MATERIAL SITE #300

(KEELER PIT)

RECLAMATION PLAN

Mine Identification # 91-14-0051

JANUARY 27, 1997

(AMENDED – October 2020)

California State Department of Transportation
(Caltrans) District 9
500 S. Main St.
Bishop, California 93514

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MATERIAL SITE #300 RECCLAMATION PLAN

1.0.0 INTRODUCTION

Caltrans, under a permit with the Bureau of Land Management (BLM), will mine sand and gravel on federal lands near Keeler, California. The triangular site encompasses 84.18 acres, of which 8.1 acres will be mined in four phases. Mining operations are planned to occur over 50 to 70 years, to a depth no greater than 50 feet below natural grade. This document presents a plan for reclamation of these lands.

This reclamation plan describes a process that will minimize environmental impacts during and resulting from mining, implement reclamation activities as soon as possible, and return the mined-lands to a condition suitable of supporting open space, wildlife habitat and designated end uses.

1.1.0 APPLICANT

California State Department of Transportation (Caltrans) District 09
500 S. Main Street
Bishop, California 93514
(760) 872-0601

1.1.1 Representative

Forest Becket, Senior Transportation Planner
California State Department of Transportation (Caltrans) District 9
500 S. Main Street
Bishop, California 93514
(760) 872-0681

1.2.0 LANDOWNER

U.S. Department of the Interior
Bureau of Land Management (BLM)
300 S. Richmond Road
Ridgecrest, California 93555
(760) 384-5400

1.3.0 OPERATOR

California State Department of Transportation (Caltrans) District 09
500 S. Main Street
Bishop, California 93514
(760) 872-0601

1.4.0 LESSEE

California State Department of Transportation (Caltrans) District 09
500 S. Main Street
Bishop, California 93514
(760) 872-0601

1.5.0 LOCATION

This aggregate pit is located on BLM land near Owens Lake in Inyo County. The pit is adjacent to and east of State Route 136 at post-mile marker 15.5. The pit is approximately 2.6 miles southeast of the town of Keeler. (Figure 1)

1.5.1 BLM Map Application and Highway Easement Deed

Caltrans submitted a BLM Map Application in 1998 and finalized a Highway Easement Deed in 2008 (Figure 2 and Attachment B). This property is also known as Assessor's Parcel Number 31-010-19.

1.5.2 Township, Range, Section, Quadrangle

The project site is located on Keeler, California USGS 7.5' Topographic Map in Township 17 South, Range 38 East, in the eastern ½ of Section 15, MDBM. (Figure 2).

1.5.3 Latitude, Longitude

The center of the highway easement is located at latitude 36º27'30" North, longitude 117º50'30" West.

1.5.4 Claim Descriptions

This project site is known by BLM and the County of Inyo as: Keeler Pit; State Material Site (MS) #300; Mine ID 91-14-0051. The project name used for the proposes of this document will be MS #300.

2.0.0 DESCRIPTION OF ENVIRONMENTAL SETTING

2.1.0 SITE ACCESS

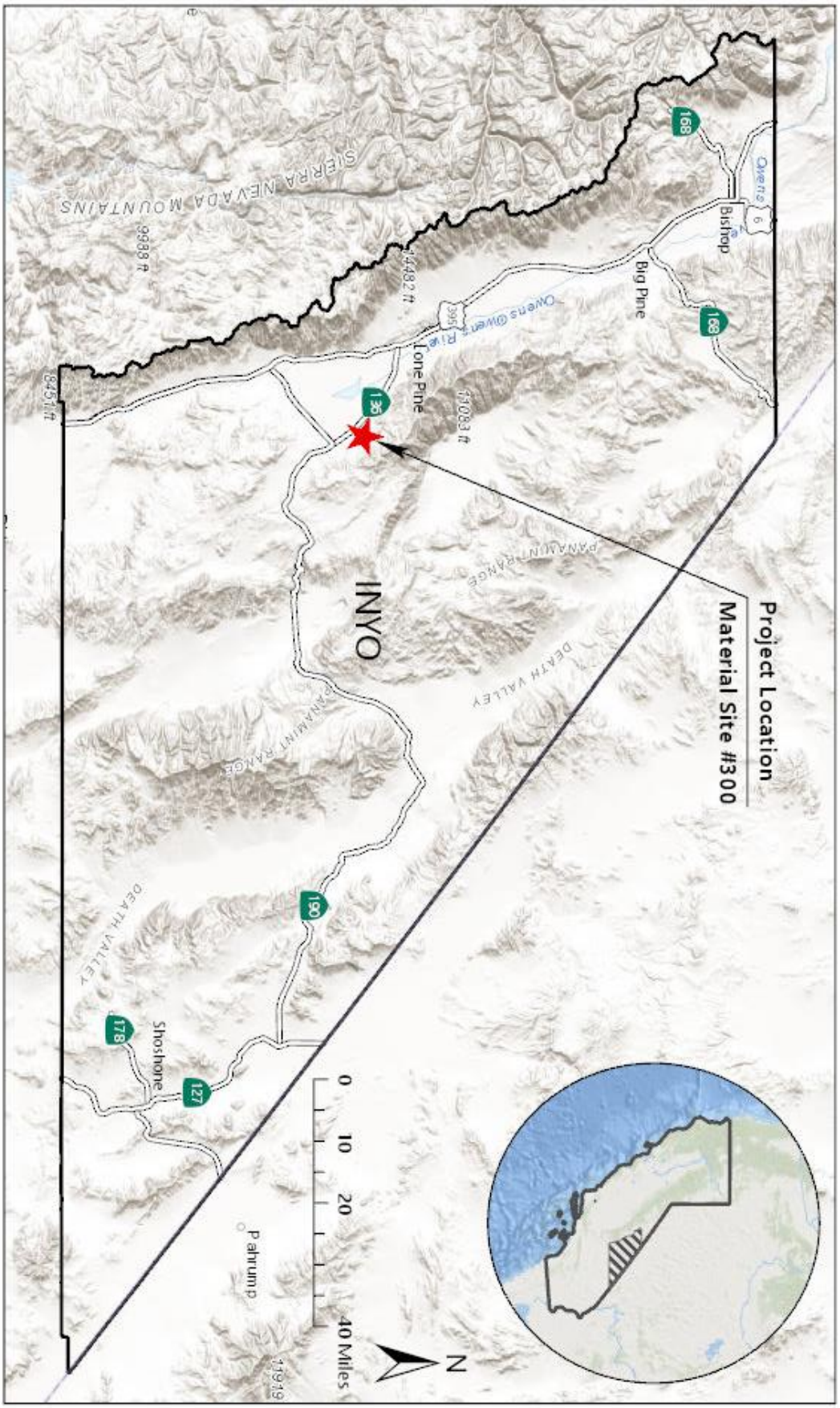
Access to the site is via an unmarked dirt road leading northeast from Highway 136 at post-mile marker 15.5, approximately 2.6 miles southeast of the town of Keeler (Attachment C). The access to the pit from the highway is gated to control illegal dumping.

2.2.0 TOPOGRAPHIC MAP

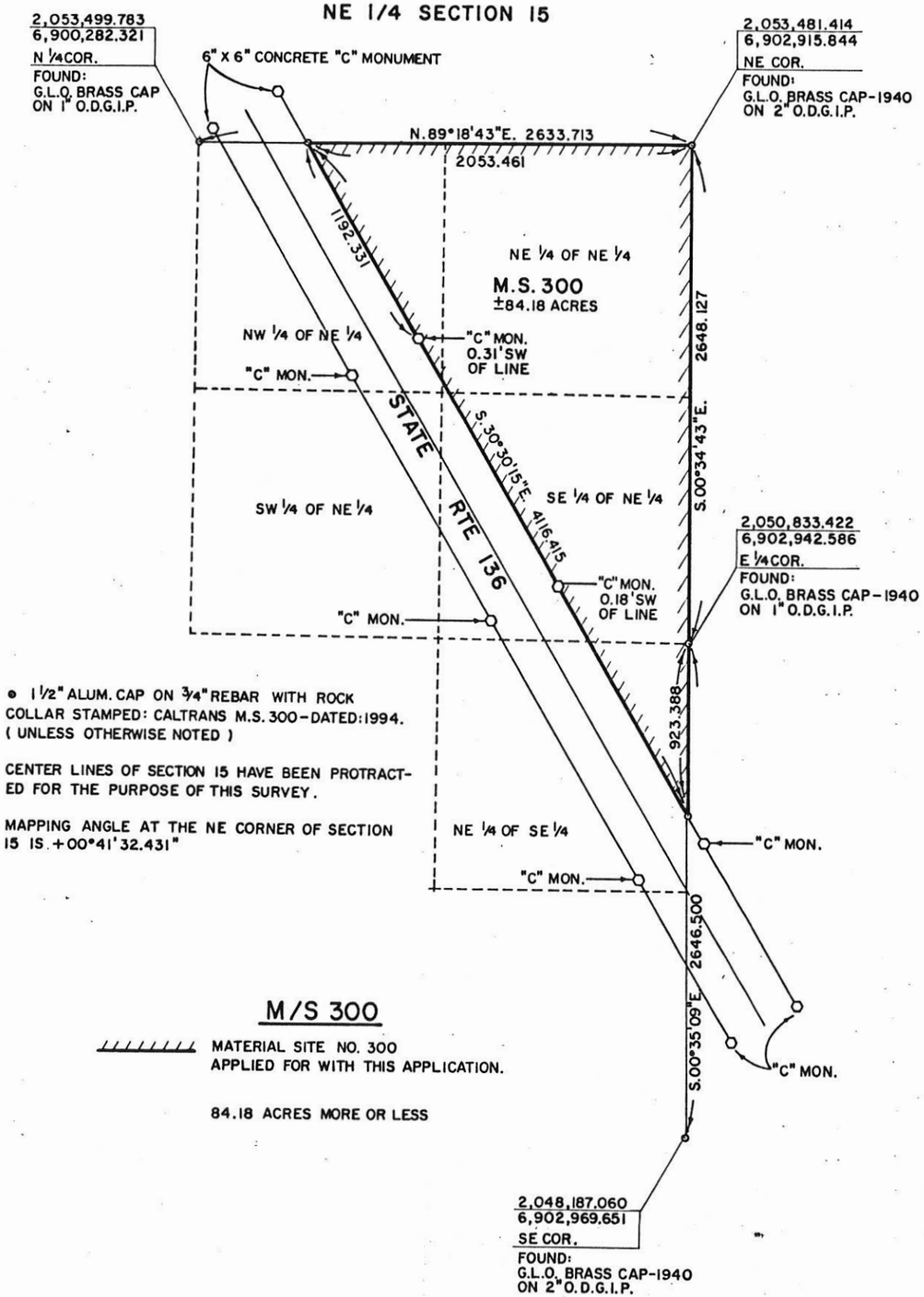
Figure 3 depicts the site's location in the northeast portion of USGS 7.5-minute Keeler quadrangle. The proposed area to be excavated is represented on the map with a red outline.

As shown on Figure 3, MS #300 is on an alluvial fan and has a slope of about 5º to the west-southwest. Elevations at the site range from approximately 3850 feet in the northeast to about 3700 feet in the southwest producing approximately 150 feet of relief. A break in the overall slope of the site occurs along an elevated topographic bench, or terrace, which trends northwest-southeast through the southwest portion of the material site. The terraced area is entrenched by several large drainages which enter the site from the northeast.

FIGURE 1 – REGIONAL LOCATION MAP OF CALTRANS MATERIAL SITE #300



T. 17 S., R. 38 E., M.D.M.
NE 1/4 SECTION 15



• 1 1/2" ALUM. CAP ON 3/4" REBAR WITH ROCK COLLAR STAMPED: CALTRANS M.S. 300-DATED:1994. (UNLESS OTHERWISE NOTED)

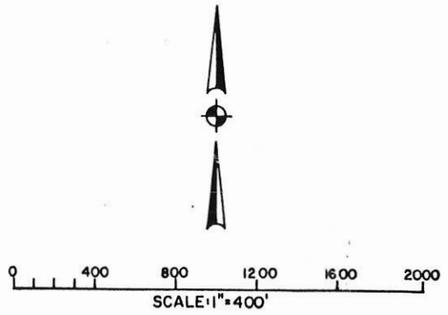
CENTER LINES OF SECTION 15 HAVE BEEN PROTRACTED FOR THE PURPOSE OF THIS SURVEY.

MAPPING ANGLE AT THE NE CORNER OF SECTION 15 IS +00°41'32.431"

M/S 300

MATERIAL SITE NO. 300 APPLIED FOR WITH THIS APPLICATION.

84.18 ACRES MORE OR LESS



CALIFORNIA COORDINATE SYSTEM (83) HPGN 1991.35 - ZONE 4
GRID BEARINGS - GRID DISTANCES IN FEET.
GRID FACTOR = 0.99977085
TO OBTAIN A GROUND DISTANCE, DIVIDE THE GRID DISTANCE BY THE GRID FACTOR.

BEARINGS AND DISTANCES SHOWN ON THIS MAP WERE DERIVED USING "GLOBAL POSITIONING SYSTEM" SURVEYING TECHNOLOGY AND ADJUSTED, USING LEAST SQUARES SOFTWARE. NO ERROR ELLIPSE (MAJOR AXIS) IS GREATER THAN 0.016 FOOT.

MONUMENTS Q 1380 (HPGN 0913) AND INDEPENDENCE NW BASE 2 (HPGN 0910) WITH NATIONAL GEODETIC SURVEYS PUBLISHED VALUES, WERE HELD AS THE BASIS FOR THIS SURVEY.

BASIS OF BEARING FOR THIS MAP IS A GRID BEARING OF S.00°34'43"E. BETWEEN FOUND MONUMENTS AT THE NE CORNER OF SECTION 15 AND E 1/4 CORNER OF SECTION 15, SHOWN ON REFERENCE: U.S. GOVERNMENT PLAT APPROVED: AUGUST 20, 1969.

SURVEYOR'S STATEMENT

CHARLES ANDRUS STATES THAT HE IS BY OCCUPATION A LAND SURVEYOR EMPLOYED BY THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THAT THE SURVEY OF THE STATE HIGHWAY MATERIAL SITE SHOWN ON THIS MAP WAS MADE BY EMPLOYEES OF SAID DEPARTMENT UNDER AUTHORITY AND THAT SUCH SURVEY IS ACCURATELY REPRESENTED ON THIS MAP.

LICENSED LAND SURVEYOR — CHARLES W. ANDRUS — NO. 4053 — 6-30-00 — STATE OF CALIFORNIA

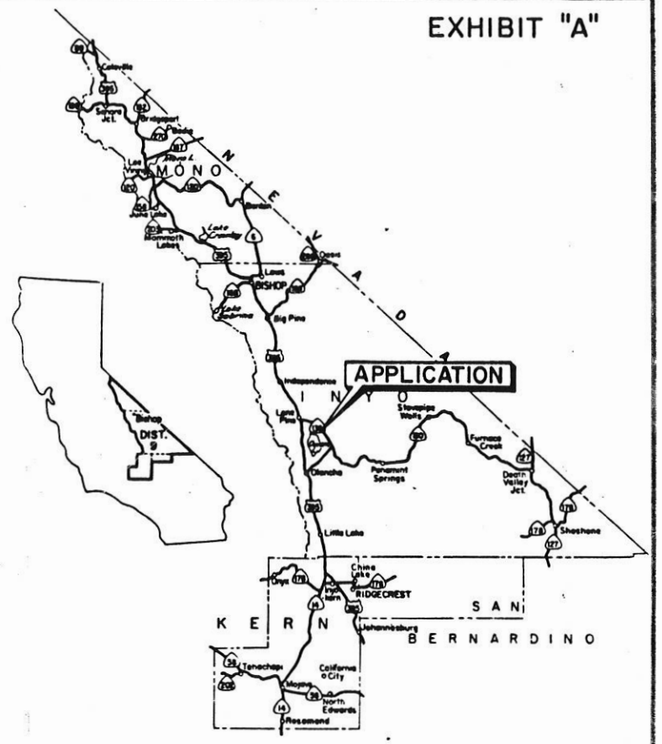
Charles Andrus 1-6-98
DISTRICT R/W ENGINEER — DATE
L.S. 4053

APPLICANT'S CERTIFICATE

THIS IS TO CERTIFY CHARLES ANDRUS WHO SUBSCRIBED THE STATEMENT HEREON IS THE PERSON EMPLOYED BY THE UNDERSIGNED APPLICANT TO PREPARE THIS MAP WHICH HAS BEEN ADOPTED BY THE APPLICANT AS THE FINAL LOCATION OF THE MATERIAL SITE THEREBY SHOWN AND THAT THIS MAP IS FILED AS PART OF THE COMPLETE APPLICATION, AND IN ORDER THAT THE APPLICANT MAY OBTAIN THE BENEFITS OF SECTION 317 OF THE FEDERAL HIGHWAY ACT APPROVED AUGUST 27, 1958 (72 STA.916) AND I FURTHER CERTIFY THAT THE MATERIAL SITE HEREON DESCRIBED IS DESIRED FOR STATE HIGHWAY PURPOSES.

T. Rotelenbuck 1-12-98
DISTRICT DIRECTOR — DATE
DEPARTMENT OF TRANSPORTATION

EXHIBIT "A"



LOCATION MAP

MATERIAL SITE APPLIED FOR OVER AND ACROSS THE FOLLOWING UNPATENTED PUBLIC LANDS IN T. 17 S., R. 38 E., M.D.M.

NE 1/4 OF NE 1/4 OF SECTION 15 (WITHIN)
NW 1/4 OF NE 1/4 OF SECTION 15 (WITHIN)
SE 1/4 OF NE 1/4 OF SECTION 15 (WITHIN)
NE 1/4 OF SE 1/4 OF SECTION 15 (WITHIN)

FILED 9-10, 1998 IN STATE HIGHWAY MAP BOOK NO. 4 AT PAGE 99 OF THE INYO COUNTY RECORDS AT THE REQUEST OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION IN COMPLIANCE WITH SECTIONS 128 AND 129 OF THE STREETS AND HIGHWAYS CODE.

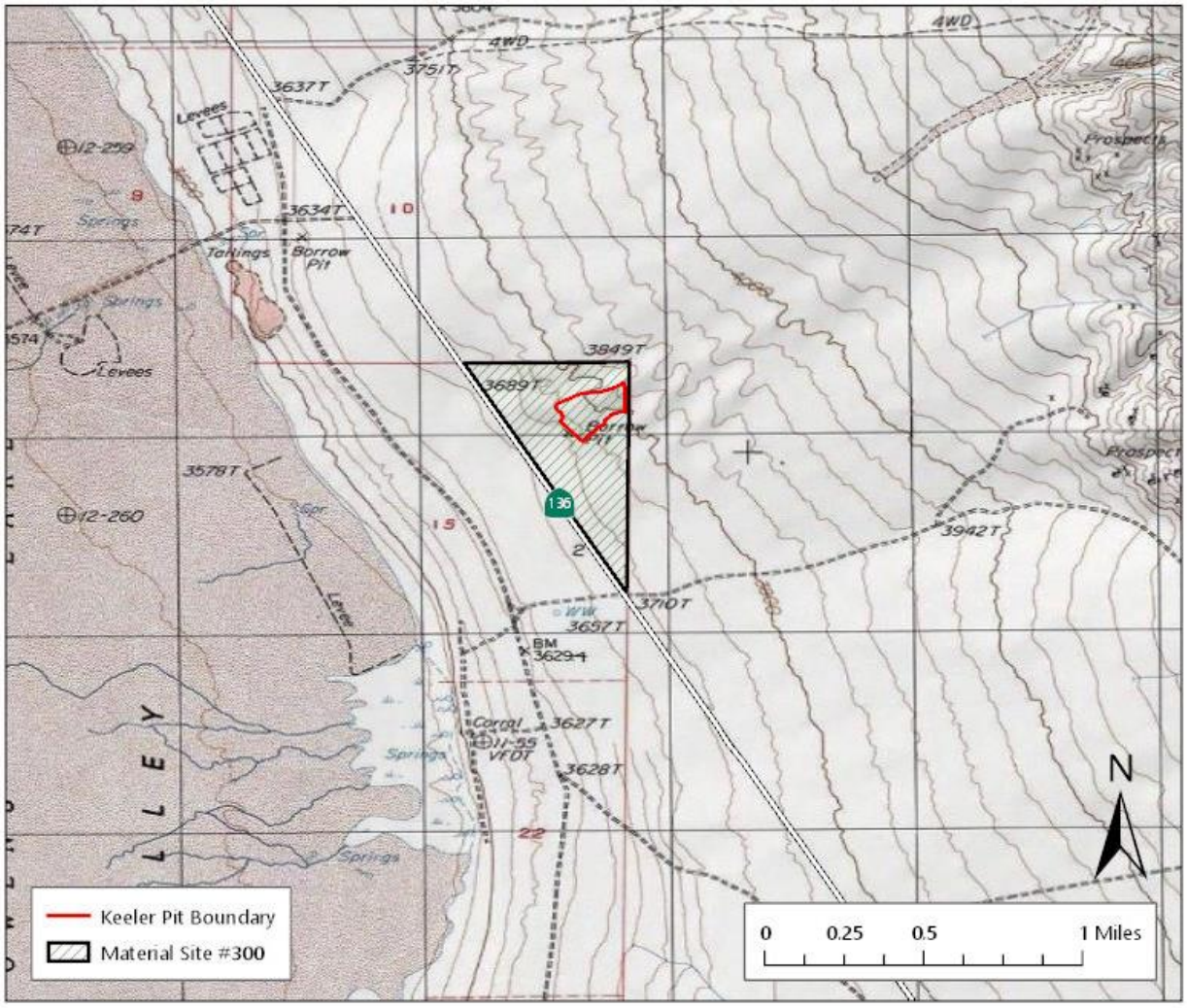
STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

B. L. M. MAP APPLICATION

ONE OF ONE MAP SHEET SHOWING UNPATENTED LANDS IN T. 17 S., R. 38 E., M.D.M. EAST OF F.A.P. 136, STATE HIGHWAY 136, INYO COUNTY, P.M. 15.6 ON THE FEDERAL AID SYSTEM THROUGH WHICH A STATE HIGHWAY MATERIAL SITE AS DELINEATED IS REQUESTED IN ACCORDANCE WITH PROVISIONS OF TITLE 23 U.S.C. 317.

FIGURE 3 - TOPOGRAPHIC MAP OF PROJECT SITE



2.3.0 GENERAL GEOLOGY

The Owens Valley is a structural low, or graben, that separates the Sierra Nevada, to the west, from the Inyo Mountains, to the east (Figure 1). The edge of the dry Owens Lake bed, which is within this graben, is approximately ¾ of a mile west of the site.

2.3.1 Site Specific Geology and Geologic Cross Section

A reconnaissance geologic assessment of the site was performed on August 25, 1992. MS #300 is located on Quaternary alluvial fan deposits formed by drainages feeding from the Inyo Mountains into the Owens Valley (Figure 4, Stone 2009.). The eastern portion of the site contains older Quaternary gravel deposits that have been dissected and eroded by the younger drainages. As evidenced by the nearly straight cut slope along the west side of the terraces, these older deposits have also been eroded by wave action from high water stands of the ancient Owens Lake (Figure 4). It can be deduced from geologic map that the primary source rocks for the younger alluvium are the reworked sediment from the older alluvial and gravel deposits, basalt from the Triassic volcanic rocks, and limestone and shale from the Paleozoic-age Owens Valley and Keeler Canyon formation exposed in the Inyo Mountains (Figures 4 and 5).

2.3.2 Ore Body/Deposit Being Mined

This material site was developed by Caltrans as a source of sand and gravel for road maintenance. The Quaternary alluvial deposits will be the source for this sand and gravel. Generally, the material being mined varies in texture from a clayey gravel with sand [Unified Soils Classification System (USCS) designation of GC] to a poorly graded sand with gravel (USCS designation of SP).

2.3.3 Slope Stability

Existing slopes at the site are generally shallow to moderate, ranging from 5º to 35º angles. The steeper slopes on the site exist along the edge of a natural wave-cut terrace in the southwest portion of the site. The terraced material is composed of partially cemented sands and gravels representative of the older alluvial deposits. A minimum 30-foot offset boundary will be clearly demarcated with metal stakes to ensure a buffer from the edge of the bluffs and to provide a visual cue for excavation activities.

2.3.4 Seismicity

The site is within an area of active seismicity. There are several northwest and northeast trending faults to the east of the site. Because they displace the Quaternary age, basalt flow unit, they are at least Quaternary in age (Jennings 1992).

FIGURE 4 - GEOLOGIC MAP OF PROJECT SITE

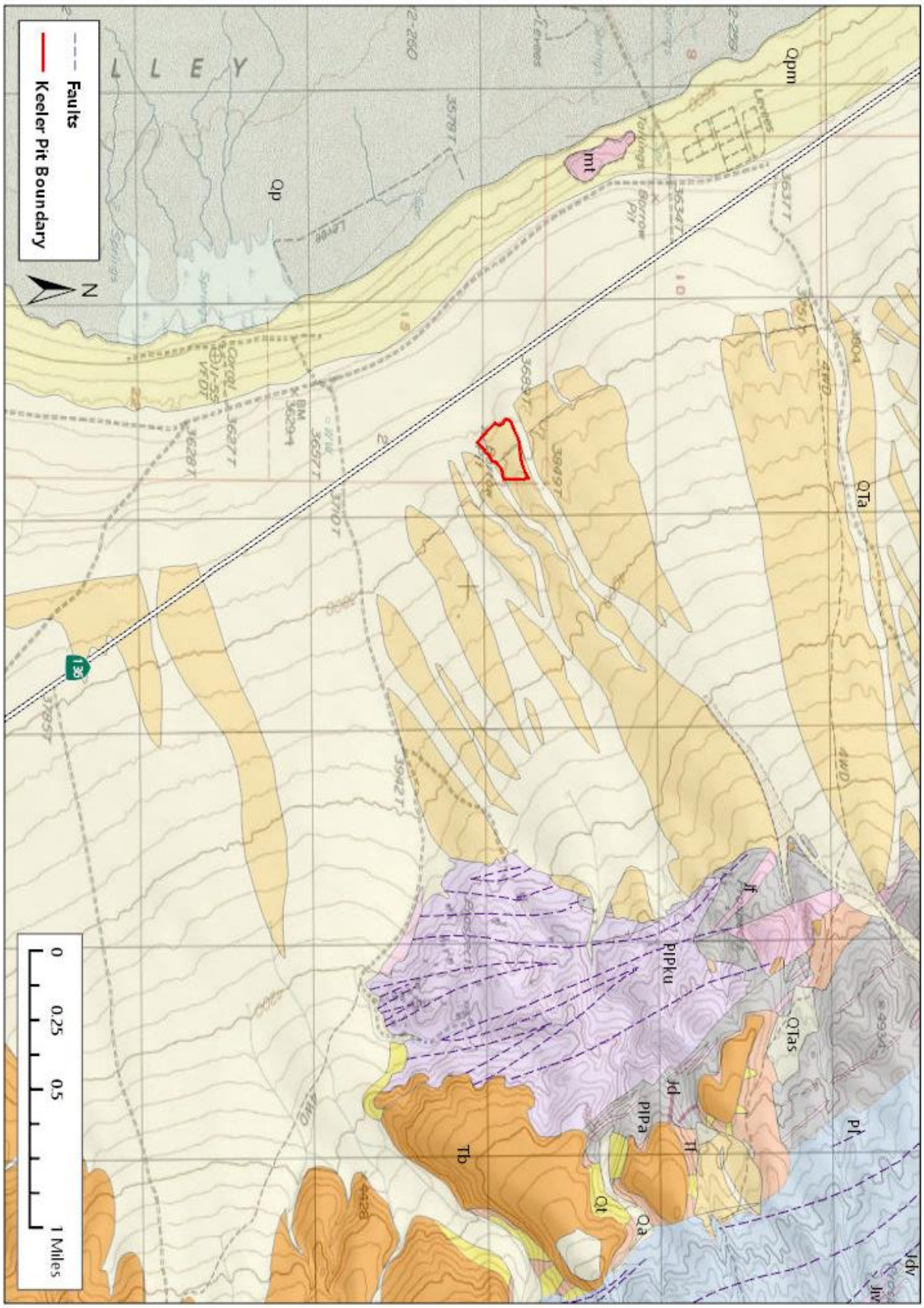
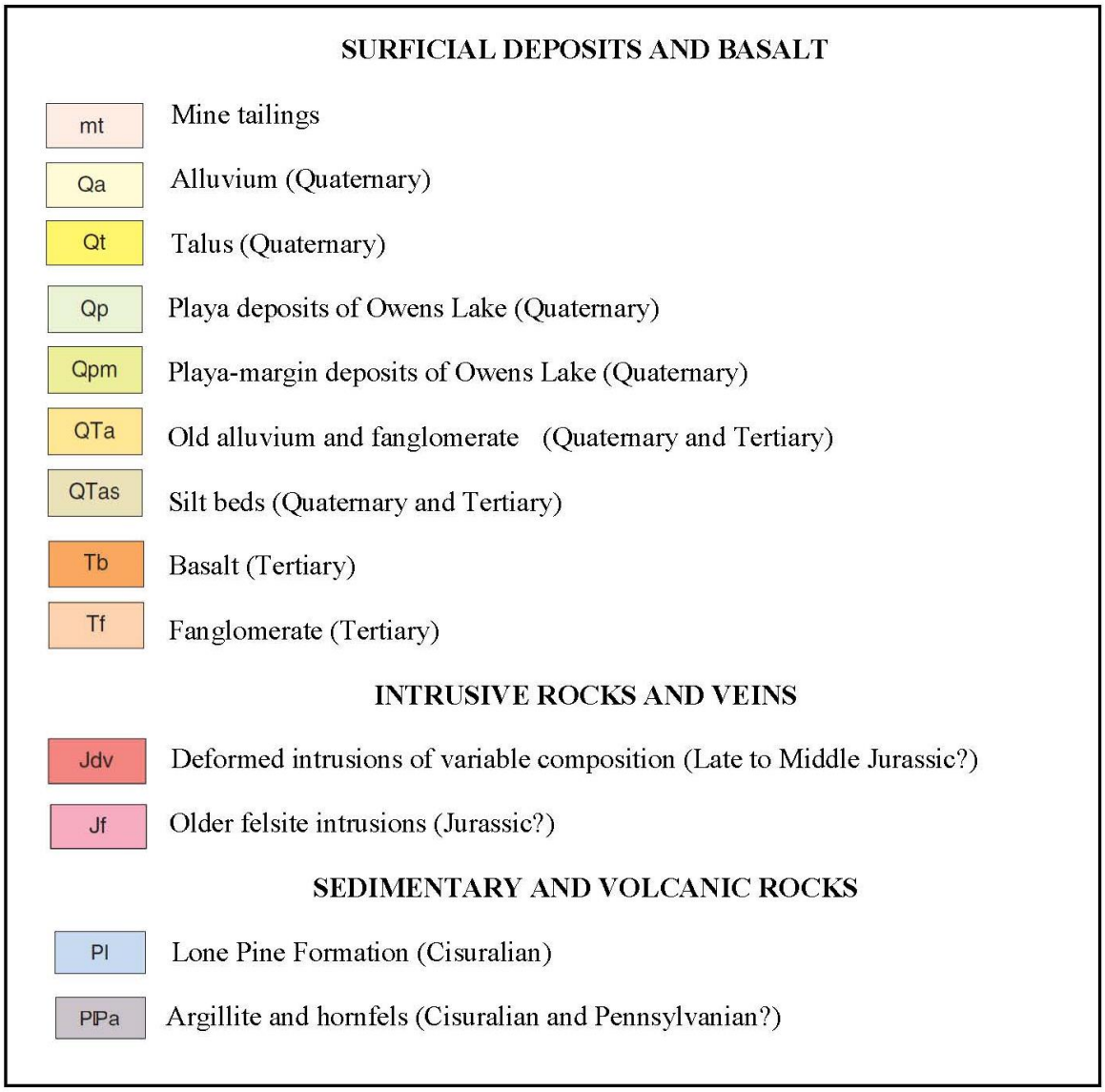


FIGURE 5 - KEY FOR GEOLOGIC MAP



2.4.0 GENERAL HYDROLOGY

The character of the surface and ground water regimes at the site are directly related to the existing topography, geology, and climate of the region. Surface waters drain from the mountains to the northeast, across the alluvial fans where the site is located, and flow towards Owens Lake. Only prolonged periods of moderate or heavy precipitation events produce enough runoff to offset soil infiltration rates. This site is located on the northeastern edge of Owens Lake, at the southern extreme of Owens Valley. As such it receives among the lowest precipitation in the Valley. The historic mean annual precipitation at Keeler is 5.0 inches per year (Hollett 1991). Precipitation and runoff from large storm events in the region occur predominantly in the winter months.

Ground water generally follows the flow direction of the surface waters. In alluvial fan deposits, the water-table gradient is subtle expression of the land surface, unless there are changes in the subsurface stratigraphy or structure. The predominant source for ground water in the region is infiltration of surface water along the mountain front. Ground-water sources of less significance occur from recharge along influent, or "losing", stream drainages and from direct infiltration of precipitation.

2.4.1 Site Specific Hydrology

Figure 6 shows the three large watersheds that feed the drainages that cross the material site. All three watersheds drain from the bed rock area in the mountains approximately six miles northeast of the site. The watershed for the drainage (Figure 6) that enters the northern half of the site, designated as Drainage 1, has an area of approximately 4,450 acres. The other watershed that enters the southeastern half of the site, Drainage 2, has an area of approximately 355 acres. The watershed for the drainage that enters the site to the south, Drainage3, has an area of approximately 1,115 acres. All three drainages typically flow only during times of intermittent, intense precipitation.

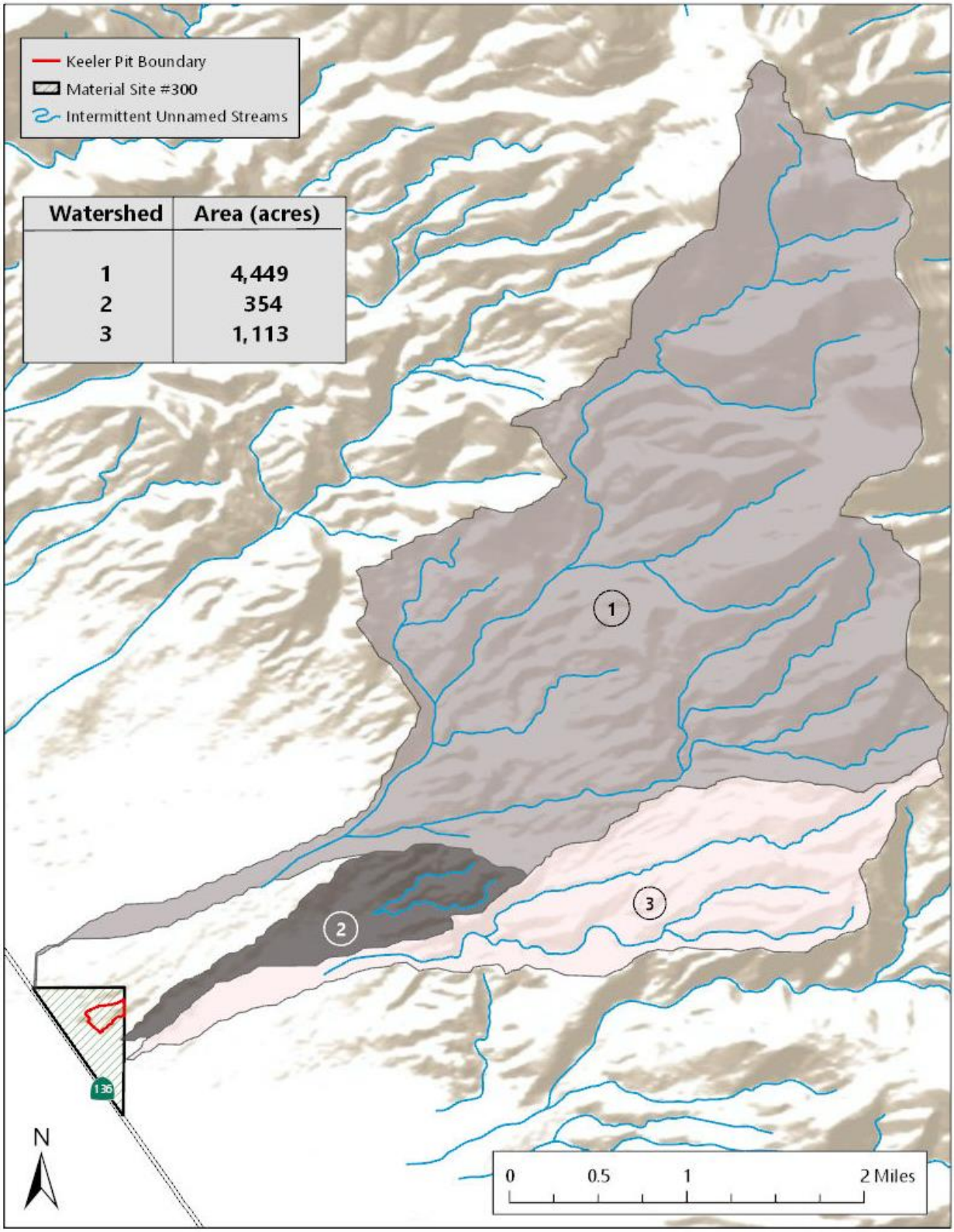
2.4.2 Area Hydrogeology

The dominant ground-water source in the area of the material site is the valley fill/alluvial deposits underlying the site. Ground-water data from Keeler, which is approximately 3 miles to the north and at a slightly lower position on the alluvial fan as the material site, is used to characterize the ground-water regime beneath the site.

2.4.3 Water and Land Uses

The land at the material site is controlled by Bureau of Land Management (BLM) for the U.S. Department of the Interior (USDI). Along the edge of Owens Lake evaporate minerals and sand/gravel are mined by private companies and the Los Angeles Department of Water and Power (LADWP). Ground-water in the area is presently being used by the private mining companies, the community of Keeler, and LADWP.

FIGURE 6 - WATERSHED MAP OF PROJECT SITE



2.5.0 SOIL RESOURCES

As discussed previously, the site is located on alluvial fan deposits. Alluvial soils are controlled by the parent material in the surrounding mountains, by the age of the various depositional units of each fan, and by the grain-size distribution of the parent material deposited on the fan.

2.5.l Soil Map

Alluvial fans typically have coarse textured soils with little pedogenic development The A- horizon, if present, is generally less than five inches thick and is directly underlain by a thick C-horizon, essentially unaltered alluvium. The alluvial material originates from basaltic and carbonate rock sources. A USDI-BLM Soil Survey (1983) mapped the area west of Highway 136, directly adjacent to the material site (Figure 7).

2.5.2 Grain-Size Analysis of Soil Samples

Soil samples were taken during the reconnaissance geotechnical survey of the site. Figure 8 shows grain-size distribution curves from sieve analyses performed on two native soil samples, from the top of the terrace (Sample #1) and from within the wash (Sample #4), and two samples from disturbed areas, from a stockpile (Sample #2) and from within the lower pit (Sample #3). The samples from the wash and the stockpile are texturally similar, with gradations ranging from poorly graded sand with gravel (SP) to a well-graded sand with gravel and silt binder (SW-SM), suggesting that the stockpile material was probably mined from the wash deposits. The soil sample from the base of the existing pit is a poorly graded sand with gravel and silt binder (SP-SM). The soil sample from the terraced area to the east of the existing pit is a clayey gravel with sand (GC). Because of a textural gap between the clay and gravels in the terraced area, it is probable that the soil has been subjected to intense winnowing by wind and rain and that the sandy portion of the soil has been eroded away leaving a lag layer of compacted surface gravel. A contributing factor for this excess erosion in the terraced soil is the fact that it is older than other soils in the area, which increases its time of exposure to weathering. The matrix portion of the site soils (sand to clay) was generally light yellowish gray in color and relatively loose. The gravel clasts ranged in color from gray to black, were predominantly angular in shape, and generally ranged in size from two to six inches.

2.5.3 Existing and Potential Erosion

Alluvial soils in the desert region of California are generally susceptible to wind erosion due to sparse vegetative cover and lack of soil structure. The published soil survey states that the potential for soil erosion caused by wind is low.

2.5.4 Reclamation Potential

Well-developed soil horizons are not present at the site. The site consists of alluvial deposits, with coarse textured soils that have a low water-holding capacity and are high in alkali. The native soil surface contains a large amount of gravel and cobble size fragments, which will aid with erosion control. Revegetation of these soils will need to be limited to native species which are adapted to these alkaline and droughty conditions. Evidence of native species re-establishment in disturbed areas exists on site. It is assumed that wind dispersal of seeds from the surrounding vegetation will aid in revegetation efforts.

FIGURE 7 - SOIL MAP OF PROJECT SITE

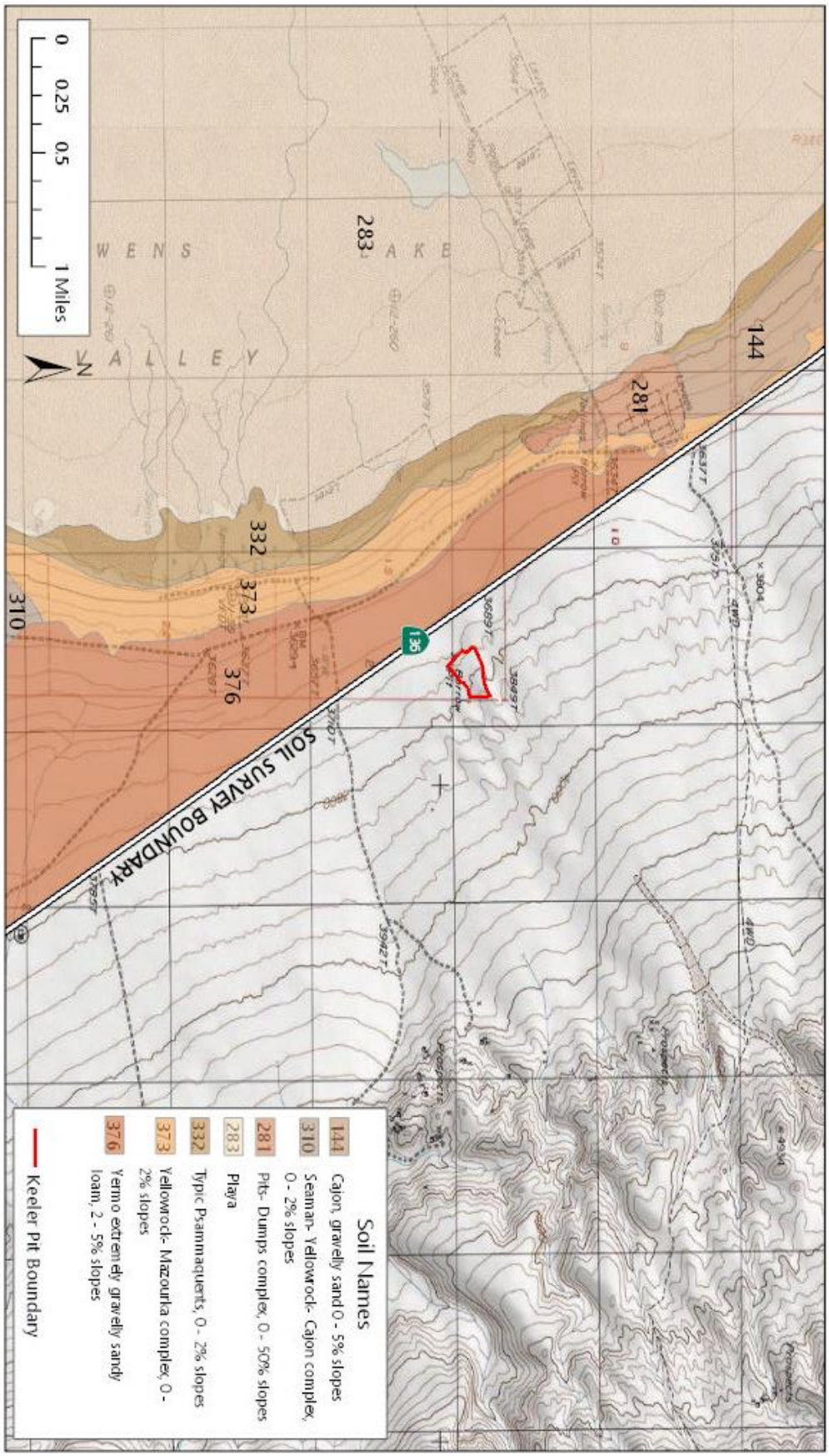
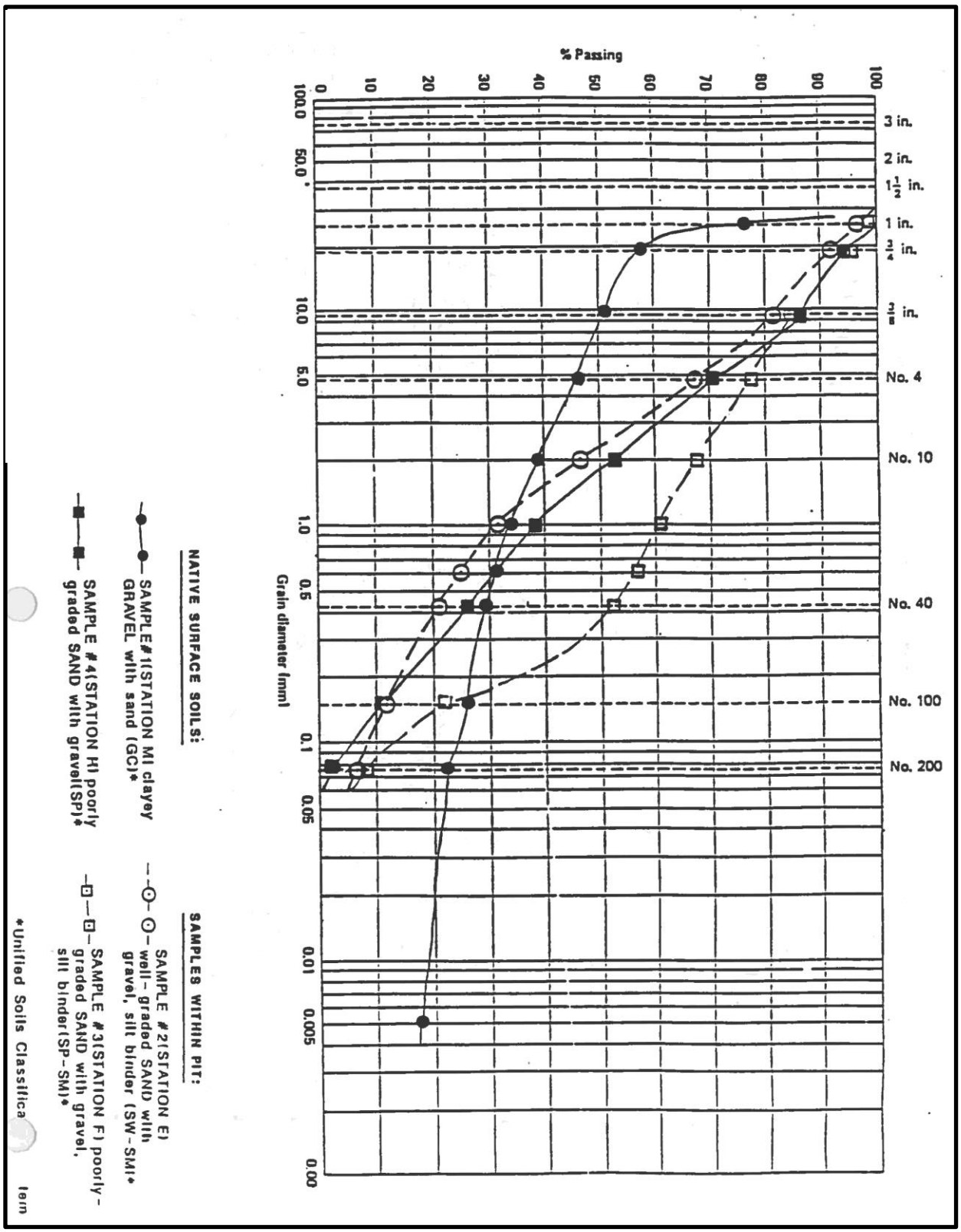


FIGURE 8 – GRAIN SIZE DISTRIBUTION CURVES



2.6.0 VEGETATION

The site was surveyed on May 9, 2019. Standard methodologies were used to survey the site for special plant species, to document existing vegetation, and to determine appropriate revegetation strategies. The site is located in the northern portion of the Hot Desert Floristic Province, very near to the Great Basin Floristic Province (Barbour and Major 1988).

2.6.1 Description of Affected Area

The extraction area occurs within a xerophytic phase of the Desert Saltbush Scrub. This xerophytic phase occurs on dry, coarse soils, and is low in stature (1-2 feet tall). Previously mined areas are devoid of vegetation, while the undisturbed portions of the site support a vegetation assemblage that is low in total cover.

The dominant feature of this site is exposed soil and coarse fragments. The undisturbed portion of the mine site is sparsely vegetated with a depauperated mixture of species, largely from the chenopod family. These species are tolerant of saline and alkaline soils.

Baseline vegetation coverage analysis was performed via aerial surveillance drone photogrammetry digital analysis in 2017 (Appendix F, Towill). Data clearly showed a very sparse vegetation coverage of 0.32% for the newly proposed mining area, with a confidence rating of 80%. Pedestrian site surveys also supported these findings.

Additional flora surveys were conducted on 8/18/2020 to gather data on species richness to address the Department of Conservation Division of Mine Reclamation comments dated 7/27/2020. Site surveys were conducted with a sample set of 50-meter belt transects, one performed in each of the three (undisturbed) newly proposed mining phase areas, and one in a revegetated test plot area, for a total of four transects. Species richness was concluded to be three species per 50 square meters in sparsely vegetated sample areas. It should be noted that sample data was taken from areas that did show vegetation, while large undisturbed areas where completely void of vegetation. See table 2.6.1 for details

2.6.2 Unique/Critical Communities

The California Natural Diversity Data Base (CNDDB 2019) and California Native Plant Society (CNPS 2019) were referenced for unique/critical plant communities for the Keeler, 7.5' Quadrangle, as well as the surround eight quadrangles. No unique or critical plant communities were observed on the mine site during the survey (Aalbu 2019).

2.6.3 Special Plant Species

According to the CNDDB (2019) and CNPS (2019), several sensitive plant species are known to occur near the mine site. Habitat for nine of these species exist on the site. The absence of rare, endangered, threatened, and sensitive plant species on this site was confirmed during the site visit (Aalbu 2019).

2.6.4 Invasive Exotics

A limited population of Russian thistle (*Salsola tragus*) exists on the mine site in disturbed locations.

2.6.5 Revegetation Potential

The Mojave Desert environment imposes severe constraints on successful revegetation with rain fall as the primary limiting factor. It has been suggested that conditions favorable to vegetation re-establishment are infrequent, occurring during a series of wetter than normal years or during cycle of cooler and more humid climatic conditions (Zedler and Ebert 1977).

Re-establishment of vegetation on this site will be very limited due to the alkaline and droughty nature of the soil. The coarse fragments (cobbles and gravel) present on the surface of this alluvial fan provides protection from wind and water erosion, with a negligible contribution by vegetation. Erosion control can be accomplished using the native coarse-grained soils and salvaged vegetative debris (the combination of which is termed "duff").

TABLE 2.6.1 – Plant Species Richness Survey

Keeler Pit Expansion						
Flora Survey						
Participants: Dannique Aalbu, Forest Becket						
8.18.20	*note: some species of perennials were not identified because of lack of flowers and features. Not optimum survey timing					
Test Plot: On Slope between current pit and antipated expansion area (Post-excavation test plot)						
Species Observed						
common name	**scientific name**					
desert holly	Atriplex hymenelytra					
Mojave cleomella	Cleomella obtusifolia					
black greasewood	Sarcobatus vermiculatus					
Plot 1: Pit Expansion Area, Phase 1			**Plot 2: Pit Expansion Area, Phase 2**		**Plot 3: Pit Expansion Area, Phase 3**	
common name	**scientific name**		**common name**	**scientific name**	**common name**	**scientific name**
desert holly	Atriplex hymenelytra		desert holly	Atriplex hymenelytra	desert holly	Atriplex hymenelytra
Mojave cleomella	Cleomella obtusifolia		spiny saltbush	Atriplex confertifolia	Mojave cleomella	Cleomella obtusifolia
rigid spiny herb	Chorizanthe rigida		rigid spiny herb	Chorizanthe rigida	rigid spiny herb	Chorizanthe rigida
Richness(N) = 3 for all plots						

2.7.0 WILDLIFE

The site was surveyed on May 9, 2019. Wildlife species observed in the site area include: rock wren (*Salpinctes obsoletus*), common raven (*Corvus corax*), side-blotched lizard (*Uta stansburiana*), zebra-tailed lizard (*Callisaurus draconoides*), painted lady butterfly (*Vanessa cardui*) and cabbage white butter fly (*Pieris rapae*).

2.7.1 Description of Habitats

This site contains a native Desert Saltbush Scrub pant community (Holland 1986). The site supports an assemblage of arthropods, reptiles, birds, and mammals typical of alluvial fans in the southern portions of Owens Valley. Many of the animals of the region are found both in the Great Basin and the Mojave Deserts.

2.7.2 Unique/Critical Habitats

The CNNDB (2019) lists 'Active Desert Dunes' as a CDFW Ranked Community found within the nine quadrangle search. No active dune communities were present at the site(Aalbu 2019). No other unique or critical habitats were identified on the site during the site survey.

2.8.0 AIR RESOURCES/CLIMATOLOGY

The closest established weather station is located in the town of Keeler, approximately 2.6 miles northwest of the material site at an elevation of 3620 feet.

2.8.1 Precipitation

The Owens Valley is located in a transition zone between the climates of the Mojave Desert, the Great Basin, and the Sierra Nevada, with a significant influence of the Mediterranean climate of the Pacific Coast. Approximately 80-95 percent of the total precipitation in the region falls between late October and April. Snow contributes very little, if at all, to the total at the mine site (Vaughn 1980). The site is located on the northeastern edge of Owens Lake, at the southern extreme of Owens Valley. As such it receives among the lowest precipitation in the Valley. The historic mean annual precipitation at Keeler is 5 inches per year (Hollett 1991).

2.8.2 Temperature

The monthly mean temperatures at Keeler for the months of January and July are 40 and 80 degrees Fahrenheit, respectively. The mean highest temperature is 109 degrees Fahrenheit, and the mean lowest temperature is 13 degrees Fahrenheit. The latest date of the last spring frost is April 20, and the earliest date of the first fall frost is October 15. The growing season at Keeler is 270 days. The length of the frost-free season is 225 days (Vaughn 1980).

2.8.3 Air Quality

Air quality in the area is typically excellent, with visibility exceeding 70 miles most of the time. However, strong dust storms occur in the region due to the exposure of erodible sediments on the valley floor. Air quality can be greatly reduced in the area of the mine site during periods of high winds.

2.8.4 Prevailing Winds

Prevailing winds are from the north or south with average speeds of 5-10 mph. March and April are the windiest months. Strong gusts are common during this time (Vaughn 1980).

2.9.0 LAND USES AND AESTHETICS

MS#300 falls under BLM guidelines presented in the BLM Desert Renewable Energy Conservation Plan (DRECP), Land Use Plan Amendment (2016). This plan provides for the protection and enhancement of sensitive environmental elements in the region while allowing for resources use and development. This plan defines Conservation Management Actions (CMAs) for species and plant communities. In addition to the BLM guidelines, Inyo County classifies lands according to land-use designations.

2.9.1 Existing and Surrounding Land Uses

The site is classified as open space by Inyo County. Caltrans and BLM finalized a Highway Easement Deed in 2008 for sand and gravel material extraction (Attachment B) at MS #300. Using the website mapping tools under BLM's DRECP Site Survey Analyst (<https://drecp.databasin.org/>, June 2019) the following CMAs were identified:

TABLE 2.9.1 – BLM SPECIES / COMMUNITIES

Species / Community	CMAs	Field Survey Results
Burrowing owl *(Athene cunicularia)*	AM-RES-BLM-1	Absent
Golden eagle *(Aquila chrysaetos)*	AM-RES-BLM-1, AM-RES-BLM-ICS-9	Absent
Mohave ground squirrel *(Xerospermophilus mohavensis)*	AM-RES-BLM-1 AM-RES-BLM-ICS-14 AM-RES-BLM-ICS-15 AM-RES-BLM-ICS-16 AM-RES-BLM-ICS-17	Absent
Owens Valley checkerbloom *(Sidalcea covillei)*	AM-RES-BLM-1 AM-RES-BLM-PLANT-1	Absent
Pallid bat *(Antrozous pallidus)*	AM-RES-BLM-1	Absent
Swainson's hawk *(Buteo swainsoni)*	AM-RES-BLM-1	Absent
Townsend's big-eared bat *(Corynorhinus townsendii)*	AM-RES-BLM-1	Absent
Willow flycatcher *(Empidonax traillii extimus)*	AM-RES-BLM-1	Absent
Yellow-billed cuckoo *(Coccyzus americanus occidentalis)*	AM-RES-BLM-1	Absent
Lower Bajada and Fan Mojavean – Sonoran Desert Scrub	AM-RES-BLM-1	Absent
Shadscale – Saltbush Cool Semi-Desert Scrub	AM-RES-BLM-1	Marginal
Southwestern North American Salt Basin and High Marsh	AM-RES-BLM-1	Absent

2.9.2 Visually Sensitive Areas

Under BLM guidelines the mining site is designated VRM Class III (C, L, Fg). BLM describes the objective of the VRM Class III designation as follows:

> "The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention from key observation points but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape (BLM 2016)."

State Route 136 has low vehicle traffic volumes with an average of 600 vehicles a day passing the site. Therefore, the sensitivity of the area, determined by the number of people that are likely to encounter the area and the frequency of use, is rated low (L). The scenic quality of the area is rated fair (C). The scenic and sensitive qualities of the region are concentrated in the foreground (Fg).

2.9.3 Visual Impact of Mining and Reclamation to These Uses

The mine site is partially visible from very few points along Highway 136. The existing textural contract of the site is caused by removal of the course ground-surface layer, and a decrease in the density of the vegetation due to vegetation removal. These changes will be moderated by reclamation activities. Revegetation through naturalization and replacement of the course ground-surface faction will integrate the site with the surround area, thereby resulting in a low level of visual change to the characteristic landscape. Reclamation will achieve visual management objectives.

The pit is only visible from State Route 136 for approximately 2,000 feet of the highway. Most motorist would only be able to see the pit and access roads for less than 25 seconds if traveling at the posted speed limit of 65 mph. There are no highway pullouts, parking areas or identified recreational staging areas within the viewshed of the pit.

3.0.0 DESCRIPTION OF PROPOSED MINING OPERATION

3.1.0 DIMENSIONS / ACREAGE

Material Site #300 occupies 84.18 acres on BLM land (Figure 2 and Appendix B). The triangular site is approximately 3800 feet, north to south, by 2300 feet, east to west, with the southeastern diagonal boundary along the highway. Approximately nine acres in the west-central portion of the site have been used for previous mining operations and access roads.

The site will be mined in four phases over a duration of 50 to 70 years. As shown on MS #300 Plan Sheets (Appendix C), the mining area will encompass approximately 8.1 acres and be 850-feet northeast to southwest and 500-feet northwest to southeast. A minimum 30-foot setback from the two large drainage channels (north and south) and BLM easement boundary will be maintained throughout all phases of mining. All mining excavation will not exceed a depth of 50-feet below the natural grade.

3.2.0 INITIATION AND TERMINATION DATES

Mining at this site will take place on an intermittent basis with mining beginning upon approval of the reclamation plan and finalization of the environmental document. The termination of mining activities at the new pit will occur after Phase IV is complete. Based on current Caltrans Maintenance material needs it would take approximately 50 to 70 years to reach the end of Phase IV.

3.3.0 PRODUCTION SCHEDULE

Caltrans Maintenance requires sand and gravel mined from this site throughout the year. Mining activities will occur in four phases, with a total estimated production volume of 373,00 cubic yards (CY). Historic mining production logs show an average use of 5,000 CY annually. Emergency road repairs due to flood and/or landslide damage can significantly increase production. Based on the last 20 years of mining this site, little to no waste is anticipated during production.

After the completion of the mining phases, final site reclamation will commence.

3.4.0 MINING PLAN

A new 8.1 acre mining pit will be established northeast of the old pit. This new site will be mined in four phases; see Appendix C and D for greater detail. The old pit will be used for material processing, stockpiling, and equipment storage. A complete description of the management of the site during idle phases, if these occur, can be found in Appendix D – Operations Plan.

3.4.1 Initial site Reclamation Activities

Initial site reclamation will commence after plan approval. These activities will initiate reclamation at the earliest possible time and minimized erosion and off-site sediment discharge during the mining phase. The following reclamation activities will be implemented:

Drainage Control: The old pit will continue to be self-draining. Current material berms established during operations of the old pit will be maintained. The old pit berms prevent offsite natural drainage from entering the pit, reducing slope erosion. Waste material may be used to maintain these berms. The new pit will be self-draining until completion of Phase IV, where the old pit will be the drainage catch basin for the new pit.

Topsoil Berms

At the new pit, approximately six inches of topsoil will be collected and stored in berms along the edges of the new pit. This topsoil storage will occur during phases I, II and III (Appendix C and D).

Area of Immediate Reclamation: At the end of Phase IV mining activities topsoil berms established during previous phases will be spread over the new pit slopes. The access road to the new pit will be de-compacted with the remainder of topsoil berms being spread.

3.4.2 Mining Phase

Refer to Plan Sheets (Appendix C) for the location of new pit, access roads and storage areas.

3.4.2.1 Description of Operations

Material from this site will be used for road maintenance and construction on an as needed basis. Mining will begin northeast of the old pit area and will be completed to a depth no greater than 50 feet. The old pit will be the operations area for the remainder of the mining activities at the site. Material will be stockpiled, screened, and mixed within the operations area indicated on Plan Sheets. Slopes within the pit will be no steeper than 3:1 (H:V), except for minor cuts where access roads enter the pit; these road cuts will be gravel mulched immediately following construction to minimize erosion. The following setbacks will be maintained during all phases of mining: 300 foot from the highway; 30 foot minimum from the bluffs associated with the two large drainage channels; 30 foot minimum from the edge of the BLM easement.

3.4.2.2 Access Road

As shown on plan sheets, access to the material site will be from State Route136 along the existing dirt access road entering the site, which is gated. An access road to the new pit will be established from the upper terrace prior mining activities.

3.4.2.3 Topsoil Handling

Topsoil shall be defined as the sop six inches of the native soil. Topsoil shall be salvaged from all areas not previously disturbed (8.1 acres). Topsoil will be stored in soil berms at the top of excavation slopes (Appendix D). Topsoil may

be mixed with existing vegetation. Topsoil and vegetation removal will not precede mining by more than one year.

3.4.2.4 Minerals, Overburden and Waste

Stockpiles usable material, overburden and waste material will be stored within the operation area. Waste fines may be used in the construction of the material berms that protect the old pit. Stockpile heights will not exceed 15 feet, with slopes no greater than 2:1 (H:V).

3.4.2.5 Processing

Usable and non-usable material will be separated at the screening plant and stored in the stockpile area. Usable material will be mixed on site and then transported offsite to areas of use. Fine-grained, non-usable material will be used for berm construction and re-soiling of the site during reclamation.

3.4.2.6 Water Impoundments and Diversions

The existing material berms at the old pit will be maintained during the mining and final reclamation phases. These berms are to prevent off-site drainage, from the two large drainage channels, into the old pit.

During phases I through III the base of the new pit will become an area of surface-water runoff accumulation for the pit area. Phase IV will re-slope the new pit to drain into the old pit.

The upgradient of the pit, a watershed totaling an area of approximately 20 acres. The capacity of this accumulation area is approximately 15 acre-feet which is greater than the expected volume of discharge from a 24-hour storm with 20- and 100-year return periods.

3.4.2.7 Test Plots for Revegetation

Final slopes in the lower (original) pit will be used as test plots during mining operations in the new phases, to inform future soil treatments and revegetation efforts. Different slope/soil preparations will be used to identify which methods best capture and propagate naturally dispersed native seed. Options for ripping, contouring, rock mulching, and topographic undulating will be experimented with to identify best practices for site specific applications.

3.5.0 PROCESSING EQUIPMENT

A portable screening operation will be moved onto the site during periods of operation, which primarily constitutes screening grizzlies, a bulldozer, and a loader. No permanent buildings or equipment will be construed on site as part of the mining operation.

3.6.0 WATER REQUIREMENTS

Water requirements for this site will be limited to that needed for processing and for dust control. A water truck with pump and sprayer is used on the site during screening operations. The water truck transports water supplied from the Caltrans Independence Maintenance Yard.

3.6.1 Waste Water

The only type of waste water to be produced by this mining operation will be screening water that will be collected in the operations area and allowed to evaporate or infiltrate.

3.6.2 Drinking Water

Drinking water will only be available on the site by employees that bring their own water jugs filled from offsite sources.

3.6.3 Sewage Disposal

If needed during operations, commercial portable toilets will be brought to the site from Bishop or Ridgecrest. The commercial vendor will properly dispose of the waste.

3.7.0 NOISE & EMISSIONS

Mining operations may include the use of a D8, loaders, belly dumps, bobtail trucks, maintenance trucks, and haul trucks. This aspect of the mining operation will affect noise and emissions.

3.7.1 Noise

Mineral resource extraction, hauling, screening, loading and other site activities will create noise. The noise emissions will be most heavily concentrated within the processing area of the pit and will be shielded from surrounding receptors by the pit walls and topsoil berms. Both the physical walls of the pit and the large distance to receivers will reduce the potential noise impact from mining.

Effective source strength of a rock plant is around 72-75 Db at 400 feet. Earth-moving activities would typically generate estimated noise levels of 75 and 80 Db at 50 feet with noise control devices for dozers and scrapers. In combination, the noise exposure at 2,000 feet would be reduced to approximately 60 Db, which is below most standards for noise-sensitive land-uses. Noise generated from the concurrent reclamation activities will not be perceivable against the noise generated by the mining activities.

3.7.2 Dust. Odors, Vehicular Emissions

Air quality parameters that are potentially affected by aggregate mining operations are vehicular emissions and suspended particulate (dust). Mining operations would not significantly increase vehicular traffic on SR 136. Increased emissions would however emanate from the pit during the active extraction phase. However, the site will be mined in a manner that will result very nearly in the final reclaimed landform; therefore, reclamation activities will not cause an increase in vehicular emissions.

Because the soil disturbance from materials processing, extraction, and hauling is a "fresh" disturbance, the major component of the produced dust will be of large particle size (greater than 10 microns), which settles out rapidly. Best available control technology, such as maintaining a moist aggregate surface, will be used to suppress processing, extraction, and hauling dust sources. Reclamation activities, such as re-soiling with stockpiled topsoil mixed with native vegetative debris, will also help to control dust

A water truck will be on site during operations when high wind conditions dictate the need. Thus, the dust from the site will not add to that produced by Owens Lake and further degrade the air quality of the area.

3.8.0 HOURS OF·OPERATIONINUMBER OF EMPLOYEES

The hours of operation may be up to 12 hours per day during the hours of 7:00 am to 7:00 pm. On average it is estimated that this operation will employ 2-3 people during mining activities.

3.9.0 TRANSPORTATION

During operational phases, transportation by employees to the mine site will not increase traffic on Highway 136 significantly. The low frequency of transportation of aggregate resources to road construction locations will not significantly increase traffic on SR 136. It is estimated that during mining operations, haul trucks will make approximately 1-5 round-trips/day.

4.0.0 DESCRIPTION OF PROPOSED RECLAMATION

4.1.0 SUBSEQUENT USES

The land is zoned by Inyo County as open space, with no special land use restrictions. According to various resource maps, the site does not support any designated, critical wildlife habitat; however, the site provides general habitat values to various wildlife species. The new pit area will be reclaimed to open space natural resources, which will leave the site in a productive end use that is readily adaptable to alternative end uses. The old pit area will permanently be used to store natural materials for road construction and stage maintenance equipment.

4.2.0 IMPACT ON FUTURE MINING

Reclamation of this site will not preclude mining at a future date. The aggregate resource extends beyond the site boundaries and is at least 100 feet deep. The current mining plan will not have exhausted on-site mineral resources.

4.3.0 RECLAMATION SCHEDULE

Reclamation treatments, such as topsoil berms, will be installed during the initial site reclamation phase. Reclamation treatments such as de-compaction and re-soiling will be implemented when final slopes are present. Once the reclamation treatments have been implemented, those treatments will be monitored until performance standards have been met. The monitoring plan is designed to evaluate site-specific criteria for slope stability, erosion/sediment control, re-soiling and revegetation.

4.4.0 POST-MINING TOPOGRAPHY

Plan Sheet L-5 depicts the post-mining and reclaimed topography for the mined area. The final site configuration will, in general, be a triangular-shaped excavated pit into the alluvial fan to the northeast of the wave-cut terraces, no greater than 50-feet deep, with side slopes no steeper than 3:1 (H:V). The entry to the new pit will be blocked and the road will be reshaped, reclaimed, and revegetated to blend with the surrounding topography. Topsoil and vegetative debris (termed "duff"), and fines will be applied to the new pit slopes. Wind dispersed seeds from the surrounding undisturbed vegetation will aid in re-vegetation efforts.

4.4.1 Slope Stability

Pit slopes for the mining phases and the final reclaimed site will not be steeper than 3:1 (H:V), or 18°, except for the minor road cuts which will be 1.75:1 (H:V), or 30°, and a maximum of 17 feet high. The angle of repose of the loose stockpile material on the site is approximately 32°. For the final 3:1 (H:V) pit slopes, a static factor of safety of 1.9 is calculated. Thus, pit slopes will be stable at the proposed angle under static conditions. However, depending on the conditions of the sediment exposed on the slope (moisture content, vegetation cover, compaction, etc.), portions of the pit slope could experience surficial failure due to seismic loading from a maximum credible earthquake on one of the active faults in the area. Any slope failures will be retained within the pit.

4.4.2 Final Drainage Plan and Impoundments

Plan Sheet L-5 details the final drainage plan of the reclaimed site. Material berms around the lower pit will remain in place and will be maintained throughout the life of the BLM easement.

4.4.3 Disposition of Equipment

Any equipment brought onto the new pit site will be removed following termination of mining activity. No equipment will be stored on the new pit following the end of Phase IV. Equipment may be stored in the old pit, which is consistent with the proposed end use of this portion of MS #300.

4.5.0 RESOILING

The native soil of this site is very sandy with a large amount of coarse fraction (gravel and larger) material on the surface. The topsoil also contains native seeds and soil microorganisms. While a portion of the topsoil (the large fraction) is part of the minerals being extracted from this site, the upper six inches will be treated as an invaluable resource and salvaged, rather than as a commodity and removed from the site.

The topsoil is therefore defined as the upper six inches of the native surface. Duff is defined as the topsoil and vegetative material. Prior to mining any area that has not been previously mined (majority of the site), the top six inches of the native surface and all existing vegetative material will be scraped off the mining area and stored in topsoil berms at the top of the excavation slopes (Appendix C). The vegetation can be either harvested and stockpiled separately, scraped at the same time as the surface material and stockpiled together, or hydroxide, chopped, broken, or chipped and mixed into the topsoil.

Native surface materials will be stored in the material berms at the top of the excavation area and will be kept separate from processing and sedimentation pond fines. Native topsoil will be spread on the slopes first, with the remaining, if any, spread on the pit bottom. All other areas will receive processing and sedimentation fines. These fines will be stockpiled separately from topsoil and will be placed in the old pit as shown on the site plans.

Prior to spreading the stored topsoil and fines, all compacted areas will be de-compacted (ripped or disked) to facilitate root growth. The topsoil that was stockpiled or windrowed on the sides of the pit will then be re-spread over the disturbed slopes and roughened to form a variety of microsites. This can be accomplished by rough grading, imprinting, or other suitable method.

4.6.0 REVEGETATION

Revegetation treatments of the site will strive to achieve visual integration with the surrounding vegetation and provide wildlife habitat values. Decompaction, topsoil spreading, surface roughing and seeding of the site will take place during the fall, late October to December.

4.6.l Seedbed Preparation

After re-spreading the topsoil, duff, or fines, the area will be roughened to form a variety of microsites; this can be accomplished by heavy ripping the site, track walking, or by imprinting. The growth media will be prepared to provide a firm. but not overly compacted seedbed. Test plot information (see section 3.4.2.7) gathered during mining operations will be used to develop best practices for site specific preparation treatments.

4.6.2 Seed Sources

Many plant species are comprised of local ecotypes that are highly adapted to the local climate and edaphic conditions (Plummer et al. 1955, 1968). The plants that will have the best chance of survival on a site are those ecotypes that are growing on (or near) that site. Besides the problem of purchasing a less adaptive ecotype, one could also cause genetic contamination of the local ecotype through interbreeding with an introduced ecotype. Commercially available seeds often contain small amounts of invasive and/or exotic species. This site has only one sparsely dispersed invasive, Russian thistle (*Salsola tragus*). The introduction of other invasive/exotic species would reduce the quality of revegetation efforts. The best policy is to use seeds from on or near the site.

The first method of gathering seed would be the storing of topsoil in berms adjacent to the site. Once the berms are in place they will be left undisturbed until final reclamation activities. It is estimated that the topsoil berms will be in place for several years to decades. Native plants will continue to grow and add to the seed bank at these berms.

The second method will rely on the various wind dispersed seeds from the surrounding undisturbed landscape. Most plant species observed at the site rely on wind dispersal to propagate seeds (Aalbu 2019). The heavy roughing of slopes, similar to linear crevices at the site, would be the primary method in capturing wind dispersed seeds.

The third method of gathering seed would be harvesting by hand from the surrounding undisturbed landscape. Permission from the land owner (BLM) would be required prior to this activity. Difficulties in gathering multiple species, over several blooming season, with extremely low plant cover makes this method the least practical of the three options.

4.6.3 Seeding & Methods

Topsoil berms will be spread on slopes up to six inches deep. Slopes will be heavily roughened to mimic the linear crevices of the surround undisturbed landscape. If vegetation success criteria are not met, then hand gathered seeds will be broadcast and then mixed into the top 1/2-inch of the substrate, by either raking or dragging a chain across the seedbed or other suitable method.

4.6.4 Mulches

Topsoil berms and existing plants growing on the berms will be the primary source of vegetative debris. The linear crevices created by roughing of the slopes will also capture wind-blown fines.

This would provide linear crevices for capture of fines, wind disbursed seeds, precipitation and minor surface runoff; mirroring existing crevices where most plant species exist at the site.

No imported mulching material will be used at this site, since it would not be compatible with the native alkaline soil types.

4.6.5 Irrigation

The use of irrigation on this site would probably aid germination; however, it would also serve to increase growth of weedy species, thereby increasing the competitive advantage of the weedy, exotic species, such as Russian thistle. Therefore, irrigation is not currently recommended for this site.

Roughing of slopes in a linear pattern that slows and gathers precipitation runoff would aid in plant establishment. Existing conditions show that the vast majority of plant cover at the site is along linear drainage crevices and at the base of slopes (Towill 2017, Appendix F).

4.6.6 Plant Protection Measures

No protection will be provided for the seeded areas, except as a remedial measure.

4.6.7 Plant Eradication Measures

If Russian thistle invades revegetated areas to the point that it is impacting the germination and/or growth of desired species, then this invasive exotic will be manually removed from the site as a remedial measure.

4.7.0 EROSION AND SEDIMENT CONTROL

Erosion and sediment control will be achieved by implementation of the previously described plan sheets and revegetation plans. Material berms will be maintained at the old pit to prevent intrusive runoff and erosion from the two adjacent drainage channels. Both the new and old pit will be self-draining. Re-soiling and reseeding will be performed according to the revegetation plan.

4.8.0 PUBLIC SAFETY

The configuration of the mined lands will not pose a hazard to the public. Hazardous materials associated with mining and processing will be stored properly on site; and prior to reclamation, will be disposed of properly off-site. The steep slopes of the wave-cut terraces, as well as other steep slopes both on- and off-site, are natural features.

4.9.0 PERFORMANCE STANDARDS

The following discussion sets forth minimum site criteria, or performance standards, for the various aspects of site reclamation. Monitoring of reclamation performance standards will be conducted by a qualified individual or group of individuals, agreed upon by Caltrans and Inyo County.

4.9.1 Erosion and Sediment Control

Erosion and sediment control monitoring will be completed at the same time and frequency that the vegetation monitoring is done. The results will be used to aid in identifying areas of potential failures and to require the use of remedial measure before problem areas cause widespread failures.

Sedimentation basins will be inspected following the season's first major storm event or at a minimum of annually. Basins will be cleaned out as needed to maintain a minimum storage capacity.

4.9.2 Slope Stability

Except for minor road cuts, no large man-made slope shall be steeper than 3:1 (H: V), which has been determined to exceed the slope stability standard for this material for all except the most severe earthquake events.

4.9.3 Revegetation

Undisturbed site-indigenous shrub cover was surveyed and concluded to be 0.32 % (Towill 2017, Appendix F). Reclamation will strive to achieve 0.16% (50% of baseline conditions) indigenous shrub cover. Aerial site surveys will be used to verify plant cover for the site annually during the reclamation phase. Species richness surveys conducted on the undisturbed area planned for mining showed a richness of three species per 50 square meters (see Table 2.6.1). Reclamation will also strive to achieve a species richness of three per 50 square meters.

4.10.0 MAINTENANCE, MONITORING, AND REMEDIAL MEASURES

Site maintenance and monitoring will continue until Inyo County deems reclamation complete.

4.10.1 Erosion and Sediment Control

All erosion and sediment control structures will be maintained and monitored for as long as mining and reclamation continues. This shall be done to ensure that the failure of one or more structures does not apply additional and unplanned stress on other structures.

If infilling or failure of a structure occurs, steps to repair the original structure will be taken. Infilled structures will be cleaned out.

4.10.2 Slope Stability

All slopes will be assessed, during annual monitoring to ensure that they are stable. If excess slope erosion is observed, or failures noted, the appropriate remedial measures will be implemented. All pit slopes will be no greater than 3:1 (H: V), except were minor road cuts occur.

4.10.3 Revegetation

Revegetation of the site will be monitored following implementation of each phase. Monitoring activities will take place during the peak flowering season, approximately April to May. Once the monitoring date is set, monitoring of the site during the later years will occur within two weeks of that original date. This scheme will assure that the data will be comparable over time.

Revegetation monitoring will consist of visual assessments and recording the progress of reclamation with photographs. Overall vegetative coverage will be calculated by use of high-quality aerial photography analysis with an 80% or greater confidence level. Species richness data will be gathered by way of 50 meter belt transects. If it appears that the site will not meet the performance standards, then the investigator shall suggest remedial measures. Appropriate remedial measures are listed in Table 4.10.3 – Remedial Measures.

4.11.0 REPORTING

Once the reclamation activities have been completed, monitoring activities will commence and will continue until the County is satisfied that performance standards have been met. Data from reclamation progress will be available to Inyo County on an annual basis. This annual report will, at a minimum, consist of the name and credentials of the investigator(s), a summary, the date of the visit(s), the methods and materials used, the data collected, an analysis of the data and performance standards, and any suggested remedial measures.

5.0.0 COST OF RECLAMATION

A reclamation cost estimate is provided on Page 7 of Appendix A.

6.0.0 APPLICANT STATEMENT OF RESPONSIBILITY

An Applicant Statement of responsibility can be found on Page 10 of Appendix A.

TABLE 4.10.3 - REMEDIAL MEASURES

FEATURE	OBJECTIVES	MONITORING FREQUENCY	FINDINGS	ACTION
Wind Erosion	Soil stabilized, no nuisance dust from site	Continuously during mining and reclamation implementation; annually following reclamation	Soil drifts found behind plants and rises, blowing dust	Consider additional soil stabilization (i.e. rock mulching)
Water Erosion	Soil stabilized, no evidence of riling or gullying equal to or greater than a Class 3	After first major storm event (>0.5-inch rain in a 24-hour period) following construction; annual monitoring of reclamation	Riling or gullying or erosion judged to be excessive	Repair area; consider additional stabilization (water bars, berms, diversion channels, or rock lining)
Slope Stability	No evidence of slope failures	Monitor continuously during mining operations; and annually during reclamation	Slope failures, slumping	Reconstruct slope, lessen angle of slope, and implement erosion control measures
Sedimentation	Little accumulation of sediment in basins (pit); basins maintain adequate capacity	After first major storm event (>0.5-inch rain in a 24-your period) following construction; annually during reclamation	Sedimentation basins filling up; diminished capacity	Clean out basin; analyze watershed for source of sediment; implement erosion control measures to correct problem
Invasion by Russian thistle or other invasive exotics	No interference with establishment of native vegetation	Once per year, note areas of infestation of Russian Thistle or other species	Infestation of exotics interfering with establishment of native vegetation	Apply weed eradication measures by hand-pulling and hand- culling
Revegetation	Perennial density averages 0.16%	Annually following implementation	Significantly below objectives	Consider reseeding; analyze soil for problems
Re-soiling	De-compacted native soils or fines re-spread to a depth of 6 inches	Monitor during implementation	Fines absent from substrate surface or a compacted substrate	Re-spread additional fines; rip or disc site to alleviate compaction

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