

May 10, 2022

Project No. 197-2020-0033

Mr. Todd Burnight
The Carson Companies
100 Bayview Circle, Suite 3500
Newport Beach, California 92660

RE: Phase I Environmental Site Assessment Addendum
Vulcan Materials Company
2350 and 2400 West Highland Avenue
San Bernardino County, California 92407
Project No. 197-2020-0033

Mr. Burnight:

Tetra Tech BAS (Tetra Tech) appreciates the opportunity to submit to The Carson Companies this Phase I Environmental Site Assessment (ESA) addendum letter (Addendum Letter) for the above-referenced property (the Site). This Addendum Letter provides a brief summary of additional information provided to Tetra Tech by The Carson Companies in April 2022, after the Phase I ESA report for the Site dated March 27, 2020 (the Phase I ESA) was issued. This Addendum Letter is intended to be a supplement to the Phase I ESA Report. Both documents are to be read to obtain a complete understanding of Tetra Tech's findings with respect to the Site. It is recommended that this addendum letter be kept in the same file as the Phase I ESA report.

According to the Phase I ESA:

- Calmat Co. San Bernardino Plant Aggregate Mining Operation (Cajon Wash and Lytle Creek) was listed on GeoTracker as a land disposal site. The location of this facility was depicted within the area of the Site. The California Regional Water Quality Control Board – Santa Ana Region (SARWQCB) was listed as the lead agency for this facility. The status of the land disposal site was reported to be closed as of February 2017. According to an Inactive Waste Disposal Site Summary Letter (Strata Technologies, Inc., 1990), this facility was active from the early 1950s and likely closed before 1955. Refuse at the land disposal site was reported to have been burned. Materials reported to have been disposed at the land disposal site included household refuse, bottles, cans, tree stumps, asphalt blocks, bricks, tiles, and concrete slabs. A subsurface study was performed in the area of the former land disposal site in 1992 (Toxic Technology, Inc. [TTI], 1992). TTI referred to the former disposal site as a landfill. Four borings were advanced to a depth of 25 feet below the depth of the material to a maximum depth of 70 feet below ground surface (bgs). Fill material was reported to a depth of 15 feet bgs, overlying native soil. Fill and soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), dioxins, metals, total recoverable petroleum hydrocarbons (TRPH), organochlorine pesticides, and asbestos-containing materials. All the analytes were non-detectable or below action levels, except for TRPH. Toxic Technology, Inc. concluded that the landfill was not impacted with any materials that would be considered to be hazardous. Tetra Tech also requested records for this facility from the SARWQCB. No additional records were found. It is unknown whether the area of the TTI investigation was within the Site boundaries. The former land disposal/burn site reported to have been present at the Site is considered to be a component of the Site use recognized environmental condition (REC).

According to information contained in the 2015 Mining/Reclamation Plan for the Vulcan Materials Company San Bernardino Plant, provided to Tetra Tech by The Carson Companies in April 2022:

- A landfill which began operation in the early 1950s and closed before 1955, is present within the Lytle Creek floodway.
- The disposition of the landfill located in Area A is subject to the requirements of the Regional Water Quality Control Board and County Department of Environmental Health.
- Area A is located entirely within the 100 year flood plain of Lytle Creek as defined by the Federal Emergency Management Agency (FEMA).
- Area A, as depicted on the Site Closure Program figure, is approximately 850 feet northeast of the Site at the closest point.

- According to the Site Closure Program figure, Phase A-1 and Phase B-1 grading and revegetation were installed January/February 1992, met standards in May 1994, and the landfill was closed in September 1994.

Based on this additional information (reported location of the former landfill off-Site to the northeast at least 850 feet, types of materials reported to have been disposed at the former landfill, and results of the TTI [1992] subsurface study), the former landfill is now not considered to be of environmental concern to the Site and not a component of the Site use REC. All other conclusions, as well as the recommendations, presented in Tetra Tech's 2020 Phase I ESA report remain unchanged.

Tetra Tech recognizes that this Addendum Letter is to be used exclusively by The Carson Companies. It is an Addendum Letter upon which The Carson Companies can rely. The Addendum Letter is subject to the same limitations as cited in Section 2.2 of the referenced Phase I ESA Report.

Please do not hesitate to contact us at your convenience should you have any questions or comments regarding this Addendum Letter. It has been a pleasure working with you on this project.

Sincerely,

TETRA TECH, INC.


STEVEN GROD
Project Manager

GREG ACOSTA
Vice President, Environmental Services



Attachment: Selected Information from 2015 Mining Reclamation Plan

**ATTACHMENT
SELECTED INFORMATION FROM 2015
MINING RECLAMATION PLAN**

CA Mine ID #: 91-36-0012
APN: 0264-431-15-0000

Hearing Date:	June 28, 1990
Agenda Item:	5
Approval Date:	July 10, 1990
Revision #1 Date:	December 1, 2009
Revision #2 Date:	December 11, 2015



- 745/EVL/88004178/SAMR/01
SAMR/89-0005/E194-41
- AP20150097

MINING/RECLAMATION PLAN
90M-11

SAN BERNARDINO PLANT

Vulcan Materials Company
500 North Brand Boulevard, Suite 500
Glendale, CA 91203

THIS MINING/RECLAMATION PLAN
EXPIRES ON
DECEMBER 22, 2022

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MINING CONDITIONAL USE PERMIT AND RECLAMATION PLAN

Project Title: SAN BERNARDINO PLANT

Reclamation Plan Number: 90M-11

Expiration Date: 12/22/2022

Name of Project Proponent: Vulcan Materials Company

Address of Project Proponent: 500 N. Brand Boulevard, Suite 500, Glendale, CA 91203

Project Location: The project is located on the 2400 block of West Highland Avenue in an unincorporated area of Rialto, west of the Lytle Creek/Cajon Creek floodplain.

Type of Operation: Sand and Gravel with Batch Plant

Mineral Commodity: Sand and Gravel Aggregate

Quantity of Ore: 2,000,000 TPY

Operation Time Frame: 32 Years

Reclamation Time Frame: 32 Years

Area to be mined and reclaimed: 101 acres

Total Holdings: 1,010 acres

Maximum Anticipated Depth: 70 feet

Reclaimed to: Vacant Open Space and Natural Habitat

Effect on Future Mining: No effect on future mining

State Agency: Department of Conservation
Office of Mine Reclamation
801 K Street, MS 09-06
Sacramento, CA 95814
(916) 323-9198

Lead Agency: San Bernardino County
Land Use Services Dept.
385 N. Arrowhead Ave.
San Bernardino, CA 92415
(909) 387-4002

Approved By:

A handwritten signature in blue ink that reads "Linda Mawby".

Linda Mawby, Senior Planner

Date: December 11, 2015

NOTE: This and supplemental documents for the non-proprietary portions of the project are on file and available for review at the state and lead agency addresses above.

This Mining and Reclamation Plan, approved by the San Bernardino County:

PLANNING COMMISSION

complies with the Mining/Reclamation Plan requirements of both the San Bernardino County Development Code, Title 8, Division 10, Chapter 1, Surface Mining and Land Reclamation and the California Surface Mining and Reclamation Act of 1975 (SMARA).

The issuance of a Conditional Use Permit for Mining/Reclamation by San Bernardino County neither constitutes an endorsement of the project, nor a testament to the validity of the ore body.

Vulcan Materials Company
San Bernardino Plant
Mine and Reclamation Plan

CA Mine ID #: 91-36-0012

APN: 0264-431-15-0000

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Land Use Services Department Planning

Tom Hudson
Director

December 11, 2015

Applicant

Vulcan Materials Company
Attn: Sean Palmer
500 N. Brand Boulevard, Suite 500
Glendale, CA 91203

Representative

Gresham Savage Nolan & Tilden, PC
Attn: Jennifer Dorgan
550 E Hospitality Lane, Suite 300
San Bernardino, CA 92408

RE: MINING/RECLAMATION PLAN 90M-11 REVISION APPROVAL

San Bernardino Plant
CA Mine ID #91-36-0012
Application No.: AP20150097
APN: 0264-431-15

Approval Date: December 11, 2015
Effective Date: December 22, 2015
Expiration Date: December 22, 2022

Dear Mr. Palmer:

Please be advised that your application to revise Mining/Reclamation Plan 90M-11 for the San Bernardino Plant has received **CONDITIONAL APPROVAL**. This approval is subject to your compliance with the accompanying list of Conditions of Approval attached hereto. These Conditions of Approval identify requirements associated with your project that must be met pursuant to varying categories and timeframes. Conditions of Approval remain in effect for the life of the project.

The Planning Division considers the Conditions of Approval and Mining/Reclamation Plan 90M-11, inclusive of associated maps dated as of 8-20-15, to be your final development criteria/design. These shall not be considered conceptual designs. Any modifications and/or alterations will require the submittal of a "Revision to an Approved Action" application and receive approval prior to any modifications being implemented. PLEASE NOTE that the expiration date is listed at the top of this letter and this is the only notice of that date. The applicant is responsible for initiating extension requests without any reminder.

Pursuant to the San Bernardino County Code Chapters 85.01 and 86.08 of the San Bernardino County Development Code, the approval action taken by Planning Division staff may be appealed to the Planning Commission by a properly filed application. The Director shall be notified by the appellant of an appeal within 10 days from the date of approval, or before 5:00 PM on December 21, 2015.

BOARD OF SUPERVISORS

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Chief Executive Officer

Vulcan Materials Company – San Bernardino Plant
Reclamation Plan 90M-11 Revision Approval
December 11, 2015
Page 2 of 2

If you have any questions or concerns regarding this matter, or any future needs with respect to the permitting or operations of this mine, please contact our Mining Geologist, George Kenline, by e-mail at gkenline@lusc.sbcounty.gov or by telephone at (909) 387-4105.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Mawby".

Linda Mawby, Senior Planner

Enclosure: Vulcan – San Bernardino Plant Conditions of Approval

Cc: Jennifer Dorgan, Gresham Savage Nolan & Tilden

LM/dp/cks

INTRODUCTION

The San Bernardino CalMat Co. aggregate mining operation is located north of Highland Avenue in the Cajon/Little Creeks wash. The Reclamation Plan design incorporates earlier permit conditions, which cover final pit configuration, slopes and set back requirements.

The CalMat Co. sand and gravel mining operation is approximately 1028 acres in size. Of these, about 909 acres are located within the boundaries of the Cajon/Little Creeks 100 year flood plain, as defined by the Federal Emergency Management Agency (FEMA). The remaining 119 acres do not lie within the FEMA 100 year flood plain, but are subject to flood events greater than 100 year storms.

The Reclamation Plan is divided into two parts, based on property ownership. CalMat owns approximately 712 acres, and leases about 316 acres from BBC Properties. The CalMat Co., as the operator, is responsible for the implementation of the Reclamation Plan.

San Bernardino Reclamation Plan
CalMat Co.
Page 2

The intent of the Reclamation Plan is to comply with the provisions of San Bernardino County Surface Mining and Reclamation Ordinance and the California Division of Mines and Geology Surface Mining and Reclamation Plan Act of 1975, as amended.

MINING OPERATION

Introduction

Mining of sand and gravel in the Cajon/Little Creeks flood plain has been continuous since the early 1900's. Official documents indicate that during the mid 1960's, the Triangle Rock Company obtained permits to mine sand and gravel material, and to produce Portland cement concrete and asphalt concrete. In 1973, the Conrock Company acquired Triangle Rock. In April 1984, Conrock merged with the California Portland Cement Company to form the CalMat Co. Triangle Rock permits obtained for this property were transferred to the CalMat Co., and cover the following areas:

- a. Plant Site.
- b. Mining in Cajon Wash.
- c. Mining in the "Winter Pit" area.

Mining Method

To mine sand and gravel material, a skip loader excavates material and loads it onto hauling trucks. While one truck is being filled, the second truck is transferring its load to the aggregate processing equipment located approximately 3000' from the pit. Each hauling truck makes 40 to 50 round trips per day.

To control dust at the project site, a water truck spreads water and an additive (West Lite 120-p) on the access roads at least four times a day.

Projected annual production is in excess of one million tons per year.

Process Fines

Waste material at the San Bernardino operation consists of approximately 10% silt. The silt is separated from coarser products
- - -
where the silt settles out.

Subsequently the silt is removed from the settling ponds by crane and transferred to stock piles located next to the ponds, where it dewatered. Once dry, the silt is transferred to stock piles located in the winter pit for subsequent use as a soil amendment or as backfill material of previously mined areas.

Production Water Data

The water consumption of the plant averages 280 gallons per minute or 450 acre-feet per year. The water is supplied by the Muscoy Water Company.

The plant recycles 70% of all water used in production. The remaining 30% is used to separate silt from salable aggregate. The wash water flows into settling ponds where it is allowed to percolate and/or evaporate. No chemical additives are added to the water, and the waste water presents no hazard to the environment. Total Dissolved Solids (TDS) are monitored and reported to the Santa Ana Regional Water Quality Board per order number 77-196.

Erosion and Sedimentation Control

Adjacent properties are protected from erosion by slopes and setbacks constructed in accordance with previously approved Mining Permit Conditions as shown on the Reclamation Plan. These conditions allow for deeper mining under the Bonadiman Mine Plan. However for the purposes of this reclamation plan, the final contours of the excavation conform to the equilibrium profile (Redline) of the wash, as developed by Nasland Engineering in their April 1990 report which is appended.

Refer to Redline Concept for Revised Reclamation Plan for Mining in Lytle Creek/Cajon Creek, Nasland Engineering, Section 3.1

CalMat Co. may at some later date revise this reclamation plan to provide for deeper mining (Bonadiman Plan) as previously approved. Such revision would be subject to the review and approval by the county.

The Redline concept of excavation limits was developed for Lytle/Cajon Creeks Wash, using the existing or natural longitudinal bed profile as the basis. It represents the approximate elevation (equilibrium profile) toward which the stream channel adjusts. Erosion is minimized since the redline follows a smooth longitudinal profile that closely approximates the equilibrium profile. Following this approach minimizes potential changes of the present stream bed while accommodating sand and gravel mining.

The natural stream bed of Lytle/Cajon Creeks is very broad and generally flat, characteristic of steep braided streams classified in river morphology. Consistent with this natural feature, sand and gravel excavation is extended to wide areas within the property boundaries, subject to smooth transitions between the redline and the property boundaries.

The topography of the final excavation should not affect sediment transport in the stream channel since under the Redline Concept, a smooth longitudinal profile is maintained to facilitate sediment flow.

Storm runoff from a 100 year flood event is confined to the flood plain. It is expected that aggregate will be naturally replenished in the mined areas during major storm events. As the runoff velocities decrease through the mined area of the river bed, aggregate will be deposited. The decrease in runoff velocities are caused by the mild slopes resulting from the mining activities in the flood plain. Such replenishment has occurred historically during both the 1938 and 1969 floods.

Blasting

Blasting is not contemplated for this mining operation.

EXISTING CONDITIONS

Land Use

Land use of the surrounding area consists of residential areas to the west, southwest, and east of the project. The Lytle/Cajon Creeks flood plain occurs northwest, northeast and southeast of the project site. Portions of the flood plain are mined by other companies.

Visibility

The present mining operation is located in a dry river bed. A typical field view from any direction along the property boundary looking toward the wash consists of 40% dry riverbed, 15% flood control structures, 40% chaparral vegetation and 5% man-made litter (not a result of the mining operations). This "typical field of view" represents a view along the property boundary where no mining activities can be seen.

The mining operation typically involves excavating material along the river bed and river banks. Since flood flows tend to cut vertical walls along the banks of the river bed, the excavated topography tends to be similar to the natural topography. Once mining ceases, the slope of the mining area and the present natural dry riverbed slope will be similar. Both the proposed and existing contours slope gently downstream in an southeasterly direction.

In areas where portions of the mining operation can be seen, the typical field of view is slightly changed by the following percentages:

1. Approximately 30% of the present mining operation is visible from the 50' high bluff located along the western boundary of the project.
2. The mining operation is not visible from Highland Avenue along the southern boundary of the project, because of a 20' high landscape berm required as a condition of approval for the Winter Pit operation.

3. Approximately 5% of the operation is visible from a few large rural parcels located along the northeastern boundary of the project.

As the mining operation proceeds northward along the riverbed the visibility conditions are not expected to change.

Vegetation and Wildlife

The vegetation and wildlife of the project site are described in detail in the Biological Assessment for the CalMat San Bernardino Operation, February, 1989 and the CalMat San Bernardino Plant Recommended Revegetation Plan, May, 1990, both produced by Tierra Madre Consultants, Inc.

Refer to Sections 3.2 and 3.3 for full reports.

Landfill

A landfill, which began operation in the early 1950's and closed before 1955, is present within the Lytle Creek floodway. Strata Technologies Inc. produced a report summarizing the available information on the landfill.

Refer to Section 3.4 for full report.

Geology

The mining operation is located in the northeast portion of the San Bernardino Basin. The basin is bounded by the San Andreas Fault Zone and the San Bernardino Mountains to the north, the Cajon Creek to the northwest, the lower Lytle Creek Ridge to the southwest, and the Cajon Creek Canyon to the southeast. (Dutcher, L.C. and Garrett, A.A., 1963, Geologic and Hydrologic Features of the San Bernardino Area, California: U.S. Geological Survey Water-Supply Paper 1419.).

The San Bernardino Mountain watershed that contributes material to the igneous and metamorphic rock complexes (Rigors, Thomas H., 1967, San Bernardino Sheet, Geologic Map of California, California Division of Mines and Geology).

The rocks in the Lower Lytle Creek Ridge area consist of granitic rocks (granite and quartz monzonite) of Mesozoic Age.

At the basin edge non-marine sedimentary deposits of Pleistocene Age are exposed along the southwest side of the San Andreas fault. These rocks are designated as Older Alluvium and are overlain by recent alluvial fans (Miller, Fred K., 1979, Geologic Map of San Bernardino North Quadrangle, U.S.G.S. Open File Report 79-770).

The major structural features in the general area are the San Andreas and the San Jacinto fault zones. The Glen Helen Fault has been projected across the northeast corner of the property. Consequently, a portion of the property is within an Alquist-Priolo Special Study zone, a recently active fault zone. (Special Study Zones, Official Maps of the Devore and the San Bernardino Quadrangles, 1974, California Divisions of Mines and Geology).

The surface geology within the property, consists of two types of alluvial deposits. The active river channel alluvium is described as "Unconsolidated alluvium of major drainage channels....alluvium devoid

~~of sand and gravel, and some boulder alluvium~~

near mountains to sandy alluvium in valley areas removed from the mountains". The second type is described as "Alluvial fan deposits....Unconsolidated deposits of young coarse alluvium radiating from the mountain fronts. Alluvium ranges from coarse bouldery alluvium near the mountain fronts, to pebbly and cobbly alluvium where it grades into undifferentiated younger alluvium" (Fife, Donald L., et. al., 1976 Geologic Hazards in Southwestern San Bernardino County, California Divisions of Mines and Geology Special Report 113). The alluvium may be as much as 400 feet or greater in thickness near the southeast end of the property.

Hydrology and Ground Water

Rainfall at the mining site averages approximately 17 inches per year with over 70 percent occurring during the four-month period from January through March. Annual extremes at the site have varied from zero to nearly 80 inches.

Within the 162 square-mile area of the combined watersheds of Lytle and Cajon Creeks, elevations rise abruptly, ranging from approximately 2,000 feet at the mining site to over 10,000 feet at Mount San Antonio. The orographic influences of the San Gabriel and San Bernardino Mountains contribute to high intensity precipitation during typical winter storms which frequently last from 1 1/2 to 2 days. Major storms last four days or longer, whereas thunderstorms, with short durations and high intensity precipitation, rarely last more than 3 to 4 hours.

Flood runoff is characterized by high peak discharge of short duration, with much debris, which has formed the Lytle/Cajon Creeks alluvial fan. The largest peak flow of record occurred in February, 1938 when Lytle and Cajon Creeks produced an estimated combined flow at Foothill Boulevard of approximately 30,000 cfs.

Records show that Lytle Creek produced nearly twice the peak flow produced by Cajon Creek in 1938. The values are as follows:

TABLE 1

<u>Station</u>	Drainage Area	1938 Peak Discharge
	<u>sq. miles</u>	<u>in cfs</u>
Lytle Creek near Fontana	47.9	25,200
Cajon Creek near Keenbrook	40.9	14,500

Peak flow records compiled on the two streams show that the streams do not peak through this site simultaneously.

The excavation site lies within the 100-year flood plain as depicted on recent Flood Insurance Rate Maps published by the Federal Emergency Management Agency. The 100-year flood plain boundary, as shown on the Existing Conditions Plan, is presently constrained by the Riverside Avenue Groins, the Island Levee and the San Bernardino Water Works Levee on Lytle Creek, as well as by the Upper and Lower Devore Levee,

were constructed by the U.S. Army Corps of Engineers in the late 1940's as part of the Lytle and Cajon Creeks Flood Control Project.

The 100-year flood plain is also constrained by the Southern Pacific Railroad embankment along the east side of Cajon Creek and along the east side of Lytle Creek below the Cajon Creek confluence.

Cable Creek enters the mining area from the east approximately 0.8 mi. above the confluence of Lytle and Cajon Creeks, and a small, unnamed tributary enters the lower end of the excavation from the east approximately 2,000 feet upstream from Highland Avenue.

Refer to Existing Conditions Plan Map in Section 4.2

The excavation site is located within the Cajon and Lytle Creek Ground Water Basins, which are recharged by percolation from rainfall and from surface flows of Lytle and Cajon Creeks. Most of the recharge occurs during winter runoff periods, particularly during major flood events. Ground water slopes generally follow the trace of the two streams except where interrupted by outcrops or by distortions from concentrated ground water pumping.

The quality of the ground water supply in the vicinity of the

the Basin Plan published by the Regional Water Quality Control Board and the State Water Resources Control Board.

Minimum depths to ground water are depicted on the Existing Conditions Plan Map and are based on records of over 50 wells located within 1/4 mile of CalMat property.

Mining activity at the excavation may be constrained from time to time, both by flood flows through the excavation, as well as by excessively high ground water levels during winter and early spring runoff periods. During these periods mining activity will be confined to the "winter-pit", just west of the existing plant site and immediately north of Highland Avenue.

Mining is not expected to significantly influence ground water levels in the adjacent or underlying formations during the winter and spring runoff periods. During the summer and fall months, ground water levels have historically been drawn down below the bottom of the proposed excavation.

No special erosion protection of well sites is anticipated as a result of the mining activity. No significant impacts on water tables are anticipated during the critical summer and fall months of heavy water

The excavation site is located within the principal zones of recharge of the Lytle and Cajon Creek Basins. Given the excavation's adherence to the Redline Concept, which maintains the existing hydrologic regime, it is expected that the excavation will have no adverse impacts on the rate of recharge in those basins.

The mining activity will not introduce any toxic substances, contamination, or otherwise degrade the quality of stream run off or ground water through, beneath or downstream from the site.

The quarrying operation is located several thousand feet downstream from two gaging stations on Lytle and Cajon Creeks (Lytle Creek near Fontana and Cajon Creek near Keenbrook) and the mining activity will have no direct or indirect impact on their operation.

Soils

Soils at the mining site are well graded gravels and gravel-sand mixtures with some fines from 5 to 50 feet below the natural surface

GW soil layer clayey sands and sand-clay mixtures are present (Unified

Soil Classification Designation-SC). In general the soils in the area have a low run-off potential. The soils have high infiltration rates even when thoroughly wetted. Typically the soils have a high rate of water transmission. It is not anticipated that the mining operation will change the topsoil characteristics.

RECLAMATION

Introduction

The Cajon/Little Creek flood plain has experienced significant flooding in 1862, 1938, and 1969. The January 1862 flood was the largest flood event in recorded history of the San Bernardino Valley. There is evidence to suggest that replenishment of previously mined aggregate occurred during 1938 and 1969 floods. Although flood events are not generally predictable, it is believed that the San Bernardino Valley area will experience major flooding within the next decade. Based on the intermittent replenishment of aggregate it is anticipated that the mining operations will continue indefinitely.

Given the expectation that replenishment will occur with some regularity, completion of reclamation cannot be predicted. However, assuming no replenishment and current production rates, mining would be completed in 15 to 20 years.

Phasing

The Reclamation Plan has been divided into two parts, based on property ownership. Area A covers land owned in fee by the CalMat Co. Area B is leased to the CalMat Co. by BBC Properties, who own the land in fee. Areas A & B, although a single mining operation, will be treated separately for the purposes of reclamation phasing.

Area A, about 712 acres in size, is located entirely within the 100 year flood plain of Lytle Creek as defined by FEMA. The total area is devoted to the excavation of sand and gravel material.

Area B consists of approximately 316 acres, of which 197 acres are within the 100 year flood plain and 119 acres are outside the flood plain.

Refer to Phasing Reclamation Plan Map in Section 4.4

The Phasing Plan assumes that the mining operation will continue for another 15 to 20 years, and that no replenishment of sand and gravel

lease with BBC Properties.

Should replenishment occur and/or the lease be extended, the time to reclaim the land would be adjusted accordingly. However, the sequence of reclamation as shown would remain the same.

It is estimated that Phases A-1, B-2 would be reclaimed within two years of plan approval, Phases A-2, B-2 within four years and Phases A-3, B-3 within six years. Reclamation of Phases A-4 through A-6 is dependent on the rate of mining which is market driven. Reclamation would be initiated in each of these phases (A-4 through A-6) prior to mining in the next phase. Reclamation would be initiated in Phase B-4 upon expiration of the lease or cessation of mining.

Adherence to this schedule is dependent on the ability to collect sufficient plant material for revegetation purposes from upstream areas, as recommended by Tierra Madre. It also may be modified by state and federal wildlife management agencies.

Objectives

Areas A & B (Phases A-1 through A-6 and B-1 through B-3) to recreate pre-mining conditions, and to leave stable and naturally vegetated

slopes. The portion of Area B (Phase B-4) which is out of the flood plain will be left in a clean condition and graded to drain to Lytle Creek. Slopes will be stabilized by native vegetation.

Specifically, reclamation of Area A and flood plain portions of Area B (Phases A-1 through A-6 and B-1 through B-3) will consist of the following:

1. Upon completion of mining, side slopes will be graded to the approximate contours indicated on the Reclamation Plan. The final contours of the excavation have been designed to match the eventual contours of the wash. Runoff will tend to flow through the quarry similar to natural runoff patterns on alluvial fans, replicating natural hydrologic conditions.

The stream bed downstream of Redline elevation 1350 shown on the Reclamation Plan will be left at the existing elevations. This area was mined pursuant to the previously approved Bonadiman Plan. These elevations approximate those

redline, particularly near the working face of the

excavation. To provide for natural replenishment of these areas, an area upstream will not be mined. Areas above redline elevation 1350 will be mined to the redline.

Refer to Reclamation Plan Map in Section 4.3

2. Pre-mining native plant communities, as identified in the Biologic Assessment, will be planted after grading has been completed pursuant to the Revegetation Plan. The seed mix specified in the Revegetation Plan may be modified by State and Federal wildlife management agencies. The planting will be done in the winter months to take advantage of winter rains.
3. Presently there are no mining operation facilities or structures in this area. Any future facilities or equipment will be removed upon completion of mining.

Reclamation of Area B outside the flood plain (Phase B-4) will consist of the following steps:

1. Upon completion of mining the slopes of this area will be graded to the configuration shown on the Reclamation Plan. The slopes of the area containing process fines will be graded to 2:1 (horizontal to vertical). Grading will be completed within six months following cessation of mining.
2. After grading is completed, the slopes will be revegetated pursuant to the Revegetation Plan
3. All structures related to the processing facility, which includes stockpiles, silt ponds, equipment, offices and worksheds will be removed within one year following lease expiration or when mining operations cease. The area will be graded to conform to the configuration shown on the Reclamation Plan. Silt ponds will be drained, and graded to a level condition. Existing vegetation would be left in place.

Revegetation

The objective of the revegetation plan in the flood plain areas (Phase A-1 through A-6 and B-1 through B-3) is to reestablish native plant communities which have been impacted by mining activities.

Revegetation of the areas will be based on the Revegetation Plan designed by Tierra Madre Consultants and may be subsequently modified by State and Federal wildlife management agencies.

Refer to CalMat San Bernardino Plant - Recommended Revegetation Plan in Section 3.3.

The Revegetation Plan specifically recommends the following:

1. Restore natural components of Riversidian alluvial fan sage scrub vegetation to the extent practicable.
2. Restore or retain suitable habitat for endangered plant species.
3. Restore wildlife habitat values to the extent possible, particularly for orange-throated whiptail and San Diego horned lizard.

Riversidian alluvial fan sage scrub is a vegetation type naturally adapted to periodic disturbance by flooding. Other species typical of this plant community seem to require some disturbance in order to ~~maintain suitable habitat conditions. Some of the species which are~~ dependent on periodic flooding are the two endangered plants, the slender-horned spineflower and the Santa Ana River woolly-star.

Prior to mining in areas suspected of containing endangered plants, surveys will be conducted as recommended by Tierra Madre in their May 1990 report. Refer to Section 3.3. The protection and restoration of these plants' habitats will be coordinated with those State and Federal agencies having jurisdiction.

Revegetation of Phase B-4 is directed at stabilizing final pit slopes. The seed mixes and planting methods used will be pursuant to the Revegetation Plan.

Cleanup

Clean-up for Areas A and B shall be in compliance with measures previously outlined. However, it should be noted that all equipment directly and indirectly related to the mining processes will be removed when mining is completed.

Landfill

Old and inactive landfill disposal sites are regulated under the California Administrative Code Subchapter 15, the California Water

Code, and SWAT legislation. This legislation delineates environmental testing and monitoring and closure requirements for waste disposal sites. For inactive sites in San Bernardino County, the lead agencies are typically the Regional Water Quality Control Board and the County Department of Environmental Health Services.

The disposition of the landfill located in Area A is subject to the requirements of these agencies. It will be dealt with separately and thus is not addressed by the Reclamation Plan.

Post-Reclamation and Future Mining

After reclamation, the mined area will consist of native plant communities and sandy material. The future use of the property is limited by the local geographic conditions. Over 86% of the mined area is in the 100 year storm flood plain, 12% is presently zoned residential (R-1-10-M) and industrial (M-2-T). Post-reclamation use of the property will be dependent on the land use designation of the General Plan at the time reclamation is complete.

If replenishment occurs in previously mined and/or reclaimed areas, mining may continue in the future.

Slopes and Slope Treatment

Final mining slopes, specified by the Reclamation Plan, were previously approved by the County of San Bernardino. The requirements call for 5:1 slopes for excavations within the flood plain. Slopes of the winter pit which is outside of the flood plain are 2:1 horizontal to vertical.

A report by LeRoy Crandall addressing slope stability is appended.

Refer to Geological Analysis by LeRoy Crandall in Section 3.5.

Silt Ponds

The ponds will be drained and graded to a level condition following cessation of mining. Dewatered silt material may be used to fill portions of, or to provide soil cover for the winter pit.

Drainage and Erosion Control

The final flood plain topography in Area A will be in accordance with the previously approved mining plot plan prepared by Joseph E., Bonadiman and Associates dated 1969 as modified by the Redline Concept prepared by Nasland Engineering April 26, 1990 and appended.

The Redline Concept is proposed to minimize the potential for offsite erosion as discussed earlier. Prior to the development of the Redline, CalMat adhered to the previously approved depths of the Bonadiman plan which are deeper than the Redline. Excavation below the Redline in compliance with the earlier plan has occurred. To compensate for these deeper areas, an unmined area upstream will be left to provide material for infilling during flood events.

The final slope configuration and the wider channel section under the Redline Concept will reduce flow velocities so that deposition of alluvial material will occur while reducing the potential for erosion of lateral slopes.

Public Safety

The pit configuration of the reclaimed mining site is not expected to present a public hazard. Areas A & B will be mined to drain downstream, which will eliminate any potential attractive nuisance that may result from the ponding of water.

Signs will be posted at all dedicated right of ways ending at and directly abutting the project area which will warn the public that the site is a "No Trespassing" area.

All equipment and facilities directly and indirectly related to the mining operation will be removed.

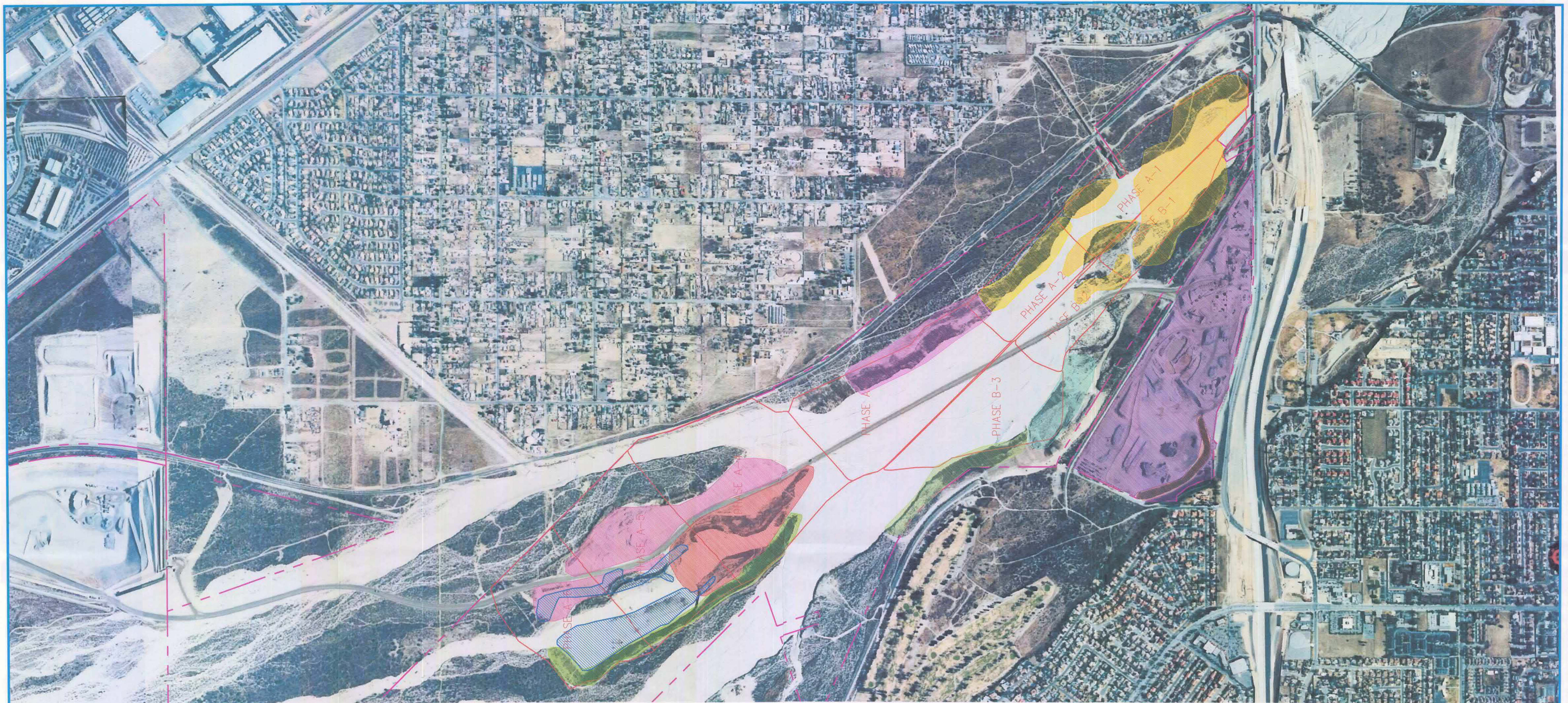
Monitoring and Maintenance

No further monitoring is anticipated once reclamation has been completed.

Reclamation Assurance

The CalMat Company has signed a Notification of Responsibility which obligates the Company to reclaim the site in compliance with the Reclamation Plan as discussed in this document.

* * *



SAN BERNADINO MINE - CA MINE ID# 91-36-0012
MINE LOCATION: NORTH OF HIGHLAND AVENUE APPROXIMATELY
1/4 MILE EAST OF RIVERSIDE AVENUE

ONSITE CONTACT: FLOYD SIBOLE - PLANT MANAGER
VULCAN MATERIALS COMPANY - WESTERN
DIVISION
2400 WEST HIGHLAND AVENUE
SAN BERNADINO, CA 92405

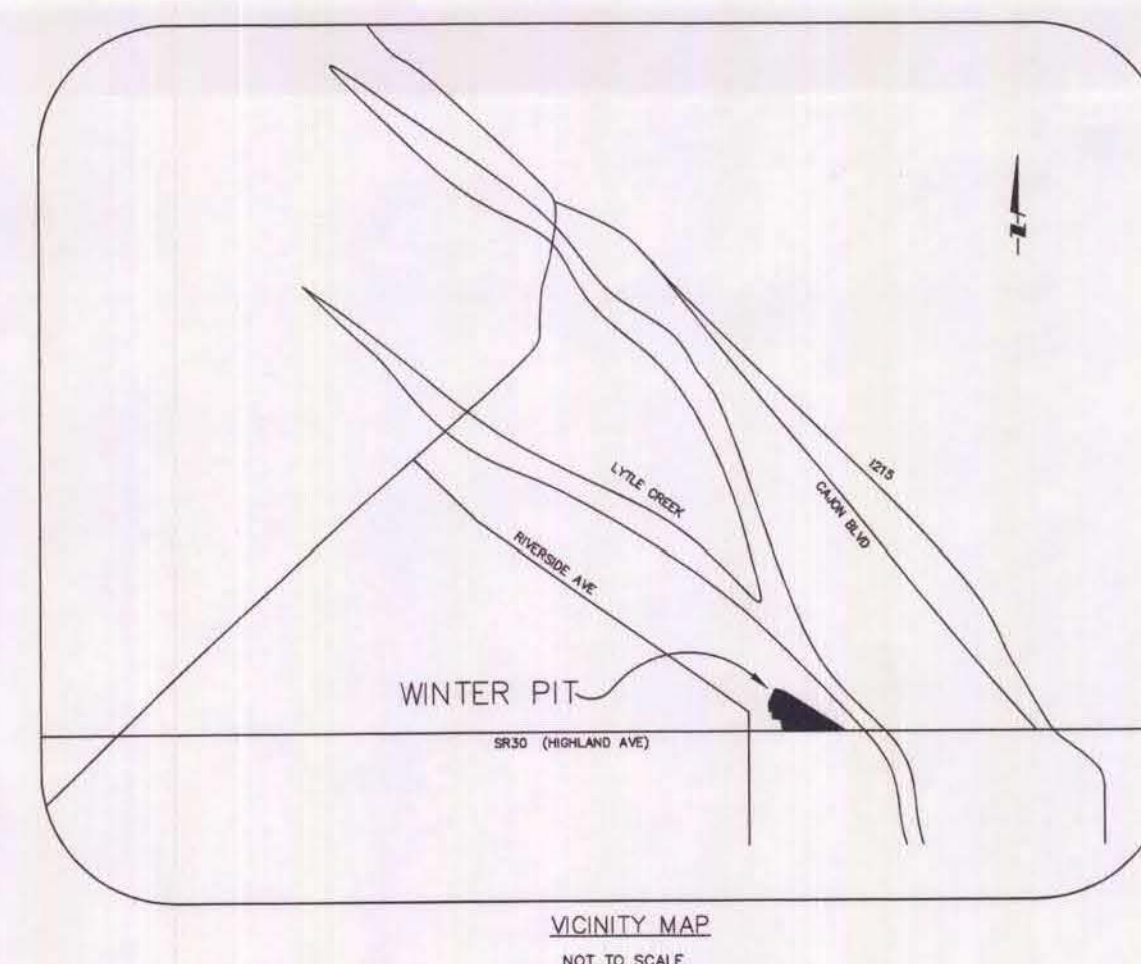
AGENT: SEAN PALMER - LAND DEVELOPMENT MANAGER
VULCAN MATERIALS COMPANY - WESTERN DIVISION
500 N. BRAND BLVD, SUITE 500
GLENDALE, CA 91203

LEGAL DESCRIPTION: TOWNSHIP 1N, RANGE 4W, SECTION 25
APN: 264-431-13

ACREAGE: WINTER PIT 108 ACRES
TOTAL HOLDINGS 1010 ACRES

UTILITIES: POWER - SOUTHERN CA EDISON
WATER - MUSCOY MUTUAL WATER DISTRICT &
WEST VALLEY WATER
DISTRICT
SEWER - NONE, USE SEPTIC TANKS

LAND USE DISTRICT: RESOURCE CONSERVATION



- PHASE A-1 & B-1: GRAZING AND REVEGETATION
INSTALLED JAN/FEB. 1992
MET STANDARDS MAY 1994 (MONITORING REPORT 8/94)
LANDFILL CLOSED SEPT. 1994
- PHASE A-2 & B-2: GRAZING AND REVEGETATION
INSTALLED JAN. 1994
MET STANDARDS MAY 1996 (MONITORING REPORT 9/96)
- PHASE B-2 & B-3 (WEST): GRADING AND REVEGETATION
INSTALLED FEB. 2007
MET STANDARDS APRIL 2009 (MONITORING REPORT 7/09)

- PHASE B-3 (WEST): GRADING AND REVEGETATION
INSTALLED FEB. 1999
MET STANDARDS MAY 2002 (MONITORING REPORT 1/02)

- PHASE A-3 (EAST): GRADING AND REVEGETATION
INSTALLED FEB./MAR. 2003
MET STANDARDS APRIL 2006 (MONITORING REPORT 10/06)

- PHASE A-6 - A-5 (CENTRAL PIT)
INSTALLED NOV. 2011
MET STANDARDS APRIL 2014 (MONITORING REPORT 1/14)

- PHASE A-4 - A-6 (WEST): GRADING AND REVEGETATION
INSTALLED FEB. 1999
MET STANDARDS MAY 2002 (MONITORING REPORT 1/02)

- PHASE A-4 & A-5 (LOWER CENTRAL PIT): GRADING AND REVEGETATION
INSTALLED DEC. 1999
MET STANDARDS MAY 2003 (MONITORING REPORT 1/03)

- PHASE A-4 - A-6 (EAST): GRADING AND REVEGETATION
INSTALLED NOV. 2008
MET STANDARDS APRIL 2011 (MONITORING REPORT 3/11)

- PHASE B-4 (SOUTH SLOPE): GRADING AND REVEGETATION
INSTALLED NOV. 2001
MET STANDARDS MAY 2008 (MONITORING REPORT AUG. 2008)

- PHASE B-4 (FLOOR): GRADING AND FILLING
INSTALLED _____



APPROVED BY THE COUNTY
PLANNING DIVISION

► COUNTY SIGN-OFF PER LETTERS DATED
NOVEMBER 3, 2009
OCTOBER 20, 2009
OCTOBER 30, 2008
DECEMBER 9, 1994

DATE	REVISION	BY
08/20/15	ADDED LEGEND AND VICINITY MAP	MOH
02/03/15	ADD TEXT TO PHASE A-6 - A-5	MOH
07-28-11	INITIAL RELEASE	

TOLERANCES--UNLESS NOTED
FRACTIONAL: 1/16" & 1/32"
DECIMAL: 0.010"
HOLE: 1/8"

SITE CLOSURE PROGRAM
DATE F. AERIAL PHOTOGRAPHY: 01-22-07

DIVISION: WESTERN
PLANT: CAJON CREEK
DATE: 07-28-11
SCALE: 1"=500'
SHEET: 1 OF 1

Vulcan
Materials Company