

# **INFORMATION HANDOUT**

**For Contract No. 07-2750U4  
At 07-Ven-33,101-0.9/R5.8 2.3/13.8**

**Identified by  
Project ID 0715000283  
MATERIALS INFORMATION**

GEOTECHNICAL DESIGN REPORT DATED 12/4/2014

SILICONE JOINT SEALANT REQUIREMENT FOR AUSTIN VAULT SAND FILTER

HAZARDOUS WASTE INFORMATION

# Memorandum

*Flex your power!  
Be energy efficient!*

To: MR. KYLE KUNITAKE,  
Senior Transportation Engineer  
District 7, Office of Design "C"

Date: December 4, 2014

File: 07-VEN-Rte 101-PM2.3/10.8  
0700000518 (EA 07-275001)

From: DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
Geotechnical Services  
Office of Geotechnical Design – South 1 MS # 18

Subject: Geotechnical Design Report for Seven Media Filters and One Retaining Wall in Ventura County from Route 101/Willow Lane to Route 101/Camarillo Spring Road

## 1.0 Scope of Work

The Office of Geotechnical Design South 1 has prepared this Memorandum to provide the geotechnical recommendations for seven (7) Media Filters on Route 101 (Location Nos. 13, 14, 15, 16, 19, 20 and 22), one (01) Retaining Wall at Location No. 20 and one (01) trenchless culvert at Location No. 15. This report is based on the information provided by your office including draft plans and cross sections. This report includes discussions of geology at the above locations.

## 2.0 Project Description

The work on this project lies within the Ventura River Estuary and Calleguas watershed and will include the construction of infiltration/ detention basins, media filters, Gross Solid Removal Devices (GSRDs) and bio-infiltration swales/ strips.

Locations for the placement of devices are based on the recommendation of the Corridor Storm water Management Studies for Route 33 and Route 101. The layout plans indicate the proposed locations of the devices.

## 3.0 Geotechnical Investigation

There are a total of seven (7) locations. Eight borings were conducted for seven locations (two borings were conducted at Location #15, where a trenchless culvert is proposed). Borings were completed using hollow stem augers by a CME 85 truck mounted drill rig. Samples were collected using the Standard Penetration Test method (ASTM D 1586 and ASTM D 6066) where a 1.4-inch diameter sampler was hammered into the ground by a 140-pound automatic hammer. The number of blows required to pound the sampler from 0.5 to 1.5 feet below the cleanout depth of each sample interval were recorded to determine the relative density of the soils. At Location No. 20,

ring samples were obtained using Modified California split spoon sampler with 2-inch inner diameter, up to a depth of 30 feet. All borings were logged using the Caltrans Soil and Rock Logging Manual, 2010. The types of material encountered were classified and the results are presented as Boring Records in Appendix A of this report. Summary of borings is presented in Table 1.

**Table 1. Summary of Borings**

Location No.	Plan Location	Type of Device	Boring No.	Latitude	Longitude	Top of Boring Elev. (ft)	Total Depth (ft)	Date
13	SB I-101 & S Conejo School Rd	MF	A-14-015	34°10'16.4"	-118°50'46.3"	900.5	30.5	08/20/14
14	SB I-101 & S Rancho Rd	MF	A-14-017	34°10'31.7"	-118°51'34.0"	814.5	35.5	08/20/14
15	NB I-101 & SB I-23	MF	A-14-019	34°10'38.9"	-118°51'40.4"	808.0	48.5	08/26/14
15	NB I-101 & SB I-23	N/A (Trenchless Culvert)	A-14-019A	34°10'41.0"	-118°51'41.5"	800.5	30.5	11/04/14
16	SB I-101	MF	A-14-024	34°10'45.0"	-118°53'00.4"	696.5	45.5	08/13/14
19	SB I-101	MF	A-14-046	34°11'32.6"	-118°56'45.0"	727.0	30.5	08/21/14
20	SB I-101	MF	A-14-048	34°11'44.8"	-118°57'04.3"	816.0	48.5	08/25/14
22	SB I-101 & Camarillo Spring Rd	MF	A-14-052	34°12'17.5"	-118°59'04.3"	161.5	31.0	08/18/14

#### 4.0 Geologic Considerations

##### 4.1 Regional Geology

The project is located within the Transverse Ranges Geologic Province which is characterized by east-west trending mountains and valleys. This area of the project is bounded on the south by the Santa Monica Mountains and on the north by the Simi Hills. Faults associated with this area include the Simi-Santa Rosa Fault and the Bailey Fault.

##### 4.2 Site Geology

All of the project sites lie within areas of relatively flat lying valleys. The valleys are mapped as being comprised of Quaternary age alluvium and Quaternary age older alluvium (Dibble T. W. and Ehrenspeck H. E., 1990, 1993). All borings conducted for this project encountered alluvium

(Location Nos. 16 and 22) or older alluvium (Location Nos. 13, 14, 15,19 and 20) to the total depth investigated. The alluvium and older alluvium consisted of layers of medium dense to very dense clayey sand, sand and/or gravelly sand or medium stiff to very stiff lean clay and/or sandy clay. In general the alluvium was less dense with no cementation and the older alluvium was more dense with thin interbedded layers of moderate to strongly cemented sand. Groundwater was encountered only in one boring for the MF at Location No. 16 and will be discussed in Section 4.3, Groundwater.

### 4.3 Groundwater

Groundwater within the project area varies. In some areas the groundwater is very deep but in other areas the groundwater is near the surface and could be groundwater or perched water. Groundwater was encountered only in one boring for the MF at Location No. 16 at elevation 656.5 feet. Seasonal or localized groundwater may be higher during and after heavy rainfall seasons which may lead to a condition of shallow groundwater. When this occurs during or prior to construction of the project then precautions may need to be taken for dewatering of excavations at the MF locations.

### 4.4 Corrosion Evaluation

Composite soil samples from the exploratory borings at the MF locations were tested at the Southern Regional Transportation Laboratory in Fontana and the Headquarters Soils and Chemical Laboratory for corrosion potential. A summary of corrosion test results is presented in Table 2.

**Table 2 - Corrosion Test Results**

Location No.	Boring No.	Sample Depth (ft)	pH	Minimum Resistivity (Ohm-Cm)	Sulfate* Content (PPM)	Chloride* Content (PPM)
13	A-14-015	0-30.5	6.74	1211	-	-
14	A-14-017	0-35.5	7.31	852	665	9
15	A-14-019	0-48.5	7.62	1176	-	-
16	A-14-024	0-45.5	7.81	891	609	8
19	A-14-046	0-30.5	8.18	1200	-	-
20	A-14-048	0-48.5	8.27	1188	-	-
22	A-14-052	0-31.0	8.09	1116	-	-

\* The Corrosion Technology Section policy states that if the minimum resistivity is greater than 1000 Ohm-Cm the sample is considered to be non-corrosive and testing to determine sulfate and chloride is not performed.

Caltrans currently considers a site to be corrosive to foundation elements if one or more of the following conditions exist: Chloride concentration is greater than or equal to 500 ppm, sulfate concentration is greater than or equal to 2000 ppm, or the pH is 5.5 or less. Based on the results of corrosion tests, the site is considered non-corrosive to foundation elements.

## 5.0 Geotechnical Considerations for Media Filters

The following locations were selected for geotechnical considerations base on design plans provided by District 7 Design C in June 20<sup>th</sup>, 2014.

### Location # 13: MF at S I-101 & Willow Lane - S Conejo School Road. (Layout sheet L-10):

The proposed MF locates in a 1:4 (V:H) slope on an embankment surrounded by SB I-101 and S Conejo School Rd. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

### Location #14: MF at S I-101 Onramp from S Rancho Road. (Layout sheet L-11):

The proposed MF locates on flat surface ground. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

### Location #15: MF at S I-23 Off-ramp & N I-101. (Layout sheet L-12):

The proposed MF locates on flat surface ground. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

### Location #16: MF on S I-101 shoulder between Moorpark Road and Lynn Road. (Layout sheet L-13):

The proposed MF locates next to a 1:1 (V:H) slope on the shoulder SB I-101. There is a water creek at the bottom of the slope. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

### Location #19: MF at S I-101 between Wendy Drive and Truck Weight Station. (Layout sheet L-16):

The proposed MF locates next to a 1:2 (V:H) slope on the shoulder SB I-101. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

### Location #20: MF at S I-101 between Wendy Drive and Truck Weight Station. (Layout sheet L-17):

The proposed MF locates in a 1:2 (V:H) slope on the shoulder SB I-101. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

Location #22: MF at S I-101 Onramp from Camarillo Spring Road. (Layout sheet L-20):

The proposed MF locates in a 1:6 (V:H) slope. If 1:2 (V:H) slope cannot be maintained for back cut during excavation due to limited space, temporary shoring is required.

## **6.0 Foundation Analysis for Retaining Wall at Location No. 20 (from station 458+66 to station 458+86)**

### **6.1 Geotechnical Design Parameters**

Subsurface soil conditions at the proposed retaining wall location were determined based on the borings performed for this project. The soil strength parameters used for the geotechnical analyses are shown in the Table 3.

**Table 3 – Soil Strength parameters**

<b>Approximate Elevation (ft)</b>	<b>Soil Type</b>	<b>Approximate Total Unit Weight (pcf)</b>	<b>Friction Angle (deg)</b>	<b>Cohesion(psf)</b>
816 - 806	Clayey Sand with few gravel	115	33	0
806 - 801	Poorly graded Sand with Clay	125	35	0
801 - 796	Clayey Sand with few gravel	105	31	0
796 - 786	Clayey Sand with few gravel	130	36	0

### **6.2 Bearing Capacity**

The configuration of retaining wall with the nature of slope and the surcharge load due to the media filter is similar to the Loading Case 2 for the Type1 Retaining Wall given in the Caltrans Revised Standard Plan (RSP B3-1B). The gross nominal bearing resistance was calculated using Terzaghi's equation. The factored gross nominal bearing resistance for strength limit state was obtained using the resistance factor equal to 0.55 (per Table 11.5.6-1, Ca Amendments to AASHTO LRFD BDS- Fourth edition). The factored gross nominal bearing resistance was compared against the gross uniform bearing stress given in RSP B3-1B for the 8' high retaining wall. The gross uniform bearing stress given in RSP B3-1B is less than the factored gross nominal bearing resistance. This procedure was repeated for the extreme event limit state with the resistance factor equal to 1.0

### 6.3 Settlement

Due to the granular nature of the underlying soils at the wall, the settlements will occur shortly upon the application of loads. The long-term total and differential settlements are expected to be negligible.

### 6.4 Slope Stability

The slope stability analyses were performed to verify the overall stability using the computer program SLOPEW under both static and pseudo-static conditions. The slope stability analysis under pseudo-static condition was performed using a seismic coefficient equal to one-third of the horizontal ground acceleration and not exceeding 0.2g. The slope stability analyses were performed using the Bishop method for circular slip surfaces. Analyses indicate that these walls meet the required minimum factors of safety, 1.5 for static condition and 1.1 for pseudo-static condition.

For the construction of the retaining wall, an excavation into the existing slope may be expected. The stability of slope for this situation also was analyzed. The excavation should not be steeper than 1:2 (V: H). Analysis indicates that the factor of safety is 1.4 for this temporary condition.

### 6.5 Seismic Recommendations

The proposed wall site is not within an Alquist-Priolo Earthquake Fault Zone. An analysis was performed to develop and recommend ground motion parameters. This analysis was performed in accordance with requirements specified in Appendix B of the Caltrans' 2013 Seismic Design Criteria (SDC, Version 1.7, April 2013) and utilizing the "Caltrans ARS Online" and other tools available at the internet sites.

The average shear wave velocity ( $V_{s30}$ ) for the upper 100 feet of the subsurface profile was estimated to be about 365 m/sec (1197 ft/sec) based on as-built field investigation. The significant faults/fault zones are summarized in the Table 4 below.

**Table 4 - Summary of Faults**

Fault Name	Type	$M_{max}$	$R_X$	$R_{JB}$	$R_{RUP}$
Simi-Santa Rosa Fault Zone (Camarillo-Santa Rosa Section)	SS	6.8	2.5 miles (4.1 km)	2.6 miles (4.3 km)	2.6 miles (4.3 km)
Simi-Santa Rosa Fault Zone (Simi-Santa Rosa Section)	SS	6.8	3.4 miles (5.6 km)	3.4 miles (5.6 km)	3.5 miles (5.7 km)
Baily Fault	N	6.2	3.6 miles (5.8 km)	0.3 miles (0.5 km)	2.8 miles (4.5 km)

Notes:  $R_X$  = Horizontal distance to the fault trace

$R_{JB}$  = Shortest horizontal distance to the surface projection of the rupture area

$R_{RUP}$  = Closest distance to the fault rupture plane

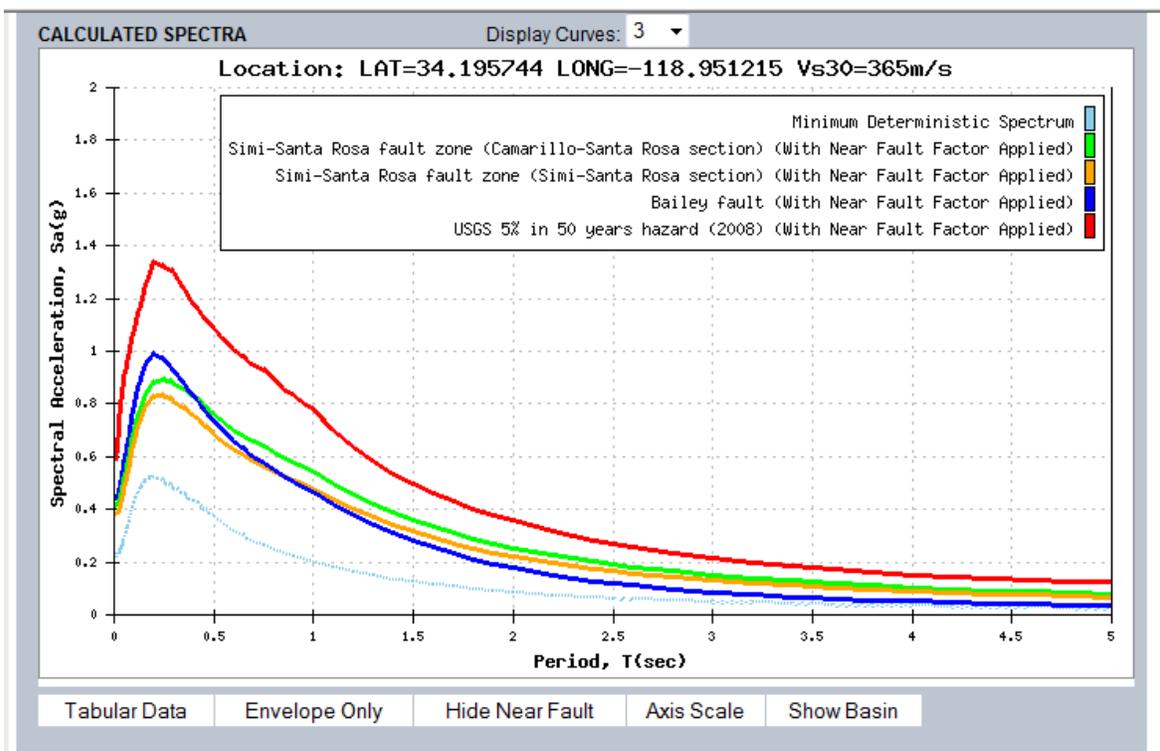
The design deterministic as well as the probabilistic acceleration response spectrum (ARS) curves developed are shown in Figure 1. The probabilistic ARS curve corresponds to a ground motion return period (RP) of 975-year (i.e., 5% probability of exceedance in 50 years). Since all the site to fault distance measures used in the attenuation relationships utilized in this analysis are within 25 km, the ARS curves shown in Figure 1 include the near fault effects as specified in the Seismic Design Criteria (SDC 2013).

ARS curves were developed according to the Caltrans ARS Online V2.3.06.

The design Peak Ground Acceleration (PGA) for the project site is 0.6g.

**Figure 1**

**DESIGN ACCELERATION RESPONSE SPECTRUM (ARS)**  
**Damping Ratio = 5%;  $V_{s30} = 365$  m/sec**



## 6.6 Liquefaction Potential

Liquefaction is a phenomenon in which loose and saturated, fine grained granular soils behave like a fluid when subjected to high intensity ground shaking. Liquefaction occurs when three general conditions exist: (1) shallow ground water (2) low-density, fine sandy soils and (3) high-intensity ground motion. Saturated, loose and medium dense, near surface cohesionless soils exhibit the

liquefaction potential, while dense cohesionless soil and cohesive soil exhibit the lowest, negligible liquefaction potential. Effects of liquefaction on ground surface include sand boils, settlement and lateral spreading. Groundwater was not encountered during field investigation and liquefaction potential at the retaining wall site is low.

## **7.0 Geotechnical Considerations for Proposed Trenchless Culvert at Location No. 15**

From recent borings at Location No. 15 (borings A-14-091 and A-14-091A), unfavorable ground conditions for an auger boring or HDD (Horizontal Directional Drilling) such as loose sand, soft clay, hard clays or gravelly layers were not found. Approximately 20 to 30 bgs (below ground surface), stiff to very stiff clays are present, and any difficulty with auger boring or HDD is not expected during construction of trenchless culvert.

## **8.0 Conclusions and Recommendations**

From a geotechnical standpoint, the construction of retaining wall at Location #20, supported on spread footing, per Caltrans Revised Standard Plan (RSP B3-1B) is feasible. Retaining wall footing should be embedded sufficient depth to provide adequate bearing, global stability and erosion protection. A minimum footing embedment of 2 ft measured to the top of footing should be maintained. As this retaining wall will be on slope, a bench with a minimum width of 3 feet or the width of the footing toe, whichever is greater, should be constructed above the footing near the wall face.

The construction of media filters is feasible from the geotechnical perspective. Permanent active shoring should be used when there are existing structures nearby.

From a geotechnical view point, auger boring or HDD for construction of the proposed trenchless culvert is feasible. Based on the results of corrosion tests performed on a composite sample from Boring No. A-14-019, the site can be considered as non-corrosive. A typical settlement monitoring program associated with construction of a trenchless culvert is recommended.

## **9.0 Construction Considerations**

### **9.1 Construction Considerations for Retaining Wall at Location #20**

1. The proposed retaining should be founded on properly compacted competent soil. Clay or loose sand is not expected at the bottom of footing elevation at this project site. If clay or loose sand is encountered within the areas to receive the walls, soil should be over-excavated for 5 feet and replaced with compacted fill. The compacted fill beneath the wall should be granular in nature, have a Sand Equivalent value of 20 as determined by California Test Method 217, and have less than 50% of material passing No. 200 sieve size. The compacted fill beneath the

wall should be placed in horizontal loose layers of approximately 8-inch thick, and compacted to at least 95% relative compaction. The limits of compacted fill beneath the wall are as follows:

- (i) Depth below the bottom of footing elevation is five feet.
  - (ii) Horizontal extension is at least two feet away from the outer edge of the footprint of the wall.
  - (iii) Slope of excavation for the compacted fill should not be steeper than 1:1 slope.
2. The back cut slope should not be steeper than 1:2 (V: H) during construction.
  3. Earthwork should be performed in accordance with Sections 6 and 19 of the latest Caltrans Standard Specifications.

## **9.2 Construction Considerations for Media Filters**

1. The back cut slope should not be steeper than 1:2 (V: H) during construction. If 1:2 (V:H) slope cannot be maintained due to limited space, temporary shoring is required.
2. If seasonal groundwater is encountered in any excavation for MF construction, dewatering will be necessary.
3. If loose or soft material is encountered in the base of any excavation for MF, over-excavation of the layer of loose or soft material up to 5', and replacement with granular material at 90% compaction is recommended to assure adequate bearing capacity for the footing.

## **8.2 Construction Considerations for the Trenchless Culvert**

1. A settlement monitoring program to observe the subsidence of ground surface is required.

If you have any questions or comments, please call Deepa Wathugala at (213) 620-2134, or Christopher Harris at (213) 620-2147.

Prepared by:                      Date: 12/4/2014

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## APPENDIX A

# BORING RECORDS

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-20-14</b>	COMPLETION DATE <b>8-20-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 10' 16.25" / -118° 50' 45.8" WGS84</b>	HOLE ID <b>A-14-015</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~900.5 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-20-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>30.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		CLAYEY SAND with GRAVEL (SC); light brown; dry; little GRAVEL.												
898.50	1														
896.50	2														
894.50	3														
892.50	4		CLAYEY SAND (SC); dense; moist; trace GRAVEL.		1	13 19 21	40								
890.50	5														
888.50	6		Very dense.		2	18 55 66	121								
886.50	7														
884.50	8				3	13 50/2"	50/2								
882.50	9														
880.50	10		Poorly graded SAND (SP); very dense; light brown; moist; Very Thin Interbed Layers of Moderate to Strongly Cemented Sand.		4	80/3"	REF								
878.50	11														
876.50	12														
874.50	13				5	80/2"	REF								
872.50	14														
870.50	15														
868.50	16				6	100/5"	REF								
866.50	17														
	18														
	19														
	20														
	21														
	22														
	23														
	24														
	25														
	26														
	27														
	28														
	29														
	30														
	31		Bottom of borehole at 30.5 ft bgs												
	32														
	33														
	34		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												
	35														

5 BR - STANDARD 7 LOCATIONS\_3.GPJ CALTRANS LIBRARY (FEB 2013).GLB 10/30/14



Department of Transportation  
 Division of Engineering Services  
 Geotechnical Services  
 Office of Geotechnical Design - South 1

REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-015</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 13</b>		PREPARED BY <b>HUY NGO</b>		DATE <b>8-20-14</b>
				SHEET <b>1 of 1</b>

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-20-14</b>	COMPLETION DATE <b>8-20-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 10' 31.76" / -118° 51' 35.1" WGS84</b>	HOLE ID <b>A-14-017</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~814.5 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-20-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>35.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		CLAYEY SAND with GRAVEL (SC); light brown; dry; little GRAVEL.												
809.50	5		Poorly graded SAND (SP); very dense; light brown; dry; trace GRAVEL.	X	1	15 31 24	55								
804.50	10		Lean CLAY with SAND (CL); stiff; light brown; moist; few SAND; PP = 1.5 tsf.	X	2	3 5 8	13								
799.50	15		SANDY lean CLAY (CL); very stiff; dark brown; moist; PP = 3.0 tsf.	X	3	10 21 10	31								
794.50	20		CLAYEY SAND with GRAVEL (SC); very dense; light brown; moist; Very Thin Interbed Layers of Moderate to Strongly Cemented Sand.	X	4	16 24 30	54								
789.50	25		Yellowish brown.	X	5	50 100/5"	100/5								
784.50	30		Gray.	X	6	37 100/5"	100/5								
779.50	35		Bottom of borehole at 35.5 ft bgs	X	7	100/2"	REF								
774.50	40		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

5 BR - STANDARD 7 LOCATIONS\_3.GPJ CALTRANS LIBRARY (FEB 2013).GLB 10/30/14



Department of Transportation  
Division of Engineering Services  
Geotechnical Services  
Office of Geotechnical Design - South 1

REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-017</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 14</b>	PREPARED BY <b>HUY NGO</b>		DATE <b>8-20-14</b>	SHEET <b>1 of 1</b>

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-26-14</b>	COMPLETION DATE <b>8-26-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 10' 38.75" / -118° 51' 40.3" WGS84</b>	HOLE ID <b>A-14-019</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~808.0 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-26-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>48.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
803.00	5		Poorly graded SAND with GRAVEL (SP); brown; dry; some fine GRAVEL.												
798.00	10		Lean CLAY (CL); stiff; light brown; moist; few SAND; trace GRAVEL; PP = 2.5 tsf.	X	1	4 7 8	15								
793.00	15		No Recovery of Sample.	X	2	8 12 9	21								
788.00	20		Lean CLAY (CL); stiff; dark brown; moist; few SAND; trace GRAVEL; PP = 1.5 tsf.	X	3	3 5 5	10								
783.00	25		Very stiff; few GRAVEL; PP = 2.5 tsf.	X	4	4 8 14	22								
778.00	30		CLAYEY SAND (SC); dense; light brown; moist; trace GRAVEL; Thin interbed layers of Lean Clay (CL) (3/4 to 1-1/4 inch).	X	6	13 18 20	38								
773.00	35		Poorly graded SAND with GRAVEL (SP); very dense; yellowish brown.	X	7	80/5"	REF								
768.00	40			X	8	85/6"	REF								
763.00	45			X	9	33 65/3"	65/3								
758.00	50		Bottom of borehole at 48.5 ft bgs	X	10	65/3"	REF								
753.00	55		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-019</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 15</b>	PREPARED BY <b>HUY NGO</b>		DATE <b>8-26-14</b>	SHEET <b>1 of 1</b>

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>11-4-14</b>	COMPLETION DATE <b>11-4-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 10' 40.95" / -118° 51' 41.54" WGS84</b>	HOLE ID <b>A-14-019A</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~800.5 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>Acker AD2</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>71%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-11-04-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>30.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	0		ASPHALT CONCRETE (6). CLAYEY SAND (SC); brown; dry; trace GRAVEL.												
795.50	5		Lean CLAY (CL); very stiff; brown; moist; few GRAVEL ; PP=3 TSF.		1	11 11 12	23	100							
			Stiff; PP=1.5 TSF.												
790.50	10				2	5 4 7	11	100							
			Very stiff; dark gray; few SAND ; PP=2 TSF.												
785.50	15				3	8 7 16	23	100							
			Stiff; black; trace SAND ; PP=1 TSF.												
780.50	20				4	5 5 6	11	100							
			Very stiff; brown; trace SAND ; PP=3.5 TSF.												
775.50	25				5	8 12 15	27	100							
			Poorly graded SAND (SP); very dense; yellowish brown; dry; trace GRAVEL.												
770.50	30		Bottom of borehole at 30.5 ft bgs		6	80/REF	REF	100							
765.50	35														

This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-019A</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 15</b>	PREPARED BY <b>HUY NGO</b>	DATE <b>11-4-14</b>	SHEET <b>1 of 1</b>	

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-13-14</b>	COMPLETION DATE <b>8-13-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 10' 45.01" / -118° 53' 0.35" WGS84</b>	HOLE ID <b>A-14-024</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~696.5 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-13-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS <b>40.0 ft</b>	TOTAL DEPTH OF BORING <b>45.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		CLAYEY SAND with GRAVEL (SC); light brown; dry; few GRAVEL.												
691.50	5		CLAYEY SAND (SC); dense; light brown; dry; few GRAVEL.	X	1	17 23 19	42								
686.50	10		Moist; trace GRAVEL.	X	2	14 12 24	36								
681.50	15		Poorly graded SAND with CLAY (SP-SC); very dense; light brown; moist; few GRAVEL.	X	3	23 34 32	66								
676.50	20		CLAYEY SAND (SC); dense; brown; moist; few GRAVEL.	X	4	10 16 19	35								
671.50	25		Medium dense; trace GRAVEL.	X	5	9 8 12	20								
666.50	30		SANDY lean CLAY (CL); gray; moist; trace GRAVEL.	X	6	22 23 20	43								
661.50	35			X	7	15 12 20	32								
656.50	40		ORGANIC lean CLAY (OL); hard; dark brown; moist; trace GRAVEL; Ground Water encountered at 40 feet from surface; PP > 4 tsf.	X	8	31 23 31	54								
651.50	45		CLAYEY SAND (SC); very dense; dark gray; wet; few GRAVEL.	X	9	50/3"	REF								
			Bottom of borehole at 45.5 ft bgs												
646.50	50		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-024</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 16</b>		PREPARED BY <b>HUY NGO</b>		DATE <b>8-13-14</b>
				SHEET <b>1 of 1</b>

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-21-14</b>	COMPLETION DATE <b>8-21-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 11' 32.6" / -118° 56' 44.99" WGS84</b>	HOLE ID <b>A-14-046</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~727.0 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-21-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>30.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
725.00	1		Poorly graded SAND (SP); light brown; dry; few GRAVEL.												
723.00	4		Medium dense; trace GRAVEL.		1	11 10 7	17								
717.00	10		SANDY lean CLAY with GRAVEL (CL); olive gray; moist; trace GRAVEL.		2	6 10 12	22								
713.00	14		Poorly graded SAND with GRAVEL (SP); very dense; light brown; dry; trace GRAVEL.		3	54 50/2"	50/2								
707.00	20				4	50/3"	REF								
703.00	24		Very Thin Interbed Layers of Moderate to Strongly Cemented Sand.		5	50/2"	REF								
697.00	30				6	50/2"	REF								
	31		Bottom of borehole at 30.5 ft bgs												
	34		This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-046</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 19</b>	PREPARED BY <b>HUY NGO</b>	DATE <b>8-21-14</b>	SHEET <b>1 of 1</b>	

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-25-14</b>	COMPLETION DATE <b>8-25-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 11' 44.88" / -118° 57' 4.14" WGS84</b>	HOLE ID <b>A-14-048</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~816.0 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>MCAL-2"/ SPT - 1.4"</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-25-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>48.5 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
811.00	5		CLAYEY SAND (SC); medium dense; light brown; dry; few GRAVEL.												
			Push 1500 psi for 03 inches. Hammer 15 blows for next 03 inches. Hammer 21 blows for next 06 inches. Hammer 16 blows for last 06 inches. Collect 01 2-inch Brass sample..	✕	1										
806.00	10		Poorly graded SAND with CLAY (SP-SC); dense; light brown; dry; few GRAVEL; Hammer 24 blows for first 06 inches. Hammer 18 blows for second 06 inches. Hammer 37 blows for last 06 inches..	✕	2										
801.00	15		CLAYEY SAND with GRAVEL (SC); medium dense; light brown; dry; Hammer 3 blows for first 06 inches. Hammer 6 blows for second 06 inches. Hammer 10 blows for last 06 inches..	✕	3										
796.00	20		CLAYEY SAND (SC); dense; light brown; dry; trace GRAVEL; Hammer 38 blows for first 06 inches. Hammer 80 blows for second 06 inches. Hammer 80 blows for last 02 inches..	✕	4										
791.00	25		Very dense; Hammer 34 blows for first 06 inches. Hammer 53 blows for second 06 inches. Hammer 70 blows for last 06 inches..	✕	5										
786.00	30		Poorly graded SAND with CLAY (SP-SC); very dense; light brown; dry; few GRAVEL; SPT Samples.	✕	6	62 40/1"	40/1								
781.00	35			✕	7	64 40/1"	40/1								
776.00	40		Dark grayish brown; moist; SPT Samples.	✕	8	80/5"	REF								
771.00	45		CLAYEY SAND with GRAVEL (SC); very dense; gray; dry; few GRAVEL; SPT Samples.	✕	9	39 85/3"	85/3								
766.00	50		Bottom of borehole at 48.5 ft bgs	✕	10	30/1"	REF								
			This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-048</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 20</b>	PREPARED BY <b>HUY NGO</b>	DATE <b>8-25-14</b>	SHEET <b>1 of 1</b>	

LOGGED BY <b>HUY NGO</b>	BEGIN DATE <b>8-18-14</b>	COMPLETION DATE <b>8-18-14</b>	BOREHOLE LOCATION (Lat/Long or North/East and Datum) <b>34° 12' 17.45" / -118° 59' 4.45" WGS84</b>	HOLE ID <b>A-14-052</b>
DRILLING CONTRACTOR <b>CALTRANS</b>			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION <b>~161.5 ft NAVD88</b>
DRILLING METHOD <b>Hollow-Stem Auger</b>			DRILL RIG <b>CEM85</b>	BOREHOLE DIAMETER <b>6 in</b>
SAMPLER TYPE(S) AND SIZE(S) (ID) <b>SPT - 1.4" ID</b>			SPT HAMMER TYPE <b>Automatic</b>	HAMMER EFFICIENCY, ERI <b>70%</b>
BOREHOLE BACKFILL AND COMPLETION <b>Backfill with cement grout-08-18-14</b>			GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS	TOTAL DEPTH OF BORING <b>31.0 ft</b>

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		CLAYEY SAND (SC); light brown; dry; few GRAVEL.												
156.50	5		Lean CLAY (CL); very stiff; dark brown; moist; PP = 3.5 tsf.	X	1	5	17								
151.50	10		SANDY lean CLAY (CL); hard; brown; moist; trace GRAVEL; PP > 4 tsf.	X	2	11 17 27	44								
146.50	15		Poorly graded SAND (SP); very dense; light brown; dry; few GRAVEL.	X	3	89/4"	REF								
141.50	20			X	4	82/3"	REF								
136.50	25			X	5	80/5"	REF								
131.50	30			X	6	40 80/5"	80/5								
			Bottom of borehole at 31.0 ft bgs												
			This Boring Record was developed in accordance with the Caltrans Soil & Rock Logging, Classification, and Presentation Manual (2010) except as noted on the Soil or Rock Legend or below.												

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REPORT TITLE <b>BORING RECORD</b>				HOLE ID <b>A-14-052</b>
DIST. <b>07</b>	COUNTY <b>VEN</b>	ROUTE <b>101</b>	POSTMILE <b>R2.3/R2.3</b>	PROJECT ID <b>07-275001</b>
PROJECT OR BRIDGE NAME <b>BMP - FROM P.M. 2.3 TO P.M. 52.8</b>				
BRIDGE NUMBER <b>Location # 22</b>	PREPARED BY <b>HUY NGO</b>	DATE <b>8-18-14</b>	SHEET <b>1 of 1</b>	

## SILICONE JOINT SEALANT APPROVED BY CALTRANS

The following silicone joint sealants have been tested and approved by the Transportation Laboratory. Silicone joint sealant must be a low modulus, one part silicone formulation. Typical uses are for sealing longitudinal and transverse joints in PCC pavement.

*Refer to Section 40-1.021(2) of the 2010 Standard Specifications*

Manufacturer	Product	
Crafco, Inc.	RoadSaver, part number 34902	(800) 528-8242
D.S. Brown Co.	DSB 800	(419) 257-3561
Dow Corning	888 Silicone Joint Sealant	(303) 980-9614
Sika Corporation	Sikasil-728 NS	(800) 933-7452

PHONE NUMBERS LISTED ARE FOR THE HEADQUARTERS OF EACH COMPANY. THEY WILL PROVIDE ORDERING INFORMATION OR LOCATION OF THE NEAREST SUPPLIER.

Last revised 12/6/2012

For more information about this site, please contact Lisa Dobeck at (916) 227-7291, or [lisa.dobeck@dot.ca.gov](mailto:lisa.dobeck@dot.ca.gov)

(Please be aware that this list is **not** for Type A joint seal, the two component silicone sealant specified in section 51-2.02B of the 2010 Standard Specifications. There is no list for Type A joint seal, it is tested on a batch by batch basis.)

EA 275001

VEN 33, PM0.0/6.0 and VEN 101 PM 1.2/14.1

## **Information Handout**

(Hazardous Waste)

Note:

Due to the project work scope changes, many locations in the following table were dropped from the final design package.

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD and pH  
ADL SITE INVESTIGATION  
VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-00000518 (EA#275001)  
TASK ORDER #11  
CONTRACT 07A3322

State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth	
33	1	1247-101-0	35	--	--	--	1	X	
		1247-101-1	30	--	--	--			
		1247-101-2	36	--	--	--			
		1247-102-0	74	4.0	--	7.8			
		1247-102-1	64	2.2	--	--			
33	2	1247-102-2	39	--	--	--	1	Z-2	
		1247-103-0	130	5.3	0.021	J			--
		1247-103-1	160	8.2	0.077	7.8			--
		1247-103-2	130	7.9	0.24	--			--
		1247-104-0	98	3.4	--	--			--
33	3	1247-104-1	15	--	--	--	1	Z-2	
		1247-104-2	17	--	--	--			--
		1247-105-0	120	5.2	0.055	--			--
		1247-105-1	150	7.4	0.12	7.8			--
		1247-105-2	140	9.3	0.14	--			--
33	4	1247-106-0	84	3.8	--	--	3	Z-2	
		1247-106-1	38	--	--	--			--
		1247-107-0	30	--	--	--			--
		1247-107-1	20	--	--	--			--
		1247-107-2	8.3	--	--	--			--
33	5	1247-107-3	7.7	--	--	--	3	Z-2	
		1247-107-4	7.0	--	--	--			--
		1247-108-0	260	17	0.22	--			--
		1247-108-1	42	--	--	--			--
		1247-108-2	46	--	--	--			--
33	6	1247-108-3	190	11	0.39	--	1	Z-2	
		1247-109-0	170	12	0.19	--			--
		1247-109-1	370	23	0.76	--			--
		1247-109-2	170	8.3	0.17	--			--
		1247-109-3	27	--	--	--			--
33	7	1247-110-0	130	7.1	0.0045	J	3	Z-2	
		1247-110-1	230	12	0.13	--			--
		1247-110-2	52	1.7	--	--			--
		1247-110-3	58	3.9	--	--			--
		1247-111-0	260	19	0.38	--			--
33	8	1247-111-1	280	18	0.17	--	1	Z-2	
		1247-111-2	26	--	--	--			--
		1247-112-0	450	30	0.58	--			--
		1247-112-1	600	30	0.68	8.0			--
		1247-112-2	8.0	--	--	--			--
33	9	1247-113-0	300	16	0.57	--	3	Z-2	
		1247-113-1	4.4	--	--	--			--
		1247-113-2	4.4	--	--	--			--
		1247-113-3	26	--	--	--			--
		1247-113-5	7.7	--	--	--			--
33	10	1247-114-0	510	27	1.3	--	3	Z-2	
		1247-114-1	410	26	1.8	--			--
		1247-114-2	15	--	--	--			--
		1247-114-3	88	4.3	--	--			--
		1247-115-0	420	26	1.6	8.6			--
33	11	1247-115-1	350	20	1.2	--	3	Z-2	
		1247-115-2	31	--	--	--			--
		1247-115-3	39	--	--	--			--
		1247-116-0	350	31	1.4	--			--
		1247-116-1	120	7.4	0.14	--			--
33	12	1247-116-2	41	--	--	--	3	Z-2	
		1247-116-3	37	--	--	--			--
		1247-117-0	130	27	0.13	--			--
		1247-117-1	48	--	--	--			--
		1247-117-2	33	--	--	--			--
33	13	1247-117-3	100	9.3	0.071	--	3	Z-2	
		1247-118-0	120	7.2	0.23	--			--
		1247-118-1	59	3.8	--	--			--
		1247-118-2	59	3.4	--	--			--
		1247-118-3	24	--	--	--			--

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TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD and pH  
ADL SITE INVESTIGATION  
VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-00000518 (EA#275001)  
TASK ORDER #11  
CONTRACT 07A3322

State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET- Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth	
33	10	1247-119-0	140	7.7	0.15	8.4	3	Z-2 (Cal WET UCL <sub>95</sub> = 7.32 mg/L)	
		1247-119-1	59	1.8	--	--			
		1247-119-2	23	--	--	--			
		1247-120-0	14	--	--	--			
		1247-120-1	22	--	--	--			
		1247-120-2	8.1	--	--	--			
33	11	1247-120-3	9.1	--	--	--	3	X (Cal WET UCL <sub>95</sub> = 4.35 mg/L)	
		1247-121-0	120	7.4	0.14	--			
		1247-121-1	110	5.6	0.17	--			
		1247-121-2	23	--	--	--			
		1247-121-3	30	--	--	--			
		1247-121-5	36	--	--	--			
		1247-122-0	97	4.9	--	--			
		1247-122-1	99	1.9	--	--			
		1247-122-2	14	--	--	--			
		1247-122-3	13	--	--	--			
		1247-122-5	7.4	--	--	--			
		33	12	1247-123-0	66	4.4			--
1247-123-1	69			2.2	--	--			
1247-123-2	20			--	--	--			
1247-124-0	110			6.6	0.064	--			
1247-124-1	21			--	--	--			
1247-124-2	6.1			--	--	--			
33	13	1247-125-0	500	38	0.69	7.9	1	Z-2	
		1247-125-1	270	16	0.20	--			
		1247-125-2	31	--	--	--			
		1247-126-0	220	12	0.19	--			
		1247-126-1	250	11	0.25	--			
		1247-126-2	27	--	--	--			
33	14	1247-127-0	390	19	0.37	--	3	Z-2	
		1247-127-1	120	4.9	0.061	--			
		1247-127-2	49	--	--	--			
		1247-127-3	53	4.0	--	--			
		1247-127-5	71	3.9	--	--			
		1247-128-0	160	12	0.098	--			
		1247-128-1	240	8.3	0.045	J			--
		1247-128-2	75	4.4	--	--			
		1247-128-3	41	--	--	--			
		1247-128-5	20	--	--	--			
		1247-129-0	66	3.3	--	7.2			--
		1247-129-1	20	--	--	--			--
33	15	1247-129-2	7.9	--	--	--	3	X	
		1247-129-3	13	--	--	--			
		1247-130-0	17	--	--	--			
		1247-130-1	28	--	--	--			
		1247-130-2	14	--	--	--			
		1247-130-3	6.8	--	--	--			
33	16	1247-131-0	47	--	--	--	1	X	
		1247-131-1	27	--	--	--			
		1247-131-2	14	--	--	--			
		1247-132-0	63	3.1	--	--			
33	17	1247-132-1	57	2.1	--	--	3	Z-2	
		1247-132-2	13	--	--	--			
		1247-133-0	170	12	0.18	--			
		1247-133-1	33	--	--	--			
		1247-133-2	54	2.2	--	--			
		1247-133-3	50	2.2	--	--			
		1247-134-0	290	17	0.18	7.3			
		1247-134-1	94	5.1	--	--			
		1247-134-2	190	8.9	0.077	--			
		1247-135-0	190	14	0.073	--			
33	18	1247-135-1	21	--	--	--	3	Z-2	
		1247-135-2	10	--	--	--			
		1247-135-3	98	--	--	--			
		1247-135-5	62	4.5	--	--			
		1247-136-0	440	11	0.060	--			
		1247-136-1	130	6.8	0.023	J			--
		1247-136-2	9.4	--	--	--			
		1247-136-3	13	--	--	--			
1247-136-5	100	6.8	0.029	J	--				

TABLE 2  
 SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD and pH  
 ADL SITE INVESTIGATION  
 VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
 VENTURA COUNTY, CALIFORNIA  
 EFIS:07-00000518 (EA#275001)  
 TASK ORDER #11  
 CONTRACT 07A3322

State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET- Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth
33	19	1247-137-0	21	--	--	7.9	3	X
		1247-137-1	20	--	--	--		
		1247-137-2	9.8	--	--	--		
		1247-137-3	11	--	--	--		
		1247-137-5	3.4	--	--	--		
		1247-138-0	9.1	--	--	--		
		1247-138-1	6.5	--	--	--		
		1247-138-2	3.8	--	--	--		
		1247-138-3	11	--	--	--		
		1247-138-5	6.1	--	--	--		
		1247-139-0	48	--	--	--		
		1247-139-1	6.9	--	--	--		
1247-139-2	7.3	--	--	--				
1247-139-3	7.3	--	--	--				
1247-139-5	6.0	--	--	--				
1247-140-0	40	--	--	--				
1247-140-1	11	--	--	--				
1247-140-2	17	--	--	--				
1247-140-3	37	--	--	--				
1247-140-5	8.1	--	--	--				
1247-141-0	19	--	--	--				
1247-141-1	12	--	--	--				
1247-141-2	8.7	--	--	--				
1247-141-3	7.3	--	--	--				
1247-141-5	12	--	--	--				
1247-142-0	47	--	--	8.4				
1247-142-1	18	--	--	--				
1247-142-2	8.9	--	--	--				
1247-142-3	8.1	--	--	--				
1247-142-5	10	--	--	--				
1247-143-0	60	4.2	--	--				
1247-143-1	22	--	--	--				
1247-143-2	14	--	--	--				
1247-143-3	6.2	--	--	--				
1247-143-5	9.0	--	--	--				
1247-144-0	290	11	0.14	--				
1247-144-1	14	--	--	--				
1247-144-2	9.0	--	--	--				
1247-144-3	6.8	--	--	--				
1247-144-5	7.8	--	--	--				
1247-145-0	32	--	--	--				
1247-145-1	29	--	--	--				
1247-145-2	5.2	--	--	--				
1247-145-3	4.5	--	--	--				
1247-145-5	8.3	--	--	--				
1247-146-0	64	0.76	--	--				
1247-146-1	24	--	--	--				
1247-146-2	14	--	--	--				
1247-146-3	17	--	--	--				
1247-146-5	37	--	--	--				
1247-147-0	66	2.6	--	--				
1247-147-1	19	--	--	--				
1247-147-2	43	--	--	--				
1247-147-3	17	--	--	--				
1247-147-5	6.8	--	--	--				
1247-148-0	17	--	--	--				
1247-148-1	71	2.8	--	--				
1247-148-2	17	--	--	--				
1247-148-3	7.1	--	--	--				
1247-148-5	7.3	--	--	--				
1247-149-0	83	3.3	--	--				
1247-149-1	140	8.1	0.10	--				
1247-149-2	85	1.6	--	--				
1247-150-0	120	6.8	0.078	--				
1247-150-1	170	8.9	0.11	--				
1247-150-2	48	--	--	--				

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD and pH  
ADL SITE INVESTIGATION  
VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-00000518 (EA#275001)  
TASK ORDER #11  
CONTRACT 07A3322

State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth
33	26	1247-151-0	73	4.2	--	7.5	1	X
		1247-151-1	34	--	--	--		
		1247-151-2	27	--	--	--		
		1247-152-0	63	2.9	--	--		
		1247-152-1	7.0	--	--	--		
33	27	1247-152-2	38	--	--	--	3	X (Cal WET UCL <sub>95</sub> = 3.02 mg/L)
		1247-153-0	95	3.5	--	--		
		1247-153-1	74	4.6	--	--		
		1247-153-2	63	2.6	--	--		
		1247-153-3	9.0	--	--	--		
		1247-153-5	42	--	--	--		
		1247-154-0	68	5.4	--	--		
		1247-154-1	14	--	--	--		
		1247-154-2	12	--	--	--		
		1247-154-3	6.6	--	--	--		
		1247-154-5	9.3	--	--	--		
		1247-155-0	56	1.5	--	7.8		
		33	28	1247-155-1	11	--		
1247-155-2	9.6			--	--	--		
1247-155-3	7.4			--	--	--		
1247-155-5	18			--	--	--		
1247-156-0	38			--	--	--		
1247-156-1	16			--	--	--		
1247-156-2	12			--	--	--		
1247-156-3	43			--	--	--		
33	29	1247-156-5	11	--	--	--	3	X
		1247-157-0	19	--	--	--		
		1247-157-1	13	--	--	--		
		1247-157-2	9.3	--	--	--		
		1247-157-3	8.7	--	--	--		
		1247-157-5	16	--	--	--		
		1247-158-0	15	--	--	--		
		1247-158-1	9.8	--	--	--		
		1247-158-2	8.0	--	--	--		
		1247-158-3	6.1	--	--	--		
33	30	1247-158-5	11	--	--	--	1	X
		1247-159-0	20	--	--	--		
		1247-159-1	10	--	--	--		
		1247-159-2	9.3	--	--	--		
		1247-160-0	18	--	--	--		
33	31	1247-160-1	11	--	--	--	1	X
		1247-160-2	8.9	--	--	--		
		1247-161-0	17	--	--	--		
		1247-161-1	12	--	--	--		
		1247-161-2	8.5	--	--	--		
33	32	1247-162-0	22	--	--	--	1	X
		1247-162-1	19	--	--	--		
		1247-162-2	45	--	--	--		
		1247-163-0	47	--	--	--		
		1247-163-1	36	--	--	--		
33	33	1247-163-2	17	--	--	--	1	X
		1247-164-0	59	2.1	--	7.8		
		1247-164-1	32	--	--	--		
		1247-164-2	37	--	--	--		
		1247-165-0	19	--	--	--		
33	34	1247-165-1	11	--	--	--	3	X
		1247-165-2	19	--	--	--		
		1247-165-3	9.0	--	--	--		
		1247-165-5	9.1	--	--	--		
		1247-166-0	24	--	--	--		
		1247-166-1	9.3	--	--	--		
		1247-166-2	11	--	--	--		
		1247-166-3	14	--	--	--		
1247-166-5	8.4	--	--	--				

Approved

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD and pH  
ADL SITE INVESTIGATION  
VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-0000518 (EA#275001)  
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State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET- Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth
<del>33</del>	<del>34</del>	<del>1247-167-0</del>	<del>110</del>	<del>5.2</del>	<del>0.025</del>	<del>J 7.7</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-167-1</del>	<del>14</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-167-2</del>	<del>15</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-167-3</del>	<del>6.0</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-167-5</del>	<del>11</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-168-0</del>	<del>25</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-168-1</del>	<del>6.1</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-168-2</del>	<del>8.8</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-168-3</del>	<del>10</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>34</del>	<del>1247-168-5</del>	<del>12</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X (Cal WET UCL<sub>95</sub> = 3.42 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-169-0</del>	<del>130</del>	<del>7.4</del>	<del>0.016</del>	<del>J --</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-169-1</del>	<del>61</del>	<del>3.4</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-169-2</del>	<del>55</del>	<del>3.2</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-169-3</del>	<del>13</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-169-5</del>	<del>13</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-170-0</del>	<del>200</del>	<del>0.68</del>	<del>J 0.024</del>	<del>J --</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-170-1</del>	<del>62</del>	<del>2.8</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-170-2</del>	<del>42</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-170-3</del>	<del>20</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>35</del>	<del>1247-170-5</del>	<del>22</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>Z-2 (Cal WET UCL<sub>95</sub> = 6.83 mg/L)</del>
<del>33</del>	<del>36</del>	<del>1247-171-0</del>	<del>12</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>36</del>	<del>1247-171-1</del>	<del>12</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>36</del>	<del>1247-171-2</del>	<del>10</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>36</del>	<del>1247-172-0</del>	<del>17</del>	<del>--</del>	<del>--</del>	<del>8.0</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>36</del>	<del>1247-172-1</del>	<del>15</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>36</del>	<del>1247-172-2</del>	<del>10</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>37</del>	<del>1247-173-0</del>	<del>15</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>37</del>	<del>1247-173-1</del>	<del>13</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
<del>33</del>	<del>37</del>	<del>1247-173-2</del>	<del>35</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
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<del>101</del>	<del>42</del>	<del>1247-183-0</del>	<del>190</del>	<del>19</del>	<del>0.45</del>	<del>--</del>	<del>1</del>	<del>Z-2</del>
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<del>101</del>	<del>43</del>	<del>1247-185-0</del>	<del>14</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>1</del>	<del>X</del>
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<del>101</del>	<del>45</del>	<del>1247-189-0</del>	<del>12</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X</del>
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<del>101</del>	<del>45</del>	<del>1247-190-2</del>	<del>11</del>	<del>--</del>	<del>--</del>	<del>--</del>	<del>3</del>	<del>X</del>

TABLE 2  
SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD and pH  
ADL SITE INVESTIGATION  
VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-00000518 (EA#275001)  
TASK ORDER #11  
CONTRACT 07A3322

State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET- Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth	
101	46	1247-191-0	19	--	--	--	1	X	
		1247-191-1	9.0	--	--	--			
		1247-192-0	59	3.8	--	6.7			
		1247-192-1	24	--	--	--			
		1247-192-2	11	--	--	--			
		1247-193-0	380	16	0.097	--	1	Z-2	
		1247-193-1	68	4.1	--	--			
		1247-193-2	62	2.6	--	--			
		1247-194-0	670	26	0.15	--			
		1247-194-1	28	--	--	--			
		1247-194-2	7.2	--	--	--			
		1247-195-0	72	4.8	--	8.6	1	X	
		1247-195-1	26.2	--	--	--			
		1247-195-2	5.7	--	--	--			
		1247-196-0	13	--	--	--			
		1247-196-1	5.0	--	--	--			
		1247-196-2	5.3	--	--	--			
		1247-197-0	150	8.4	0.18	--	3	Z-2 (Cal WET UCL <sub>95</sub> = 6.04 mg/L)	
		1247-197-1	73	4.0	--	--			
		1247-197-2	20	--	--	--			
		1247-197-3	12	--	--	--			
		1247-197-5	15	--	--	--			
		1247-198-0	110	3.0	0.039	J			
		1247-198-1	43	--	--	--			
		1247-198-2	5.8	--	--	--			
		1247-198-3	8.9	--	--	--			
		1247-198-5	4.1	--	--	--			
		1247-199-0	80	5.2	--	--	1	Z-2	
		1247-199-1	18	--	--	--			
		1247-199-2	7.9	--	--	--			
		1247-200-0	160	9.5	0.12	7.4			
		1247-200-1	90	12	--	--			
		1247-200-2	3.8	--	--	--			
		1247-201-0	36	--	--	--	1	Z-2	
		1247-201-1	52	1.5	--	--			
		1247-202-0	150	5.9	0.040	J			
		1247-202-1	8.9	--	--	--			
		1247-202-2	8.7	--	--	--			
		1247-203-0	120	4.2	0.029	J	9.1	1	X
		1247-203-1	2.5	--	--	--			
		1247-204-0	16	--	--	--			
		1247-204-1	29	--	--	--			
		1247-205-0	26	--	--	--			
		1247-205-1	16	--	--	--	1	X	
		1247-205-2	2.1	--	--	--			
		1247-206-0	57	3.3	--	--			
		1247-206-1	61	3.7	--	--			
		1247-206-2	6.9	--	--	--			
		1247-207-0	20	--	--	--	1	X	
		1247-207-1	7.9	--	--	--			
		1247-207-2	10	--	--	--			
		1247-208-0	8.3	--	--	--			
		1247-208-1	45	--	--	--			
		1247-208-2	41	--	--	--	1	X	
		1247-209-0	61	3.2	--	--			
		1247-209-1	28	--	--	--			
		1247-209-2	49	--	--	--			
		1247-210-0	73	2.9	--	7.6			
		1247-210-1	55	2.2	--	--	1	X	
		1247-211-0	34	--	--	--			
		1247-211-1	28	--	--	--			
		1247-211-2	4.0	--	--	--			
		1247-211-3	3.6	--	--	--			
		1247-211-5	6.1	--	--	--			
		1247-212-0	28	--	--	--			
		1247-212-1	8.2	--	--	--			
		1247-212-2	14	--	--	--			

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ADL SITE INVESTIGATION  
VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-00000518 (EA#275001)  
TASK ORDER #11  
CONTRACT 07A3322

State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET- Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth
101	57	1247-213-0	38	--	--	--	1	X
		1247-213-1	29	--	--	--		
		1247-213-2	28	--	--	--		
		1247-214-0	72	3.4	--	7.4		
		1247-214-1	7.8	--	--	--		
101	58	1247-214-2	16	--	--	--	3	X
		1247-215-0	45	--	--	--		
		1247-215-1	10	--	--	--		
		1247-215-2	17	--	--	--		
		1247-215-3	3.9	--	--	--		
		1247-215-5	5.9	--	--	--		
		1247-216-0	27	--	--	--		
		1247-216-1	29	--	--	--		
		1247-216-2	7.1	--	--	--		
		1247-216-3	6.2	--	--	--		
101	59	1247-216-5	4.4	--	--	--	1	Z-2
		1247-217-0	62	6.6	--	--		
		1247-217-1	37	--	--	--		
		1247-217-2	41	--	--	--		
		1247-218-0	160	5.6	0.11	8.6		
101	60	1247-218-1	45	--	--	--	1	Z-2
		1247-218-2	28	--	--	--		
		1247-219-0	83	6.3	--	--		
		1247-219-1	9.0	--	--	--		
		1247-220-0	150	7.3	0.062	--		
101	61	1247-220-1	43	--	--	--	1	Z-2
		1247-221-0	47	--	--	--		
101	62	1247-222-0	140	5.9	0.063	7.5	3	X (Cal WET UCL <sub>95</sub> = 4.78 mg/L)
		1247-223-0	50	2.1	--	--		
		1247-223-1	21	--	--	--		
		1247-223-2	82	2.9	--	--		
		1247-224-0	97	6.7	--	--		
		1247-224-1	15	--	--	--		
101	63	1247-224-2	120	3.0	0.028	--	1	X
		1247-224-3	17	--	--	--		
		1247-225-0	70	2.0	--	--		
		1247-225-1	79	2.4	--	7.9		
		1247-225-2	6.7	--	--	--		
101	64	1247-226-0	43	--	--	--	1	Z-2
		1247-226-1	9.2	--	--	--		
		1247-226-2	12	--	--	--		
		1247-227-0	240	13	0.29	--		
		1247-227-1	16	--	--	--		
101	65	1247-227-2	87	4.0	--	--	3	X
		1247-228-0	160	10	0.21	--		
		1247-228-1	83	5.1	--	--		
		1247-228-2	130	7.0	0.11	--		
		1247-229-0	42	--	--	--		
		1247-229-1	90	2.6	--	--		
101	66	1247-229-2	55	3.7	--	--	1	X
		1247-229-3	53	2.6	--	--		
		1247-229-5	48	--	--	--		
		1247-230-0	20	--	--	--		
		1247-230-1	12	--	--	--		
101	67	1247-230-2	14	--	--	--	1	X
		1247-230-3	18	--	--	--		
		1247-231-0	86	4.0	--	--		
		1247-231-1	46	--	--	--		
		1247-231-2	27	--	--	--		
101	67	1247-232-0	50	2.5	--	--	1	X
		1247-232-1	120	4.9	0.24	8.4		
		1247-232-2	89	5.0	--	--		
		1247-233-0	14	--	--	--		
		1247-233-1	3.3	--	--	--		
101	67	1247-233-2	2.6	--	--	--	1	X
		1247-234-0	16	--	--	--		
		1247-234-1	86	--	--	--		
101	67	1247-234-2	28	--	--	--		

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VEN-33, PM 0.0/6.0 and VEN-101, PM 1.2/14.1  
VENTURA COUNTY, CALIFORNIA  
EFIS:07-00000518 (EA#275001)  
TASK ORDER #11  
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State Route	HW ID	Sample ID	Total Lead <sup>(1)</sup> (mg/kg)	Soluble Lead <sup>(1)</sup> Cal WET - Citric (mg/L)	Soluble Lead <sup>(1)</sup> TCLP (mg/L)	pH <sup>(2)</sup>	Proposed Excavation Depth (in feet bgs)	Soil Classification in Proposed Excavation Depth	
101	68	1247-235-0	16	--	--	--	1	X	
		1247-235-1	7.2	--	--	--			
		1247-235-2	13	--	--	--			
		1247-236-0	15	--	--	--			
		1247-236-1	82	7.8	--	--			8.5
		1247-236-2	18	--	--	--			--
101	69	1247-237-0	60	3.1	--	--	1	X	
		1247-237-1	110	4.3	0.084	--			
		1247-237-2	66	5.0	--	--			
		1247-238-0	40	--	--	--			
		1247-238-1	46	--	--	--			
101	70	1247-238-2	48	--	--	--	1	X	
		1247-239-0	21	--	--	--			
		1247-239-1	40	--	--	--			
		1247-239-2	12	--	--	--			
		1247-240-0	47	--	--	--			
101	71	1247-240-1	4.1	--	--	--	1	X	
		1247-240-2	4.4	--	--	--			
		1247-241-0	17	--	--	--			
		1247-241-1	19	--	--	--			
		1247-241-2	20	--	--	--			
101	72	1247-242-0	83	3.8	--	7.9	1	X	
		1247-242-1	13	--	--	--			
		1247-242-2	1.7	--	--	--			
		1247-243-0	34	--	--	--			
		1247-243-1	13	--	--	--			
101	73	1247-243-2	54	--	--	--	1	X	
		1247-244-0	13	--	--	--			
		1247-244-1	5.1	--	--	--			
		1247-244-2	10	--	--	--			
		1247-245-0	18	--	--	--			
101	74	1247-245-1	7.6	--	--	--	1	X	
		1247-245-2	6.6	--	--	--			
		1247-246-0	41	--	--	--			
		1247-246-1	7.8	--	--	--			
		1247-246-2	7.2	--	--	--			
101	75	1247-247-0	22	--	--	--	1	X	
		1247-247-1	9.0	--	--	--			
		1247-247-2	4.2	--	--	--			
		1247-248-0	27	--	--	--			
		1247-248-1	4.4	--	--	--			
101	76	1247-248-2	4.5	--	--	--	1	X	
		1247-249-0	18	--	--	--			
		1247-249-1	19	--	--	--			
		1247-249-2	7.3	--	--	--			
		1247-250-0	12	--	--	--			
101	76	1247-250-1	10	--	--	--	1	X	
		1247-250-2	4.3	--	--	--			
		1247-251-0	5.8	--	--	--			
		1247-251-1	3.1	--	--	--			
		1247-251-2	23	--	--	--			
Statistics		Minimum	1.7	0.680	0.0045	6.7	--	--	
		Maximum	670	47	1.80	9.1	--	--	
		Mean	57.0	8.1	0.3	0.0	--	--	
		Standard Deviation	87.5	7.7	0.4	0.0	--	--	
Threshold Limits		California Hazardous Waste (Type Z-2)	≥1000	≥5	<5	>2 and <12.5	--	--	
		Non-Hazardous Waste (Type X)	<1000	<5	≤5	>2 and <12.5	--	--	
		California Human Health Screening Level <sup>3</sup>	320	--	--	--	--	--	
		Regional Screening Level <sup>4</sup>	800	--	--	--	--	--	

Notes:

(1) Total Lead, California Waste Extraction Test (Cal WET - Citric), and Toxicity Characteristic Leaching Procedure (TCLP) analysis done using EPA method 6010B. Extraction methods vary.

(2) pH determined with EPA method 9045B.

(3) California Human Health Screening Levels for Commercial/Industrial and Residential Land Use, Soil, California Environmental Protection Agency, January 2005, updated 2010 Office of Environmental Health Hazard Assessment Table 1.

(4) United States Environmental Protection Agency (Region 9) Regional Screening Levels (RSLs, in mg/Kg) for VOCs for industrial and residential soil (last updated May 2013)

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

-- = Not analyzed or not applicable

Bold = Exceeds threshold limit