



# LAND USE SERVICES DEPARTMENT PLANNING COMMISSION STAFF REPORT

**HEARING DATE:** October 23, 2014

**AGENDA ITEM # 2**

**CONTINUED:** November 6, 2014

## Project Description

**APN:** 0464-022-54-0000  
**APPLICANT:** Webber – Pyley, Inc  
**COMMUNITY:** Apple Valley/1st Supervisorial District  
**LOCATION:** EMERALD ROAD, NORTH SIDE; MERIDIAN ROAD BOTH SIDES  
**PROJECT NO:** AP20120001/RMC (SIGMA CLAY MINE)  
**CONTRACT STAFF:** REUBEN J. ARCEO  
**REP(S):** WEBBER & WEBER MINING CONSULTANTS  
**PROPOSAL:** REVISION TO AN APPROVED MINING CONDITIONAL USE PERMIT AND RECLAMATION PLAN TO EXTEND THE LIFE OF THE MINE TO 2054, ALLOW CONTINUED EXCAVATION UP TO 40 FEET IN DEPTH, AND PROVIDE EROSION CONTROL FOR A 40.8-ACRE CLAY MINE.

## Vicinity Map



**Report Prepared By:** Reuben J. Arceo  
**P.C. Field Inspection Date:** October 15, 2014

## SITE INFORMATION:

**Parcel Size:** 40.8 Acres  
**Terrain:** Consists of a flat, playa lake bed with minimum topographic relief  
**Vegetation:** Saltbush scrub, Russian thistle, London rocket and red brome vegetation.

## SURROUNDING LAND DESCRIPTION:

| AREA  | EXISTING LAND USE            | LAND USE ZONING DISTRICT  |
|-------|------------------------------|---|
| SITE  | Existing Clay Mining Pit     | AV/FW (Apple Valley Community Plan/Floodway)                              |
| North | Vacant Undeveloped Land      | AV/RL-20/FW (Apple Valley Community Plan/Rural Living-20 Acres/Floodway)  |
| South | Vacant Undeveloped Land      | AV/RL-20/FW (Apple Valley Community Plan/Rural Living-20 acres/Floodway)  |
| East  | Vacant Undeveloped Hillsides | AV/FW (Apple Valley Community Plan)                                       |
| West  | Vacant Undeveloped Land      | AV//RL-20/FW (Apple Valley Community Plan/Rural Living -20 Ares/Floodway) |

Sigma Clay Mine Expansion

APN: 0464-022-54-0000/AP20120001

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**AGENCY**

City Sphere of Influence:

Water Service:

Sewer Service:

**COMMENT**

Town of Apple Valley

Bottled Water

Portable Toilets

Supports

N/A

N/A

**STAFF RECOMMENDATION:** That the Planning Commission **ADOPT** a Mitigated Negative Declaration, **ADOPT** the proposed Findings, **APPROVE** the Revised Mining Conditional Use Permit and Reclamation Plan 92M-04 subject to the attached Conditions of Approval and incorporated Mitigation Measures, and **FILE** a Notice of Determination.

NOTE: In accordance with Section 86.08.010 of the Development Code, the action taken by the Planning Commission may be appealed to the Board of Supervisors within ten (10) calendar days after the Planning Commission hearing.

## **SUMMARY/BACKGROUND**

On January 13, 2012, Webber & Webber Mining Consultants, on behalf of Webber-Plyley (Applicant), Inc., located at 101 East Redlands, Blvd., Suite 240 in the City of Redlands, filed an application to revise the existing Mining Conditional Use Permit and Reclamation Plan (collectively “the Project”) to permit continued quarrying within a previously disturbed 31.5-acre area located within a 40.8 acre parcel as shown in the Mining Site Plan in Figure 4 and the extension of the mine’s operating period for forty (40) years. The Sigma Clay Mine is located in Fairview Valley in the desert region of Central San Bernardino County approximately eight miles northeast of Highway 18 and the Town of Apple Valley and approximately 8.5 miles southeast of Interstate 15 as noted on Figure 1. The parcels surrounding the mine are privately owned lands and are moderately disturbed by off-road recreational use. Undeveloped government and privately owned desert lands lie to the north, east and west and have exhibit similar disturbances by off-road vehicles. The nearest occupied residential sites are located approximately one-half mile northeast/east/southeast from the project site. Staff received two comment letters from property owners whose parcels reside within 300 feet of the project site, attached as Exhibit G.

The mine is accessed by means of an existing 1.7-mile Bureau of Land Management (BLM) Right-of-Way as noted in Figure 2. from Johnson Road, then southerly along an unnamed public access dirt road. The dirt road leads to the Sigma Clay Mine entrance at the northwestern portion of the site via a ramp that will cross over a three foot high crushed rock/Gunnite perimeter berm and earthen swale system.

The Applicant initially obtained Planning Commission approval on July 7, 1992 to commence clay mining operations within a previously undisturbed dry-lake bed, identified as Reed Dry Lake (now Fairview Dry Lake). The lake bed material is relatively uniform common clay with the first ten feet composed of very fine clay that can be utilized as an ingredient in the manufacture of brick and roof tile. Since topsoil does not exist on the site, all the material can be utilized as product. The dry lake bed is classified as a Mineral Resource Zone (MRZ-2) for clay mineral resources. MRZ-2 zones are areas designated by the State Geologist and the State Mining & Geology Board as lands containing mineral deposits of regional or statewide significance. The 1992 mining approval permitted the excavation of approximately 700,000 tons of clay material to a depth of ten feet for a period of 25 years (or until June 18, 2022), amounting to an average annual production rate of 28,000 tons. The mine would revert to open space after reclamation of the mine site and function as a watershed basin.

On January 13, 2011, the Applicant submitted an Interim Management Plan (IMP) in accordance with Public Resources Code, Section 2770(h)(1) as the mine’s production had dropped by more than 90 percent of the operation’s maximum annually-approved mineral production rate since 2008 as demand for the product decreased. The primary purpose of an IMP is to ensure that:

- The financial assurances required for reclamation remain in effect during the period that the surface mining operation is idle;
  - The IMP is considered a minor amendment to the surface mining operation’s approved reclamation plan;
  - The approved IMP incorporates measures that ensure the operator will implement and maintain the site in accordance with SMARA, Section 2770;
  - If the surface mining operation remains idle after the expiration date, the operator shall commence reclamation in accordance with its approved reclamation plan; or
  - May be renewed for an additional five year extension.
-

The County approved the Applicant's IMP, attached as Exhibit F. As shown in the photographs in Figures 5, the site has been revegetated with primarily Saltbush scrub, Russian thistle and similar plant species to the extent that much of the original mining features have disappeared since the cessation of mining in 2008. The current IMP expiration date in January 2016.

In accordance with the State Mining and Geology Board Regulations (California Code of Regulations, Section 3502(h)(1)), where a surface mining operation has an approved Reclamation Plan and financial assurances covering the entire surface mining operation, and the mining operator proposes to disturb new lands that are not included within the approved Reclamation Plan, the operator may amend the existing Reclamation Plan to encompass the new area designated for use together with any other changes necessary to amend the Reclamation Plan to conform to current SMARA standards. The Applicant's Reclamation Plan has been reviewed by County staff as well as the California Department of Conservation, Office of Mining Reclamation (OMR), and found to be in general conformance with Public Resources Code (PRC) Section 2770 of the Surface Mining and Reclamation Act of 1975 ("SMARA"). Attached as Exhibit E is OMR's September 25, 2014 response letter to the County's letter dated September 10, 2014, attached as Exhibit F, stating that most of the issues responded in the County's letter have been addressed. Staff has reviewed and considered the items that remain outstanding and determined the items can be addressed through the project's conditions of approval.

**Figure 1**  
Regional Location Map  
Sigma Clay Mine





On September 23, 2014, in accordance with the PRC Section 2774(d)(2), the County provided OMR thirty (30) days advance notice of its intent to recommend approval of the Applicant's revised Mining Conditional Use Permit and Reclamation Plan to the Planning Commission at the October 23, 2014 public hearing.

**Figure 2**  
Sigma Clay Mine Haul Truck Route



## **PROJECT PROPOSAL**

The Applicant proposes the expansion of the existing pit area by increasing the quarry pit depth from ten (10) feet to forty (40) below ground surface (BGS) and disturb up to 36.4 acres as noted in Figure 3 and the extension of mine operations for forty years or until 2054. The mine will generally continue to excavate clay materials in the same manner as past operations within the previously disturbed 31.5 acres located entirely within the dry lake bed. As the entire material is utilized for product, there will be no overburden left on site. Mining equipment is mobilized to the project site as the market dictates. The Applicant estimates that active quarrying may occur between 50-200 days per year and will generate up to approximately 40-60 daily truck trips during active excavations. The mine may then be dormant for 30-90 days at a time, until the next purchase order is acquired. Operations will be conducted up to six (6) days per week during daylight hours utilizing a Caterpillar Track Loader of medium size. No blasting will occur. The loader will rip the clay and the product will be loaded directly onto 25-ton bottom dump trucks. A 4,000-gallon water truck will be utilized on site during clay loading operations for dust suppression. Drinking water will be brought in since no on-site water production wells exist. Visual impacts are expected to be negligible since mine activity

will be occurring at depths increasing to 40 feet bgs and the natural hills and mountains will screen the site from residents of the Town Apple Valley and travelers along Interstate 15 and Highway 18.

The route the mine haulers will be using as noted in Figure 2 is primarily along Johnson Road. The portion of Johnson Road west of Joshua Street and a portion of Stoddard Wells Road are located within the Town of Apple Valley's jurisdiction. Approximately 3 miles of Johnson Road and 1.8 miles of Stoddard Wells Road lie roughly within the Town of Apple Valley. Apple Valley's General Plan Truck Route Map indicates that Johnson Road is cited as a Through Truck Route and Stoddard Wells Road as a Local Truck Route. The Apple Valley General Plan Circulation Element lists Johnson Road east of Stoddard Wells Road as providing a Roadway Capacity of 40,500 daily trips and operating at Acceptable limits. Stoddard Wells Road east of the I-15 is "Approaching Capacity". The Apple Valley Planning Department was informed of the posting and circulation of the project's initial study for review and comment. Staff has reviewed and considered the comments provided by the Town of Apple Valley in their letter dated September 30, 2014 and believe the Conditions of Approval address the Town of Apple Valley concerns as much as possible. The request by the Town for paving of Johnson Road within the Town is not directly and proportionately attributable to the traffic generated by this project, to warrant that requirement as a condition of approval.

The Project Site vicinity to the north has historically supported mining operations. There are three active mining operations, which include the White Mountain, Black Mountain and Alvic and Alumina quarries, which support CEMEX's concrete plant and rail facilities.

The following is a breakdown of the mine's operation.

- The site will be mined to a depth of 40 feet bgs within a 40.8-acre site.
- The Project will operate six (6) days per week during daylight periods between the hours of 6:00 a.m. and 5:00 p.m.
- Quarrying will occur between 50 to 200 days per years
- The quarry will be dormant between 30 to 90 days.
- The extraction site is anticipated to yield 20,000 to 100,000 tons of clay material annually.
- Approximately 40-60 trucks trips per day may be anticipated during production

Shown below in Table 1 is a comparison of the existing and proposed Project modifications.

**Table 1: Project Comparison**

|                           | <b>1992 Approval</b> | <b>Proposed</b>                |
|---------------------------|----------------------|--------------------------------|
| Acreage                   | 31.5 Acres           | 36.4 Acres                     |
| Production Rate           | 28,000 tons annually | 20,000 – 100,000 tons annually |
| No. of Employees          | 4                    | 6                              |
| Days of Operation         | 6 Days/Daylight      | 6-Days/Daylight.               |
| Truck Trips               | 4-6 trips            | 40-60 trips                    |
| Operational Mining Period | June 2022            | December 2054                  |

Upon the cessation of mining activities in the year 2054, equipment not required for further reclamation will be removed from the site. It is not anticipated that any equipment will remain onsite at the project's end. Reclamation will occur concurrently with mining operations to the extent practical as portions of the project site are graded or excavated to final approved elevations with graded slopes not steeper than 4:1 as shown in the project's Reclamation Plan in Figure 4. Table 2 indicates the project's reclamation timetable.

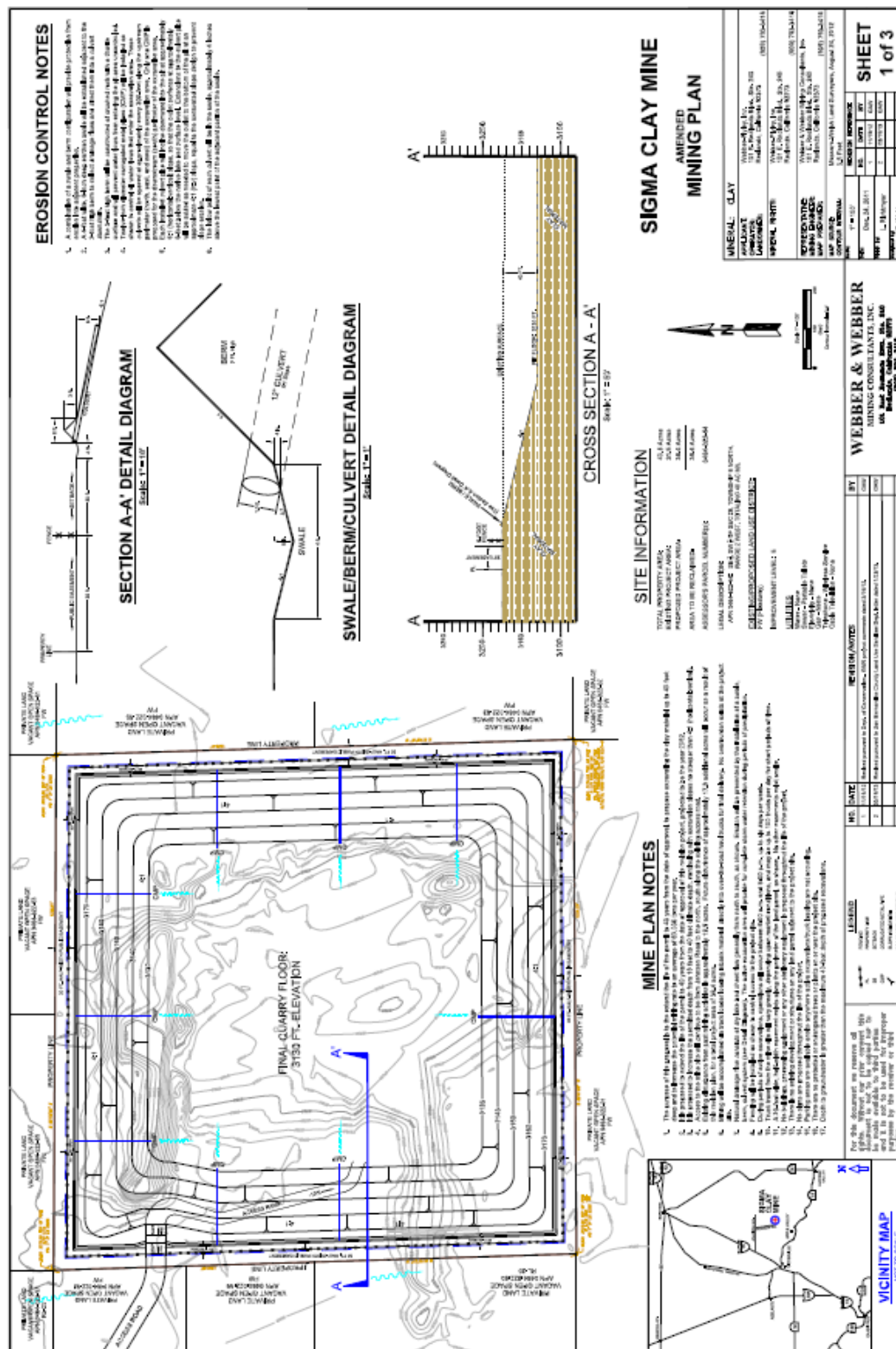
**Table 2: Reclamation**

| <b>RECLAMATION SCHEDULE</b> |                   |                      |  |
|-----------------------------|-------------------|----------------------|--|
| <b>Phase</b>                | <b>Date Begin</b> | <b>Date Complete</b> | <b>Activity</b>  |
| 1                           | Ongoing           | 2032                 | Continue intermittent excavations and collection of available seeds from the project site. Establish revegetation test plots no later than 2032                        |
| 2                           | 2032              | 2054                 | Monitor revegetation test plots and make adjustments if necessary.   |
| 3                           | 2032              | 2054                 | Rip & recontour finished project areas that will not be disturbed by further mining activities. Revegetated based on results of the revegetation test plot activities. |
| 4                           | 2054              | 2054                 | Mining excavations cease. All excavating equipment is removed from the site. Final grading of disturbed project areas, continue revegetation activities.               |
| 5                           | 2054              | 2054                 | A qualified individual will determine the success rate for revegetation activities, and may recommend additional monitoring.   |
| 6                           | 2054              | 2057                 | If recommended by qualified individual continue revegetation to ensure success   |
| 7                           | 2057              | 2057                 | Reclamation expires  |

The final site configuration after mining ceases will be a depression that will retain a significant amount of stormwater to augment the storage capacity of Fairview Dry Lake. The final use of the reclaimed site will be privately-owned, revegetated vacant open space land. The objective will be attained under the direction of a qualified botanist who will oversee the seed gathering process and provide guidelines for successful seed germination and transplanting of species if required. Complete reclamation of the site will include mitigation of any potential erosion hazards and revegetated with indigenous plant species. During all proposed mine and reclamation activities, public safety measures will be undertaken to the extent reasonable. The quarry site will comply with all Federal and California OSHA mine safety regulations and throughout project operations the Applicant will be responsible for carrying out the Maintenance and Monitoring Program based on the San Bernardino County approved Reclamation Plan and Conditions of Approval and submitting their annual mining operation reports to OMR and the County.

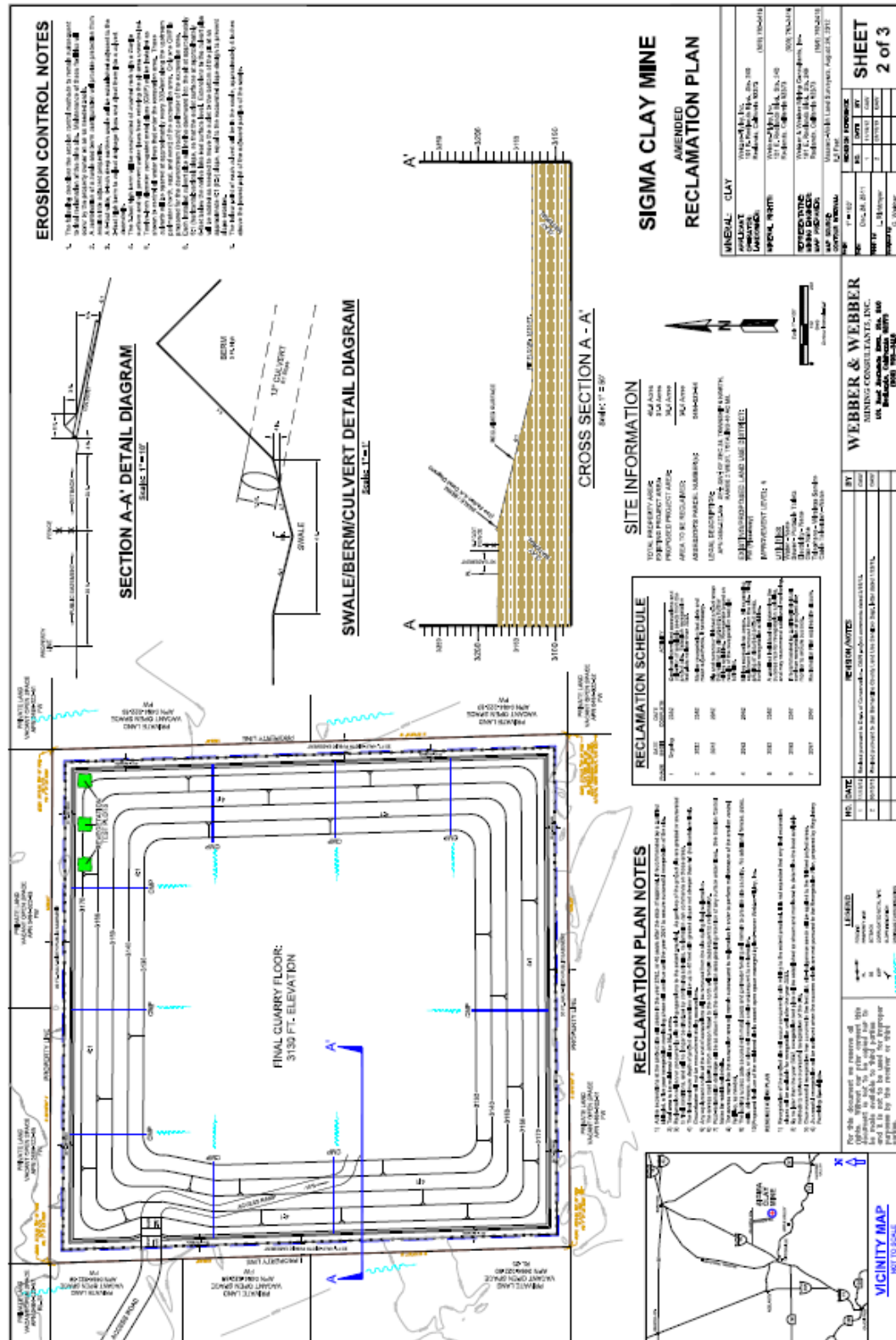
In compliance with PRC Sections 2770 and 2773.1, the Applicant currently maintains two financial bonding mechanisms with the County to assure successful reclamation in the unlikely event the Applicant cannot fulfill reclamation responsibilities in accordance with the existing approved Reclamation Plan. SMARA requires that Financial assurances be annually reviewed and adjusted commensurate to current and proposed disturbances.

**Figure 3**  
Sigma Clay Mine  
Mine Plan





**Figure 4**  
Sigma Clay Mine  
Reclamation Plan Area



**Figures 5**  
Sigma Clay Site



South View Orientation





Project Site



Project Site



## **ANALYSIS:**

**Land Use Compatibility.** The site is located within the "Apple Valley/Floodway" land use zoning district, which allows a limited number of uses, including mining operations, subject to County approval of a CUP. The properties surrounding the site are similarly zoned Rural Living-20/Floodway. The proposed Project would not physically divide an established community, and is consistent with all applicable land use policies and regulations of the County's General Plan and Development Code.

The Project area is located in Fairview Valley northeast of Apple Valley. Compliance with the Mitigation Measures for biological resources contained within the Initial Study ensures that the Project would not conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan or any other approved local, regional or state habitat conservation plan.

**Initial Study.** In compliance with the California Environmental Quality Act (CEQA), an Initial Study, attached as Exhibit A, was completed and routed to the State Clearinghouse for circulation (SCH# 2014081068). The 30-day comment period concluded on September 26, 2014. Comments were received from the Mojave Desert Air Quality Management District and the Department and California Department of Transportation. Staff has reviewed the comments and determined that concerns raised in the comment letters and believe they have been adequately addressed in the Initial Study, including potential concerns regarding Biological and Cultural resources (Ref. Section IV Biological Resources and Section V Cultural Resources and Section XVI Transportation and Traffic). Please refer to Exhibit H for copies of the comment letters.

The comments did not trigger the need for substantial revisions or re-circulation of the environmental document due to the reasons discussed in the following paragraph following the summary of mitigated environmental factors.

**Mitigated Environmental Factors.** Of the environmental factors potentially affected, mitigation measures are being recommended for Biological Resources and Cultural Resources.

1. **Biological Resources:** In accordance with CEQA, a Biological Resources Assessment and Focused Survey for Desert Tortoise (Survey) were conducted at the Sigma Clay Site on June 2 and July 1, 2010. The project site is within the West Mojave Plan (WMP) planning area but not within a specific conservation area. The surveys were intended primarily to evaluate the potential occurrence of special status wildlife, and including focus surveys for the desert tortoise and burrowing owl. The Survey revealed that no listed threatened or endangered plants are known or reported from the general area and none were observed during the surveys. With regard to special status wildlife, the site is not within a critical habitat for the desert tortoise. No burrowing owls were observed or expected to nest on the project site at the present time, and both the Mohave Ground Squirrel and American Badger were determined to have a low probability to occur on the project site due to the lack of vegetation cover and the degraded nature of the habitat. In that the Initial Study determined with mitigation, the Project would have no impacts, the mine operator shall implement the following mitigation measures to avoid potential impacts to the desert tortoise. These measures include: the operator informing all personnel regarding the desert tortoise and how to deal with tortoises if they are encountered; implementing a litter control program; requiring inspection for tortoises

under vehicles to avoid accidental harm; allowing only authorized biologists to handle tortoises; and ceasing all work in an area upon discovery of a desert tortoise until the tortoise is relocated. With regard to the burrowing owl, prior to 30 days to initiating mining activities, a pre-construction survey must be conducted for the desert tortoise by a qualified biologist. To mitigate riparian habitat/wetlands impacts, the Applicant shall prepare a Jurisdictional Delineation by a qualified biologist. Impacts to jurisdictional areas that are regulated by the CDFW and RWQCB shall be mitigated at a 2:1 ratio through an off-site mitigation bank or the contribution of in-lieu fee program acceptable to the County and CDFW and RWQCNB. To mitigate impacts to nesting birds, vegetation and habitat grading and removal shall not be scheduled during the bird nesting season (generally February 15 through August 1).

2. Cultural Resources: A Mitigation measure has been incorporated requiring that if at any time evidence of human remains are found, all work is to cease and a certified archaeologist and a culturally affiliated Native American with knowledge in cultural resources should be contacted. With regard to evidence of archaeological or historic discovery, all work shall cease and the County shall consult with qualified experts prior to allowing permitted operations to commence.
3. Traffic: As the project anticipates generating approximately 40 to 60 daily truck trips, and is a continuation of operations that occurred when the project was active prior to September 2008, traffic is expected to increase as a result of this project. The following is the expected daily trip generation when the mining facility is operating at maximum capacity:
  - Six employees travelling to and from the site = 12 daily passenger car equivalents (PCE).
  - Sixty (60) haul trucks travelling to and from the site = 120 haul truck trips x 3 (each haul truck is the equivalent of 3 passenger car trips) = 360 PCE daily trips.
  - At peak operations the mining facility is expected to generate 372 PCE trips per day.
  - Access to the project is provided by Johnson Road which connects to Interstate 15 via Stoddard Wells Road. This access route is used by existing operations and will not change. The Apple Valley Circulation classifies the three (3) mile portion of Johnson Road within their town limits as a "Through Truck Route" operating at acceptable limits and Stoddard Wells Road as a Local Truck Route which is approaching capacity. Staff has considered the comments received from the Town of Apple Valley in their letter dated September 30, 2014 and based on the project's conditions the potential impacts associated with traffic have been mitigated.

Concerning Hydrology and Flooding, the Applicant will abide by the drainage control measures in accordance with the Hydrology Study and Flood Analysis Report prepared by Jay Gunther in October 2010. The lake bed will function as a pond that will retain a significant amount of water to augment the storage capacity of Fairview Dry Lake. The basin will provide a capacity of approximately 7,879 acre-feet, and fills to a natural spillway water surface elevation of approximately 3196' prior to discharging to the south. Consequently 100 percent of the total 100-year, 24-hour runoff volume of 3,795 acre-feet and 100 percent of the total 100-year, 5-day runoff volume of 6,740 acre-feet is contained within the basin. The proposed mine site will not adversely alter the drainage aspects of the lake bed, and will increase the storage capacity of the watershed.

Sigma Clay Mine Expansion

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In conclusion, the Initial Study and corresponding studies determined that the proposed use, with the implementation of mitigation measures, will not have a significant effect on the environment, and a Mitigated Negative Declaration is recommended. This proposed determination represents the independent judgment of the County. All mitigation measures are included in the Conditions of Approval and are implemented through the post approval review.

**RECOMMENDATION:** That the Planning Commission:

- 1) **ADOPT** the Mitigated Negative Declaration based on a finding that the Initial Study was completed in compliance with CEQA, that it has been reviewed and considered prior to approval of the Project, and that the Initial Study/Mitigated Negative Declaration and supporting documents reflects the independent judgment of the County of San Bernardino;
- 2) **ADOPT** the Findings as attached with this Staff Report (Exhibit B);
- 3) **APPROVE** Revised Mining and Conditional Use Permit and Reclamation Plan 92M-04 for the proposed 36.4 acre mining expansion within the 40.8 acre property site subject to the Conditions of Approval, attached as Exhibit C.
- 4) **FILE** a Notice of Determination.

**ATTACHMENTS:**

Exhibit A: Initial Study

Exhibit B: Findings

Exhibit C: Conditions of Approval

Exhibit D: OMR September 25, 2014 Response Letter

Exhibit E: County Response Letter dated September 10, 2014

Exhibit F: Interim Management Plan

Exhibit G: Property Owner Comments

Exhibit H: Agency Responses

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## EXHIBIT A

### Initial Study

**SAN BERNARDINO COUNTY**

**INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM**

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

**PROJECT LABEL:**

|                    |  |                         |                          |
|--------------------|--|-------------------------|--------------------------|
| <b>APN:</b>        | <b>0464-022-54</b>   | <b>USGS Quad:</b>       | Fairview Valley          |
| <b>APPLICANT:</b>  | Webber-Pyley Inc.  | <b>T, R, Section:</b>   | T: 6N R:2W Sec: 28       |
| <b>COMMUNITY:</b>  | Fairview Valley/1 <sup>st</sup> Supervisorial District   | <b>Thomas Bros.:</b>    | Page 4209, Grid: A-5,6,7 |
| <b>LOCATION:</b>   | Northeast of Apple Valley, within Reed Dry Lake in Fairview Valley (Figure 2).   | <b>Planning Area:</b>   | Fairview Valley          |
| <b>PROJECT NO:</b> | AP20120001   | <b>Land Use Zoning:</b> | FW-Floodway              |
| <b>STAFF:</b>      | Reuben Arceo, Contract Planner   | <b>Overlays:</b>        | None                     |
| <b>REP(S):</b>     | Webber & Webber Mining Consultants, Inc.   |                         |                          |
| <b>PROPOSAL:</b>   | Revision to an approved Mining & Reclamation Plan to extend the life of the Mine to 2052, allow excavations up to 40 feet deep, and provide erosion control for a 40 acre clay mine. |                         |                          |

**PROJECT CONTACT INFORMATION:**

**Lead agency:** County of San Bernardino  
Land Use Services Department - Current Planning  
385 North Arrowhead Avenue  
San Bernardino, CA 92415-0182

**Contact person:** Reuben Arceo  
**Phone No:** (909) 387-4374 **Fax No.:** (909) 387-3223  
**E-mail:** reuben.arceo@lus.sbcounty.gov

**Project Sponsor:** Webber & Webber Mining Consultants, Inc.  
101 E. Redlands Blvd. Suite 240  
Redlands, CA 92373  
**Phone No:** (909) 793-3416

**PROJECT DESCRIPTION AND BACKGROUND:**

The Sigma Clay Mine is generally located in the southern Mojave Desert region of San Bernardino County, northeast of the town of Apple Valley, in the Fairview Valley (Figure 1). The Project proposes to extend the life of the existing permit to forty (40) years to 2052; to allow continued excavation of clay material to a depth of (40) feet below natural grade; and propose to increase the rate of production to 60,000 tons per year. The existing project area is 31.5 acres with expansion proposed to include an additional 4.9 acres as per Figure 2.

**Mining Activities**

Mining will be accomplished via track loader inbank material directly into over-the-road haul trucks for final delivery. During periods of active excavations, operations will occur between 6:00 a.m. and 5:00 p.m., up to six (6) days per week. Truck travel from the mine site will vary greatly, depending on market conditions and may be up to 100 (one-hundred) per day for short periods of time. No building, processing equipment or any other stationary equipment is proposed for the life of the project.



**Table 1. Estimated Equipment List Operations**

| Quantity | Equipment Type <sup>1</sup>      |
|----------|----------------------------------|
| 1        | Tracked Loader (Cat-medium)      |
| 1        | Water Truck (4000 gallons)       |
| 60       | Haul Trucks (25-ton bottom dump) |
| 1        | Bobcat (Reclamation activities)  |

<sup>1</sup> Equipment estimates based on project description.

### Reclamation & Revegetation

Active excavations at the mining site will cease in 2052, or forty (40) years after the date of approval. The total area to be reclaimed will be 36.4 acres. Reclamation will occur concurrently with mining activities to the extent practical. As portions of the site are graded or excavated to final contours, reclamation can occur on those areas no longer subject to further disturbance. The final maximum depth of excavation will be forty (40) feet with graded slopes not steeper than 4:1 (horizontal-vertical). Any equipment on-site at the end of excavations will be removed. The access road leading from Johnson Road to the north will remain subject to reclamation. Post-reclamation drainage will be stabilized.

When operations terminate, the site will be returned to open space. Current site conditions exhibit dense vegetative growth where prior areas were disturbed. The mine site would be reclaimed to approximately 40 acres of saltbush scrub series vegetation at the end of operations. The site will be prepared for revegetation scarifying the ground surface to create conditions optimal for seeding. The revegetation areas will be covered with available surface materials in "islands," broadcast seeded, and raked to cover seeds and protect them from desiccation and predation. Seeding would occur following the first rain of the fall season and before the winter rains.

The acceptable performance standards for the Sigma Clay Mine would measure success at 25% of the baseline cover, 25% of the baseline density, and 20% of the baseline species richness five years after reclamation until success criteria achieved. Accordingly successful revegetation in the saltbush scrub series revegetation area would be achieved at 5.5% cover by native perennials, three native perennials per 100 m<sup>2</sup> plot, and one species per 100 m<sup>2</sup> plot. Annual assessments of the reclamation area will be conducted by a revegetation specialist to determine the success of the revegetation effort until said criteria are achieved. Remedial action would occur per the recommendation of the revegetation specialist.

### ENVIRONMENTAL/EXISTING SITE CONDITIONS:

The overall site comprises approximately 40.8 acres in the dry lake bed. Vegetation on the project site includes a disturbed and sparse saltbush scrub community, and two non-native communities dominated by tamarisk trees and Russian thistle. Access to the site is via Johnson Road (a dirt road approximately 2 miles north of the project site) an unnamed dirt road from Johnson Road to the northwest corner of the site. Most of the mine site has disturbed off-road vehicle use. Existing land use and zoning districts are shown on Table 2.

Table 2. Existing Land Use and Zoning Districts

| AREA  | EXISTING LAND USE | LAND USE/OVERLAY DISTRICT   |
|-------|-------------------|---|
| Site  | Sigma Clay Mine   | Apple Valley Floodway AV/(FW- Floodway)   |
| North | Vacant            | Apple Valley Floodway(AV/FW)  |
| South | Vacant            | Apple Valley Rural Living-20 acre minimum lot size (AV/RL-20)                                       |
| East  | Vacant            | Apple Valley Floodway (AV/FW)   |
| West  | Vacant            | Apple Valley Floodway and Apple Valley Rural Living – 20 acre minimum lot size (AV/FW and AV/RL-20) |

**Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**

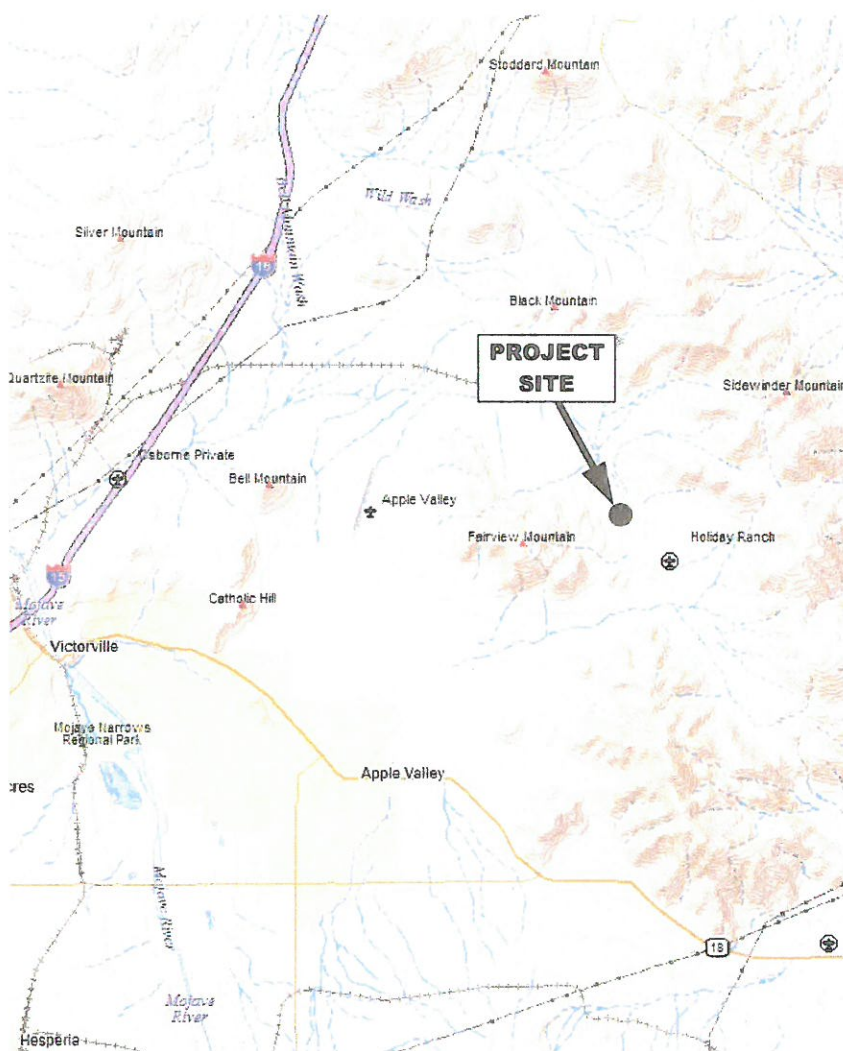
Federal: None.

State of California: California Department of Fish & Wildlife, Colorado Regional Water Quality Control Board, Department of Conservation Office of Mine Reclamation

County of San Bernardino: Land Use Services Department- Code Enforcement, Building and Safety, Public Health-Environmental Health Services, Special Districts, Public Works, and County Fire.

Regional: Mojave Desert Air Quality Management District (MDAQMD).

Local: None



Sigma Clay Mine

Project Location

Figure 1



## EVALUATION FORMAT

This initial study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on seventeen (17) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

|                                |  |                       |           |
|--------------------------------|--|-----------------------|-----------|
| Potentially Significant Impact | Less than Significant With Mitigation Incorporated | Less than Significant | No Impact |
|--------------------------------|--|-----------------------|-----------|

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact:** No impacts are identified or anticipated and no mitigation measures are required.
2. **Less than Significant Impact:** No significant adverse impacts are identified or anticipated and no mitigation measures are required.
3. **Less than Significant Impact with Mitigation Incorporated:** Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List of mitigation measures)
4. **Potentially Significant Impact:** Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (List of the impacts requiring analysis within the EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self- monitoring or as requiring a Mitigation Monitoring and Reporting Program.



# ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Aesthetics               | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources     | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology / Soils                    |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials      | <input type="checkbox"/> Hydrology / Water Quality          |
| <input type="checkbox"/> Land Use/ Planning       | <input type="checkbox"/> Mineral Resources                  | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population / Housing     | <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Utilities / Service Systems        | <input type="checkbox"/> Mandatory Findings of Significance |

## DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

|                                     |  |
|-------------------------------------|--|
| <input type="checkbox"/>            | The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared.   |
| <input checked="" type="checkbox"/> | Although the proposed project could have a significant effect on the environment, there shall not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION shall be prepared.   |
| <input type="checkbox"/>            | The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.   |
| <input type="checkbox"/>            | The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. |
| <input type="checkbox"/>            | Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.                                   |

Prepared by: Ernest Perea, Contract Planner

  
Reuben Arced, Contract Project Manager

  
Dave Prusch, Planning Supervisor

  
Date

  
Date



**Appendices: (On Compact Disk)**

- A. *Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010* by Leatherman Bioconsulting.
- B. *Letter Report to Update the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise, by Hernandez Environmental Services, June 23, 2014.*
- C. *Preliminary Hydrology Study and Flood Analysis, Sigma Clay Mine, October 2010* by Jay Gunther.

| Issues                                   |  | Potentially<br>Significant<br>Impact  | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|--|--|---|---|-------------------------------------|-------------------------------------|
| <b>I. AESTHETICS - Would the project</b> |  |   |   |                                     |                                     |
| a)                                       | Have a substantial adverse effect on a scenic vista?   | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b)                                       | Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c)                                       | Substantially degrade the existing visual character or quality of the site and its surroundings?   | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d)                                       | Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?                                  | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>SUBSTANTIATION</b>                    |  | (Check <input type="checkbox"/> if project is located within the view-shed of any Scenic Route listed in the General Plan): |   |                                     |                                     |

I a) **No Impact.** The County General Plan Open Space Element, Policy OS 5.1. states that a feature or vista can be considered scenic if it:

- Provides a vista of undisturbed natural areas;
- Includes a unique or unusual feature that comprises an important or dominant portion of the viewshed; or,
- Offers a distant vista that provides relief from less attractive views of nearby features such as views of mountain backdrops from urban areas).

31.5 acres of the overall 40.8 acre site is is being actively mined. The site has been heavily disturbed by mining activities and off-road vehicle use. The overall project site does not meet the criterion for a scenic vista pursuant to County General Plan Open Space Element Policy OS 5.1. Therefore, the project will have no impact on a scenic vista.

I b) **No Impact.** According to The San Bernardino County General Plan the project site is not within a scenic route (Ref. General Plan Pg. IV-16). Therefore, no impact is anticipated.

I c) **Less than Significant.** The visual character of the site and surroundings is that of an existing mining operation surrounded by vacant desert land. The proposed use is an allowable use within the Resources Conservation Land Use Zoning District. The continued operation and expansion of mining activities will not significantly impact the existing visual character of the area. Therefore, a less than significant impact is anticipated.

I d) **No Impact.** The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No new light sources are proposed and therefore no impacts are anticipated.

| Issues   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant | No<br>Impact                        |
|--|--------------------------------------|---|--------------------------|-------------------------------------|
| <b>II. AGRICULTURE and FORESTRY RESOURCES</b> - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project: |                                      |   |                          |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SUBSTANTIATION</b> (Check <input type="checkbox"/> if project is located in the Important Farmlands Overlay):   |                                      |   |                          |                                     |

- II a) **No Impact.** The proposed project will have no impact to agricultural resources, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. There are no agricultural land uses within the subject property or in the vicinity.
- II b) **No Impact.** The project site is not zoned as agricultural land use or Williamson Act land. The project would not conflict with current zoning. No impact is anticipated. Therefore, the project will not conflict with existing zoning for agricultural use, or a Williamson Act contract.
- II c/d) **No Impact.** The project site and surrounding area does not occur within forest land, timberland, or timberland zoned production. No impacts to these resource lands would result with implementation of the project.

- II e) **No Impact.** The proposed project will not have any direct or indirect impacts to agricultural resources in the County including the conversion of Farmland to non-agricultural uses because no such lands exist in the vicinity of the project site.

| ISSUES  |   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|---|---|--------------------------------------|---|-------------------------------------|-------------------------------------|
| III.  | <b>AIR QUALITY</b> - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:  |                                      |   |                                     |                                     |
| a)  | Conflict with or obstruct implementation of the applicable air quality plan?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b)  | Violate any air quality standard or contribute substantially to an existing or projected air quality violation?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c)  | Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d)  | Expose sensitive receptors to substantial pollutant concentrations?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e)  | Create objectionable odors affecting a substantial number of people?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>SUBSTANTIATION</b> (Discuss conformity with the Mojave Desert Air Quality Management Plan, if applicable): |   |                                      |   |                                     |                                     |

The project site is located in the Mojave Desert Air Basin (MDAB). The Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over air quality issues and regulations within the MDAB. To assist local agencies to determine if a project's emissions could pose a significant threat to air quality, the MDAQMD has prepared *the California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2011*. The air and dust emissions from the operational use of the Project were evaluated and compared to the MDAQMD standards and evaluated against the most recent thresholds applicable.

- III a) **Less than Significant.** The project site is within the MDAB and under the jurisdiction of the MDAQMD. The MDAQMD is responsible for updating the Air Quality Management Plan (AQMP). The AQMP was developed for the primary purpose of controlling emissions to maintain all federal and state ambient air standards for the district. A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

The project is consistent with the zoning and land use classifications that were used to prepare the Mojave Desert AQMP (FW-Floodway). In addition, based on Table 2, Project-generated emissions

generated will not exceed emission thresholds. Therefore, the project's emissions are in compliance with the thresholds established by the Mojave Desert Air Quality Management District. The project would not significantly increase local air emissions and therefore would not conflict with or obstruct implementation of the plan. Therefore, no impact is anticipated.

- III b) **Less than Significant With Mitigation Incorporated.** Mining will be accomplished via track loader inbank material directly into over-the-road haul trucks for final delivery. During periods of active excavations, operations will occur between 6:00 a.m. and 5:00 p.m., up to six (6) days per week. Truck travel from the mine site will vary greatly, depending on market conditions and may be up to 100 (one-hundred) per day for short periods of time. No building, processing equipment or any other stationary equipment is proposed for the life of the project.

Emissions associated with the project are primarily a result of material mining and transport of materials to and from the site. Emissions were screened using MDAQMD guidelines, CalEEMod, and Off-Road Mobile Source Emissions Factors (2012 based on the following equipment as shown in Table 3 below.

**Table 3. Estimated Typical Equipment List**

| Quantity | Equipment Type <sup>1</sup>      |
|----------|----------------------------------|
| 1        | Tracked Loader (Cat-medium)      |
| 1        | Water Truck (4000 gallons)       |
| 60       | Haul Trucks (25-ton bottom dump) |
| 1        | Bobcat (Reclamation activities)  |

<sup>1</sup> Equipment estimates based on project description.

As shown in Table 4, Project emissions would not exceed MDAQMD thresholds for the types of emissions associated with mining operations and the transport of materials from the site.

**Table 4. Sigma Clay Mine Operations  
(Pounds per Day)**

| Source <sup>1,2</sup>                                 | ROG         | NO <sub>x</sub> | CO           | PM <sub>10</sub> | PM <sub>2.5</sub> |
|---|-------------|-----------------|--------------|------------------|-------------------|
| Clay Mining Operations (Tracked Loader & Water Truck) | 1.34        | 16.83           | 9.11         | 10.26            | 2.22              |
| Hauling Trucks  | 0.017       | 0.047           | 0.063        | 0.57             | 0.06              |
| Worker Trips  | 0.078       | 0.031           | 0.287        | 7.45             | 0.75              |
| Reclamation (Bobcat) <sup>2</sup>                     | 0.71        | 2.31            | 2.95         | 0.19             | 0.07              |
| <b>Totals (lbs/day)</b>                               | <b>2.15</b> | <b>19.22</b>    | <b>12.41</b> | <b>18.47</b>     | <b>3.10</b>       |
| MDAQMD Threshold (lbs/day)                            | 137         | 137             | 548          | 82               | 82                |
| <b>Significant</b>                                    | <b>No</b>   | <b>No</b>       | <b>No</b>    | <b>No</b>        | <b>No</b>         |

<sup>1</sup> CalEEMod 2013.2.2

<sup>2</sup> Off-Road Mobile Source Emissions Factors (2012)

However, in order to ensure that impacts are mitigated to the maximum extent feasible, the following mitigation measures are required:

**AQ-1: The Project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.**

**AQ-2: Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading and mining activity on the site. Portions of the site that are actively being mined shall be watered to**

**ensure that a crust is formed on the ground surface, and shall be watered at the end of each**



*workday.*

***AQ-3: The Project proponent shall ensure that all disturbed areas are treated to prevent erosion.***

***AQ-4: The Project proponent shall ensure that all mining and processing activities are suspended when winds exceed 25 miles per hour.***

***AQ-5: During operation, street sweeping will be conducted at least daily, and as needed, along site access roadways to remove dirt dropped by vehicles. Site access driveways and adjacent streets will be washed if there are visible signs of any dirt track-out at the conclusion of any work day.***

***AQ-6: All equipment used for mining and construction must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.***

***AQ-7: The operator shall maintain and effectively utilize and schedule on-site equipment and on-site and off-site haul trucks in order to minimize exhaust emissions from truck idling.***

***AQ-8: The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.***

***AQ-9: This facility must handle all material (raw, byproducts, and finish materials) so as not to cause a Nuisance (odors) per District Rule 402.***

***AQ-10: A Blue Smoke Control filter cartridge will be used in this project to mitigate for the blue smoke.***

- III c) **Less than Significant.** The project is located in a region that has been identified as being in Non-Attainment for Ozone and PM10 (State) according to the California Air Resources Board Area Designation Maps. This means that the background concentration of these pollutants have historically been over the Federal and/or State Ambient Air Quality Standards. With respect to air quality, no individual project would by itself result in Non-Attainment of the Federal or State Ambient Air Quality Standards. However, a project's air pollution emissions although individually limited, may be cumulatively considerable when taken in combination with past, present, and future development projects. In order to be considered significant, a project's air pollutant emissions must exceed the emission thresholds established by the regional Air Quality Management District.

As shown in Table 3, the thresholds for the above referenced criteria pollutants would not be exceeded by the project. Therefore, impacts from the project are not cumulatively considerable when included with other past, present, and future probable projects.

- III d) **No Impact.** The project is located in a remote desert area of San Bernardino County. No sensitive receptors are located within the project vicinity. Therefore, no impacts are anticipated.
- III e) **No Impact.** The generation of objectionable odors is typically not associated with surface mining operations and there are no sensitive receptors within the project vicinity. Therefore, no impact is anticipated.

| ISSUES   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant | No<br>Impact                        |
|--|--------------------------------------|---|--------------------------|-------------------------------------|
| <b>IV. BIOLOGICAL RESOURCES - Would the project:</b>   |                                      |   |                          |                                     |
| a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/>            |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/>            |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...) through direct removal, filling, hydrological interruption, or other means?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/>            |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/>            |
| <b>SUBSTANTIATION</b> (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database): <input checked="" type="checkbox"/>   |                                      |   |                          |                                     |

IV a)

The following analysis is based in part on the *Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010* by Leatherman Bioconsulting and the *Update to the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise, by Hernandez Environmental Services, June 23, 2014*.

**Less Than Significant with Mitigation Incorporated.** Biological surveys were completed on the 40-acre project site to evaluate potential impacts to biological resources. Vegetation on the project site includes a disturbed and sparse saltbush scrub community, and two non-native communities

dominated by tamarisk trees and Russian thistle. One special status species (loggerhead shrike) is known to occur on the project site and several other special status species have the potential to occur on the project site, at least occasionally. Adverse impacts to most of these species would not meet CEQA mandatory findings of significance criteria, but impacts to potentially occurring species covered under the Western Mojave Plan (WMP) could be considered significant without mitigation. It should be noted that use of the West Mojave Plan as mitigation for proposed project impacts to existing disturbed habitat may not be adequate at this time. The West Mojave Plan has not been implemented by state and federal agencies as June 2014.

The *Update to the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise*, by Hernandez Environmental Services determined that the conclusions reached by the *Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010* by Leatherman Bioconsulting have not changed and that adverse impacts to most of these species would not meet CEQA mandatory findings of significance criteria

In order to mitigate proposed project impacts to 40 acres of non-native vegetation in the dry lake bed due to fact that the West Mojave Plan has not yet being implemented, the following mitigation measure is recommended:

***BIO-1-Pre-Construction Survey. Utilizing accepted protocols, within 30 days prior to initiating mining activities, a pre-construction survey shall be conducted for sensitive species identified in the Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010 by Leatherman Bioconsulting and the Update to the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise, by Hernandez Environmental Services, June 23, 2014. that may have established themselves on the project site. A clearance letter shall be provided to the Planning Department/ County's Mining and Engineering Geologist prior to initiating mining activities,***

The desert tortoise is not expected to occur on the project site at this time, but may wander onto the site at some time in the future, and may occur along the access road and Johnson Road to the north. Limited take of the desert tortoise is permitted within the WMP coverage area as long as the project is in compliance with relevant sections of the WMP and associated take permits from resource agencies. Potential impacts would be reduced to less than significant levels through compliance with the WMP and associated permit conditions.

***BIO-2-Desert Tortoise. The following measures shall be implemented:***

- a. The Applicant shall provide an information sheet to all persons who will work on-site during mining activities.***
- b. A litter control program shall be instituted. The program includes the direction to all workers to eliminate food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area and to maintain covered trash containers that are regularly removed from the project site. All trash and food items should be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and disposed of in a licensed disposal facility on a regular basis.***
- c. Any desert tortoises observed during any phase of the project should be left to move out of the way on its own. Handling of desert tortoises is not authorized.***
- d. Workers should inspect for desert tortoises under vehicles and equipment prior to moving them. If a desert tortoise is present, the worker should carefully move the***

*vehicle or equipment only when necessary or should wait for the desert tortoise to move out from under the vehicle or equipment.*

- e. *Only an Authorized Biologist(s) shall be allowed to handle tortoises. The Authorized Biologist(s) shall have a Memorandum of Understanding (MOU) with the CDFW for handling tortoises.*
- f. *Upon discovery of a Desert Tortoise in a work area, all work in that area shall stop until the Desert Tortoise is relocated. An Authorized Biologist shall be on site or on call to relocate any desert tortoise found during work activities. The desert tortoise shall be monitored until the Authorized Biologist arrives.*

IV b-c) **Less Than Significant Impact With Mitigation Incorporated.** Based on the *General Biological Resources Assessment*, No observable washes or similar features occur on the mine site, except for small ruts that have formed on the slopes at the margins of the borrow pits. Several small unnamed intermittent "blue line" streams are depicted on the quadrangle map as tributaries to the dry lake bed, but none are in the vicinity of the project site, and none would be altered as part of the proposed project. As such, there is no surface runoff from the project site, which is an intrastate lake under the U.S. Army Corps of Engineers definitions.

However, the location of the project site on a dry lake bed may be subject to permitting requirements by the California Department of Fish and Wildlife (CDFG) under Section 1601-03 of the California Fish and Game Code or under the Porter-Cologne Act through the Regional Water Quality Control Board. Concurrently or following the County's approval of the project, a formal jurisdictional delineation of the washes on the project is recommended to determine if these features meet the criteria for jurisdictional waters or streambeds by the Regional Water Quality Control Board or the California Department of Fish and Wildlife. Results of the delineation should be provided in permit applications to see what (if any) regulatory jurisdiction will apply.

In addition, according to the *Preliminary Hydrology Study*, the project site is located within the Fairview Dry Lake and is impacted by several significant blue line streams/washes.

Mitigation Measure BIO-3 is required to address potential impacts to jurisdictional waters:

**BIO-3- Riparian Habitat/Wetlands:** *Prior to commencing mining activities or earth disturbing activities within any drainage courses, the project applicant shall prepare a Jurisdictional Delineation by a qualified biologist. Impacts to jurisdictional areas that are regulated by the CDFW and the RWQCB shall be mitigated at a 2:1 ratio through an off-site mitigation bank or the contribution of in-lieu fee program acceptable to the County of San Bernardino, CDFW, and RWQCB.*

IV d) **Less Than Significant Impact With Mitigation Incorporated.** To avoid impacts migratory and nesting birds, the following measures shall be implemented.

**BIO-4- Nesting Birds.** *Vegetation and habitat grading and removal shall not be scheduled during the bird nesting season (generally February 15 through August 1). If clearing of vegetation occurs within the nesting season, a pre-construction survey for nesting birds shall be conducted before any vegetation or ground disturbance activities occur. A minimum buffer of 250 feet should be placed around active nests within which construction activities would be restricted. When the nest is no longer active, either because the nest is abandoned or the young fledges have flown (as determined by a qualified biologist), construction activities could resume.*

- IV e) **No Impact:** Based on the *General Biological Resources Assessment*, most of the project site and surrounding area is devoid of perennial vegetation, due in part to the inhospitable nature of the dry lake bed and in part to habitat disturbance and degradation resulting from sheep grazing and off-highway vehicle use.
- IV f) **Less Than Significant Impact With Mitigation Incorporated.** The project area is located in the Western Mojave Plan. Compliance with Mitigation Measures BIO-1 ensures that the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.



| ISSUES  | Potentially<br>Significant<br>Impact   | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant | No<br>Impact             |
|---|--|---|--------------------------|--------------------------|
| <b>V. CULTURAL RESOURCES</b> - Would the project  |  |   |                          |                          |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?    | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?       | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                          | <input type="checkbox"/>   | <input checked="" type="checkbox"/>                       | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>SUBSTANTIATION</b>   | (Check if the project is located in the Cultural <input type="checkbox"/> or Paleontologic <input type="checkbox"/> Resources overlays or cite results of cultural resource review): |   |                          |                          |

V a-d **Less Than Significant Impact with Mitigation Incorporated.** The project is not expected to have an impact on cultural or paleontological resources. However, the following Mitigation Measure shall be implemented in the event that potentially sensitive cultural resources are uncovered during earthmoving.

**CR-1: The developer/property owner shall submit a letter to County Planning agreeing to adhere to the following requirements and shall include a note on the grading plans and in all construction contracts/subcontracts a provision that the project contractors shall also adhere to the following requirements:**

- In the event archaeological, paleontological and/or historical resources, including pottery, middens or human remains, are uncovered during earthmoving activities, all work in that area shall cease immediately and a qualified archeologist shall be retained to access the findings, and if necessary provide appropriate disposition of the resources. Earthmoving shall be diverted temporarily around the deposits until they have been evaluated, recorded, excavated, and/or recovered as necessary. Earthmoving shall be allowed to proceed on the site when the archaeologist, in consultation with the appropriate Native American Tribe(s) and the County of San Bernardino Museum, determines the resources are recovered to their satisfaction.***
- If possible human remains are encountered during any earthmoving activities, all work shall stop in the area in which the find(s) are present, and the San Bernardino County Coroner must be notified. State law dictates that the Native American Heritage Commission (NAHC) shall be notified in the event that remains are determined to be human and of Native American decent, in accordance with California Public Resources Code Section 5097.98.***



| ISSUES  | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|---|--------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>VI. GEOLOGY AND SOILS - Would the project:</b>   |                                      |   |                                     |                                     |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:  |                                      |   |                                     |                                     |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42 | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| ii. Strong seismic ground shaking?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iii. Seismic-related ground failure, including liquefaction?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iv. Landslides?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Result in substantial soil erosion or the loss of topsoil?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**SUBSTANTIATION**(Check ☐ if project is located in the Geologic Hazards Overlay District):

- VI a) ai) **Less Than Significant Impact.** A portion of the site is traversed by an active fault according to information obtained from the County's GIS system and the USGS Fault Maps. Fault rupture can be a potential hazard to structures and infrastructure but are not generally considered to be hazardous to open-pit mines.
- aii) **Less Than Significant Impact.** Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. Although the State Lands Commission Expansion Area Is located in the vicinity of an earthquake fault and the project site is to be used for a mining operation are seismic ground shaking is not generally considered to be hazardous to open-pit mines.

aiii) **Less Than Significant Impact.** According to the County General Plan Hazards Overlay Map the site is not located in an area susceptible to liquefaction. As noted, the proposed project would not build permanent structures or construct facilities with foundations that could fail as a result of liquefaction during an earthquake. Therefore, this impact is considered less than significant.

aiv) **Less Than Significant Impact.** According to the County General Plan Hazards Overlay Map the site is not located in an area susceptible to landslides. The proposed project would involve excavation to depths no greater than forty (40) feet below the existing ground elevation. In addition, the side slopes of the excavated area would not be steeper than 4:1 (H:V). Therefore, the project site would not be exposed to landslide hazard, and this impact would be less than significant.

- VI b) **Less Than Significant Impact.** Run-off resulting from direct precipitation and uncontrolled run-off from surrounding areas have the potential to cause minor erosion and deposition. All storm water discharge is regulated by the Colorado River Basin Regional Water Quality Control Board pursuant to site specific Storm Water Pollution Prevention Plans to manage soil erosion.

Control of surface drainage, erosion, and sedimentation of planned operations involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations.
- Diverting run-off from undisturbed areas around the active mining area as necessary.
- Using berms, ditches, sediment basins, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary.
- Stabilizing disturbed areas through grading or revegetation.

Due to the low precipitation, flat gradient of the topography, and sandy nature of the soil, drainage control does not present a significant impact. The revegetation program is designed to reestablish a self-sustaining native plant community upon the conclusion of mining. As excavations are finished they will be revegetated with a combination of transplanted plants, growth media and native plant seeds collected from adjacent areas or purchased from commercial suppliers. All disturbed area drainage would be retained within the project site; therefore, impacts are anticipated to be less than significant.

- VI c) **Less Than Significant Impact.** For the reasons stated in the response to Question VIa, land sliding is not anticipated. Mudflows are uncommon in the desert environment and are not anticipated.
- VI d) **No Impact.** The project site is not located in an area which has been identified by the County Building and Safety Geologist as having the potential for expansive soils. No impact is anticipated.
- VI e) **No Impact.** Septic tanks and/or alternative water supply systems are not proposed as part of the project. Therefore, no impacts are anticipated.

| Issues   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact             |
|--|--------------------------------------|---|-------------------------------------|--------------------------|
| <b>VII GREENHOUSE GAS EMISSIONS - Would the project:</b>   |                                      |   |                                     |                          |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?                    | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

## SUBSTANTIATION

- VII a) **Less Than Significant Impact.** In December 2011, the County of San Bernardino adopted the "Greenhouse Gas Emissions Reduction Plan" ("GHG Plan"). The purpose of the GHG Plan is to reduce the County's internal and external GHG emissions by 15 percent below current (2011) levels by year 2020 in consistency with State climate change goals pursuant to AB32. The GHG Plan has been designed in accordance with Section 15183.5 of the State CEQA Guidelines which provides for streamline review of climate change issues related to development projects when found consistent with an applicable greenhouse gas emissions reduction plan.

Section 5.6 of the GHG Plan identifies the procedures for reviewing development projects for consistency with the GHG Plan. The GHG Plan includes a two-tiered development review procedure to determine if a project could result in a significant impact related greenhouse gas emissions or otherwise comply with the Plan pursuant to Section 15183.5 of the State CEQA Guidelines. The initial screening procedure is to determine if a project will emit 3,000 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E) per year or more. Projects that do not exceed this threshold require no further climate change analysis but are required to implement mandatory reducing measures in the project's conditions of approval.

Projects exceeding this threshold must meet a minimum 31 percent emissions reduction in order to garner a less than significant determination. This can be met by either (1) achieving 100 points from a menu of mitigation options provided in the GHG Plan or (2) quantifying proposed reduction measures. Projects failing to meet the 31 percent reduction threshold would have a potentially significant impact related to climate change and greenhouse gas emissions.

According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use". "Moreover, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

A GHG emissions inventory was conducted for the project utilizing the California Emissions Estimator Model (CalEEMod) based on the equipment mix and number of haul trips associated with mining activities. GHG emissions will be released by equipment used for loading, grading, and compacting activities. CalEEMod estimates that the estimated annual emissions from mining activities would be 232.39 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>E) per year which is less

than the initial screening threshold of 3,000 MTCO<sub>2</sub>E per year. Projects that do not exceed this threshold require no further climate change analysis.

**Table 5. Project Greenhouse Gas (GHG) Emissions**

| Source                            | GHG Emissions MT/yr |                 |                 |                   |
|-----------------------------------|---------------------|-----------------|-----------------|-------------------|
|                                   | N <sub>2</sub> O    | CO <sub>2</sub> | CH <sub>4</sub> | CO <sub>2</sub> e |
| Operations                        | 0.00                | 230.98          | 0.07            | 232.39            |
| <b>TOTAL</b>                      |                     |                 |                 | <b>232.39</b>     |
| <b>County Screening Threshold</b> |                     |                 |                 | <b>3,000</b>      |
| <b>Exceed Threshold?</b>          |                     |                 |                 | <b>NO</b>         |

The following Performance Standards apply to all projects, including those that emit less than 3,000 MTCO<sub>2</sub>E/YR, and will be included as Conditions of Approval for the Project.

The following are the Performance Standards (Conditions of Approval) that are applicable to the project:

1. *The developer shall implement the following as greenhouse gas (GHG) mitigation during the operation of the approved project:*

*a) Waste Stream Reduction. The “developer” shall provide to all project employees County-approved informational materials about methods and need to reduce the solid waste stream and listing available recycling services.*

*b) Vehicle Trip Reduction. The “developer” shall provide to all project employees County approved informational materials about the need to reduce vehicle trips and the program elements this project is implementing. Such elements may include: participation in established ride-sharing programs, creating a new ride-share employee vanpool, designating preferred parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles with benches in waiting areas, and/or providing a web site or message board for coordinating rides.*

*c) Select construction equipment based on low-emissions factors and high-energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.*

*d) All construction equipment engines shall be properly tuned and maintained in accordance with the manufacturers specifications prior to arriving on site and throughout construction duration.*

- VII b) **Less Than Significant Impact.** The state and local regulatory programs for GHG emissions and climate change are described in the response to Question VIIa above. The Performance Standards described above will ensure that there would be no conflict with any applicable plan, policy, or regulation; therefore, impacts will be less than significant, and no mitigation would be required.

| ISSUES   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|--|--------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:</b>  |                                      |   |                                     |                                     |
| a) Create a significant hazard to the public or the Environment through the routine transport, use, or disposal of hazardous materials?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?  | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

## SUBSTANTIATION

- VII a-b) **Less Than Significant Impact with Mitigation Incorporated.** Mining and reclamation activities for the proposed project would involve the use of heavy equipment and vehicles containing fuel, oil, and grease. These fluids could leak from construction vehicles or be inadvertently released in the event of an accident, potentially releasing petroleum compounds and metals. Unless properly managed, such releases could result in adverse health effects, present an increased risk of fire or



explosion or contaminate exposed soil. This analysis assumes the routine use, storage, and disposal of hazardous materials during mining and reclamation would be in compliance with applicable regulations and codes.

Additional site-specific controls are recommended to ensure hazardous materials are not inadvertently released to the environment. This impact is considered less than significant with mitigation incorporated. Implementation of the following mitigation measure would reduce reclamation-related hazardous materials impacts to a less-than significant level:

***HAZ 1. All spills or leakage of petroleum products during mining or reclamation activities shall be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste shall be collected and disposed of at an appropriately licensed disposal or treatment facility.***

- VIII c) **Less Than Significant Impact.** The project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels, and lubricants. The operator would continue to comply with all applicable federal and state safety rules and regulations regarding hazardous materials. During operation, diesel exhaust would be generated by heavy construction equipment; however, no school facilities or proposed school facilities are located within one-quarter mile radius of the project site. Therefore, less than significant impact is anticipated.
- VIII d) **Less than Significant Impact.** The project site is not identified on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The operator would comply with all applicable federal and state safety rules and regulations regarding hazardous materials. Therefore, less than significant impact is anticipated.
- VIII e) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Map the project site is not located within 2 miles of a public use airport or within the Airport Safety Review Area of a public use airport. Therefore, the project would not result in safety hazard impacts to or from aircraft-related uses. No impact is anticipated.
- VIII f) **Less Than Significant Impact.** The project site is located within one (1) mile of the Holiday Ranch Airport which is located southeast of the project site. The Holiday Ranch Airport is a private use airport not open to the public. The dirt runway runs in a north-south direction and take off and landings take place east of the project site. As such, a safety hazard does not exist for people residing or working in the project area.
- VIII g) **No Impact.** Activities associated with the project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Therefore, implementation of the project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No impact is anticipated.
- VIII h) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Map, the project site is not located within a Fire Safety Overlay District. No impact is anticipated.

| ISSUES   | <i>Potentially<br/>Significant<br/>Impact</i> | <i>Less than<br/>Significant<br/>with<br/>Mitigation<br/>Incorp.</i> | <i>Less than<br/>Significant</i>    | <i>No<br/>Impact</i>                |
|--|---|--|-------------------------------------|-------------------------------------|
| <b>IX. HYDROLOGY AND WATER QUALITY - Would the project:</b>  |   |  |                                     |                                     |
| a) Violate any water quality standards or waste discharge requirements?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?   | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?   | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structure that would impede or redirect flood flows?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?   | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

## SUBSTANTIATION

The following analysis is based in part on the *Preliminary Hydrology Study and Flood Analysis, Sigma Clay Mine, October 2010* by Jay Gunther.

- IX a) **Less Than Significant Impact.** Run-off resulting from direct precipitation and uncontrolled run-off from surrounding areas have the potential to cause minor erosion and deposition. All storm water discharge is regulated by the Colorado River Basin Regional Water Quality Control Board pursuant to site specific Storm Water Pollution Prevention Plans to manage soil erosion.

Control of surface drainage, erosion, and sedimentation of planned operations involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations.
- Diverting run-off from undisturbed areas around the active mining area as necessary.
- Using berms, ditches, sediment basins, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary.
- Stabilizing disturbed areas through grading or revegetation.

Due to the low precipitation, flat gradient of the topography, and sandy nature of the soil, drainage control does not present a significant impact. The revegetation program is designed to reestablish a self-sustaining native plant community upon the conclusion of mining. As excavations are finished they will be revegetated with a combination of transplanted plants, growth media and native plant seeds collected from adjacent areas or purchased from commercial suppliers. All disturbed area drainage would be retained within the basins and low-lying areas; therefore, impacts are anticipated to be less than significant.

- IX b) **Less Than Significant Impact.** Sigma Clay Mine project only requires water for dust suppression. No on-site water production wells exist or are planned for the future and water will be imported to the site via 4,000 gallon over-the-road water trucks. Drinking water will be supplied to employees for consumption. No contaminants such as processing chemicals, detergents, acid drainage, fuel. Oil or gasoline will be exposed to water flows on site throughout the life of the project.
- IX c-f) **Less Than Significant Impact.** The project site is located near the low point of the existing Fairview Dry Lake Bed which acts as a large regional basin for the watershed. This basin has a total capacity of approximately 7,879 acre-feet, and fills to a natural spillway water surface elevation of approximately 3,196 feet prior to discharging to the south. As such, 100% of the total 100-year, 24-hour runoff volume of 3,795 acre-feet, and 100% of the total 100-year, 5-day runoff volume of 6,740 acre-feet, is contained within the basin. Therefore, less than significant impact is anticipated.
- IX g/h) **No Impact.** The project site does not occur within a 100-year flood plain, nor does it include the construction of housing or would place housing within a flood plain. No impacts are anticipated.
- IX i) **No Impact.** The project site and surrounding area is located outside of any designated dam inundation area. The project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, as no levee or dam is proposed as part of the this project. Therefore, no impacts are anticipated.
- IX j) **No Impact.** A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. As the project site is not located adjacent to any body of water that has the potential of seiche or tsunami, no impacts are anticipated.

| X. LAND USE AND PLANNING - Would the project: |  |                          |                                     |                                     |                                     |
|---|--|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a)  | Physically divide an established community?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b)  | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| c)  | Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

### SUBSTANTIATION

- X a) **No Impact.** The project site is surrounded by vacant desert land. The proposed project is consistent with the County General Plan and would not physically divide an established community. No impact is anticipated.
- X b) **Less Than Significant Impact with Mitigation Incorporated.** The analysis contained in this Initial Study Checklist addressed the potential conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect. Based on this analysis, it was determined that the project could potentially have significant impacts on the following:
- Biological Resources (migratory birds, desert tortoise, jurisdictional waters) Mitigation Measures BIO-1 through BIO-4 are required to ensure that the project impacts to these biological resources are less than significant.
  - Cultural Resources. Mitigation Measure CR-1 is required to ensure that the project impacts to cultural resources is less than significant.
  - Hazardous Materials (vehicle lubricants). Mitigation Measure HAZ-1 is required to ensure that the project impacts to from spills is less than significant.

Based on the above, it can be determined that the project is not in conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

- X c) **Less Than Significant Impact.** The project area is located in the Western Mojave Plan. Compliance with Mitigation Measures BIO-1 through BIO-4 ensures that the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

| ISSUES  | Potentially<br>Significant<br>Impact  | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant | No<br>Impact                        |
|---|---|---|--------------------------|-------------------------------------|
| <b>XI. MINERAL RESOURCES</b> - Would the project:   |   |   |                          |                                     |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SUBSTANTIATION</b>   | (Check <input checked="" type="checkbox"/> if project is located within the Mineral Resource Zone Overlay): |   |                          |                                     |

XI a-b) **No Impact.** The California Geological Survey (formerly the Division of Mines and Geology) has mapped the site as MRZ-2 for clay mineral resources. MRZ-2 are areas where adequate information indicates significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. Classification is based on geologic and economic factors without regard to existing land use and land ownership. Within the classifications, "MRZ-2" is defined as areas that contain identified mineral resources. The project would supply clay to the region. Therefore, the project would not result in the loss of availability of a mineral resource that would be of value to the region and the residents of the State. Therefore, no impacts are anticipated.

Once mined, a measurement of this resource will be depleted; however, the proposed project is consistent with the County's policy that protects the current and future availability of mineral resources. The primary goal in evaluating a land use that does not include mineral extraction activities is to ensure that the mineral potential of land is recognized and that decision-makers do not preclude the conservation, potential for development and use of the valuable mineral resources including water. Regulation and reclamation of the proposed project site as required by the Surface Mining and Reclamation Act of 1975 (SMARA) will permit the continued availability of the mineral resources and provide for the protection and subsequent beneficial use of those mineral resources while minimizing impacts on the public and the environment.



| ISSUES  | Potentially<br>Significant<br>Impact  | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|---|---|---|-------------------------------------|-------------------------------------|
| <b>XII. NOISE - Would the project:</b>  |   |   |                                     |                                     |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  | <input type="checkbox"/>  | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>SUBSTANTIATION</b>   | (Check if the project is located in the Noise Hazard Overlay District <input type="checkbox"/> or is subject to severe noise levels according to the General Plan Noise Element <input type="checkbox"/> ): |   |                                     |                                     |

XII a,c,d) **No Impact.** Approval of the project would require operations to conform to all applicable noise control regulations. There are no nearby noise sensitive land uses within the vicinity of the project Site. Therefore, no impacts are anticipated.

XII b) **Less Than Significant.** Approval of the project would require operations to conform to all applicable noise control regulations. There are no nearby noise sensitive land uses within the vicinity of the project Site. Mining activities would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. Therefore, less than significant impact is anticipated.

XII e/f) **No Impact.** The project site is not located within an airport land use plan nor within two miles of a public airport or public use airport, or within the vicinity of a private airstrip, that would expose people at the project Site to excessive noise levels. Therefore, impacts from airport-related noise are not anticipated.

| ISSUES  | <i>Potentially<br/>Significant<br/>Impact</i> | <i>Less than<br/>Significant<br/>with<br/>Mitigation<br/>Incorp.</i> | <i>Less than<br/>Significant</i> | <i>No<br/>Impact</i>                |
|---|---|--|----------------------------------|-------------------------------------|
| <b>XIII. POPULATION AND HOUSING - Would the project:</b>  |   |  |                                  |                                     |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |

#### SUBSTANTIATION

- XIII a) **No Impact.** The project would not induce substantial population growth in the area either directly or indirectly because the project consists of a mining operation that will operate with a minimal amount of employees. In addition, the duration of the operation is approximately 40 years after which time the site will be reclaimed and returned to open space use. No impacts are anticipated.
- XIII b) **No Impact.** The proposed use would not displace substantial numbers of existing housing units, or require the construction of replacement housing, as no housing units exist on the site.
- XIII c) **No Impact.** Implementation of the project would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere, as no housing exists on the project site.

| ISSUES  | <i>Potentially<br/>Significant<br/>Impact</i> | <i>Less than<br/>Significant<br/>with<br/>Mitigation<br/>Incorp.</i> | <i>Less than<br/>Significant</i> | <i>No<br/>Impact</i>                |
|---|---|--|----------------------------------|-------------------------------------|
| <b>XIV. PUBLIC SERVICES</b>   |   |  |                                  |                                     |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: |   |  |                                  |                                     |
| Fire Protection?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |
| Police Protection?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |
| Schools?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |
| Parks?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |
| Other Public Facilities?  | <input type="checkbox"/>                      | <input type="checkbox"/>   | <input type="checkbox"/>         | <input checked="" type="checkbox"/> |

#### SUBSTANTIATION

- XIV a) **No Impact.** The project would not result substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, or hinder acceptable service ratios, response times or other performance objectives for any of the public services, including fire and police protection, schools, parks or other public facilities because the project consists of a mining operation with no permanent improvements proposed. After mining operations, the site would consist of vacant land. Therefore, no impacts are anticipated.

| ISSUES   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant | No<br>Impact                        |
|--|--------------------------------------|---|--------------------------|-------------------------------------|
| <b>XV. RECREATION</b>  |                                      |   |                          |                                     |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?                       | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>SUBSTANTIATION</b>  |                                      |   |                          |                                     |

XV a/b) **No Impact.** Approval of the project would not generate the need off new jobs or housing which would induce population growth in adjacent areas, and ultimately increase the use of park facilities or other recreational facilities in the region. No impacts are anticipated.

| ISSUES   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|--|--------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>XVI. TRANSPORTATION/TRAFFIC - Would the project:</b>  |                                      |   |                                     |                                     |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit)? | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

## SUBSTANTIATION

- XVI a-b) **Less Than Significant Impact.** Because the project is forecast to generate less than 50 Peak Hour Trips it is not forecast to reduce the Level of Service on the surrounding street network. Impacts would be less than significant.
- XVI c) **No Impact.** Mining activities would not affect air traffic patterns at any airport or airstrip. No impacts are anticipated.
- XVI d) **No Impact.** The project does not involve any road improvements or design features that could substantially increase hazards on public roads. Primary access will remain off Johnson Road. Therefore, a less than significant impact is anticipated.
- XVIe/g) **No Impact.** Activities associated with the project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. In addition, no road closures would be required. The project would not involve any long-term increase in traffic that would conflict with adopted policies, plans, or programs supporting alternative transportation. No impacts would result.



| ISSUES       |   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact                        |
|--------------|---|--------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>XVII.</b> | <b>UTILITIES AND SERVICE SYSTEMS - Would the project:</b>   |                                      |   |                                     |                                     |
| a)           | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b)           | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                             | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c)           | Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                      | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d)           | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e)           | Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f)           | Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g)           | Comply with federal, state, and local statutes and regulations related to solid waste?  | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

### SUBSTANTIATION

- XVII a/e) **No Impact.** The project would not require sewer collection or treatment services and therefore no off-site discharge of treated wastewater would occur. No impacts related to wastewater treatment are anticipated.
- XVII b) **No Impact.** Water will be imported to the project site. Up to 4,000 gallons per day will be used for dust suppression. Therefore, no impacts related to expanding a water treatment or distribution system would occur.
- XVII c) **Less Than Significant Impact.** Natural drainage flow consists of dry lake sheet flow generally from north to south. The active excavation will provide for complete storm water retention during storm events. Erosion will be managed by the installation of a swale, berm, and culvert system. The drainage system will not cause significant environmental effects as shown in the analysis in this Initial Study Checklist.

- XVII d,e) **Less Than Significant Impact.** Water will be imported to the site. Approximately 4,000 gallons per day is used for dust suppression and will permeate into the water table. Therefore, water supplies will not be adversely impacted.
- XVII f, g) **Less Than Significant Impact.** Mining activities would result in waste generation of waste materials. These materials will be used to reconstruct slopes. Any waste material not used will be re-contoured and/or spread over the site as part of the reclamation process. Equipment maintenance will be done onsite. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities. All solid refuse will be kept in closed containers and removed from the site to permitted facilities as needed. The amount of solid waste is minimal and is not forecast to impact nearby landfills.

| ISSUES   | Potentially<br>Significant<br>Impact | Less than<br>Significant<br>with<br>Mitigation<br>Incorp. | Less than<br>Significant            | No<br>Impact             |
|--|--------------------------------------|---|-------------------------------------|--------------------------|
| <b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:</b>  |                                      |   |                                     |                          |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <input type="checkbox"/>             | <input type="checkbox"/>                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>                       | <input type="checkbox"/>            | <input type="checkbox"/> |
| <b>SUBSTANTIATION</b>  |                                      |   |                                     |                          |

- a) **Less Than Significant Impact With Mitigation Incorporated.** Based on the analysis contained in this Initial Study, impacts to Aesthetics, Agriculture and Forestry Resources, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Transportation and Traffic, are considered as having a less than significant or no impact on the environment.

The results of the Initial Study show that there are potentially significant impacts to Biological Resources, Cultural Resources, and Hazardous Materials. These impacts will be reduced to less than significant after incorporation of mitigation measures. Therefore the project will not degrade the quality of the environment and no habitat, wildlife populations, or plant and animal communities would be impacted.

- b) **Less Than Significant Impact.** The analysis in this Initial Study Checklist demonstrated that the project is in compliance with all applicable regional plans including but not limited to, water quality control plan, air quality maintenance plan, and plans or regulations for the reduction of greenhouse gas emissions. Compliance with these regional plans serves to reduce impacts on a regional basis so that the Project would not produce impacts, that considered with the effects of other past, present, and probable future projects, would be cumulatively considerable.
- c) **Less Than Significant Impact With Mitigation Incorporated.** As discussed this Initial Study Checklist, the project would not expose persons to adverse impacts related to Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Population and Housing, or Transportation/Traffic hazards. These impacts were identified to have no impact or a less than significant impact.

The implementation of the Mitigation Measures identified in this Initial Study Checklist would result in a less than significant impact and there would be no substantial adverse effects on human beings, either directly or indirectly.

**XVIII MITIGATION MEASURES. Include mitigation measures here.**

(Any mitigation measures which are not 'self-monitoring' shall have a Mitigation Monitoring and Reporting Program prepared and adopted at the time of project approval)

***AQ-1: The Project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.***

***AQ-2: Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading and mining activity on the site. Portions of the site that are actively being mined shall be watered to ensure that a crust is formed on the ground surface, and shall be watered at the end of each workday.***

***AQ-3: The Project proponent shall ensure that all disturbed areas are treated to prevent erosion.***

***AQ-4: The Project proponent shall ensure that all mining and processing activities are suspended when winds exceed 25 miles per hour.***

***AQ-5: During operation, street sweeping will be conducted at least daily, and as needed, along site access roadways to remove dirt dropped by vehicles. Site access driveways and adjacent streets will be washed if there are visible signs of any dirt track-out at the conclusion of any work day.***

***AQ-6: All equipment used for mining and construction must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.***

***AQ-7: The operator shall maintain and effectively utilize and schedule on-site equipment and on-site and off-site haul trucks in order to minimize exhaust emissions from truck idling.***

***AQ-8: The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.***

***AQ-9: This facility must handle all material (raw, byproducts, and finish materials) so as not to cause a Nuisance (odors) per District Rule 402.***

***AQ-10: A Blue Smoke Control filter cartridge will be used in this project to mitigate for the blue smoke.***

***BIO-1- Pre-Construction Survey. Utilizing accepted protocols, within 30 days prior to initiating mining activities, a pre-construction survey shall be conducted for sensitive species identified in the Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010 by Leatherman Bioconsulting and the Update to the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise, by Hernandez Environmental Services, June 23, 2014. that may have established themselves on the project site. A clearance letter shall be provided to the Planning Department/ County's Mining and Engineering Geologist prior to initiating mining activities,***

**BIO-2- Desert Tortoise. The following measures shall be implemented:**

- a. **The Applicant shall provide an information sheet to all persons who will work on-site during mining activities.**
- b. **A litter control program shall be instituted. The program includes the direction to all workers to eliminate food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area and to maintain covered trash containers that are regularly removed from the project site. All trash and food items should be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and disposed of in a licensed disposal facility on a regular basis.**
- c. **Any desert tortoises observed during any phase of the project should be left to move out of the way on its own. Handling of desert tortoises is not authorized.**
- d. **Workers should inspect for desert tortoises under vehicles and equipment prior to moving them. If a desert tortoise is present, the worker should carefully move the vehicle or equipment only when necessary or should wait for the desert tortoise to move out from under the vehicle or equipment.**
- e. **Only an Authorized Biologist(s) shall be allowed to handle tortoises. The Authorized Biologist(s) shall have a Memorandum of Understanding (MOU) with the CDFW for handling tortoises.**
- f. **Upon discovery of a Desert Tortoise in a work area, all work in that area shall stop until the Desert Tortoise is relocated. An Authorized Biologist shall be on site or on call to relocate any desert tortoise found during work activities. The desert tortoise shall be monitored until the Authorized Biologist arrives.**

**BIO- 3- Riparian Habitat/Wetlands. Prior to commencing mining activities or earth disturbing activities within any drainage courses, the project applicant shall prepare a Jurisdictional Delineation by a qualified biologist. Impacts to jurisdictional areas that are regulated by the CDFW and the RWQCB shall be mitigated at a 2:1 ratio through an off-site mitigation bank or the contribution of in-lieu fee program acceptable to the County of San Bernardino, CDFW, and RWQCB.**

**BIO- 4- Nesting Birds. Vegetation and habitat grading and removal shall not be scheduled during the bird nesting season (generally February 15 through August 1). If clearing of vegetation occurs within the nesting season, a pre-construction survey for nesting birds shall be conducted before any vegetation or ground disturbance activities occur. A minimum buffer of 250 feet should be placed around active nests within which construction activities would be restricted. When the nest is no longer active, either because the nest is abandoned or the young fledges have departed (as determined by a qualified biologist), construction activities could resume.**

**CR-1 Cultural Resources: The developer/property owner shall submit a letter to County Planning agreeing to adhere to the following requirements and shall include a note on the grading plans and in all construction contracts/subcontracts a provision that the project contractors shall also adhere to the following requirements:**

- **In the event archaeological, paleontological and/or historical resources, including pottery, middens or human remains, are uncovered during earthmoving activities, all work in that area shall cease immediately and a qualified archeologist shall be retained to access the findings, and if necessary provide appropriate disposition of the resources. Earthmoving shall be diverted temporarily around the deposits until they have been evaluated, recorded, excavated, and/or recovered as necessary. Earthmoving shall be allowed to proceed on the site when the archaeologist, in consultation with**



***the appropriate Native American Tribe(s) and the County of San Bernardino Museum, determines the resources are recovered to their satisfaction.***

- ***If possible human remains are encountered during any earthmoving activities, all work shall stop in the area in which the find(s) are present, and the San Bernardino County Coroner must be notified. State law dictates that the Native American Heritage Commission (NAHC) shall be notified in the event that remains are determined to be human and of Native American decent, in accordance with California Public Resources Code Section 5097.98.***

***HAZ 1. All spills or leakage of petroleum products during mining or reclamation activities shall be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste shall be collected and disposed of at an appropriately licensed disposal or treatment facility.***

### **GENERAL REFERENCES**

CEQA Guidelines, Appendix G.

County of San Bernardino General Plan, 2007

County of san Bernardino Development Code, 2007

County of San Bernardino Greenhouse Gas Emissions Reduction Plan, September 2011

Mojave Desert Air Quality Management District California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2011.

### **PROJECT SPECIFIC REFERENCES**

*Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010 by Leatherman Bioconsulting*

*Update to the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise, by Hernandez Environmental Services, June 23, 2014.*

*Preliminary Hydrology Study and Flood Analysis, Sigma Clay Mine, October 2010 by Jay Gunther.*

*Revegetation Plan for the Sigma Clay Mine, January 2013, by Regulatory Permitting Specialists*

## EXHIBIT B

### Findings

**FINDINGS required for approval of the Revised Mining Conditional Use Permit and Reclamation Plan on 40.8 acres (APN: 0464-022-54, CA Mine ID# 91-36-0111).**

General findings for the Conditional Use Permit shall first find and justify that all of the following are true before approval pursuant to the Development Code Section 85.06.040:

1. The site for the proposed use is adequate in terms of shape and size to accommodate the proposed use and all landscaping, truck loading areas, open spaces, parking areas, setbacks, walls and fences, yards and other required features pertaining to the application. The mine development to 40 feet bgs within the proposed 40.8-acre mine site conforms to all the requirements of the Development Code for the proposed use and incorporates the necessary conditions to safe guard the public health, safety and welfare, including biological, hydrology and reclamation conditioning to ensure the site is reclaimed in accordance with the adopted Reclamation Plan.
2. The site for the proposed use has adequate access, which means that the site design incorporates appropriate street and highway characteristics to serve the proposed use. The project site has adequate access utilizing an existing BLM Right-of-Way from Johnson Road, then southerly along an unnamed public access dirt road which leads to the mine's entrance at the northwestern portion of the site. The road is accessible and is designed to accommodate a Through Truck Route.
3. The proposed use will not have a substantial adverse effect on abutting property or the allowed use of the abutting property, which means that the use will not generate excessive noise, traffic, vibration, or other disturbance. The project is located in a remote area surrounded by vacant properties. In addition, the use will not substantially interfere with the present or future ability to use solar energy systems. The proposed mining operation and project improvements have been designed to incorporate the necessary mitigation and improvements to comply with SMARA and addresses comments offered by the State's Office of Mining and Reclamation (OMR).
4. The proposed use and manner of development are consistent with the goals, maps, policies and standards of the General Plan and any applicable community or specific plan. The proposed site plan together with the provisions for the mine's excavation and reclamation are consistent with the County General Plan and allowed within Floodway/Rural Living (RL-20) land use designation. The Project specifically implements the following goals:

General Plan Goal CO 7: The County will protect the current and future extraction of mineral resources that are important to the County's economy while minimizing impacts of this use on the public and the environment.

GOAL LU 7. The distribution of land uses will be consistent with the maintenance of environmental quality, conservation of natural resources, and the preservation of open spaces.

GOAL ED 7. The County will conserve mineral resources for extractive industries.

The Project Site is designated by the State as land on which a known mineral or aggregate deposit exists. This designation applied to the Project site was determined by the State Geologist and the State Mining & Geology Board as being a resource of regional significance, and is intended to help maintain and protect extractive operations from encroachment from incompatible land uses.

General Plan GOAL LU 9. Development will be in a contiguous manner as much as possible to minimize environmental impacts, minimize public infrastructure and service costs, and further countywide economic development goals.

5. There is supporting infrastructure, existing or available, consistent with the intensity of development, to accommodate the proposed development without significantly lowering service levels. Since mineral extraction must take place on the physical site where the minerals naturally occur, special controls are needed to minimize conflicts with other land uses. The site is in a remote rural location sufficiently isolated from incompatible residential and commercial uses and where mining has operated for over twenty-five years. In that existing mining is predominately confined to the original property limits approved in 1992, no additional supporting infrastructure is required.
6. The lawful conditions stated in the approval are deemed reasonable and necessary to protect the overall public health, safety and general welfare. The conditions of approval include measures to mitigate biological impacts, air quality impacts, cultural resources impacts, green house gas impacts hydrology and water impacts while implementing recommended performance standards that protect the overall public health, safety and general welfare of people and the environment.
7. The design of the site has considered the potential for the use of solar energy systems and passive or natural heating and cooling opportunities.
8. The Initial Study and the related Mitigated Negative Declaration have been prepared in compliance with the California Environmental Quality Act (CEQA) and represent the independent judgment of the County acting as lead agency for the project.

All of the above general findings are true and justify staff recommending approval.

**FINDINGS for the Revised Mining Conditional Use Permit and Reclamation Plan (Reclamation Plan) on 40.8 acres (APN: 0464-022-54, CA Mine ID# 91-36-0111)**

In addition to the findings required by the Development Code Chapter 85.06 (Conditional Use Permits/Minor Use Permits), Section 88.03.060(k)(2) requires that the following findings must be made in the affirmative in order to approve the project's Reclamation Plan:

1. The Reclamation Plan No. 92M-04 as conditioned complies with SMARA (Public Resources Code Sections 2772-2773 and any other applicable provisions).
2. The Reclamation Plan as conditioned complies with applicable requirements of the State Mining & Geology Board regulations (California Code of Regulations Sections 3500-3505 and 3700-3713).
3. The Reclamation Plan and the potential end use of land reclaimed as conditioned is in compliance with the Reclamation Plan and are consistent with the Development Code, General Plan and any applicable resource plan or element.
4. The Reclamation Plan has been reviewed in compliance with CEQA and the County's environmental review guidelines, and all significant adverse impacts from reclamation of the surface mining operations are mitigated below a level of significance or to the maximum extent feasible.
5. The land and/or resources, such as water will be reclaimed to a condition that is compatible with, and blends in with, the surrounding natural environment, topography, and other resources.
6. The Reclamation Plan as conditioned will reclaim the mined lands to a usable condition which is readily adaptable for alternative land uses consistent with the General Plan and applicable resource plan. With regard to this project, open space.
7. The County has responded to comments and recommendations raised by the State Department of Conservation (DOC) in their review of the project's revised Reclamation Plan in their comment letter dated September 10, 2014. In a letter dated September 25, 2014, DOC informed the County that with the exception of two comments which the County has addressed as part of the project's conditions of approval; therefore, comments raised by the DOC's Office of Mine Reclamation have been addressed.

All of the findings are made in the affirmative and staff recommends approval.



## EXHIBIT C

### Conditions of Approval

## CONDITIONS OF APPROVAL

### GENERAL REQUIREMENTS: PROCEDURAL CONDITIONS OF APPROVAL

#### LAND USE SERVICES DEPARTMENT - (909) 387-4105

1. This conditional approval is for Mining and Reclamation Plan No. 92M-04 for the **Sigma Clay Mine**: to approve a revised mining conditional use permit and reclamation plan that will allow continued mining of the existing quarry pit up to a depth of forty (40) feet below ground surface. The site is located in Fairview Valley in the southern desert region of central San Bernardino County and lies approximately eight (8) miles northeast of Highway 18 and the town of Apple Valley and approximately 8.5 miles southeast of Interstate 15. The surface mining operations will operate and reclaim 36.4 acres of disturbance within a 40.8 acre parcel, APN 0464-022-54. A copy of Mining and Reclamation Plan No. 92M-04 shall be kept on site during active operations at all times. Any alteration or expansion of these facilities or increase in the developed area of the site from that shown on the final approved plot plans may require submission of an additional application for review and approval.
  
2. The revised Mining and Reclamation Plan No. 92M-04 shall be effective for a period of **forty (40) years** from the date of approval or until **December 31, 2054**. After the reclamation activities have been completed, the site will return to vacant open space managed by the legal owners.
  
3. The San Bernardino County Land Use Services Department shall be notified in writing, within 30 days, about any:
  - A) Change in operating procedures, or inactive periods of operation for one (1) year or more.
  - B) Changes of Company ownership, address, or telephone during the life of the Conditional Use Permit or Reclamation Plan.
  - C) Any changes to provisions in lease agreements or real property that will affect the approved Mining and Reclamation Plan.
  
4. The approved Mining and Reclamation Plan shall be bound in a 3-ring notebook and shall incorporate the approved mining plans, Hydrology Study & Flood Analysis dated October 2010, Survey Results for Potential Piping at Sigma Clay Mine Dated July 15, 2010, Biological Resources Assessment and Focused Survey for Desert Tortoise Sigma Clay Mine dated August 27, 2010, including

Biological Resources Update Letter dated June 23, 2014 and Revegetation Plan for the Sigma Clay Mine dated January 2013 and Conditions of Approval. The Reclamation Plan shall be kept at the site at all times during operations and be presented to the inspector upon request.

5. The applicant/operator shall ascertain and comply with requirements of all Federal, State, County, and Local agencies as are applicable to the project areas. They include, but are not limited to: the San Bernardino County Departments of Planning, Environmental Health Services, Transportation/Flood Control, Fire Warden, Building and Safety, Bureau of Land Management, Mojave Desert Air Quality Management District, State Fire Marshall, Colorado River Basin Regional Water Quality Control Board, CalTrans District 8, California Department of Fish and Game, State Mining and Geology Board, U.S. Fish and Wildlife Service, Mine Safety and Health Administration (MSHA), the California Occupational Safety and Health Administration (Cal-OSHA), and California Highway Patrol.
6. In compliance with the County Development Code, Section 81.01.070, the applicant shall agree, to defend, indemnify, and hold harmless the County or its "indemnitees" (herein collectively the County's elected officials, appointed officials (including Planning Commissioners), Zoning Administrator, agents, officers, employees, volunteers, advisory agencies or committees, appeal boards or legislative body) from any claim, action, or proceeding against the County or its indemnitees to attack, set aside, void, or annul an approval of the County by an indemnitee concerning a map or permit or any other action relating to or arising out of County approval, including the acts, errors or omissions of any person and for any costs or expenses incurred by the indemnitees on account of any claim, except where such indemnification is prohibited by law. In the alternative, the applicant may agree to relinquish such approval.

Any condition of approval imposed in compliance with the County Development Code or County General Plan shall include a requirement that the County acts reasonably to promptly notify the applicant of any claim, action, or proceeding and that the County cooperates fully in the defense. The applicant shall reimburse the County and its indemnitees for all expenses resulting from such actions, including any court costs and attorney fees, which the County or its indemnitees may be required by a court to pay as a result of such action.

The County may, at its sole discretion, participate at its own expense in the defense of any such action, but such participation shall not relieve the applicant

of their obligations under this condition to reimburse the County or its indemnitees for all such expenses.

This indemnification provision shall apply regardless of the existence or degree of fault of indemnitees. The applicant's indemnification obligation applies to the indemnitees' "passive" negligence but does not apply to the indemnitees' "sole" or "active" negligence or "willful misconduct" within the meaning of Civil Code Section 2782.

7. The applicant/operator shall maintain an acceptable form of financial assurance for the reclamation plan and conditions of approval. The financial assurance shall identify the County of San Bernardino and the Department of Conservation as the beneficiaries. Any withdrawals made by the County for reclamation shall be re-deposited by the applicant/operator within 30 days of notification.

The financial assurance shall be calculated based on a cost estimate submitted by the applicant/operator and approved by the County and the Department of Conservation, Office of Mine Reclamation for the approved reclamation procedures. Each year, following the annual mine site inspection, the assurance amount shall be reviewed and, if necessary, adjusted to account for new lands disturbed by surface mining operations, inflation and reclamation of lands accomplished in accordance with the approved Reclamation Plan.

The financial assurance is not established to replace the applicant's/operator's responsibility for reclamation, but to assure adequate funding to complete reclamation per the Reclamation Plan and Conditions of Approval. Should the applicant/operator fail to perform or operate within all of the requirements of the approved Reclamation Plan, the County or Department of Conservation will follow the procedures outlined in Sections 2773.1 and 2774.1 of the Surface Mining and Reclamation Act (SMARA) regarding the encashment of the assurance and applicable administrative penalties, to bring the applicant/operator into compliance. The requirements for the assurance will terminate when reclamation of the site has been completed in compliance with the approved Reclamation Plan and accepted by the County and the Department of Conservation, Office of Mine Reclamation pursuant to California Code of Regulations, Section 3805.5.

8. The applicant/operator shall submit a report summarizing the past year's mining and reclamation activity to the Department of Conservation, Office of Mine Reclamation and the Land Use Services Department each year. Mine site

inspections will occur in conjunction with the annual report or at other times as appropriate.

9. As determined necessary on a case by case basis, the applicant shall deposit funds with the County necessary to compensate staff time and expenses for review of compliance monitoring reports and site inspections.
10. If the operation or Mine Reclamation Plan procedures change from those outlined in the revised Mining and Reclamation Plan No. 92M-04, the applicant/operator shall file an amendment and secure approval before such changes can be made effective.
11. Per the submitted application materials, blasting is NOT a part of this approval. As such, no explosives shall be stored on-site.
12. All conditions of this revised Mining and Reclamation Plan are continuing conditions. Failure of the applicant/operator to comply with any or all of said conditions at any time could result in the revocation of the permit granted to use the property.
13. The Army Corp. of Engineers (COE) regulates discharge of dredged fill materials into Waters of the United States pursuant to Section 404 of the Clean Water Act. If the COE agrees that the delineated waters on the site are jurisdictional and the project will result in the discharge of materials into waters of the United States, a 404 permit may be required and will need to be obtained from the Los Angeles COE District Office. A pre-construction notification should be submitted to the COE District office early in the environmental process.
14. The Regional Water Quality Control Board (RWQCB) regulates discharge to surface waters under the Clean Water Act (CWA) and the California Porter-Cologne Water Quality Act; therefore, a Section 401 permit may be required in conjunction with the 404 permit, if the COE concurs that the site supports waters of the United States. Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. A Section 401 water quality certification may be required as part of the approval by the COE if a 404 permit is deemed necessary by the COE.
15. The applicant/operator shall process a Condition Compliance Review through the County in accordance with the direction stated in the Conditional Approval letter, for verification of conditions for each phase of the project as approved in the



Reclamation Plan. A minimum balance of \$1,200.00 must be in the project account at the time the Condition Compliance Review is initiated. NOTE: Sufficient funds must remain in the account to cover the charges during the Compliance Review for each phase.

16. Prior to issuance of the approved Permits, all fees due under actual cost job No. *AP20120001* shall be paid in full.
17. Implementation of the mitigation measures required for this project shall be verified according to the methods identified in the Mitigation Monitoring and Compliance Program. Planning verification of compliance shall be requested through submittal of a Mitigation Monitoring and Compliance Application along with the required fee deposit. A qualified third party consultant with experience in mine operations shall do mitigation monitoring compliance verification to be funded by the applicant/operator. Annual reports shall be prepared by the operator that summarizes compliance with regulatory agency monitoring requirements and submitted to Land Use Services by Oct 1<sup>st</sup> of each year.
18. Deposit accounts with the County shall be funded prior to review of all required mitigation monitoring plans and reports, financial assurance estimates, and conduct of annual inspections.
19. Transportation and delivery of materials should be conducted primarily during daylight hours only and restricted per BLM requirements if applicable.

**PRIOR TO LAND DISTURBANCE, THE FOLLOWING CONDITIONS SHALL BE MET:**

LAND USE SERVICES DEPARTMENT, PLANNING - (909) 387- 4105

20. Prior to disturbance, the Mining and Reclamation Plan texts and maps shall be revised to reflect the project as approved by the Planning Commission. The revision will undergo technical review by County staff and the Office of Mine Reclamation (OMR), and shall also be amended to incorporate comments per Office of Mine Reclamation letter dated **September 25, 2014** to the extent stated in the County's response letter to OMR dated **September 10, 2014**.
21. The applicant/operator shall maintain County-approved financial assurances to assure that adequate funding is available to complete reclamation per the Reclamation Plan and Conditions of Approval. The financial assurance shall

identify the County and the Department of Conservation as the beneficiaries on approved forms.

**PRIOR TO OPERATION, THE FOLLOWING CONDITIONS SHALL BE MET:**

LAND USE SERVICES DEPARTMENT, PLANNING - (909) 387- 8311

22. *AQ-1. The project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.*
23. *AQ-2. Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading and mining activity on the site. Portions of the site that are actively being mined shall be watered to ensure that a crust is formed on the ground surface, and shall be watered at the end of each workday.*
24. *AQ-3. The Project proponent shall ensure that all disturbed areas are treated to prevent erosion.*
25. *AQ-4. The Project proponent shall ensure that all mining and processing activities are suspended when winds exceed 25 miles per hour.*
26. *AQ-5. During operation, street sweeping will be conducted at least daily, and as needed, along site access roadways to remove dirt dropped by vehicles. Site access driveways and adjacent streets will be washed if there are visible signs of any dirt track-out at the conclusion of any work day.*
27. *AQ-6. All equipment used for mining and construction must be tuned and maintained to the manufacture's specification to maximize efficient burning of vehicle fuel.*
28. *AQ-7. The operator shall maintain and effectively utilize and schedule on-site equipment and on-site and off-site haul trucks in order to minimize exhaust emissions from vehicle idling.*
29. *AQ-8. The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.*

30. *AQ-10. This facility must handle all material (raw, byproducts, and finish materials) so as not to cause a Nuisance (odors) per District Rule 402.*
31. *AQ-11. A Blue Smoke Control filter cartridge will be used in this project to mitigate for the blue smoke.*
32. **BIO-1 Pre-Construction Survey.** *Utilizing accepted protocols, within 30 days prior to initiating mining activities, a pre-construction survey shall be conducted for sensitive species identified in the Biological Resources Assessment and Focused Survey for the Desert Tortoise, Sigma Clay Mine, August 27, 2010 by Leatherman Bioconsulting and the Update to the Sigma Clay Mine Biological Resources Assessment and Focused Survey for Desert Tortoise, by Hernandez Environmental Services, June 23, 2014, that may have established themselves on the project site. A clearance letter shall be provided to the Planning Division County Mining and Engineering Geologist prior to initiating mining activities.*
33. **BIO-2 Desert Tortoise:** *The following measures shall be implemented:*
  - a. *The Applicant shall provide an information sheet to all persons who work on-site during mining activities. The program shall consist of a brief presentation from a person knowledgeable about the biology of the Desert Tortoise, Federal Endangered Species Act (FESA), and California Endangered Species Act (CESA).*
  - b. *A litter control program shall be instituted. The program includes the direction to all workers to eliminate food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area and to maintain covered trash containers that are regularly removed from the project site. All trash and food items should be promptly enclosed in raven proof containers (i.e. metal or solid plastic trash cans) and disposed of in a licensed disposal facility on a regular basis.*
  - c. *Workers should inspect for desert tortoises under vehicles and equipment prior to moving them. If a desert tortoise is present, the worker should carefully move the vehicle or equipment only when necessary or should wait for the desert tortoise to move out from under the vehicle or equipment.*
  - d. *Only an Authorized Biologist(s) shall be allowed to handle tortoises. The Authorized Biologist(s) shall have a Memorandum of Understanding (MOU) with the CDFW for handling tortoises.*

- e. Upon discovery of a Desert Tortoise in a work area, all work in that area shall stop until the Desert Tortoise is relocated. An Authorized Biologist shall be on site or on call to relocate any desert tortoise found during work activities. The desert tortoise shall be monitored until the Authorized Biologist arrives.
34. **BIO- 3 Riparian Habitat/Wetlands:** Prior to commencing mining activities or earth disturbing activities within any drainage courses, the project Applicant shall prepare a Jurisdictional Delineation by a qualified biologist. Impacts to jurisdictional areas that are regulated by the CDFW and the RWQCB shall be mitigated at a 2:1 ratio through an off-site mitigation bank or the contribution of an in-lieu fee program acceptable to the County of San Bernardino, CDFW, and RWQCB.
35. **BIO- 4 Nesting Birds.** Vegetation and habitat grading and removal shall not be scheduled during the bird nesting season (generally February 15 through August 1). If clearing of vegetation occurs within the nesting season, a pre-construction survey for nesting birds shall be conducted before any vegetation or ground disturbance activities occur. A minimum buffer of 250 feet should be placed around active nests within which construction activities would be restricted. When the nest is no longer active, either because the nest is abandoned or the young fledges have flown (as determined by a qualified biologist), construction activities may resume.
36. **CR-1 Cultural Resources:** The developer/property owner shall submit a letter to County Planning agreeing to adhere to the following requirements and shall include a note on the grading plans and in all construction contracts/subcontracts a provision that the project contractors shall also adhere to the following requirements:
- In the event archaeological, paleontological and/or historical resources, including pottery, middens or human remains, are uncovered during earthmoving activities, all work in that area shall cease immediately and a qualified archeologist shall be retained to access the findings, and if necessary provide appropriate disposition of the resources. Earthmoving shall be diverted temporarily around the deposits until they have been evaluated, recorded, excavated, and/or recovered as necessary. Earthmoving shall be allowed to proceed on the site when the archaeologist, in consultation with the appropriate Native American Tribe(s) and the County of San Bernardino Museum, determines the resources are recovered to their satisfaction.
  - If possible human remains are encountered during any earthmoving activities, all work shall stop in the area in which the find(s) are present, and the San Bernardino County Coroner must be notified. State law dictates that the

*Native American Heritage Commission (NAHC) shall be notified in the event that remains are determined to be human and of Native American decent, in accordance with California Public Resources Code Section 5097.98.*

37. The operator shall stockpile all available growth medium and vegetation from areas to be disturbed and maintain the stockpiled material with temporary erosion control methods. At the time of reclamation, areas being reclaimed shall have the stockpiled growth medium and vegetation spread over them. Re-vegetation areas shall be loosened and shall be supplemented by broadcast seeding with native and locally adapted seed per the approved reclamation plan. Stockpiled growth medium shall be stored separately from silt and overburden material stockpiles and shall be stabilized through establishment of temporary vegetative cover or other acceptable means of surface treatment for prolonged storage periods.
38. The applicant/operator shall obtain a National Pollutant Discharge Elimination System (NPDES) Permit for storm water discharges associated with operation activities. The NPDES permit shall be submitted to the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB) and a copy shall be submitted to Planning, or provide evidence from the CRBRWQCB that the NPDES permit is not needed. For more information, contact CRBRWQCB at (760) 340-4521.
39. The Operator shall submit an Erosion Control Plan prior to any land disturbance or operations and shall construct adequate measures to control surface runoff to protect surrounding land and water resources in a manner commensurate with standard engineering practice. They may include, but not limited to, drainage ditches, sediment containment basins, and localized control and maintenance measures to intercept and control disturbed area drainage.
40. The operator shall prepare a Storm Water Pollution Prevention Program outlining how storm water shall be conveyed or directed on and off-site during operations to avoid impacts to groundwater and surface water quality. Within the SWPPP, the operator shall list Best Management Practices (BMPs) to be employed on-site to avoid water quality impacts. The SWPPP shall be submitted to the Colorado River Basin Regional Water Quality Control Board and a copy submitted to Planning or provide evidence from CRBRWQCB that the SWPPP is not needed. For more information, contact CRBRWQCB at (760) 340-4521.



41. The area of illumination from any lighting shall be confined to be within the site boundaries and to minimize impacts to night sky views from surrounding properties. The glare from any luminous source, including on-site lighting shall not exceed one-half (0.5) foot-candle at property line. On-site lighting shall be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light shall project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting shall be limited to that necessary for maintenance activities, security and safety purposes. All signs proposed by this project shall only be lit by steady, stationary, shielded light directed at the sign.
  
42. Operation of all off-road and on-road diesel vehicles/equipment shall comply with the County Diesel Exhaust Control Measures (Development Code, Section 83.01.040 (c)) including but not limited to:
  - A. Equipment/vehicles shall not be left idling for period in excess of five minutes;
  - B. Engines shall be maintained in good working order to reduce emissions;
  - C. Onsite electrical power connections shall be made available where feasible;
  - D. Ultra low-sulfur diesel fuel shall be utilized;
  - E. Electric and gasoline powered equipment shall substituted for diesel powered equipment where feasible;
  - F. Signs shall be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use;
  - G. In addition, all on-road diesel trucks shall not idle more than five minutes per truck trip or per day on the project site.
  
43. The applicant/operator shall submit for review and obtain approval from County Planning of a signed letter agreeing to include as a condition of all construction contracts/subcontracts requirements to reduce GHG emissions and submitting documentation of compliance. The applicant/operator subcontractors shall do the following:
  - a) Select construction equipment based on low GHG emissions factors and high-energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.
  - b) All construction equipment engines shall be properly tuned and maintained in accordance with the manufacturers specifications prior to arriving on site and throughout construction duration.

- c) All construction equipment (including electric generators) shall be shut off by work crews when not in use and shall not idle for more than 5 minutes.
- 44. The operator shall submit for review and obtain approval from County Planning of evidence that all air quality mitigation measures have been installed properly and that specified performance objectives are being met to the satisfaction of MDAQMD.
- 45. Prior to ground disturbance, a Licensed Land Surveyor shall be employed to determine and permanently monument the property corners and limits of each road right-of-way and project boundaries. For each corner, GPS coordinates (or other similar technology) shall be provided in a format acceptable to the County. A final report shall be provided to Land Use Services.

**PRIOR TO FINAL INSPECTION OR OCCUPANCY OF ANY STRUCTURE**

**Land Use Services Department/Land Development Division – Road Section (909) 387 - 8311**

- 46. Transitional Improvements. Right-of-way and improvements (including off-site) to transition traffic and drainage flows from proposed to existing, shall be required as necessary.
- 47. Land Development Division requirements shall be completed by the Applicant prior to occupancy.

**COUNTY PUBLIC WORKS DEPARTMENT – Surveyor – 909 387-8149**

- 48. If any activity on this project will disturb **any** land survey monumentation, including but not limited to vertical control points (benchmarks), said monumentation shall be located and referenced by or under the direction of a licensed land surveyor or registered civil engineer authorized to practice land surveying **prior** to commencement of any activity with the potential to disturb said monumentation, and a corner record or record of survey of the references shall be filed with the County Surveyor (Section 8771(b) Business and Professions Code).

49. This project falls within the South/East Apple Valley Local Area Transportation Facilities Fee Plan. Based on the Traffic Assessment for the proposed Sigma Clay CUP dated September 24, 2014, a credit of 4 truck trips per day is given for the existing approved CUP and Reclamation Plan. A fee of \$178.54 per truck trip multiplied by the number of approved truck trips (60 truck trips – 4 truck trips) as shown in the fee plan. Therefore, the total estimated Local Transportation Fees for this project is \$9,998.24. This fee shall be paid by a cashier's check to the Department of Public Works Business Office.
50. The following conditions are for the occasion where the monuments of record cannot be located and the boundary must be determined for construction purposes.

A Record of Survey/Corner Record shall be filed in the following instances:

- A. Legal descriptions or construction staking based upon a field survey of the boundary or building setbacks.
- B. Monuments set to mark the property lines.
- C. Pursuant to applicable sections of the Business and Professions Code.

## **GENERAL REQUIREMENTS: ON-GOING OPERATIONAL CONDITIONS**

### **DEPARTMENT OF ENVIRONMENTAL HEALTH SERVICES (909) 387-4666**

51. The Noise level shall be maintained at or below County Standards, Development Code Section 87.0905(b).
52. If a septic system is installed, it shall be maintained so as not to create a public nuisance and shall be serviced by a DEHS permitted pumper.
53. No land filling of wastes shall occur on-site without an approved Solid Waste Facilities Permit.
54. All refuse generated at the premises shall at all times be stored in approved containers and shall be placed in a manner so that visual or other impacts, and environmental public health nuisances are minimized and complies with the Development Code, Section 33.0830 et seq. For information, please call DEHS/Local Enforcement Agency (LEA) at: 909-387-4655.

55. All refuse containing garbage shall be removed from the premises at least one time per week to an approved solid waste facility in conformance with San Bernardino County Code Chapter 8, Section 33.0830 et seq. For information, please call DEHS/LEA at: 909-387-4655.
56. All refuse not containing garbage shall be removed from the premises at least one time every two weeks to an approved solid waste facility in conformance with San Bernardino County Code Chapter 8, Section 33.0830 et seq. For information, please call DEHS/LEA at: 909-387-4655.

COUNTY FIRE DEPARTMENT, Fire Warden (760) 843-4375

57. The primary access route shall comply with the minimum requirements for fire protection and/or emergency response with applicable local ordinances, codes, and/or fire protection standards.

LAND USE SERVICES DEPARTMENT, PLANNING - (909) 387-4105

58. The applicant shall implement measures to stabilize and secure the site during periods of inactivity as per the approved Reclamation Plan. An Interim Management Plan (IMP) as required by SMARA, Section 2770(h) shall be submitted to Planning for review and approval within 90 days of the surface mining operation becoming idle.
59. The mining operation shall be conducted in a uniform manner, with exterior slopes and floors trimmed as the mining operation proceeds to facilitate implementing site reclamation. Excavations shall be conducted so as to leave them in a reasonably neat and trim manner. The final site shall be graded and revegetated as per the approved Reclamation Plan Plot Plan. Any changes to the approved plans shall require a Revision Application.
60. The applicant/operator shall maintain the premises in a neat and orderly manner at all times. No refuse shall be retained at any time in the work areas. All refuse shall be disposed of at an approved licensed disposal facility. Refuse storage shall be maintained in closed containers.
61. Traffic control at the intersection of Johnson Road and Central Road shall be provided in accordance with the Town of Apple Valley standards.

62. Reclamation shall be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation.
63. Clearly legible signs denoting limits shall be posted along with vegetative barriers, berms, or rock barriers, as necessary, to protect against accidental entry to the site. Lettering shall be a minimum four (4) inches in height. As feasible, signs shall be placed every 300 feet around the perimeter of the project plan area where undisturbed ground adjoins the permit area. All signs shall be in place prior to the commencement of extraction activities.
64. The applicant/operator should regularly review the adequacy of the signs. Care should be taken to ensure that signs do not become blocked by vegetation or become illegible from dirt or deterioration. As new phases are developed, additional signs may be needed. In evaluating the adequacy of signs, they should be considered from the viewpoint of a first-time visitor on the property, such as a vendor or a contractor. Pay special attention to any areas where public roads intersect project roads. Other drivers may not be familiar with the operation of mining equipment, the mine's traffic patterns, and equipment blind spots. Ensure that the traffic and warning signs that are provided in these areas are adequate.
65. Any advertising or identifying sign shall be constructed in compliance with the designated Official Land Use District for this site.
66. The applicant shall install Company identification signs on all company owned and operated haulage trucks used on public roads. The signs shall be located on both sides and the rear of each truck. The information contained on the sign shall include:

On the rear of the truck:

- A. How am I driving?
- B. Truck number.
- C. Company phone number.

On the side of the truck:

- A. Company name.
- B. Truck number.
- C. Company phone number.

The signing shall be printed in a minimum of 3" high lettering. The applicant shall have a person or an answering machine available during operating hours to answer the phone that corresponds to the phone number on the truck. The persons answering the phone number shall be instructed as to how to take the calls, how to affect a solution, and be responsible for returning a call to the complainant with results of investigation. The applicant shall keep a log of all

calls received and shall include documentation of response and/or resolution of complaints. The log shall be made available to the County upon request.

67. In the event of any soil contamination on-site, the applicant/operator shall remove to a County approved disposal site, any soils that become chemically contaminated so as to preclude any chemical leaching into the local ground water supply over time.
68. In the event of any spill(s) on site, the applicant/operator shall remove any soils and or liquid in accordance with the approved Business Plan.
69. Any well, exploratory hole or test hole which is abandoned, out of service, or otherwise left unattended shall have a temporary cover over the well or opening which prevents the introduction of undesirable material into the well or hole, and ensures public and wildlife safety pursuant to California Health & Safety Code, Section 115700.
70. Non-portable plant equipment and structures are restricted to a maximum of 35 feet in height above natural grade level.
71. Test plots shall be indicated on the Mine Reclamation Plan and required to determine the suitability of growth media for revegetation purposes. Test plots shall be conducted simultaneously with mining to determine the most appropriate planting procedures to be followed to ensure successful implementation of the Re-vegetation Plan.
72. Re-vegetation Monitoring will continue annually for at least five (5) years after reclamation has been completed. Following the first two years of qualitative monitoring, quantitative monitoring will be conducted. Monitoring will utilize methods appropriate to the areas under study. Beginning with the adoption of the final revision of the Reclamation Plan that encompasses all the needed changes to be consistent with the final conditions of project approval, and continuing until reclamation is completed, the applicant/operator will submit to Planning annual monitoring reports. The reports will:
  - A. Describe re-vegetation actions undertaken in the reporting period;
  - B. Identify areas that have been disturbed;
  - C. Identify areas and acreage for which re-vegetation has been started;
  - D. Present results of investigations on species diversity and other measures of re-vegetation success in test and control or reference plots;



- E. Describe successes and problems in the re-vegetation efforts for that year;
  - F. Describe steps taken to resolve problems or achieve re-vegetation success;
  - G. Describe disturbance and re-vegetation efforts planned for the next two years.
73. If re-vegetation is not successful, the applicant/operator shall undertake the following actions:
- A. If, during the first two years of qualitative monitoring, revegetation is clearly not successful, the applicant/operator will re-evaluate the revegetation methods and will discuss changes to these methods with the County representatives. The applicant/operator will revise the Re-vegetation Plan, secure concurrence from Planning for the changes, and begin implementing the new measures.
  - B. If the test plots do not meet the specified success criteria of the control plots after three years, the applicant/operator will make an assessment of the re-vegetation methods to identify any deficiencies contributing to planting failures. Corrective action shall be incorporated in follow-up testing.
  - C. If after five years, the re-vegetated areas (as measured by the results of the test plots) have not achieved these success criteria, the applicant/operator will immediately begin to implement the measures identified in a contingency plan.
74. Re-vegetation in arid areas is tenuous at best and, therefore, the applicant shall provide in the Financial Assurance Cost Estimate the costs to monitor and report on revegetation, incidental disturbance and erosion control for a time period of five (5) years following the termination date of operation.
75. Pursuant to SMARA, Section 2772.7, Planning will prepare a "Notice of Reclamation Plan Approval" on a form to be approved by the County Recorder's Office. The operator shall pay any and all review and recording fees.

**PRIOR TO FINAL CLOSURE, THE FOLLOWING CONDITIONS SHALL BE MET:**

76. Upon final reclamation, provisions shall be implemented to intercept and conduct off site tributary drainage flows around or through the site to minimize erosion in a manner which will not adversely affect adjacent or downstream properties shall be verified pursuant to condition #39 and shall be maintained five (5) years following the termination date of operation.

77. At the time of termination of the operation for any reason, all equipment, structures and refuse associated with the operation shall be removed from the site, all hazards mitigated, and reclamation initiated within 90 days, as per the approved Reclamation Plan.
78. Upon final reclamation, evidence shall be provided that all wells, exploration holes or test holes, as defined by DWR Bulletin 74-81 as revised in 1988 or the latest revision are destroyed in accordance with DEHS regulations and in such a manner that will no longer be a hazard to the health and safety of people and wildlife.
79. All access roads on site, which will not be retained for post-operation uses, shall be reclaimed at the conclusion of mining/hauling activities.
80. The applicant/operator shall re-contour the site at the conclusion of operations (platforms, stockpiles, settling ponds, etc.). The site should resemble natural landforms where possible.
81. Each area reclaimed shall be identified on a map and labeled for identification. The final map shall be provided to Planning for review and approval.

### ***CONCLUSION OF CONDITIONS***

## **EXHIBIT D**

### **OMR September 25, 2014 Response Letter**



## DEPARTMENT OF CONSERVATION OFFICE OF MINE RECLAMATION

801 K STREET • MS 09-06 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-9198 • FAX 916 / 445-6066 • TDD 916 / 324-2555 • WEB SITE [conservation.ca.gov](http://conservation.ca.gov)

September 25, 2014

**VIA EMAIL: [reuben.arceo@lus.sbcounty.gov](mailto:reuben.arceo@lus.sbcounty.gov)**  
**ORIGINAL SENT BY MAIL**

Mr. Reuben Arceo  
Land Use Services Department  
County of San Bernardino  
385 North Arrowhead Avenue, First Floor  
San Bernardino, CA 92415-0182

Dear Mr. Arceo:

**SIGMA CLAY MINE  
RESPONSE TO COMMENTS  
CA MINE ID #91-36-0111, PROJECT #AP20120001**

The Department of Conservation's Office of Mine Reclamation (OMR) has reviewed the response to comments letter, dated September 10, 2014, and supplemental documents supporting preparation of the Amended Mining and Reclamation Plan for Sigma Clay Mine. The letter and supplemental documents are in response to OMR's comment letter dated March 15, 2012. The documents received include the Amended Mining and Reclamation Plan as revised March 15, 2013; a report to update the biological assessment and focused survey for desert tortoise for Sigma Clay Mine dated June 23, 2014; Hydrology Study and Flood Analysis dated October 2010; and a revegetation plan for the Sigma Clay Mine dated January 2013.

While most of the issues have been adequately addressed, the following remain outstanding. We recommend that the reclamation plan be revised and/or supplemented to fully address these items.

A topographic map (Sheet 3 of 3) was prepared and stamped in response to OMR's comments regarding topographic accuracy and professionally prepared documents. However, Sheets 1 of 3 and 2 of 3 depict elements of civil engineering design, including culverts, drainage swales/ditches, berms, and final slopes. As such, these maps also should be signed and stamped by the registered California professional that prepared them.

A revegetation plan has been prepared in response to OMR's comment that the revegetation information was inadequate. OMR is satisfied with the revegetation plan

Mr. Reuben Arceo  
September 25, 2014  
Page 2

with one exception. The baseline reference data shows the vegetation type as Saltbush Scrub series with fourwing saltbush, *Atriplex canescens*, as the dominant species. However, this species is not included in the seed mix in Table 3 on page 6. OMR recommends that it be added to the seed list at a rate of 2.5 pounds pure live seed (PLS) per acre, bringing the total seed application rate to 21 pounds PLS per acre.

If you have any questions on these comments or require any assistance with other mine reclamation issues, please contact Beth Hendrickson at (916) 445-6175.

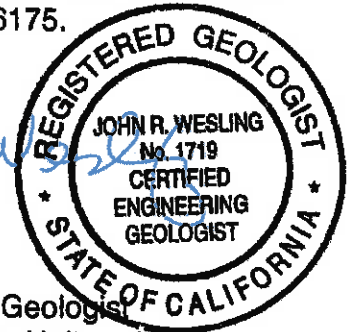
Sincerely,



Beth Hendrickson, Manager  
Environmental Services Unit



John R. Wesling  
Senior Engineering Geologist  
Engineering Geology Unit



## **EXHIBIT E**

**County Response Letter dated September 10, 2014**



# LAND USE SERVICES DEPARTMENT

BUILDING & SAFETY • CODE ENFORCEMENT • FIRE HAZARD ABATEMENT  
LAND DEVELOPMENT • PLANNING



COUNTY OF SAN BERNARDINO

TOM HUDSON  
Director

- 385 N. Arrowhead Avenue, First Floor • San Bernardino, CA 92415-0187  
(909) 387-8311 Fax (909) 387-3249
- 15900 Smoke Tree Street, First Floor • Hesperia, CA 92345  
(760) 995-8140 Fax (760) 995-8167

September 10, 2014

Beth Hendrickson, Reclamation Unit Manager  
Department of Conservation  
Office of Mine Reclamation  
801 K Street, MS 09-06  
Sacramento, CA 95814-3529

**RE: RESPONSE TO OFFICE OF MINE RECLAMATION (OMR) MARCH 15, 2012 COMMENTS  
CONCERNING MINING AND RECLAMATION PLAN FOR SIGMA CLAY MINE, CALIFORNIA  
MINE ID# 90-36-0111, PROJECT NO. AP20120001**

Dear Ms. Hendrickson,

San Bernardino County staff (County) has considered OMR's comments on the Sigma Clay Mining and Reclamation Plan Revision in the letter dated March 15, 2012 and appreciates this opportunity to address the comments to facilitate approval of a final mining and reclamation plan.

The following provides the County's response to each comment from OMR's enclosed letter. Webber and Webber Mining Consultants, Inc. provided information included in these responses.

**Comment:**

There are several instances throughout the reclamation plan that refer to this office as the "California Division of Mines and Geology." These should be updated to "Office of Mine Reclamation".

SMARA section 2772(c)(4) requires that the maximum anticipated depth of the surface mining operation be indicated in the reclamation plan. The mining application questionnaire and much of the text of the reclamation plan gives the depth as 40 feet, rather than as 3130 feet. OMR recommends that the depth of mining be tied to a verifiable benchmark, such as mean sea level, that can be referenced in the field for compliance monitoring.

**Response:** The instances that reference "California Division of Mines & Geology" have been updated to "Office of Mine Reclamation."

GREGORY C. DEVEREAUX  
Chief Executive Officer

Board of Supervisors  
ROBERT A. LOVINGOOD.....First District JAMES RAMOS.....Third District  
JANICE RUTHERFORD, Chair.....Second District GARY C. OVITT, Vice Chair.....Fourth District  
JOSIE GONZALES.....Fifth District

September 10, 2014  
 Ms. Hendrickson  
 MINE ID# 90-36-0111  
 AP20120001

SMARA section 2772(c)(4) requires that the maximum anticipated depth of the surface mining operation be indicated in the reclamation plan. The mining application questionnaire and much of the text of the reclamation plan gives the depth as 40 feet, rather than as 3130 feet. OMR recommends that the depth of mining be tied to a verifiable benchmark, such as mean sea level, that can be referenced in the field for compliance monitoring.

**Response:** The verifiable benchmark shall be the southwest corner of the mine site described as follows:

*"ELEV: 3174.34 (MSL) TOP OF PIPE S ¼ COR. SEC 28 FD. USGLO BRASS CAP PER GOV'T TOWNSHIP PLAT DATED 9/18/19, CSFB 4220/1, R/S 92/1-6"*

This benchmark is now noted on both the Mine Plan and Reclamation Plan Map exhibits. A condition of approval will be included to state that the copy of the survey records will be kept on file with the County LUS Mining Division.

**Comment:**

SMARA section 2772(c)(5) requires that the reclamation plan include a map with boundaries and information pertinent to the reclamation of the site. The plot plan for this site should clearly show boundaries of active and future mining areas, topographic details, geology, streams, utilities, haul roads, and stockpile areas (topsoil and material) to scale. The spatial and topographic accuracy of the Mine Plan (i.e., Sheet 1 of 2) and Reclamation Plan (i.e., Sheet 2 of 2) is questionable, because the base map apparently is a 20-times enlargement of the U.S. Geological Survey's Fairview Valley, California 7.5-Minute Quadrangle.

**Response:** To address the topographic accuracy of the Mine and Reclamation Plan maps, an updated base topographic map was prepared by Massaro-Welsh Land Surveyors dated August 24, 2012 with a contour interval of 0.5 feet. Existing topographic detail is now presented on the revised Mining Plan Map and also added as another map sheet to accompany the Mining and Reclamation Plan Sheets.

**Comment:**

Pursuant to the Professional Engineers Act, Geologist and Geophysicist Act, and Professional Land Surveyors' Act (Business and Professions Code sections 6700 – 6799, 7800 – 7887, and 8700 – 8805, respectively), all applicable documents shall be prepared by a California-licensed professional, shall include his or her license number and name, and shall bear the signature and seal of the licensee.

**Response:** In accordance with the Applicant's April 3, 2013, response letter to the County's correction letter dated January 28, 2013, which are both attached for reference, the Applicant included in his updated Amended Mining and Reclamation Plan a stamped engineering copy of the Topographic Survey undertaken on August 23, 2012 by Massaro-Welsh Land Surveyors, which is referenced as Sheet 3 of 3 in the updated Mining and Reclamation Report. Pursuant to County's Staff review of the Mining and Reclamation maps, both map contours are coincident with the Massaro Map in keeping with good engineering and survey practices.

September 10, 2014  
 Ms. Hendrickson  
 MINE ID# 90-36-0111  
 AP20120001

In consideration of OMR's comment that the county "as a quasi-judicial body operating in the public trust should consider adopting a policy similar to that of the State Mining and Geology Board's Internal Policy on Validating and Accepting professionally Prepared Reports and Other Documents", the County is accommodating this policy change in accordance to OMR's recommendation.

**Comment:**

CCR sections 3706 and 3710 require that surface and ground water be protected in accordance with the Porter-Cologne and Clean Water Acts as implemented by the Regional Water Quality Control Board and the State Water Resources Control Board. Regulations approved by the State Water Resources Control Board require that a mine site which discharges storm waters that may have contacted any overburden, raw material, intermediate products, by-products, or waste products on the mine site obtain a general industrial activities storm water permit and submit a Storm Water Pollution Prevention Plan (SWPPP).

**Response:** The Sigma Clay Mine will be retaining storm water because the quarry is the lowest point in the basin. The quarry will not be managing overburden, raw material stockpiles, intermediate products, by-products, or waste products that will introduce unnatural or new constituents adverse to local water quality. A condition of approval will be included to ensure that the Regional Water Quality Control Board will be contacted for jurisdictional requirements and to be determined prior to the County's authorization for new disturbance.

**Comment:**

CCR section 3706(d) requires that surface runoff and drainage be controlled with erosion control measures to ensure that surrounding land and water resources are protected from erosion, gulying, sedimentation, and contamination. The reclamation plan should include site-specific criteria for evaluating compliance with the approved reclamation plan for sediment and erosion control (SMARA section 2773(a)). Experience at nearby clay mining operations in a similar geologic setting indicates that animal burrowing and associated piping have caused erosion, gulying and other impacts to lands surrounding the mining operation. OMR recommends that the amended reclamation plan be revised to include site-specific mitigation measures and performance criteria for addressing animal burrowing and piping so that these features do not develop into larger-scale features that impact offsite lands.

**Response:** A survey to evaluate the potential for piping at the Sigma Clay Mine site was completed by Leatherman Bio Consulting on July 15, 2010. The amended Reclamation Plan has been revised to include this piping survey and its recommendations. A geotechnical survey and evaluation will be annually required and will be added as a condition of approval to address the potential for gulying and piping at the site prior to any land disturbing activities resulting from clay shrinkage, swelling and fissures developing.

The current status of the quarry site exhibits pioneering or opportunistic vegetation that provides slope stability and resistance to erosion. This will be encouraged or enhanced during active operations because of the added benefits in providing safety and security with surrounding land uses.

**Comment:** CCR section 3703(a) requires that all sensitive species be conserved or mitigated and CCR section 3503(c) states that all reasonable measures be taken to protect the habitat of fish and wildlife. On page 12, it states that a follow-up "Biological Resources Assessment and Focused Survey for Desert Tortoise" for the Sigma Clay Mine was prepared in August 2010. This document is an integral plan of the reclamation plan and should be forwarded to OMR for review.

OMR should note that this proposed operation is within a playa lakebed that is frequented by recreational off-roading used with little regard for or respect of resource protection policies of the State. Sigma Clay's compliance will be limited to the reclamation boundaries, and approval will provide habitat benefits during idle periods.

**Response:** A copy of the Biological Resources is included in conjunction with an Updated Bio Letter dated June 23, 2014.

**Comment:** "CCR 3705(a) requires that the density, cover and species richness of naturally occurring habitats shall be documented in baseline studies in order to establish a self-sustaining vegetated cover similar to the surrounding habitat. This information needs to be added to the reclamation plan and forms the basis for the revegetation performance standards."

**Response:** The information has been included in the updated Reclamation Plan. A Condition of approval will be added that states that this re-vegetation plan will be updated prior to any ground disturbing activity at the site.

**Comment:**

The "Revegetation" section of the plan on pages 17-18 does not contain adequate detail to meet the minimum requirements of SMARA and the CCRs regarding revegetation. According to the 1992 Conditions of Approval, Condition #45, the applicant was to submit "a detailed revegetation/habitat restoration plan" including "all seedling and planting mixtures, sources, amount required and method of application..." A Revegetation Plan for Sigma Clay was prepared and submitted in 1993. This information should be copied into the revegetation section of the reclamation plan as well as some of the information found on Sheet 2. However, a more detailed revegetation plan will still have to be developed for the project and added to the amended reclamation plan before it can be considered complete. While the use of test plots will help to refine some specific details of revegetation, it is still necessary to include all the pertinent information in the plan prior to approval.

**Response:** The 1993 Revegetation Plan information has been added to the Reclamation Plan as requested.

County staff requests that OMR consider the above responses to attain the objectives provided in Public Resources Code, Section 2712. Electronic copies of the reports and attachments are included with the attached CD. If you have any questions, please feel free to call me direct at (909) 387-4374 or my email address at reuben.arceo@lus.sbcounty.gov.

September 10, 2014  
Ms. Hendrickson  
MINE ID# 90-36-0111  
AP20120001

Sincerely,

A handwritten signature in dark ink, appearing to read 'Reuben Arceo', with a long horizontal flourish extending to the right.

Reuben Arceo, Contract Planner  
Mining Section

Cc: George Kenline, Mining/Engineering Geologist  
George Webber, Webber and Webber

Attachments: Office of Mine Reclamation March 15, 2012 Response Letter  
Sigma Clay Mine Amended Mining and Reclamation Plan, Revised March 15, 2013  
Applicant April 3, 2013 Response Letter  
San Bernardino County Planning Division January 28, 2013 Response Letter  
Biological Resources Assessment Report, dated August 27, 2010 and Updated  
Biological Letter, dated June 23, 2014

RA/cks

## **EXHIBIT F**

### **Interim Management Plan**



## CALIFORNIA SURFACE MINING AND RECLAMATION



# INTERIM MANAGEMENT PLAN FORM

THE STATE MINING AND GEOLOGY BOARD



State of California  
DEPARTMENT OF CONSERVATION  
STATE MINING AND GEOLOGY BOARD  
INTERIM MANAGEMENT PLAN FORM

CA MINE ID# 91-36-0111

MINE NAME Sigma Clay Mine

|  |   |  |
|--|---|--|
| 1. Company Operating<br>Webber-Plyley, Inc.                    | Site Contact Person<br>George A. Webber | Telephone<br>(909) 793-3416                      |
| Street Address/P.O. Box No.<br>101 E. Redlands Blvd., Ste. 240 | City<br>Redlands                        | State/ZIP Code/County<br>CA/92373/San Bernardino |

|   |  |                             |
|---|--|-----------------------------|
| 2. Designated Agent's Name (Individual must reside in CA)<br>George A. Webber | Mailing Address<br>101 E. Redlands Blvd., Ste. 240 |                             |
| City<br>Redlands, CA  | ZIP Code<br>92373                                  | Telephone<br>(909) 793-3416 |

|   |                            |                                |
|---|----------------------------|--------------------------------|
| 3. Owner of Mining Operation<br>Webber-Plyley, Inc. |                            | Telephone<br>(909) 793-3416    |
| Mailing Address<br>101 E. Redlands Blvd., Ste. 240  |                            |                                |
| City<br>Redlands                                    | State/ZIP Code<br>CA/92373 | Country (If other than U.S.A.) |

|  |  |                                    |
|--|--|------------------------------------|
| 4. Landowner<br>Webber-Plyley, Inc.                |  | Assessor's Parcel #<br>0464-022-54 |
| Mailing Address<br>101 E. Redlands Blvd., Ste. 240 |  | Telephone<br>(909) 793-3416        |
| City/State/ZIP Code<br>Redlands/CA/92373           |  | Country (If other than U.S.A.)     |

|  |   |
|--|---|
| 5. Number or description of reclamation plan amended by IMP<br>Reclamation Plan 92M-04 |   |
| Date Approved<br>July 6, 1992  | Copy Attached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

|  |   |
|--|---|
| 6.a. Date Mine Became Idle<br>January 2011 | 6.b. Date Mining Expected to Resume<br>January 2016 |
|--|---|

|  |                                    |
|--|------------------------------------|
| 7.a. Previous Maximum Annual Production<br>40,000 Tons | 7.b. Production While Idle<br>Zero |
|--|------------------------------------|

## CALIFORNIA SURFACE MINING AND RECLAMATION

# INTERIM MANAGEMENT PLAN FORM

## THE STATE MINING AND GEOLOGY BOARD

8. ☒ Yes ☐ No Financial Assurances approved by Lead Agency. Complete section below for approved Financial Assurances:

### ATTACH COPY AND PROOF OF APPROVAL

|             |          |                  |   |  |
|-------------|----------|------------------|---|--|
| a. Amount   | Type     | Date Posted      | Date of Annual Review by<br>Lead Agency | Expiration Date or Renewal<br>Date (If applicable) |
| \$29,318.46 | Two CD's | 9/16/96, 9/16/08 | 06/1/12                                 |  |

b. ☐ Yes ☒ No Proposed changes to Financial Assurance. ☒ Yes ☐ No Financial Assurance Cost Estimate attached.

A plan for maintaining the site in a safe and stable condition that includes the following elements must be attached to this form. Check the following boxes to verify that the appropriate information is attached.

9. Management Plan (Attach narrative that addresses all of the following.)

a. ☒ Description of Surface Mining Activities

b. ☒ Erosion Control Plan

If vegetation will not be used to control erosion while the site is idle, provide an explanation and describe an alternative method for surface erosion control in the previous section.

c. ☐ Revegetation Plan

d. ☒ Public Safety

e. ☒ Monitoring and Maintenance Plan

f. ☐ Site Photos

g. ☒ Map

Check the appropriate boxes and attach a map that clearly depicts the relevant information at a legible scale.

☐ Current Topography

☒ Permit Reclamation Plan Boundary

☒ Areas Disturbed by Surface Mining Operations

☐ Stockpiles of Ore, Overburden, Waste, etc.

☐ Sedimentation Pond

☐ Office, Shop, Scalehouse, or Other Structures

☐ Utilities

☐ Site Drainage

☐ Erosion Control Structures

☐ Cross Sections

☒ Additional Information

June 19, 2012 Financial Assurance Cost Estimate

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## CALIFORNIA SURFACE MINING AND RECLAMATION

# INTERIM MANAGEMENT PLAN FORM

THE STATE MINING AND GEOLOGY BOARD

## 10. Attachments

- ☐ Approved reclamation plan (Attach only if there are proposed changes)
- ☐ Financial Assurance Cost Estimate
- ☐ Approved Financial Assurance and Proof of Approval
- ☐ Storm Water Pollution and Prevention Plan (Attach only if the SWPPP will be used in lieu of separate erosion control plan)
- ☐ Permit
- ☐ CEQA Mitigation and Monitoring Plan (Attach if mitigation measures were imposed in approving the reclamation plan)

|              |                  |      |         |
|--------------|------------------|------|---------|
| Prepared by  | George A. Webber | Date | 1/18/11 |
| Submitted by | George A. Webber | Date | 1/18/11 |
| Approved by  |                  | Date |         |

***SIGMA CLAY MINE***  
***Fairview Valley, CA – 92M-04***  
***Cal. Mine ID# 91-36-0111***

**INTERIM MANAGEMENT PLAN**

**Prepared for:**

**WEBBER-PLYLEY, INC.**  
101 E. Redlands Blvd.  
Suite 240  
Redlands, California 92374

**Prepared by:**

**WEBBER & WEBBER MINING CONSULTANTS, INC.**  
101 E. Redlands Blvd.  
Suite 240  
Redlands, California 92373

**January 13, 2011**

# INTERIM MANAGEMENT PLAN (IMP)

## SMARA Section 2770(H)

### PURPOSE OF AN IMP

An Interim Management Plan (IMP) is required for each mine site that becomes idle for at least 1 year under the Surface Mining And Reclamation Act (SMARA) as defined in Section 2727.1 of the Public Resource Code. The purpose of an IMP is to prevent or minimize adverse environmental effects from an idle mining operation and to ensure that residual hazards to the public health and safety are eliminated while the mine is idle. As defined in SMARA, "Idle" means to curtail surface mining operations by more than 90 percent from any of the previous five year's production amount with the intent on resuming mining operations to full production levels in the future.

An IMP must be consistent with the approved reclamation plan and must conform with the state adopted Reclamation Standards, if they are applicable to the site. Preparation of an IMP does not require additions or changes to the existing Reclamation Plan.

### SITE INFORMATION

|                                   |   |
|-----------------------------------|---|
| <u>Site Name:</u>                 | Sigma Clay Mine   |
| <u>CA Mine ID:</u>                | 91-36-0111  |
| <u>Reclamation Plan:</u>          | 92M-04  |
| <u>APN:</u>                       | 0464-022-54-0000  |
| <u>Lead Agency:</u>               | San Bernardino County   |
| <u>Site Location/Description:</u> | Southeast 1/4, Southwest 1/4 of Section 28, Township 6 North, Range 2 West, totaling 40.80 acres M/L. Access to the site is provided via a 1.7 mile BLM Right-of-Way from Johnson Road, thence southerly on un-named dirt road to mine site access. |

### Description of Site Activities:

The Sigma Clay Mine project is an existing mine operation currently operating with an approved San Bernardino County Reclamation Plan 92M-04, approved on July 6, 1992. The project currently consists of a 40.80-acre footprint in Fairview Valley, approximately 8 miles northeast of the town of Apple Valley, in central San Bernardino County. The property on which the quarry is located is privately owned by Webber-Plyley, Inc. The approved quarry consists of an approximate 36.4-acre footprint and is situated within the Reed Dry Lake bed. Reed Dry Lake, comprising about 300 acres, is vacant open space. Its present use is unauthorized and unrestricted recreational activities.

The site consists of a practically flat surface with an approximate elevation 3,170 feet above mean sea level (MSL). The surface of the site is dry clay with no overburden and has been moderately disturbed by off-road recreational vehicles. Existing disturbance on the project site include two (2) shallow borrow pits totaling 18 acres that resulted from past excavation of clay materials. Pit slopes were excavated to 4:1 (horizontal:vertical). With the exception of internal quarry ramps, and erosion control structures, no other improvements exist or are proposed for the project site.

The surrounding land uses include the following:

North - Vacant desert open space. Southwestern Cement's Black Mountain limestone and cement operations are visible about three miles away from the project site.

East - Vacant desert open space. Some residences are visible at least 0.5-mile to the northeast/east/southeast from the project site.

South - Vacant playa lake open space. Low hills screen residences comprising the eastern end of the town of Apple Valley, approximately 1 mile south/southwest from the project site.

West - Vacant desert open space. Fairview mountain ridge is located about 1.5 miles from the project site. Interstate 15 is located approximately 8.5 miles northwest (approximately 5 miles via paved road, then approximately 5 miles via dirt road) from the project site.

All surrounding land is vacant open space comprised of private lands, and public lands managed by the U.S. Department of Interior - BLM. The project site has a General Plan Land Use District Zoning of Floodway (FW) with Improvement Level 5; The lands immediately surrounding the project site has a General Plan Land Use District Zoning of Floodway (FW) or Rural Living (RL-20) with Improvement Level 5.

## **OPERATOR INFORMATION**

---

|                            |   |
|----------------------------|---|
| <u>Operator Name:</u>      | Webber-Plyley, Inc.                                 |
| <u>Operator Address:</u>   | 101 E. Redlands Blvd., Ste. 240, Redlands, CA 92373 |
| <u>Operator Telephone:</u> | (909) 793-3416                                      |
| <u>Operator Fax:</u>       | (909) 335-6061                                      |
| <u>Operator Email:</u>     | Geo_Webber@msn.com                                  |
| <u>Contact Person:</u>     | George A. Webber                                    |
| <u>Land Owner:</u>         | Webber-Plyley, Inc.                                 |

## **INTERIM MANAGEMENT**

---

Month/Year Operation Idle: January 2011



|   |   |
|---|---|
| <u>Expected IMP Expiration Date:</u>                                      | January 2016, depending on market conditions.   |
| <u>Permitted Max. Production:</u>   | 40,000 tons per year  |
| <u>Date Mining Will Resume:</u>   | January 2016, depending on market conditions.   |
| <u>Reason Operation Idle:</u>   | Adverse market conditions   |
| <u>Planned Idle Operations:</u>   | No activities are expected to occur onsite while idle, except for drainage control activities |
| <u>Annual Idle Production:</u>  | Zero  |
| <u>Equip. Onsite While Idle:</u>  | None  |
| <u>Provisions for Storage or Removal of Equip., Supplies, Structures:</u> | None, site will be vacant   |
| <u>Public Safety While Idle:</u>  | All slopes onsite are 4:1 or flatter, to allow safe off-road vehicle operation                |

#### Erosion and Sedimentation Plan While Idle:

The project site is located within a semi-arid region of San Bernardino County, and receives approximately 4 inches of precipitation each year. Water flows only occur onsite during the infrequent periods of precipitation, primarily caused by summer thunderstorms. Due to the project site location within Reed Dry Lake, the site and immediately surrounding area is relatively flat and do not contain significant drainage channels/ravines. Thus, all surface water flows will be of the low energy, sheet flow type.

Approximately 18 acres are disturbed from past mining activities. The disturbance area consists of a gentle depression with excavated side slopes not steeper than 4:1 (horizontal:vertical). If significant erosion is noted during a regularly scheduled site inspection, Webber-Plyley shall implement one or more of the following erosion control measures at the direction of the Lead Agency, as reasonable:

- Mulching
- Drainage swales
- Silt fences
- Sandbag barriers
- Straw bale sediment traps
- Fiber rolls (straw waddles)
- Berms

Any precipitation directly onto the project site will be allowed to collect within the depression for percolation into the surface.

#### Revegetation Plan While Idle:

The site is currently vegetated by natural vegetation. During monitoring of the site, if any invasive species are discovered, they will be removed immediately. Reclamation of the site has not commenced.

## **MONITORING AND MAINTENANCE**

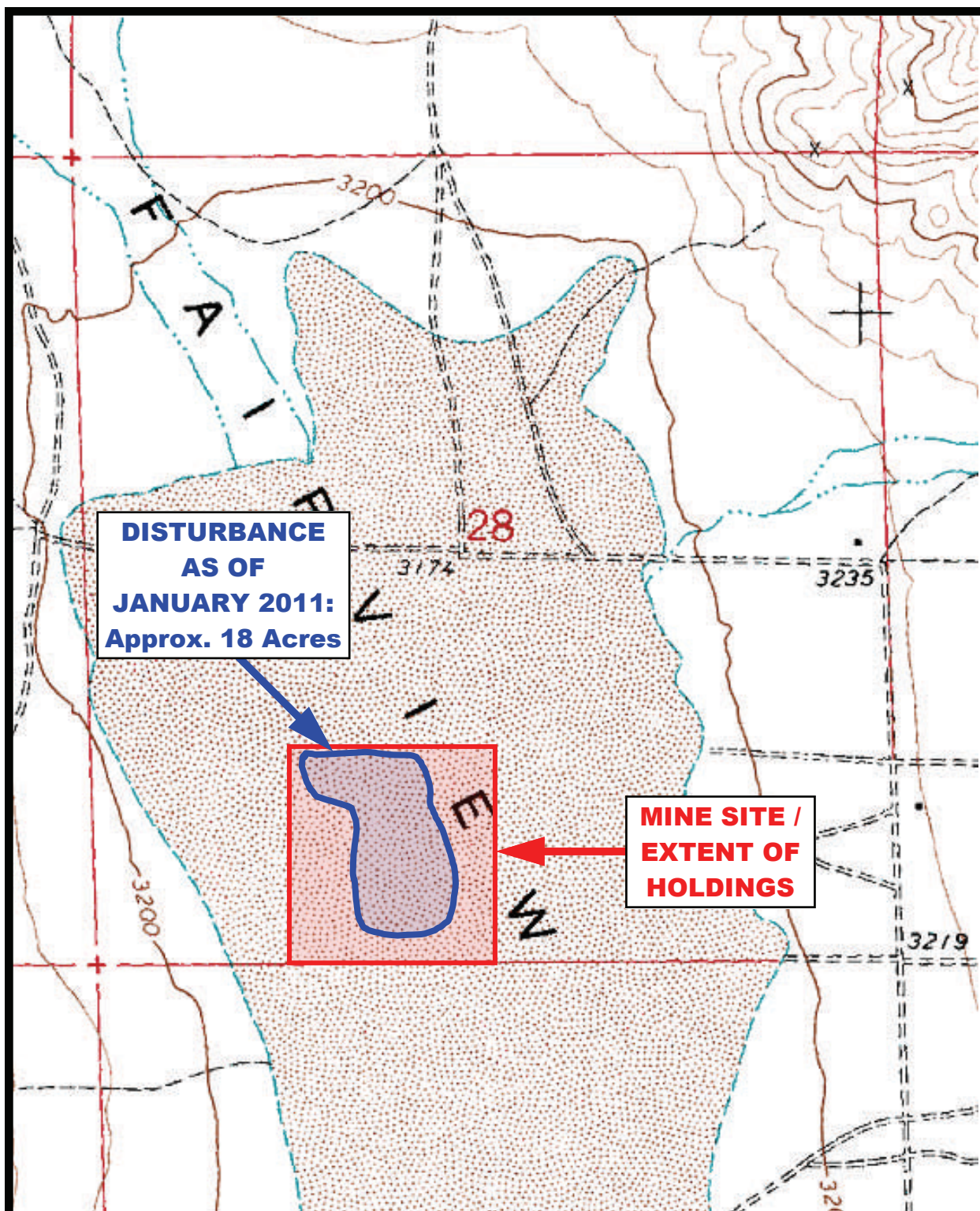
Reclamation efforts will be monitored pursuant to SMARA requirements and according to the County-approved Reclamation Plan. The operator will be required under SMARA (Public Resources Code Section 2207) to submit an annual status report. SMARA (Section 2774(b)) requires the lead agency (San Bernardino County) to conduct an inspection of the mining operation within six months of receipt of the required Annual Report.

To insure site preservation and stability, and in order to comply with those practices outlined in California Code of Regulations §3503, Webber-Plyley will regularly inspect and maintain the site. Regular inspections shall occur at least twice per year in order to identify any significant water erosion to the existing slopes/project areas. Webber-Plyley will timely identify any corrective measures needed, as well as identify the time needed to address any corrective or deficient measures.

In addition to regularly scheduled inspections, the mine site will be monitored for potential erosion after every significant storm event. The inspector will visually inspect the slope areas to observe drainage that may be affecting the site in the form of erosion. If erosion, or the potential for erosion, is evident, the operator shall implement appropriate erosion control measures.

## **ATTACHMENTS**

Maps:            Mining/Reclamation Plan Maps (previously submitted)  
                     2011 Existing Disturbance Exhibit

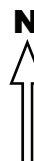


Scale: 1 Inch = 1,000 Feet

WEBBER-PLYLEY, INC. - SIGMA CLAY MINE  
INTERIM MANAGEMENT PLAN

## 2011 DISTURBANCE

Map Source: USGS 7.5' Fairview Valley, California Quadrangle





**I. PRIMARY RECLAMATION ACTIVITIES**Page 1 of 9

Description of Task: **None – Mining is conducted to finalize all slopes at 4:1 slope per Reclamation Plan requirements.**

**All excavated slopes are presently 4:1 slope.**

Methods to be Used:

Miscellaneous Information:

Overburden (cubic yards): 0 Topsoil (cubic yards): \_\_\_\_\_ Acres: \_\_\_\_\_  
 Production Rate (cubic yards/hour): 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_  
 Haul Distance (feet): 1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_

- A. Equipment - List all equipment required to complete identified task. For large reclamation jobs separate mine areas for east of accounting.

| Equipment | Quantity | \$/Hour | # of Hours | Costs (\$) |
|-----------|----------|---------|------------|------------|
| 1.        |          |         |            |            |
| 2.        |          |         |            |            |
| 3.        |          |         |            |            |
| 4.        |          |         |            |            |

Total Equipment Cost for this Task: \$ 0.00

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

| Labor Category | Quantity | \$/Hour | # of Hours | Costs (\$) |
|----------------|----------|---------|------------|------------|
|                |          |         |            |            |
|                |          |         |            |            |
|                |          |         |            |            |
|                |          |         |            |            |

Total Labor Cost for this Task: \$ 0.00

- C. Materials - List all materials required to complete identified task (include disposal costs).

| Item                         | Quantity | \$/Unit | Costs (\$) |
|------------------------------|----------|---------|------------|
| <b>No materials required</b> |          |         |            |
|                              |          |         |            |
|                              |          |         |            |

Total Materials Cost for this Task: \$ 0.00

- D. Direct Cost for this Task:

Equipment Cost + Labor Cost + Materials Cost = \$ 0.00

**II. REVEGETATION**Page 2 of 9Description of Task: **Seed the disturbed area of 18 acres.**Methods to be Used: **The 18 acres will be seeded with the recommended plant seed mix as per approved Revegetation Plan and cultivated with a spring-tooth harrow.**

A. Equipment - List all equipment required to complete identified task.

| Equipment                                 | Quantity | \$/Hour         | # of Hours | Costs (\$)   |
|---|----------|-----------------|------------|--------------|
| <b>Caterpillar 910 Loader with Harrow</b> | <b>1</b> | <b>\$38.38*</b> | <b>8</b>   | <b>\$310</b> |
|   |          |                 |            |              |
|   |          |                 |            |              |

\* Source: Caltrans Labor Surcharge and Equipment Rental Rates, April 1, 2012-March 31, 2013

Total Equipment Cost for this Task: \$ 310.00

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

| Labor Category              | Quantity | \$/Hour         | # of Hours | Costs (\$)   |
|-----------------------------|----------|-----------------|------------|--------------|
| <b>Botanist / Biologist</b> | <b>1</b> | <b>\$75.00</b>  | <b>8</b>   | <b>\$600</b> |
| <b>Loader Operator</b>      | <b>1</b> | <b>\$60.08*</b> | <b>8</b>   | <b>\$480</b> |
|                             |          |                 |            |              |

\* Source: General Prevailing Wage Industrial Relations, California Labor Code, Part 7, 8/22/11

Total Labor Cost for this Task: \$ 1,080.00

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

| Item/Plant Species           | Unit of Measure | # of Units | \$/Unit      | Costs (\$)      |
|------------------------------|-----------------|------------|--------------|-----------------|
| <b>Revegetation Seed Mix</b> | <b>Acres</b>    | <b>18</b>  | <b>\$727</b> | <b>\$13,085</b> |
|                              |                 |            |              |                 |
|                              |                 |            |              |                 |
|                              |                 |            |              |                 |
|                              |                 |            |              |                 |
|                              |                 |            |              |                 |
|                              |                 |            |              |                 |

Total Materials Cost for this Task: \$ 13,085.00

D. Direct Cost for this Task:

Equipment Cost + Labor Cost + Materials Cost = \$ 14,475.00

**III. PLANT STRUCTURES AND EQUIPMENT REMOVAL**Page 3 of 9Description of Task: **No plant structures or equipment are on site.**Methods to be Used: **Not Applicable**

A. Equipment - List all equipment required to complete identified task.

| Equipment | Quantity | \$/Hour | # of Hours | Costs (\$) |
|-----------|----------|---------|------------|------------|
|           |          |         |            |            |
|           |          |         |            |            |
|           |          |         |            |            |
|           |          |         |            |            |

Total Equipment Cost for this Task: \$ 0.00

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

| Labor Category | Quantity | \$/Hour | # of Hours | Costs (\$) |
|----------------|----------|---------|------------|------------|
|                |          |         |            |            |
|                |          |         |            |            |
|                |          |         |            |            |
|                |          |         |            |            |

Total Labor Cost for this Task: \$ 0.00

C. Demolition - List all structures and equipment to be dismantled or demolished.

| Item | Quantity | \$/Unit | Costs (\$) |
|------|----------|---------|------------|
|      |          |         |            |
|      |          |         |            |
|      |          |         |            |
|      |          |         |            |

Total Materials Cost for this Task: \$ 0.00

D. Direct Cost for this Task:

Equipment Cost + Labor Cost + Materials Cost = \$ 0.00



## E. Surplus/Salvage Value

1. Total cost to dismantle/demolish plant structures and equipment pursuant to the approved reclamation plan. \$ 0.00
2. Net salvage value of the plant structures and equipment.\* \$ 0.00
3. Subtract Line 2 from Line 1 \$ 0.00
4. If Line 3 is greater than \$0, enter this amount on the total plant structures and equipment removal cost line under Section VII (Summary of Costs). If Line 3 is less than \$0, enter \$0 on the appropriate line in Section VII.

**\* NOTE:** This is the value of plant structures, buildings and equipment on a salvage basis--e.g. after the structures and equipment have been removed for sale or use off-site. In order to include net salvage value in the financial assurance calculation, the operator must provide a letter of agreement, signed contract, bid or quote from an independent company which provides industrial dismantling or equipment salvage services, or is in the business of buying and selling scrap metals or similar products.

**IV. MISCELLANEOUS COSTS**Page 5 of 9

Examples of this type of cost could include temporary storage of equipment and materials off-site, special one-time permits (i.e. transportation permits for extra wide or overweight loads, etc.), decommissioning a process mill (i.e. decontamination of equipment), or disposal of warehouse inventories.

| Item           | Quantity | \$/Unit | Costs (\$) |
|----------------|----------|---------|------------|
| 1. <b>None</b> |          |         |            |
| 2.             |          |         |            |
| 3.             |          |         |            |
| 4.             |          |         |            |
| 5.             |          |         |            |
| 6.             |          |         |            |
| 7.             |          |         |            |
| 8.             |          |         |            |
| 9.             |          |         |            |
| 10.            |          |         |            |

Total Miscellaneous Cost: \$ 0.00

**V. MONITORING**

| Monitoring Task             | \$/Visit      | # Visits/Year | # of Monitoring Years | Costs (\$)      |
|-----------------------------|---------------|---------------|-----------------------|-----------------|
| <b>Botanist / Biologist</b> | <b>600.00</b> | <b>1</b>      | <b>5</b>              | <b>3,000.00</b> |
|                             |               |               |                       |                 |
|                             |               |               |                       |                 |
|                             |               |               |                       |                 |
|                             |               |               |                       |                 |

Total Monitoring Cost: \$ 3,000.00

## VI. SUPERVISION/PROFIT & OVERHEAD/CONTINGENCIES/MOBILIZATION Page 6 of 9

- A. Supervision - Supervision or reclamation management includes project inspection and supervision. These activities are usually performed by a consultant or staff member with experience in reclamation of disturbed lands. Reclamation management may include recommending change orders, verifying completed work, verifying compliance with project specifications, and other reclamation management oversight activities. Please refer to Graph No. 1 in the guidelines to determine the supervision cost factor.
- B. Profit and Overhead - Where it becomes necessary for the Lead Agency or the Department of Conservation to complete reclamation of the mining site, a third party will be retained to do the actual reclamation work. Because profit and overhead costs are not included in the reclamation cost sheets, these costs must be added to the total reclamation estimate. Please refer to Graph No. 2 in the guidelines to determine the profit and overhead cost factor.
- C. Contingencies - A contingency cost should be included in the financial assurance estimate to provide for project uncertainties and unexpected natural events. The U.S. Department of the Interior, Office of Surface Mining publishes the Handbook for Calculation of Reclamation Bond Amounts which recommends contingency percentages be based upon the level of direct costs, as shown below.

| <u>Total Direct Cost (\$)</u> | <u>Contingency (%)</u> |
|-------------------------------|------------------------|
| \$0 - \$500,000               | 10                     |
| \$500,000 - \$5 Million       | 7                      |
| \$5 Million - \$50 Million    | 4                      |
| Greater than \$50 Million     | 2                      |

- D. Mobilization - Mobilization costs are attributed to moving equipment to the project site for reclamation purposes. These costs normally range between one and five percent of the total direct cost of the reclamation operations. These costs will vary depending upon the site location and total value of the reclamation operations to be performed. Please insert the percentage used to estimate mobilization costs under Section VII - Summary of Costs.

**VII. SUMMARY OF COST**Page 7 of 9

|   |           |                         |
|---|-----------|-------------------------|
| Total of all Primary Reclamation Activities Costs                         | \$        | <b>0.00</b>             |
| Total of all Revegetation Costs   | \$        | <b>14,475.00</b>        |
| Total of all Plant Structures & Equipment Removal Costs                   | \$        | <b>0.00</b>             |
| Total of all Miscellaneous Costs  | \$        | <b>0.00</b>             |
| Total of all Monitoring Costs   | \$        | <b><u>3,000.00</u></b>  |
| <b>Total of Direct Costs</b>  | <b>\$</b> | <b>17,475.00</b>        |
| Supervision ( <u>7</u> %)   | \$        | <b>1,225.00</b>         |
| Profit/Overhead ( <u>14</u> %)  | \$        | <b>2,445.00</b>         |
| Contingencies ( <u>10</u> %)  | \$        | <b>1,750.00</b>         |
| Mobilization ( <u>5</u> %)  | \$        | <b>875.00</b>           |
| <b>Total of Indirect Costs</b>  | <b>\$</b> | <b>6,295.00</b>         |
| <b>Total of Direct and Indirect Costs</b>                                 | <b>\$</b> | <b>23,770.00</b>        |
| <b>Lead Agency Administrative Cost*</b><br>(10% of Direct/Indirect Costs) | <b>\$</b> | <b><u>2,375.00</u></b>  |
| <b>Total Estimated Cost of Reclamation</b>                                | <b>\$</b> | <b><u>26,145.00</u></b> |

**\* Note:** The Financial Assurance Guidelines recommend that when reviewing and approving a financial assurance cost estimate, lead agencies should include their administrative cost to draw on the financial assurance and implement the reclamation plan, should it become necessary.

## EQUIPMENT LIST

This attachment may be used to list the number and type of equipment to be used during reclamation. Write in the equipment under the general categories provided. If there is not category for the type of equipment to be used, please list it under the category entitled "Other Equipment."

|                        |  |
|------------------------|--|
| <b>TRACTORS</b>        |  |
|                        |  |
|                        |  |
|                        |  |
|                        |  |
| <b>MOTOR GRADERS</b>   |  |
|                        |  |
|                        |  |
|                        |  |
|                        |  |
| <b>LOADERS</b>         |  |
| <b>Caterpillar 910</b> |  |
|                        |  |
|                        |  |
|                        |  |
|                        |  |
| <b>BACKHOES</b>        |  |
|                        |  |
|                        |  |
|                        |  |
|                        |  |
| <b>SCRAPERS</b>        |  |
|                        |  |
|                        |  |
|                        |  |
|                        |  |

|                              |  |
|------------------------------|--|
| <b>EXCAVATORS</b>            |  |
|                              |  |
|                              |  |
|                              |  |
|                              |  |
| <b>ARTICULATED TRUCKS</b>    |  |
|                              |  |
|                              |  |
|                              |  |
|                              |  |
| <b>HAUL TRUCKS (Off Hwy)</b> |  |
|                              |  |
|                              |  |
|                              |  |
|                              |  |
| <b>HAUL TRUCKS (On Hwy)</b>  |  |
|                              |  |
|                              |  |
|                              |  |
|                              |  |
| <b>WATER TRUCKS</b>          |  |
|                              |  |
|                              |  |
|                              |  |
|                              |  |

[illegible]

NOTES:

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## **EXHIBIT G**

### **Property Owner Comments**



FISCAL YEAR

2013 NOV 19 AM 9:53

*November 18, 2013*

*San Bernardino County  
Land Use Service  
385 North Arrowhead Avenue  
First floor  
San Bernardino Ca 92415-0182*

*We (Maureen L. Pendleton Shaffer and William H. Pendleton) are responding to a notice concerning the planning project number AP 20120001/RMC, Applicant Weber-Pfley Inc. We would like to know if this project will in anyway diminish the value ascetically or structurally of our adjacent parcels numbers 046402253 and 46402264. We would also like to know how they are accessing the excavation site.*

*Respectfully,*

*Maureen L. Pendleton Shaffer*

*Maureen L. Pendleton Shaffer*

*760 946 4071 Home*

*251 646 1917 cell*

*15322 Riverside Drive*

*Apple Valley, Ca 92307*

San Bernardino County Land Use Services  
385 North Arrowhead Ave., First Floor  
San Bernardino, CA 92415-0182

2013 NOV 13 PM 9:55

RE: Assessor Parcel No. 0464-022-54

Project No. AP20120001RMC

Applicant: Webber-Plyley Inc

Dear Planning Commission

Please be informed that I own parcel number 046402255 (approx. 10 acres) which borders the North side of the proposed mine project. As a property owner I am opposed to any expansion or development of a clay pit mine bordering my property. The reason for my opposition is that I am planning to build my retirement home on that property, which I had purposely purchased for that sole purpose. Having a clay mine next to my property would undermine and create a safety hazard to my property and to all properties bordering the clay mine. Secondly, such a mine would without question create issues that would not make it feasible for me to build a retirement home that I had planned decades ago. That said, I am requesting that the Land Use Commission reject Webber-Plyley Inc's project to develop a clay pit mine at my front door and neighborhood.

Sincerely,



Larry Naritomi. Property Owner

Tel. Ph. (626) 757 4822

Fax No. (888) 271-1655

Email: [ynaritomi@gmail.com](mailto:ynaritomi@gmail.com)

## EXHIBIT H

### Agency Responses

**DEPARTMENT OF TRANSPORTATION****DISTRICT 8****PLANNING (MS 725)**464 WEST 4th STREET, 6<sup>th</sup> FLOOR

SAN BERNARDINO, CA 92401-1400

PHONE (909) 383-4557

FAX (909) 383-5936

TTY 711

[www.dot.ca.gov/dist8](http://www.dot.ca.gov/dist8)*Flex your power!  
Be energy efficient!*

November 19, 2013

San Bernardino County

Attn: Reuben Arceo

385 North Arrowhead Avenue

San Bernardino, CA 92415-0182

Dear Mr. Arceo,

Weber-Plyley Inc – APN20120001/RMC, 08-SBd-18 PM 80.588

We have received the Development Proposal for the above referenced project, located near State Route 18.

Your project does not appear to have impacts to the State Highway system. However, the California Department of Transportation reserves the right to comment on any future revisions to this project.

Should this proposal be later modified please forward copies of revised plans as necessary so that we may reevaluate all proposed changes for potential impact to SR18.

If you have any questions regarding this letter, please contact me at (909)-383-4557 or Dina Harrell at (909) 388-7139 for assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel Kopulsky", written over a horizontal line.

**DANIEL KOPULSKY**

Office Chief

Community &amp; Regional Planning



## Mojave Desert Air Quality Management District

14306 Park Avenue, Victorville, CA 92392-2310

760.245.1661 • fax 760.245.2699

Visit our web site: <http://www.mdaqmd.ca.gov>

Eldon Heaston, Executive Director

November 7, 2013

Gus Romo, Romo Planning  
 San Bernardino County Land Use Services Department  
 385 North Arrowhead Avenue  
 San Bernardino, CA 92415-0182

### Project: AP20120001/RMC, Sigma Clay Mine

Dear Mr. Romo:

The Mojave Desert Air Quality Management District (District) has reviewed Project Notice AP20120001/RMC for the Sigma Clay Mine. This proposal is to increase the project site by increasing the quarry pit total depth from 10 feet to 40 feet below ground surface. The mine project will disturb 36.4 acres within the 40.8 acre property site within an essentially flat playa clay lake bed. Proposed operations will excavate the clay material from the dry lake bed to a maximum depth of 40 feet with no overburden material residual. Excavation of the clay pit will produce slopes of 4:1 (horizontal:vertical) to a depth of approximately 40 feet. The project is located approximately 8 miles north of Highway 18 on Central Road.

Based on the information available at this time, the owner/operator shall comply with the provisions of District Rules 402 – *Nuisance*, 403 – *Fugitive Dust* and 403.2 – *Fugitive Dust Control for the Mojave Desert Planning Area*. The description of mining operations does not indicate that there are any District permits required at this time.

Thank you for the opportunity to review this planning document. If you have any questions regarding this letter, please contact me at (760) 245-1661, extension 6726, or Tracy Walters at extension 6122.

Sincerely,

A handwritten signature in black ink, appearing to read "Alan J. De Salvio".

Alan J. De Salvio  
 Supervising Air Quality Engineer

AJD/tw

AP20120001 RMC Sigma Clay Mine



A Better Way of Life

# Town of Apple Valley

14955 Dale Evans Parkway Apple Valley, California 92307

2014 OCT -3 PM 2:49

September 30, 2014

**RECEIVED**

OCT 06 2014

San Bernardino County  
Planning Division

County of San Bernardino  
Land Use Services – Current Planning  
385 North Arrowhead Ave  
San Bernardino, Ca. 92415-0182  
Attention: Reuben Arceo

Subject: Sigma Clay Mine Case # AP2012001 (APN: 0464-022-54)

Dear Mr. Arceo:

This letter is in response to the project notice for a Mitigated Negative Declaration for the proposed Sigma Clay Mine located within the Town of Apple Valley Sphere of Influence. Based on the Initial Study and access road exhibit that you provided, the Town has no objections to the project but does have comments with respect to this project that could be incorporated into the Conditions of Approval.

The project proposes primary access off of Johnson Road with an anticipated peak of up to 50-100 trucks per day according to the Initial Study. Within Town limits Johnson Road is paved from Central Road to Stoddard Wells Road and is an unimproved non-maintained dirt road east of Central Road. Johnson Road is designated as a "through truck route" from Central Road to Dale Evans Parkway and designated a "local truck" route from Dale Evans Parkway to Stoddard Wells. However, Johnson Road east of Central Road is not a designated truck route due to the lack of street improvements and road dedication to the easterly Town limits (Joshua Rd).

Due to the lack of any road improvement requirements identified in the Initial Study, the Town expresses its concern with the amount of commercial/ industrial truck traffic utilizing an unimproved non-maintained dirt road, the lack of traffic controls and the impact of dust and mud being tracked onto Johnson Road at Central Road.

The Town of Apple Valley requests that the project be required to comply with the following, in accordance with the Town's North Apple Valley Industrial Specific Plan and Development Code:

1. In accordance with Town standards, commercial or industrial development is required paved access to the nearest paved street. This would require a minimum 26-foot paved access from the easterly Town limit (Joshua Road) to Central Road. The paved access road would be maintained by the applicant. This pavement would also serve to allow enough paved surface for the trucks to lose the dust and mud before crossing Central Road.
2. Traffic control at the intersection of Johnson Road and Central Road shall be provided in accordance with Town standards.

The changes and implementation of the Conditions of Approval as discussed above would address the Town's concerns.

Thank you for the opportunity to comment on this project. If you have any questions, please contact me at 760-240-7000 x 7222.

Sincerely,

A handwritten signature in black ink that reads "Carol Miller". The signature is written in a cursive, flowing style.

Carol Miller  
Principal Planner