation of Disturbed Lands

Wage Rates used in Cost Estimate* *(cost estimates are required to use current 'General prevailing wage determinations made by the director of industrial relations' where applicable (<http://www.dir.ca.gov/OPRL/PWD/index.htm>) with employer labor surcharge added, or greater)*

Prevailing wage rates by California Department of Industrial Relations as provided on the website as of June 2021.

Equipment Rates used in Cost Estimates* *(use current 'Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)' equipment rates published by Caltrans (<http://www.dot.ca.gov/hq/construc/equipmnt.html>) or other publicly available and verifiable local rates)*

California Department of Transportation, Division of Construction, *Labor Surcharge and Equipment Rental Rates*, effective April 1, 2021 through March 31, 2022.

Equipment Production Rates used in Cost Estimate *(Use of current Caterpillar Performance Handbook or equivalent published production rates is required)*

Caterpillar Performance Handbook and past experience. This is a small job.

**Many mine sites are remote projects that require hours of travel (to and from) and sometimes require additional time to prepare for even the simplest of tasks. In accordance with labor Code Sections 1773.1 and 1773.9, contractors are required to make travel and/or subsistence (per diem) payments to each worker to execute the work. These arrangements can be quite variable and site specific.*

Attachments:

FACE Backup for Initial Phase of CAL MIN claims.

II. Description of Current Site Conditions

(i.e., disturbed acres, slope conditions, excavation depths, topsoil and overburden stockpiles, equipment and facilities, reclamation in progress, erosion control status, required corrective actions, etc.)

☒ The site has not been disturbed. General vegetation typical of the area prevails. The initial phase of this project will be the construction of the access road and disturbed area will be approximately 4 acres. The access road will be 600 feet long and 35 feet wide and will pass through a ridge approximately 30 to 50 feet high. The site is adjacent to Highway 395 in Lassen County, California.

III. Description of Anticipated Site Conditions (12 months from date of estimate)

(i.e., increase of disturbed acres, increase of depth, increases in amount of equipment and/or facilities, required corrective actions, etc.)

☒ The access road way will be completed to the Phase I/ Phase II boundary where mining will commence. The roadway will not be paved. The slope of the adjacent land will be 1.5 to 1, with 10 foot wide benches every 15 vertical feet. The cut is 30 to 50 feet in elevation.

IV. Description/Justification of Cost Increase/Decrease

☒ This is the initial estimate.

VI. PRIMARY RECLAMATION ACTIVITY

Use multiple sheets as necessary to estimate the cost of each activity required. Provide documentation showing that rates, prices, and wages are available locally to the lead agency and/or the Department if necessary.

Current Site Conditions:

☒ The site has not been disturbed. General vegetation typical of the area prevails. The initial phase of this project will be the construction of the access road and disturbed area will be approximately 4 acres. The access road will be 600 feet long and 35 feet wide and will pass through a ridge approximately 30 to 50 feet high. The site is adjacent to Highway 395 in Lassen County, California.

Reclamation Plan Performance Standard (End Use):

☒ The site will be reclaimed as wildlife habitat. The final reclamation is to match the adjacent lands.

Describe tasks, methods, equipment, etc:

Decompaction, cut, fill, haul, slope reduction, compaction, grading, topsoil placement, drainage work, soil amendment, special requirements, etc. Separate sheets may be used for each task if necessary.

☒ The constructed slopes and benches will be recontoured to a final slope of 2.0-2.5 to one and graded to minimize erosion. This work will be done with a large tractor (CAT 814) and a medium motor grader (CAT 14H). Limited stockpiled top soil will be distributed to enhance revegetation, though this will be a minor component of the reclamation.

Provide Quantities:

Overburden and topsoil, cut and fill, import or export (cubic yards), area (acres), haul distance (feet), equipment production rates (cubic yards/hour, or as applicable), etc.

☒ The total area disturbed is less than 4 acres. It is estimated that the top soil stockpiled will be less than 20 cubic yards.

Since the area is so small (3-4 acres), it is estimated that 16 hours of motor grader, 8 hours of heavy tractor will be needed for the recontour.

6 hours of equipment delivery time for mob/demob.

(↑ Describe Reclamation Activity Being Estimated)

VI. PRIMARY RECLAMATION ACTIVITY

Acres:	4.0	Overburden (cy):	
Haul Distance (ft):		Topsoil (cy):	less than 20
Production Rate (cy/hr):		(NOTE: no automatic calculations occur to data in this upper table)	

Methods to be used:

A. Equipment - List equipment to complete identified task. For large reclamation jobs, separate mine areas.

Equipment	Unit of Measure	\$/Unit	# of Units	Cost (\$)
CAT14 H Motor Grader	HR	\$122.82	16.0	\$1,965
CAT 814 Heavy Tractor	HR	\$103.98	8.0	\$832
Truck and Trailer Lowboy for Mod/Demob	HR	\$106.58	12.0	\$1,279
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
Total Equipment Cost for this Task =				\$4,076

B. Labor - List all labor categories to complete identified tasks

Labor Category	\$/Hour (prevailing wage)	Labor Surcharge/Hr (where applicable) (enter % of wage)	# of Hours	Cost (\$)
		0.0%		
Teamster for Lowboy , All locations Group 4	\$65.27	\$0.00	12.0	\$783
Operator for Motor Grader and Heavy Tractor, Area 1, Group 1	\$70.73	\$0.00	22.0	\$1,556
Landscape Labor, Group 7, Stage 2	\$51.83	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0
Total Labor Cost for this Task =				\$2,339

C. Materials - List all materials required to complete identified task

Item	\$/Unit	Sales tax (enter local rate in %)	Quantity	Cost (\$)
		0.0%		
	\$0.00	\$0.00	4.0	\$0
	\$0.00	\$0.00	35.0	\$0
	\$0.00	\$0.00	140.0	\$0
	\$0.00	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0
Total Materials Cost for this Task =				\$0

D. Total Direct Cost for this task

Equipment Cost + Labor Cost + Materials Cost = \$6,415

VII. REVEGETATION (use multiple sheets as needed)

(↑ Describe Revegetation Activity Being Estimated)

Methods to be used:

A. Equipment - List equipment to complete identified task. For large reclamation projects, separate mine areas.

Equipment	Unit of Measure	\$/Unit	# of Units	Cost (\$)
Farm Tactor, over 50 HP with backhoe (rate C)	HR	\$36.30	16.0	\$581
Truck and Trailer Lowboy for Mob/Demob	HR	\$106.58	6.0	\$639
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
Total Equipment Cost for this Task =				\$1,220

B. Labor - List all labor categories to complete identified task.

Labor Category	\$/Hour (prevailing wage)	Labor Surcharge /HR (where applicable) (enter % of wage)	# of Hours	Cost (\$)
		0.0%		
Landscape Labor, Group 7, Stage 1	\$48.58	\$0.00	145.0	\$7,044
Landscape Labor, Group 7, Stage 3	\$55.09	\$0.00	24.0	\$1,322
Operator Tractor, Operating Engineer, Area 1, Group 3	\$62.52	\$0.00	16.0	\$1,000
Teamster for Lowboy, All locations Group 4	\$65.27	\$0.00	6.0	\$392
	\$0.00	\$0.00	0.0	\$0
Total Labor Cost for this Task =				\$9,758

C. Materials - List all materials required to complete identified task

Item/Plant Species	Unit of measure	\$/Unit	Sales tax (enter local rate in %)	Quantity	Cost (\$)
			0.0%		
Seed from D&H Seed (31.5 lbs/acre)	Acre	\$1,096.50	\$8.20	4.0	\$4,419
15 Gallon Trees (Moana Nursery Quote)	Each	\$186.00	\$8.20	35.0	\$6,797
5 Gallon Shrubs (Moana Nursery Quote)	Each	\$35.21	\$8.20	140.0	\$6,077
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
Total Materials Cost for this Task =					\$17,293

D. Total Direct Cost for this task

Equipment Cost + Labor Cost + Materials Cost = \$28,272

X. SUMMARY OF COSTS

This section shall be used to summarize all the cost sheets in one place.

(V) Total of all Plant Structures & Equipment Removal Costs	\$	0
(VI) Total of all Primary Reclamation Activities Costs	\$	6,415
(VII) Total of all Revegetation Costs	\$	28,272
(VII) Total of all Miscellaneous Costs	\$	0
(IX) Total of all Monitoring Costs	\$	0
Total of Direct Costs	\$	34,687

XI. SUPERVISION / PROFIT & OVERHEAD / CONTINGENCIES / MOBILIZATION

(A) Supervision (<u>6.5</u> %)	\$	2,243
(B) Profit/Overhead (<u>13.5</u> %)	\$	4,692
(C) Contingencies (<u>10.0</u> %)	\$	3,469
(D) Mobilization (<u>5.0</u> %)	\$	1,734
Total of Indirect Costs	\$	12,138
Total of Direct and Indirect Costs	\$	46,825
(E) Lead Agency and/or Dept. of Conservation Administrative Costs (<u>15%</u>)	\$	7,024
Total Estimated Cost of Reclamation	\$	53,849

Appendix C: Claim Information

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0114
Expires: October 31, 2016

NOTICE OF INTENT TO LOCATE A LODE OR PLACER MINING CLAIM(S)
AND/OR A TUNNEL SITE(S)
ON LANDS PATENTED UNDER THE STOCK RAISING HOMESTEAD ACT OF 1916,
AS AMENDED BY THE ACT OF APRIL 16, 1993

Homestead Patent Number

TO ALL WHOM IT MAY CONCERN:

This notice is filed under Public Law No. 103-23 of April 16, 1993 (107 Stat. 60), entitled "An Act to amend the Stock Raising Homestead Act to resolve certain problems regarding subsurface estates, and for other purposes." The undersigned places all interested parties on notice that, within 90 days of filing this notice with the Bureau of Land Management (BLM) and after 30 days from the date of receipt of a copy of this notice by the surface owner(s) of a record, the undersigned intends to enter the lands described below to explore for a valuable mineral deposit(s) and to locate a mining claim(s), and/or tunnel site(s), as provided under the mining laws of the United States (30 U.S.C. 22, et seq.). The area covered by this notice and all other notices filed by the undersigned and any affiliate(s) of the undersigned, and which continue to be in effect on the date of this filing does not exceed 6,400 acres of such land in any one State and 1,280 acres of such land for a single entity. This notice, for a single State and surface of ownership, covers the following lands:

CA
CA
0
5
6
0
2
9

1/4	SECTION	TOWNSHIP	RANGE	MERIDIAN
E 1/2 of SE 1/4	11	23N	17E	Mt Diablo
NE 1/4 of NW 1/4	14	23N	17E	Mt Diablo
N 1/2 of NE 1/4	14	23N	17E	Ni Diablo

in Lassen County, State of California

Total acres under this notice 180

Name and mailing address of affected surface owner(s):

Sayed Arif and Sayeda Rehana Begum

1705 Astor Ave

Oak Brook Terrace, IL 60181

Phone - 630-792-6801

Name and mailing address of person filing this notice:

Cal Minerals, Inc.

1024 Country Club Dr.

Moraga CA 94556

Brief description of the proposed casual use exploration activities (i.e., activities that cause no more than a minimal disturbance to the surface resources and do not involve the use of mechanized earth-moving equipment, explosives, the construction of access roads, drill pads, or the use of toxic or hazardous materials):

Drilling core borings with track mounted rig. no drill pads or roads will be constructed. Drilling to occur on or around May 17, 2015.



Date(s) on which such activities will take place: May 17-30, 2015

(Continued on page 2)

Attached is a map showing the existing access routes proposed to be used for casual use exploration purposes, primary areas of interest, and types of activities to be conducted.

The above described activities will be managed by:

Name Cal Minerals - David McMurtry

Mailing Address 1024 Country Club Dr

Moraga, CA 9456

Phone Number (include area code) 925-348-3535

Dated this 17th day of April, 2015

Signature of:  Cal Minerals, Inc.
(Person) (Affiliate)

18 U.S.C. 1001 and 43 U.S.C. 1212 make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECORDER'S STAMP

NOTICES

The Privacy Act and 43 CFR 2.48(d) require that you be furnished with the following information in connection with the information requested by this form.

AUTHORITY: 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838 permit collection of the information requested by this form.

PRINCIPAL PURPOSE: The BLM will use the information you provide to verify that you have complied with the pre-location requirements at 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838, and are therefore qualified to locate and record mining claims on land patented under the Stock Raising Homestead Act.

ROUTINE USES: The BLM will only disclose this information in accordance with the provisions at 43 CFR 2.56(b) and (c).

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the requested information is required by 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838 for mining claimants who desire to locate a mining claim or tunnel site on land previously patented under the Stock Raising Homestead Act. Failure to comply and submit all the requested information or to complete this form will delay the BLM's processing of the form or may preclude the BLM's acceptance of your notice of intent to locate (NOITL) a mining claim or site on lands patented under the Stock Raising Homestead Act. Failure to comply with the requirements of 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838 will void your NOITL. Mining claims or sites located under a void NOITL are null and void from the beginning and will be cancelled by the BLM.

The Paperwork Reduction Act requires us to tell you that:

The BLM collects this information to determine whether or not you are qualified to locate a lode or placer mining claim and/or tunnel site on lands patented under the Stock Raising Homestead Act.

Submission of the requested information is necessary to obtain or retain a benefit.

You do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

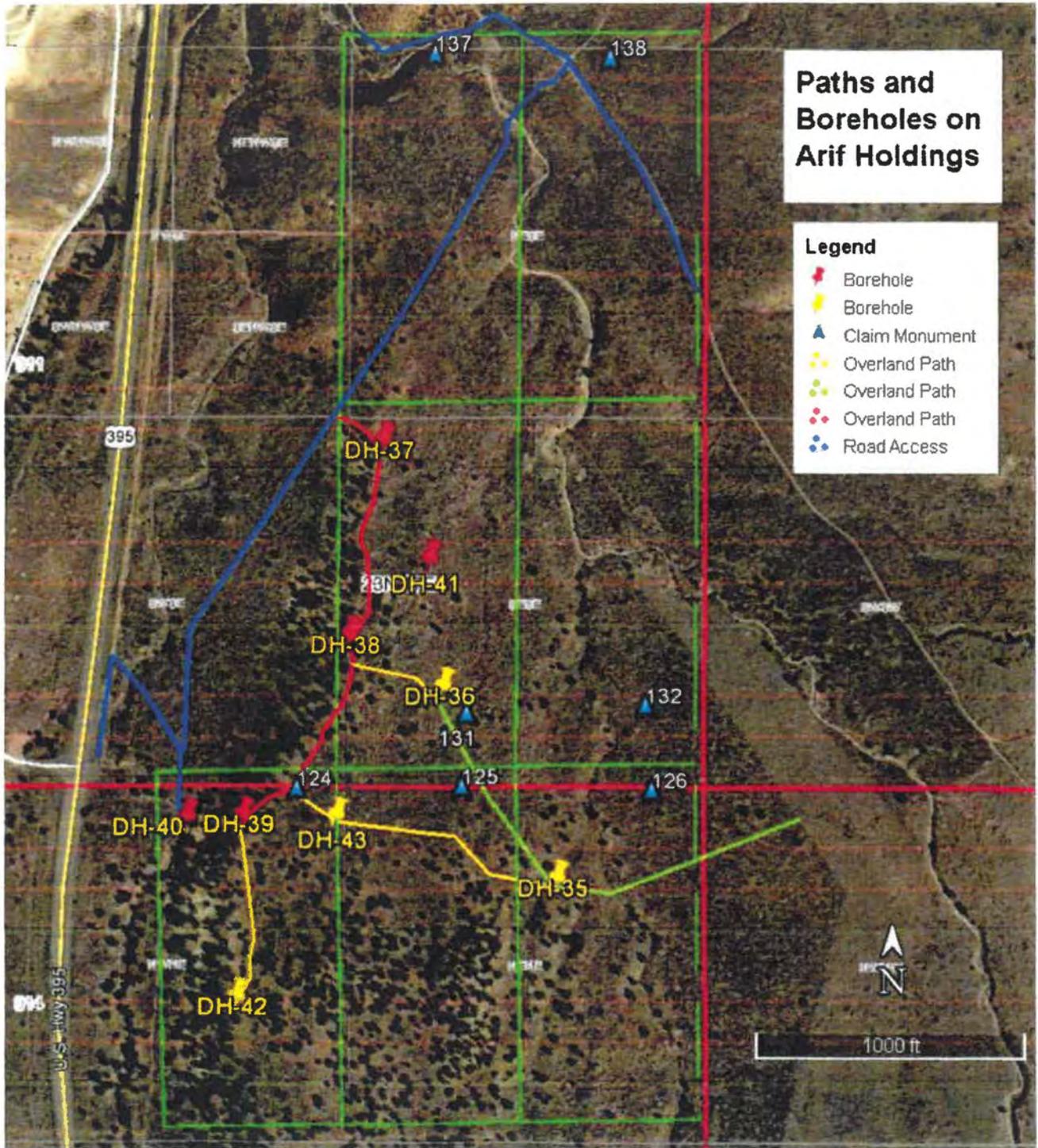
BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. You may submit comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0114), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, DC 20240.



(Form 3830-3, page 2)

1
A
0
5
6
0
2
9

CA
CA
05
60
29



RECEIVED
APR 20 2015
USDI-BLM-CASO

CA
CA
056029

7014 2320 0002 2004 0595

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
VILLA PARK, IL 60181		
Postage	\$ 45.75	0206
Certified Fee	\$3.30	06
Return Receipt Fee (Endorsement Required)	\$2.70	Receipt Here
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 51.75	04/17/2015
Sent to: Sayed A. F.		
Street & Apt. No. or PO Box No. 175 Aster Ave		
City, State, ZIP+4 Villa Park, IL 60181		
PS Form 3800, July 2014		See Reverse for Instructions



United States Department of the Interior
Bureau of Land Management
 DIV OF SUPPORT SERVICES
 2800 COTTAGE WAY, RM W1623
 SACRAMENTO, CA 95825
 Phone: 916-978-4400

Receipt

No: 3277114

Transaction #: 3372894	
Date of Transaction: 04/20/2015	
CUSTOMER:	
CAL MINERALS INC 1024 COUNTRY CLUB DR MORAGA, CA 94556-1900 US	

LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	1.00	LOCATABLE MINERALS / SRHE-EARNED & ADJUDICATED / NOIL - SRHE CASES: CACA 056029/\$30.00		- n/a -	30.00
TOTAL:					\$30.00

PAYMENT INFORMATION					
NOTE: Items will appear on credit card statement as "Bureau of Land Mgmt CO".					
1	AMOUNT:	30.00	POSTMARKED:	N/A	
	TYPE:	CREDIT CARD	RECEIVED:	04/20/2015	
	NAME:	CAL MINERALS INC 1024 COUNTRY CLUB DR MORAGA CA 94556-1900 US			
	CARD NO:	XXXXXXXXXXXX7112	AUTH CODE:	03921G	
	NAME ON CARD:	MCMURTRY/DAVID			
	EXPIRES:	04/2017			
	SIGNATURE:				

REMARKS

This receipt was generated by the automated BLM Collections and Billing System and is a paper representation of a portion of the official electronic record contained therein.

Appendix D: Spill Contingency Plan

Geofortis Claims CAL MIN 121, 124-126, 131-132, 137, 159

Lassen County, Nevada

Spill Contingency Plan

Objectives

The purpose of this Spill Contingency Plan is as follows:

- Identify potential pollution sources within the Project Area
- Describe discharge controls and prevention measures
- Establish spill response and reporting procedures

Pollution Sources

Hazardous materials such as diesel fuel, gasoline, chemicals, and lubricants are expected to be used in the Project Area. Several areas are maintained where oil, oil-related products, and chemicals are stored, used, or handled. A summary of all potential pollution sources is described below and their locations are identified in Drawing 1.

Area 1 – Mobile Service Vehicle

Geofortis may utilize a diesel refueling vehicle to service excavators, dozers, and other equipment at various mining operations. The refueling vehicle may also carry various lubricating oils in small containers for servicing equipment. When non in use, the refueling vehicle will be parked near the egress to the Project Area. Prior to and after operation of the refueling vehicle, the operator will inspect all valves to ensure they are in the closed position and will inspect the immediate area for any signs of leaks or spills. The refueling vehicle carries spill kits and absorbents in case of small spills or leaks.

In the unlikely event that fuel is released, the material would be absorbed in the immediate area. Pozzolan is an excellent absorbent, which has been one of its historical marketed uses. Project personnel will contain spills with available spill response kits and absorbents or with available pozzolan material stockpiled near the egress to the Project Area. The potential for off-site discharge is very low.

Area 2 – Generators

The crushing and screening spread will be powered by a portable diesel generator(s). The generator is equipped with an integral double-walled diesel fuel tank.

In the unlikely event that fuel is released, the material would be absorbed in the immediate area. Pozzolan is an excellent absorbent, which has been one of its historical marketed uses. Project personnel will contain spills with available spill response kits and absorbents or with available pozzolan material stockpiled near the egress to the facility. The potential for off-site discharge is very low.

Area 3 – Transformers

Geofortis may alternatively operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. Plumas Sierra Rural Electrical Cooperative (PSREC) will provide an on-site electrical transformer to service the operation. The transformer will be equipped with an integral mineral oil tank.

In the unlikely event that mineral oil is released, the material would be absorbed in the immediate area. Pozzolan is an excellent absorbent, which has been one of its historical marketed uses. PSREC will be called to repair the transformer and neutralize the power line if a hazard exists. If safe to do so, project personnel will contain spills with available spill response kits and absorbents or with available pozzolan material stockpiled near the access road. The potential for off-site discharge is very low.

Location	Size of Container	Aboveground/ Underground	Product Stored	Material	Containment or Controls
Area 1 – Mobile Service Vehicle	250-gallon tank	Aboveground	Diesel Fuel and Lubricants	Steel tank and small containers	Double-walled
Area 2 – Generators	500-gallon tank	Aboveground	Diesel Fuel	Steel Tank	Double-walled
Area 3 – Transformers	250-gallon tank	Aboveground	Mineral Oil	Steel Tank	Secondary Containment

Discharge Controls and Prevention Measures

All containers are made of material suitable for holding their contents. Each container is equipped with appropriate secondary containment. Each container is properly labeled and properly sealed when not in use. Each storage location is inspected at the beginning of each work day for signs of spills or leaks.

Spill kits and absorbents will be made available to contain and clean up any leaks and spills. Used absorbents and any contaminated soil will be properly disposed of.

Each employee is responsible for recognizing the potential for an occurrence of any spill, containment and cleanup procedures, and reporting requirements. The training of oil-handling employees will address the following topics:

- General facility operations;
- Operation and maintenance of equipment to prevent discharges;
- Spill containment and cleanup procedures;
- Reporting procedures; and
- Applicable pollution control laws, rules, and regulations.

Spill Response and Reporting Procedures

In the event of a spill, the following procedures will be followed:

- a) Release < 25 gallons and /or < 3 yd3 of soil impacted***

1. Stop spill at source, if possible, by closing valves, turning off pipes, plugging leaks, etc.
2. Contain releases through berming or other appropriate method;
3. Cover release with absorbents; and
4. Dispose of absorbent in waste receptacle, which will be sent to a landfill or to an appropriate treatment facility.
5. The Facility Response Coordinator (Site Manager) will coordinate all necessary notifications;

b) Release > 25 gallons and/or > 3 yd³ of soil impacted

1. Stop spill at source, if possible, by closing valves, turning off pipes, plugging leaks, etc.
2. Contain releases through berming or other appropriate method;
3. The Facility Response Coordinator or delegated official will organize clean up with in-house and contract services, as required; and
4. David McMurtry will notify regulatory agencies (Lassen County, EPA, and BLM).

c) A single release of > 1000 gallons and/or two releases of > 42 gallons in one year

1. If there is immediate danger, leave the area immediately and call 911
2. Evacuate personnel to an upwind area that is safe from exposure, provide medical attention and first aid as necessary, and follow universal precautions;
3. Stop spill at source, if possible, by closing valves, turning off pipes, plugging leaks, etc.
4. Contain releases through berming or other appropriate method;
5. David McMurtry or delegated official will organize clean up with in-house and contract services, as required; and
6. The Facility Response Coordinator (Site Manager) will notify regulatory agencies (Lassen

County, EPA, and BLM).

In accordance with 40 CFR Section 112.4(a), if a facility has a single release exceeding 1,000 U.S. gallons or two releases each exceeding 42 U.S. gallons within any twelve-month period, the following information must be submitted to the EPA Regional Administrator in writing within 60 days:

1. Name of the facility;
2. Name of the owner or facility operator;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective actions and countermeasures taken, including a description of equipment repairs and replacements;
6. An adequate description of the facility, including maps, flow diagrams, and topographical maps as necessary;
7. The type of material released;
8. Estimates of the quantity released;
9. The cause of the release, including a failure analysis of the system or subsystem in which the failure occurred;
10. A description of all affected media and any damages or injuries caused by the release;
11. Actions taken to stop the release and whether evacuation was necessary;
12. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and
13. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

Information will be submitted to the address provided below:

U.S. EPA Region 9 Oil Program (SFD-9-4)
75 Hawthorne Street
San Francisco, CA 94105

Spill Reporting Contacts:

California State Warning Center:	1-800-852-7550
National Response Center (NRC):	1-800-424-8802
Environmental Protection Agency (EPA) Region 9:	1-800-300-2193

Appendix E: Woolly Buckwheat Information

Polygonaceae—Buckwheat family

Eriogonum Michx.

wild-buckwheat, buckwheatbrush

Susan E. Meyer

Dr. Meyer is a research ecologist at the USDA Forest Service's Rocky Mountain Research Station, Shrub Sciences Laboratory, Provo, Utah

Growth habit, occurrence, and uses. The North American genus *Eriogonum*—wild-buckwheat, also buckwheatbrush—is made up of about 200 species of annual and perennial herbs and shrubs, most of which are found in the West. About half are woody, at least at the base. The habit of the woody species may be either (a) truly shrubby, (b) subshrubby, with annual renewal of upper shoots, or (c) pulvinate (mat-forming), with the woody shoots condensed into an above-ground caudex. The usually evergreen leaves are borne alternately and may be predominantly basal or borne along the stems. There may be whorls of leaves on the flowering stalks. The leaves are usually tomentose, at least below, and the stem nodes are often tomentose as well. The often-flat-topped inflorescences are usually borne above the leafy part of the plant and are conspicuous and characteristic even after seed dispersal.

Most plant communities in the West contain at least 1 species of woody wild-buckwheat (table 1). Some species are widely distributed and of wide ecological amplitude (for example, sulfurflower buckwheat brush), whereas others are narrowly restricted geographically and often edaphically as well (for example, pretty buckwheat brush). Wild-buckwheat species are often important pioneer plants after natural disturbance, and their presence may facilitate the establishment of later-successional species. This makes them useful for erosion control and for revegetation of anthropogenically disturbed sites such as mined land and highway rights-of-way (Ratliff 1974; Zamora 1994). Some species are important as browse plants for wild ungulates, particularly in the early spring when their evergreen habit makes them more highly nutritive than many other spring browse species (Tiedemann and Driver 1983; Tiedemann and others 1997). Some wild-buckwheat species are important bee plants. In California, Mojave buckwheatbrush has been rated third in importance for honey production, exceeded only by 2 native *Salvia* species (Kay and others 1977). Many wild-buckwheat species also have tremendous potential as easily grown, drought-tolerant ornamentals. Their interesting forms and leaf textures combined with masses of showy,

long-lasting flowers make them excellent candidates for home xeriscapes. Named varieties that have been released are 'Sierra' sulfurflower wild-buckwheat (Stevens and others 1996) and 'Umatilla' snow wild-buckwheat (Tiedemann and others 1997).

Flowering and fruiting. The small, usually perfect flowers of wild-buckwheat are borne in clusters within cup-like or cylindrical involucre that are variously solitary or arrayed in capitate, cymose, or paniculate inflorescences. Each flower consists of a perianth with 9 stamens inserted at its base and a superior 1-celled and 1-seeded ovary. The perianth is made up of 6 fused segments in 2 whorls of 3. The ovary ripens in fruit into a usually 3-angled achene (figures 1 and 2). This achene is held more or less tightly within the perianth, depending on the species. For example, in snow wild-buckwheat the achenes fall free of the perianth at dispersal, whereas in Shockley wild-buckwheat the woolly perianth with the achene enclosed is the dispersal unit. The ovule within the seed is anatropous, so that the radicle end is pointing outward and upward. This makes it possible for germination and emergence to take place with the perianth still attached.

Wild-buckwheat species may flower at any time from early spring to fall, depending on species and habitat. Within a given habitat, species may bloom in succession. For example, at mid-elevation in central Utah, cushion wild-buckwheat blooms in spring, followed by James wild-buckwheat in early to midsummer, and finally by lace buckwheatbrush in late summer and fall. The bloom time for any species usually lasts well over a month, and the plants are almost as showy in fruit as in flower. The flowers are insect-pollinated.

Seed collection, cleaning, and storage. The window of opportunity for seed collection of wild-buckweats is often rather wide, as the fruits usually persist on the plant for 2 to 3 weeks after maturity (Stevens and others 1996). When achenes are mature, the perianths dry and often change color, turning brown or rusty. At this point, the achenes can be harvested by hand-stripping or by beating them into hop-

Table 1—*Eriogonum*, wild-buckwheat: habit, habitat, and geographic range

Species	Common name(s)*	Habitat	Range
SHRUBS			
<i>E. corymbosum</i> Benth.	lace buckwheatbrush, buckwheatbrush, crisp-leaf buckwheat	Desert shrub, pinyon juniper, mostly on shales	Colorado Plateau, Uinta Basin, & adjacent areas
<i>E. fasciculatum</i> Benth.	Mojave buckwheatbrush, California buckwheatbrush, flat-top buckwheatbrush	Warm desert shrub, coastal sage scrub, chaparral, pinyon-juniper	Mojave & Colorado Deserts & coastal & cismontane S California
<i>E. heermannii</i> Dur. & Hilg.	Heermann buckwheatbrush, molecule model plant	Warm desert shrub, mostly on rock outcrops	Mojave Desert
SUBSHRUBS			
<i>E. brevicaulis</i> Nutt.	shortstem wild-buckwheat	Open, barren hills, mountain brush to alpine	Central Rocky Mtns of Wyoming, Utah & Idaho
<i>E. heracleoides</i> Nutt.	Wyeth wild-buckwheat, parsnipflower buckwheat	Sagebrush-grassland to aspen & Douglas-fir	N Rocky Mtns from BC to central Utah
<i>E. jamesii</i> Benth.	James wild-buckwheat	Desert shrub to mountain brush & ponderosa pine	S Rocky Mtns S into N Mexico
<i>E. niveum</i> Dougl. ex Benth.	snow wild-buckwheat, snow eriogonum	Sagebrush-grassland	Columbia River Plateau
<i>E. umbellatum</i> Torr.	sulfurflower wild-buckwheat, sulfur wildbuckwheat	Sagebrush-grassland to spruce-fir	Widespread in W North America
PULVINATE/ MAT-FORMING			
<i>E. bicolor</i> M.E. Jones	pretty buckwheatbrush	Cold desert shrub, on Mancos Shale	Central Utah
<i>E. ovalifolium</i> Nutt.	cushion wild-buckwheat, roundleaf buckwheat	Wide range, from cold desert to alpine	Widespread, W North America
<i>E. shockleyi</i> S. Wats.	Shockley wild-buckwheat, mat buckwheat	Desert shrub to pinyon-juniper	Idaho & Colorado to SE California, Arizona, & New Mexico

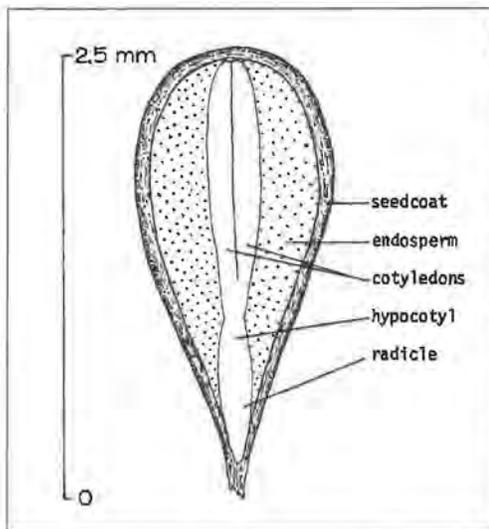
Sources: Meyer and Paulsen (2000).

Note: The genus *Eriogonum* is not that of the true, domesticated buckwheat, hence the common names of wild-buckwheat and buckwheatbrush.

Figure 1—*Eriogonum fasciculatum*, Mojave buckwheatbrush: achene in calyx (left) and achene without calyx (right).



Figure 2—*Eriogonum fasciculatum*, Mojave buckwheatbrush: longitudinal section through a seed excised from an achene.



pers or other containers. Combine harvesting has proven successful for sulfurflower wild-buckwheat in seed production fields (Stevens and others 1996). The harvested material will include achenes, perianths, involucre, and inflorescence branches. After the material is dried thoroughly, it may be threshed in a barley de-bearder and cleaned with a fanning mill. Species with tightly held achenes may require hand-rubbing through screens or on a rubbing board, which is also an alternative cleaning method for small seedlots of any species. The material should not be handled too rough-

ly, as the radicle end of the achene is often slender and easily damaged. Achene weights vary both among and within species but are usually in the range of 350 to 1,360/g (10,000 to 39,000/oz) (table 2). Seed quality is also variable (table 2).

There are few published reports of viability evaluation beyond germination percentages obtained without pretreatment, which may underestimate viability if there is a dormant fraction. Stevens and others (1996) report that viabilities of >90% may be expected from sulfurflower and Wyeth wild-buckwheats in an agronomic setting if seeds are harvested when fully mature; these values are comparable to those for wild-collected lots of many species (table 2). Insects may damage 10 to 35% of the fruits prior to harvest, but damaged seeds are normally eliminated in cleaning. Post-harvest damage from insect infestations is also possible (Stevens and others 1996). There is little information on maintenance of viability during storage for species of wild-buckwheat. Stevens and others (1996) report high viability for sulfurflower and Wyeth wild-buckwheats during 10 to 15 years in warehouse storage, which would indicate orthodox storage behavior. Other species are perhaps comparable.

Seed germination and testing. Germination is epigeal (figure 3). Seedlots of many species of wild-buckwheats contain at least a fraction that will germinate without any pretreatment (tables 2 and 3) (Young 1989). The size of this fraction depends on species and on the particular lot involved. Stevens and others (1996) report that seeds of sulfurflower and Wyeth wild-buckwheats lose dormancy during short periods of dry storage, and Mojave buckwheatbrush seeds are also reported to dry after-ripen (Kay and others 1977). Dormant seeds of most species we have examined lose dormancy during chilling at 1 °C for periods of 8 to 12 weeks (table 3).

To date there are no formal procedures for evaluating the seed quality of wild-buckwheat species, and tetrazolium (TZ) staining is probably the procedure most commonly employed. To evaluate using TZ, achenes are soaked overnight in water, clipped through both pericarp and seed coat at the cotyledon end (the wide end or hilum), and placed in 1% TZ solution for several hours at room temperature. Achenes are bisected longitudinally for evaluation (Belcher 1985).

Field seeding and nursery practice. Wild-buckwheats are generally readily established from direct seeding (Ratliff 1974; Stevens and others 1996; Tiedemann and Driver 1983; Zamora 1994). They establish best when seeded at a depth of 2 to 5 mm ($1/16$ to $3/16$ in), either by drilling or by broadcasting followed by covering (for example, raking). Seeding should take place before the season of maximum precipitation, which is generally fall or early winter in

Table 2—*Eriogonum*, wild-buckwheat: achene weights and typical viability percentages

Species	Achenes/weight		Viability	
	/g	/lb	%	Test
SHRUBS				
<i>E. corymbosum</i>	900	410,000	93	Post-chilling cut test
	2,000	900,000	—	—
<i>E. fasciculatum</i>	1,330	600,000	4–34	Germination %, no pretreatment
	520–1,085	236,000–490,000	20–46	Germination %, no pretreatment
<i>E. heermannii</i>	660	300,000	95	Post-chilling cut test
SUBSHRUBS				
<i>E. brevicaulis</i>	700	320,000	84	Post-chilling cut test
<i>E. heracleoides</i>	350	160,000	95	Post-chilling cut test
	310	141,000	87	Post-chilling cut test
<i>E. jamesii</i>	350	160,000	—	—
<i>E. niveum</i>	1,290–1,360	585,000–620,000	52–72	Germination %, no pretreatment
<i>E. umbellatum</i>	470	213,000	86	Post-chilling cut test
	265	120,000	—	—
PULVINATE/MAT-FORMING				
<i>E. bicolor</i>	960	436,000	47	Post-chilling cut test
<i>E. ovalifolium</i>	990	450,000	95	Post-chilling cut test
<i>E. shockleyi</i>	750	340,000	86	Post-chilling cut test

Sources: Belcher (1985), Kay and others (1977), Meyer and Paulsen (2000), Stevens and others (1996), Tiedemann and Driver (1983).

* Post-chilling cut tests (ACSA 1996) are considered accurate for recently harvested seedlots; however, tetrazolium staining (TZ) is required for seedlots stored for more than 2 years.

Table 3—*Eriogonum*, wild-buckwheat: germination percentages

Species	Samples	Germination* (% of total viable seeds)				
		No chill	4 weeks	8 weeks	12 weeks	16 weeks
<i>E. brevicaulis</i>	2	3	28	65	86	96
<i>E. corymbosum</i>	3	28	79	100	100	100
<i>E. heracleoides</i>	3	4	11	30	55	77
<i>E. jamesii</i>	2	54	79	91	94	100
<i>E. ovalifolium</i>	2	22	74	98	98	100
<i>E. umbellatum</i>	4	7	30	74	99	100

Source: Meyer and Paulsen (2000).

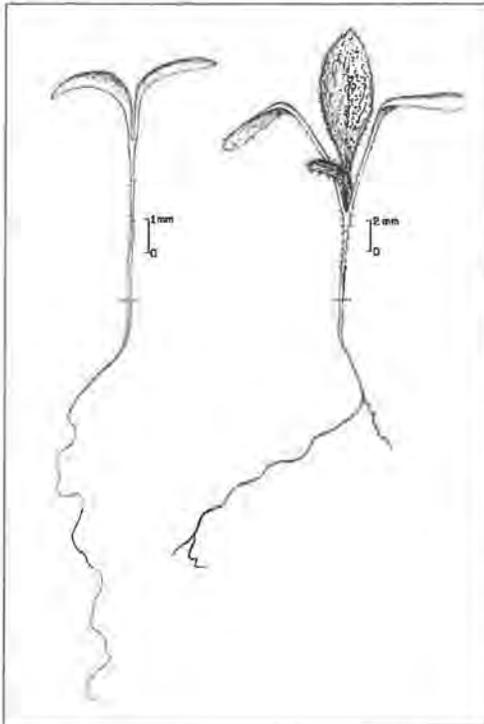
* Germination percentage determined after 0 to 16 weeks of chilling at 1 °C followed by 4 weeks of incubation at 10/20 °C

northern rainfall regions and midsummer in southern rainfall regions. Most wild-buckwheats are early seral and do not compete well with heavy stands of perennial grasses. Wild-buckwheats planted for field seed production are reported to reach 30 to 50% of maximum production, 200 to 400 kg/ha (180 to 360 lb/ac), the second year after planting (Stevens and others 1996).

Most species of wild-buckwheat are also easily propagated in a nursery setting. Shaw (1984) reported that Wyeth wild-buckwheat may be successfully produced as 1+0 bare-root stock. Because of the taprooted habit, plants must be

lifted carefully. Other woody wild-buckwheats could probably be produced as bare-root stock, but no published information is available. Wild-buckwheats may also be produced as container stock; book planters or tube containers such as those used for producing conifer seedlings are most appropriate. Nondormant lots may be direct-sown, whereas seedlots requiring chilling may be sown as chilled seed or as young germlings (Landis and Simonich 1984). Seedlings of many species grow rapidly and should not be held in small containers for more than a few months. Many species flower the first year and may even form flowering stalks while still in small tube containers.

Figure 3—*Eriogonum fasciculatum*, Mojave buckwheat-brush: very young seedling (left) and older seedling (right).



References

- AOSA [Association of Official Seed Analysts]. 1996. Rules for testing seeds. *Journal of Seed Technology* 16(3): 1–113.
- Belcher E, ed. 1985. Handbook on seeds of browse-shrubs and forbs. Tech. Pub. R8-TP8, Atlanta: USDA Forest Service, Southern Region. 246 p.
- Kay BL, Ross CM, Graves WL. 1977. California buckwheat. Mojave Reveg. Notes S. Davis: University of California, Department of Agronomy and Range Science. 4 p.
- Landis TD, Simonich EJ. 1984. Producing native plants as container seedlings. In: Murphy PM, comp. The challenge of producing native plants for the intermountain area. Proceedings, Intermountain Nurseryman's Association 1983 Conference; 1983 August 8–11; Las Vegas, NV. Gen. Tech. Rep. INT-168. Ogden, UT: USDA Forest Service, Intermountain Forest and Range Experiment Station: 16–25.
- Meyer SE, Paulsen A. 2000. Chilling requirements for seed germination of ten Utah species of wild buckwheat (*Eriogonum* Michx: Polygonaceae). *Native Plants Journal* 1: 18–24.
- Ratliff RD. 1974. *Eriogonum fasciculatum* Benth., California buckwheat. In: Schopmeyer CS, tech. coord. Seeds of woody plants in the United States. Agric. Handbk. 450. Washington, DC: USDA Forest Service: 382–383.
- Shaw NL. 1984. Producing bareroot seedlings of native shrubs. In: Murphy PM, comp. The challenge of producing native plants for the intermountain area. Proceedings, Intermountain Nurseryman's Association 1983 Conference; 1983 August 8–11; Las Vegas, NV. Gen. Tech. Rep. INT-168. Ogden, UT: USDA Forest Service, Intermountain Forest and Range Experiment Station: 6–15.
- Stevens R, Jorgensen KR, Young SA, Mosen SB. 1996. Forb and shrub seed production guide for Utah. Logan: Utah State University Extension Service. 51 p.
- Tiedemann AR, Driver CH. 1983. Snow eriogonum: a native halfrub to revegetate winter game ranges. *Reclamation and Revegetation Research* 2: 31–39.
- Tiedemann AR, Lambert SM, Carlson JR, Perry CJ, Shaw NL, Welch BL, Driver CH. 1997. 'Umatilla' snow buckwheat for rangeland restoration in the interior Pacific Northwest. *Rangelands* 19(3): 22–25.
- Young JA. 1989. Germination of seeds of sulphur flower. *Journal of Seed Technology* 13: 31–38.
- Zamora BA. 1994. Use of *Eriogonum* for reclamation. *Hortus Northwest* 5(1): 9–11, 47.

Appendix F: Land Owner Notification



GEOFORTIS MINERALS

Avalanche Funding LLC
Att: Mr. Fred Orr
5040 Acoma Street
Denver, CO, 80216-2010

via USPS certified mail

December 15, 2021

Notice of Intent to Access Property and Permit Mine

Dear Mr. Orr:

Geofortis Minerals LLC is working to develop Lassenite™ minerals in Lassen County. We have previously attempted to communicate to Mr. Sayed Arif about this matter and now understand that you have taken title to certain of his Lassen County properties.

In May 2015 our predecessor, Cal Minerals, Inc. filed placer claims on a portion of your property within APN's 145-050-04, 145-050-12 and 145-030-16. The property is a split-estate, wherein the right to develop the minerals underlying the property has been severed from the surface ownership and reserved to the Federal Government. The Bureau of Land Management ("BLM") is the Federal Government agency tasked with managing the minerals underlying the Property, as governed by the Mining Law of 1872 and related regulations. As holder of the claims, Geofortis Minerals has the legal right to access your property, obtain permits, and conduct mining operations. Our obligation is to provide you notice prior to entry and to attempt to come to an agreement about access. We must also use no more of the property or disrupt your surface operations than necessary to conduct the mining. We must also reclaim the surface after mining in accordance with all laws. Finally, we must compensate you for lost grazing income, if any, during the mining operations.

This letter provides notice that Geofortis may come on to your property to collect samples using hand shovels or to maintain claim stakes from time to time during the next 12 months. This letter also provides a courtesy notice that Geofortis Minerals has received permits from the BLM and is seeking permits to operate the mine and complete reclamation from Lassen County. A copy of the Lassen County permit application package is enclosed for your information.

I would like to speak with you about an access agreement and your signature on the County permit applications.

Please let me know if you have any questions or contact me to discuss next steps.

Sincerely,

David McMurtry
Vice President, Geofortis Minerals LLC
925-348-3535
dmcumrtry@geofortis.com

Enclosure

30 S. Tooele Blvd. | Tooele, UT | 84074



RECEIVED

Initial Study Application

FILING FEE: \$2,000 and ENV HEALTH FEE: \$85
DEPARTMENT OF PLANNING AND BUILDING SERVICES
707 Nevada Street, Suite 5 · Susanville, CA 96130-3912
(530) 251-8269 · (530) 251-8373 (fax)
www.co.lassen.ca.us

MAR 28 2022

LASSEN COUNTY DEPARTMENT OF
PLANNING AND BUILDING SERVICES

Form must be typed or printed clearly in black or blue ink. All sections must be completed in full.
This application consists of three pages; only attach additional sheets if necessary.

FILE NO. _____

Property Owner/s Mineral Estate	Property Owner/s
Name: Geofortis Minerals LLC/ David McMurtry	Name: Avalanche Funding/Fred Orr
Mailing Address: 30 S. Tooele Blvd.	Mailing Address: 5040 Acoma Street
City, ST, Zip: Tooele, UT 84074	City, ST, Zip: Denver, CO 80216-2010
Telephone: 925-348-3535 Fax:	Telephone: Fax:
Email: dmcmurtry@geofortis.com	Email:

Applicant/Authorized Representative*	Agent (Land Surveyor/Engineer/Consultant)
Same as above: <input checked="" type="checkbox"/>	Correspondence also sent to: <input type="checkbox"/>
Name:	Name:
Mailing Address:	Mailing Address:
City, ST, Zip:	City, ST, Zip:
Telephone: Fax:	Telephone: Fax:
Email:	Email: License #:

Project Address or Specific Location:			
Deed Reference: Book:	Page:	Year:	Doc#:
Zoning:	General Plan Designation: Extensive Agriculture		
Parcel Size (acreage):	Section: 11&14 Township: 23N Range: 17E		

Assessor's Parcel Number(s):	145 - 030 - 16	145 - 050 - 04	145 - 050 - 12
-	-	-	-

Project Description: Surface mining and reclamation plan for natural pozzolan (Lassenite).

SIGNATURE OF PROPERTY OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application.	*SIGNATURE OF APPLICANT/AUTHORIZED REPRESENTATIVE (Representative may sign application on behalf of the property owner only if Letter of Authorization from the owner/s is provided).
Date: 3/28/22	Date:
Date:	Date:

Initial Study Application

ENVIRONMENTAL SETTING:

A. Describe the project site as it exists before the project, including information on size of parcel, topography, soil stability, plants and animals, and any cultural, historic or scenic aspects. Describe any existing structures on the site, and the use of the structure. Attach photographs of the site (optional).

Project site is approximately 160 acres of vacant land with scrub sagebrush vegetation. Soil is sandy loam, and is gently rolling hills. Animals include small mammals, rodents and deer. No known significant cultural or historic properties were found during studies. Highway 395 is designated as a scenic corridor in the General Plan. There are no existing structures.

B. Describe the surrounding properties, including information on plants and animals and any cultural, historical, or scenic aspects. Indicate the type and intensity of the land use (residential, commercial, agricultural, etc.). Attach photographs of the vicinity (optional).

Surrounding properties are similar. There is a permitted Lassenite mining operation on the east side of Highway 395.

Slope of Property:

(Approx. percentage of property having following slopes)	60	(0-8%)
	8	(9-15%)
	15	(16-20%)
	5	(over 20%)

List all county, state, federal, or regional agencies from which a permit or approval is required:

Use Permit and Reclamation Permit from Lassen County; Plan of Operations from BLM; SWPPP General permit from SWRCB

Has any form of environmental document been prepared for the project:

Yes If yes, attach. No

List districts involved:

Environmental Assessment approved by the BLM, Sierra Front Office
Cultural, Wildlife and Paleontology Reports have been prepared.

Are there any natural or man-made drainage channels through or adjacent to the property?

There are intermittent flowing drainage channels through a portion of the property (see Mining Plan).

(Name and/or type of drainage channels)

Are the following items applicable to the project or its effects? Discuss below all items checked 'yes' (attach additional sheets as necessary).

NOTE: Applicant may be required to submit additional data and information if deemed necessary by the Environmental Review Officer or Lead Agency.

YES	NO	
_____	_____ X	1. Change in lake, stream, or other body of water or ground water quality, or alteration of existing drainage patters.
X	_____	2. Change in dust, ash, smoke, fumes, or odors in vicinity.
X	_____	3. Change in existing features of any bodies of water, live or intermittent streams, hills, or substantial alteration of ground contours.

RECEIVED



USE PERMIT APPLICATION

FILING FEE: CLASS 1 \$742; CLASS 2 \$1,350; CLASS 3 \$1,350
and ENVIRONMENTAL HEALTH FEE: \$85

MAR 28 2022

DEPARTMENT OF PLANNING AND BUILDING SERVICES
707 Nevada Street, Suite 5 · Susanville, CA 96130-3912

(530) 251-8269 · (530) 251-8373 (fax)

www.co.lassen.ca.us

LASSEN COUNTY DEPARTMENT OF
PLANNING AND BUILDING SERVICES

Form must be typed or printed clearly in black or blue ink. All sections must be completed in full.

This application consists of one page; only attach additional sheets if necessary.

FILE NO. _____

Property Owner/s Mineral Estate	Property Owner/s
Name: Geofortis Minerals, LLC/David McMurtry	Name: Avalanche Funding/Fred Orr
Mailing Address: 30 S. Tooele Blvd.	Mailing Address: 5040 Acoma Street
City, ST, Zip: Tooele, UT 84074	City, ST, Zip: Denver, CO 80216-2010
Telephone: 925-348-3535 Fax:	Telephone: Fax:
Email: dmcmurtry@geofortis.com	Email:

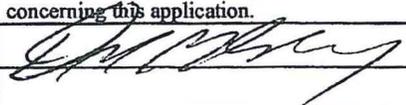
Applicant/Authorized Representative*	Agent (Land Surveyor/Engineer/Consultant)
Same as above: <input type="checkbox"/>	Correspondence also sent to: <input type="checkbox"/>
Name: Geofortis Minerals, LLC/David McMurtry	Name: Broadbent & Associates
Mailing Address: 30 S. Tooele Blvd.	Mailing Address: 8 West Pacific Ave
City, ST, Zip: Tooele, UT 84074	City, ST, Zip: Henderson, NV 89015
Telephone: 925-348-3535 Fax:	Telephone: 702-563-0600 Fax: 702-563-0610
Email: dmcmurtry@geofortis.com	Email: lroy@broadbentinc.com License #:

Text

Project Address or Specific Location:			
Deed Reference: Book:	Page:	Year:	Doc#:
Zoning:	General Plan Designation: Extensive Agriculture		
Parcel Size (acreage):	Section: 11&14 Township: 23N Range: 17E		

Assessor's Parcel Number(s):	145 - 030 - 16	145 - 050 - 04	145 - 050 - 12
- -	- -	- -	- -

Project Description: Surface mine and reclamation plan for natural pozzolan (Lassenite). See mining plan.

SIGNATURE OF PROPERTY OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application.	*SIGNATURE OF APPLICANT/AUTHORIZED REPRESENTATIVE (Representative may sign application on behalf of the property owner only if Letter of Authorization from the owner/s is provided).
 Date: 3/28/22	Date:
Date:	Date:

See associated process form for required attachments and instructions.



USE PERMIT PROJECT DETAIL SUPPLEMENT

DEPARTMENT OF PLANNING AND BUILDING SERVICES
707 Nevada Street, Suite 5 · Susanville, CA 96130-3912
(530) 251-8269 · (530) 251-8373 (fax)
www.co.lassen.ca.us

RECEIVED

OCT 04 2021

LASSEN COUNTY DEPARTMENT OF
FILE NO. PLANNING AND BUILDING SERVICES

Form must be typed or printed clearly in black or blue ink. This supplement consists of three pages. Please complete the following application supplement and attach to the Use Permit Application. Answer all questions that are related to the proposed use.

1. Proposed timeframe for the project and completion of each major phase (i.e., when structures and improvements will be completed): Please see Mining Plan for proposed phasing.

2. Existing use of property: Vacant

3. Describe adjoining land uses (e.g., residential, commercial, agricultural, etc.). Please be as specific as possible.

North: Vacant BLM land
South: Vacant BLM land
East: Vacant BLM land
West: Vacant BLM land

4. Hours of proposed operation: Seasonal Daylight Hours to Seasonal Daylight Hours Days of operation: Typically 5 days/week, 7 in Peak Summer seasons possible

5. Number of shifts: Typically 1 shift Number of employees: 2-5 typically, with up to 5 additional during contract mining operations

6. Number of deliveries or pick-ups: Avg 35; Peak 55 per day Avg 190; Peak 380 per week

7. Number of visitors/customers: 0 per day negligible per week

8. Will the project increase noise levels in the immediate area? Yes No
If yes, anticipated noise levels in decibels at:
50 feet 85 100 feet 79 Property Line 85

9. Describe existing structures and improvements to be used in conjunction with the proposed use, including their floor area: Temporary or Mobile Equipment and support

10. Maximum height (in feet) of existing structures: None

11. Maximum height (in feet) of proposed structures: None

12. Describe any existing structures to be removed: None

13. Describe proposed structures and improvements (e.g., buildings, parking, roads, and sewer services, etc.). Please include dimensions and floor area: No buildings. Mining roads as shown in Mining Plan

14. Describe the topography and physical environment at and surrounding the project site: Rolling hills and vacant land with native sagebrush and occasional coniferous trees

15. Describe proposed exterior lighting, including location (attach lighting diagram if applicable): No permanent lighting

16. Will the project include or result in grading, including anticipated grading at project buildout?
 Yes No If yes, approximate total surface area to be disturbed by site grading:
_____ sq. ft. or ⁸³_____ acres
Quantity of cut: 8.5 million cubic yards Quantity of fill: 0 cubic yards

17. Percentage of site to be covered by impervious surfaces (e.g., roads, driveways, and structures), including estimated impervious surfaces at project buildout: 0%

18. Number of existing parking spaces: 0 employee 0 customer
Number of proposed parking spaces: 10 employee 0 customer
Describe surfacing of parking area: unpaved

Please attach a parking plan showing existing and proposed parking facilities. Please see Mining Plan for proposed phasing.

19. Please attach a detailed plot plan, drawn to scale, showing all existing and proposed improvements. Please see Mining Plan for proposed

20. For commercial, industrial and institutional developments, please attach a landscaping plan. Please see Mining Plan for proposed

21. Please indicate how the following services will be provided to serve the project, including name of the service provider:

Electricity: None Underground Overhead

Telephone: Cellular only Underground Overhead

Water Supply: Existing Well New Well(s) Community Water
Other Well is located at approx. lat 39.867771 long -120.048319 on parcel 145-03-022

Sewage Disposal: Individual Septic System Community Sewer Shared Septic System

If individual septic systems are proposed, has soil testing been performed to determine soil suitability? Yes No If yes, please attach

Solid Waste Disposal: Operator removal

LP/Natural Gas: None

If an extension of utility lines is necessary, indicate which services and the distance of the extension: None

22. Please provide the names of the following districts, if applicable:

High School: Herlong High

Elementary School: Sierra Primary

Fire Protection: _____

Community Services District: _____

Water: _____

Sewer: _____

Other: _____

23. List all county, state, regional or federal agencies from which a permit or approval is or may be required, including type of permit required: _____

BLM - Plan of Operations;

Lassen County - Conditional Use Permit;

SWRCB - Storm Water General Permit

