

INFORMATION HANDOUT

**For Contract No. 12-0H2434
At 12-Ora-91-R20.6/R20.7, R0.0/R2.8**

**Identified by
Project ID 1214000038**

MATERIALS INFORMATION

Geotechnical Design Report

Aerially Deposited Lead Investigation Results

Memorandum

*Serious drought.
Help save water!*

To: Christopher Le, Chief
Design & Utility Engineering Branch
District 12

Date: April 22, 2015

File: 12-ORA-91 PM R0.0/R2.8
EA: 12-0H2430 (01214000038)
SR-91 Install FB Project

Attention: Kevin Pham, Project Engineer

From: **DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Geotechnical Services
Office of Geotechnical Design South 1
Branch D**

Subject: Geotechnical Design Report, Closed Circuit Television 60 (CCTV60) Pole

INTRODUCTION

Based on the request of District 12 Office of Design & Utility Engineering Branch dated February 25, 2015, Office of Geotechnical Design South 1 (OGDS1) has prepared a Geotechnical Design Report (GDR) for the CCTV 60 Electrical Equipment Pole foundation along Route 91. The CCTV's pole location is shown on the Layout Plan L-1 (dated 02-24-15) at Station 266+00 "A" Line Route 91. The foundation recommendations provided herein are based on the Layout Plan provided by Office of Design & Utility Engineering Branch to OGDS1, as well as geotechnical information obtained from As-Built Log of Test Borings (LOTBs) for Valley View Street Overcrossing (OC) dated September 25, 1967 and December 27, 2014.

SCOPE OF WORK

The following tasks were performed for the preparation of this report:

- Review of pertinent data from Route 91 and Valley Street OC (Bridge No. 55-0302).
- Performing geotechnical analysis.
- Preparation of this Geotechnical Design Report.

PROJECT DESCRIPTION

Project work includes installation of one CCTV 60 Pole on Eastbound Route 91 just east of Valley View Street OC. The sign will be located adjacent to roadway shoulder behind guard railing in level grade landscaped area.

Table 1 - General Information for CCTV 60's Pole

| Location* | Offset | Type of Foundation | Pile Diameter (ft) | Foundation Depth (ft) |
|----------------------------|---------------------|---------------------------|---------------------------|------------------------------|
| Sta. 266+00 (RTE 91 CL) | 83' Rt. "A" line | CIDH | 3.5 | 12 |

*The stationing was provided by the Office of Design & Utility Engineering Branch.

SITE GEOLOGY AND SUBSURFACE CONDITIONS

Site Geology

The site is located in the central Los Angeles Basin, and is underlain by alluvium derived from the San Gabriel River and its tributaries, such as Coyote Creek. The alluvium is generally composed of interlayered, very thickly bedded, medium dense to dense sands with varying amounts of silt.

Subsurface Conditions

Site investigation was not performed for this project and As-Built information from Valley View Street OC Br. No. 55-0302 was used for design of the proposed CCTV 60 Pole foundation.

Valley View Street OC (1957)

The underlying soils are composed of very loose to loose dark gray well sorted fine to medium sand with occasional interbedded of clay/silty clay layers to 30 ft depth (approximate elevation of 22 ft). Below this level soil consists of greenish gray fine to medium sand with slight clay binders.

Ground Water

Groundwater was encountered in 1957 investigation for original Valley View Street OC Br. No. 55-0302 between elevations of 45.6 ft to 47.6 ft above mean sea level. Groundwater was encountered in 2014 investigation at elevation of 49.4 ft.

Historical Data

The Department of Water Resources (DWR) Well No. 04S11W04G003S is located approximately 400 ft east of the proposed CCTV 60 pole foundation. The high groundwater surface elevation of 19.7 ft is reported in DWR well.

CORROSION EVALUATION

No corrosion tests were performed for this report. OGDS1 recommends using corrosion resistant concrete for the proposed CCTV 60's foundation.

SEISMIC RECOMMENDATIONS

Liquefaction Evaluation

Liquefaction is a phenomenon in which loose, saturated, fine-grained, granular soils behave like a liquid while being subjected to high-intensity ground shaking.

Shallow groundwater and loose sand layers were encountered at the subsurface soil, therefore liquefaction potential at the site is considered to be moderate to high.

FOUNDATION RECOMMENDATIONS

The following recommendation is based on; 1) As-Built LOTBs for Valley View Street OC dated September 25, 1967 and December 27, 2014, 2) Layout Plan provided by District 12 Office of Design & Utility Engineering Branch, dated February 25, 2015, and 3) CCTV 60 Sign Loads provided by Mr. Ka-Cheng Liu via email dated March 17, 2015.

Based on the As-Built borings information, foundation design in accordance to CCTV 60, Standard Plan ES-16C is sufficient to support the proposed sign.

Table 2: Foundation Design for Sign CCTV 60

| Sign Type | Location | Offset | Type of Foundation | Shear ^{1,2} Load (kips) | Vertical Load (kips) | Pile Diameter (ft) | Pile ³ Length (ft) |
|---------------|------------------------|-----------------|--------------------|----------------------------------|----------------------|--------------------|-------------------------------|
| CCTVs 60 Pole | Sta. 266+00 (RT 91 CL) | 83' Rt "A" Line | CIDH Pile | 1.15 | 2.87 | 3.5 | 12 |

Notes:

1. Maximum Bending Moment of 38.54 kip-ft was provided by Mr. Ka-Cheng Liu via email dated March 17, 2015.
2. All loads are Unfactored.
3. Pile cut off elevation was not provided to OGDS1.

CONSTRUCTION CONSIDERATIONS

The following recommendations are made for CIDH piles installation and construction and are recommended to be incorporated in the Special Provisions of the project.

- The contractor shall be required to clean out the bottom of the shaft prior to placing the cage and the concrete.
- Concrete placement for construction of the CIDH piling shall be completed within the same day that excavation of the drilled hole has been completed.
- Due to loose sandy material encountered in the subsurface soil, caving is expected during excavation of the pile boring and during CIDH piles construction. A method of caving control, such as using temporary casing should be considered by the contractor.

If you have any questions or comments, please call M. Mushtaq Ahmed at 213-620-2132 or Shiva Karimi at 213-620-2135.

Prepared by: Date: 4/22/2015

Reviewed by: Date: 4/22/2015



SAUL FIERRO
Transportation Engineer - Civil
Office of Geotechnical Design – South 1
Branch D

Shiva Karimi

SHIVA KARIMI, C.E.
Senior Transportation Engineer
Office of Geotechnical Design – South 1
Branch D



Prepared by: Date: 4/22/2015



M. MUSTAQ AHMED
Transportation Engineer - Civil
Office of Geotechnical Design – South 1
Branch D



CC: Douglas Brittsan G.S. File
Structure Construction R.E. pending File (RE_Pending@dot.ca.gov)

- Attachments:
1. CCTV 60 Plan
 2. As- Built (1967) Valley View Street OC Br. 55-0302
 3. As -Built (2014) Valley View Street OC Retrofit

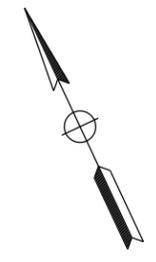
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN DIVISION

FUNCTIONAL SUPERVISOR: CHRISTOPHER LE
 CALCULATED/DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 MINH PHAM
 KEVIN PHAM
 REVISED BY: [Blank]
 DATE REVISED: [Blank]

NOTE:
 1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

| No. | R | Δ | T | L |
|-----|-------|-----------|---------|----------|
| 1 | 4800' | 20°29'32" | 867.64' | 1716.75' |

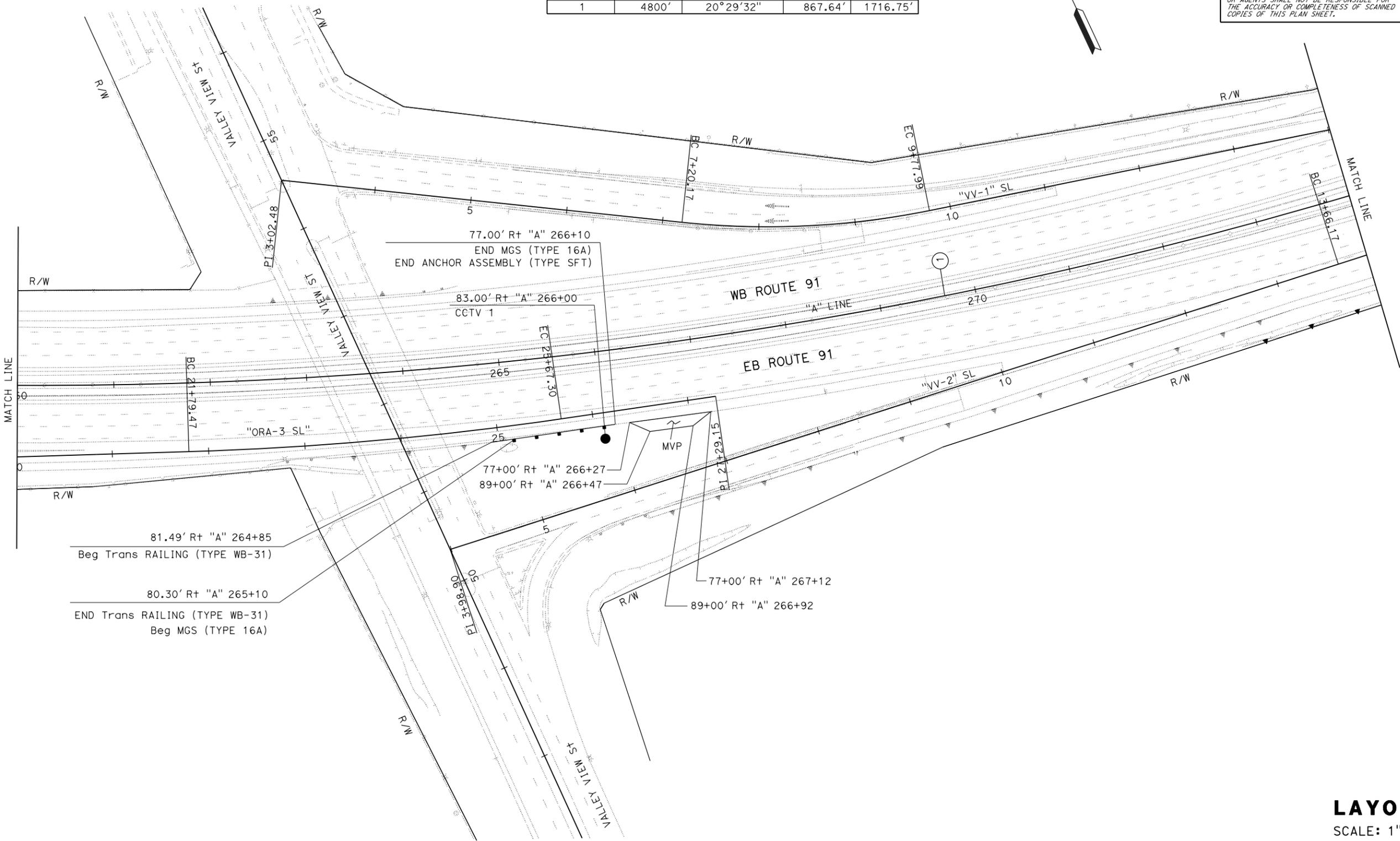


| | | | | | |
|----------|-----------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 07 12 | LA Ora | 91 | R20.6/R20.7 R0.0/R2.8 | | |

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

KEVIN D. PHAM
 No. C61965
 Exp. 9-30-15
 CIVIL
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

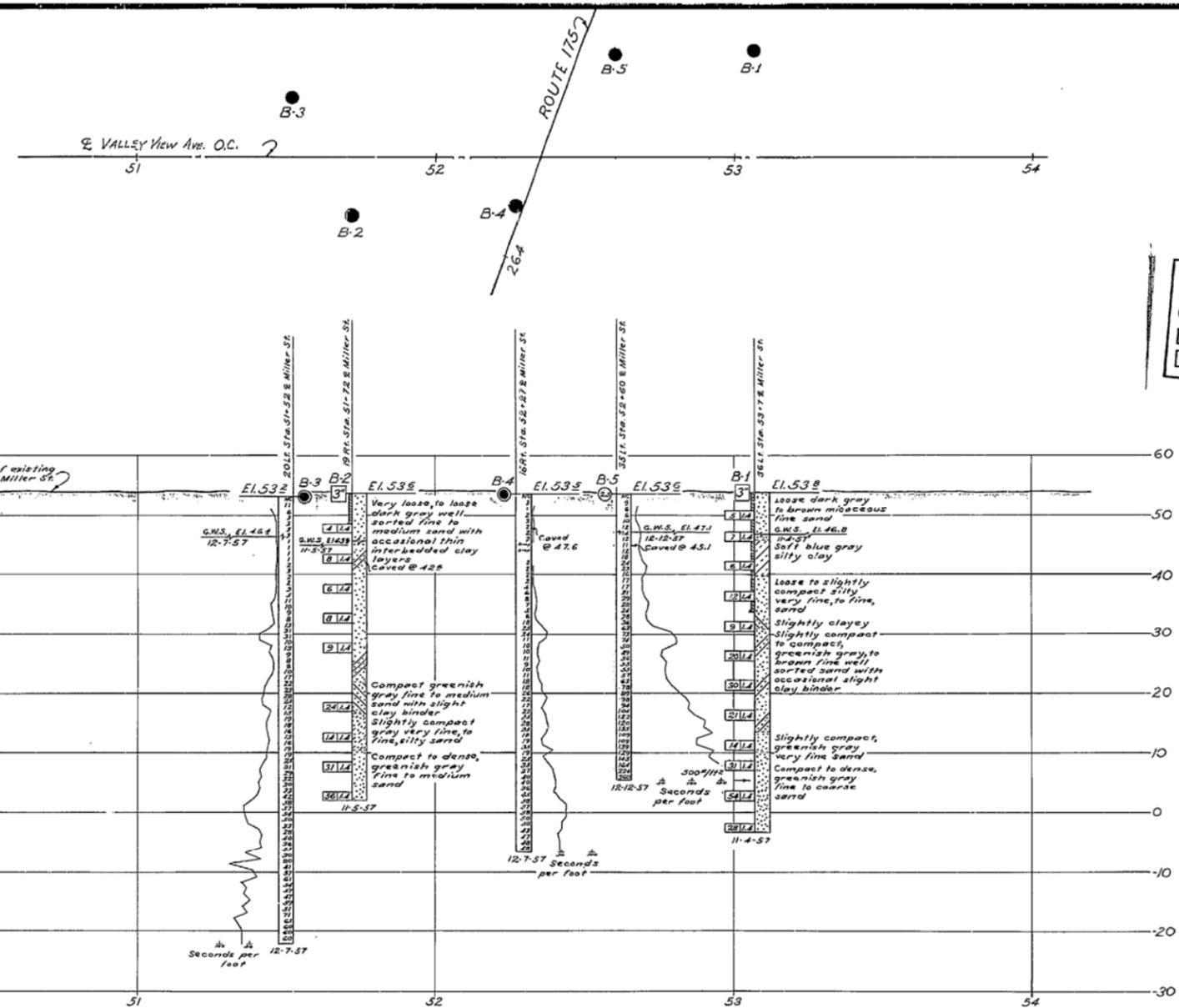


LAYOUT
 SCALE: 1"=50'
L-1

| FED. ROAD DIST. NO. | STATE | PARL. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-----------|-------------|-----------|--------------|
| 7 | CAL. | | | | |

| DIST. | COUNTY | ROUTE | SECTION | TOTAL SHEETS | DATE |
|-------|--------|-------|---------|--------------|------|
| 07 | Orange | 91 | 55302 | 17 | 1957 |

DATE APPROVED: September 25, 1957



AS BUILT PLANS
 Contract No. 07-009544
 Date Completed _____
 Document No. 70000702

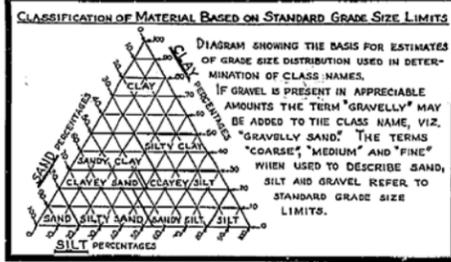
BM# 56-A-54
 Roundhead bolt @ intersection
 Miller and Orange Strps
 Elev. 54.61

AS BUILT
 CORRECTIONS: NONE
 CONTRACT NO. _____
 DATE: _____

SHEET 17 OF 17

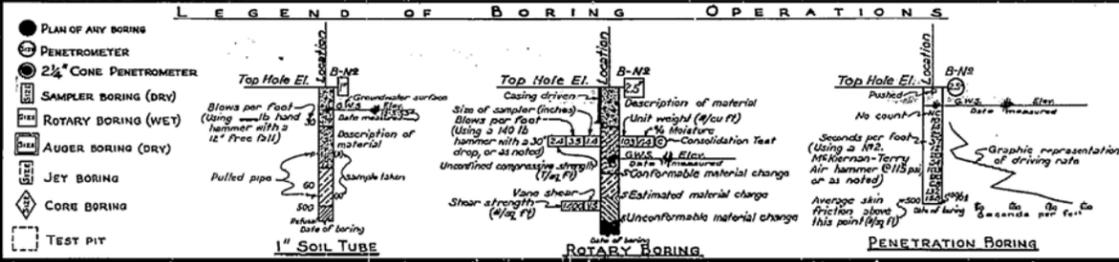
BRIDGE DEPARTMENT

FIELD STUDY: N. L. Egan, 12-7-57
 DRAWING: N. P. Egan, 12-5-57
 CHECKED: N. P. Egan, 12-5-57
 Approved: [Signature]



LEGEND OF EARTH MATERIALS

| | |
|---------------------------|----------------------------|
| GRAVEL | SILTY CLAY OR CLAYEY SILT |
| SAI | PEAT AND/OR ORGANIC MATTER |
| SILT | FILL MATERIAL |
| CLAY | IGNEOUS ROCK |
| SANDY CLAY OR CLAYEY SAND | SEDIMENTARY ROCK |
| SANDY SILT OR SILTY SAND | METAMORPHIC ROCK |



NOTES

The contractor's attention is directed to Section 2, Article (c) of the Standard Specifications and to the Special Provisions accompanying this set of plans. Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 DIVISION OF HIGHWAYS

VALLEY VIEW STREET OVERCROSSING

LOG OF TEST BORINGS

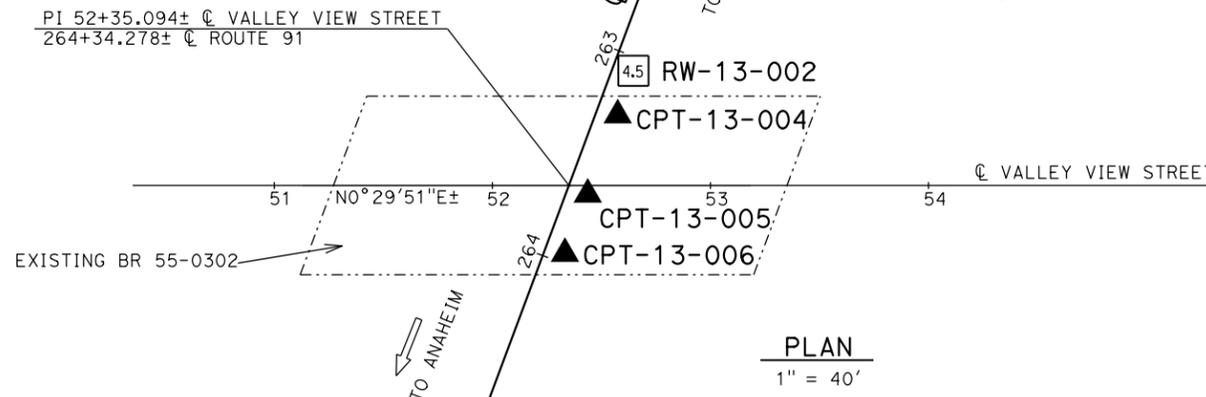
SCALE: Horiz 1"=20', Vert 1"=10' | BRIDGE 55302 | FILE | DRAWING 55302-B

PREL. DRAWING NO. P. 55302

139

BENCH MARK

OCS BM 1A-146-05
 Described by OCS 2005 - found 3 3/4" OCS aluminum benchmark disk stamped "1A-146-05", set in the northwesterly corner of a 4.0 ft. by 11.0 ft. concrete catch basin. Monument is located in the southeasterly corner of the intersection of Valley View Street and Orangethorpe Avenue, 48 ft. easterly of the centerline of Valley View and 115 ft. southerly of the centerline of Orangethorpe. Monument is set level with the sidewalk.
 Elev 55.4
 NAVD 88



| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No | TOTAL SHEETS |
|------|--------|-------|--------------------------|----------|--------------|
| 12 | Orca | 91 | | | |

CERTIFIED ENGINEERING GEOLOGIST

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

PROFESSIONAL GEOLOGIST

Kristopher Barker

No. 2383

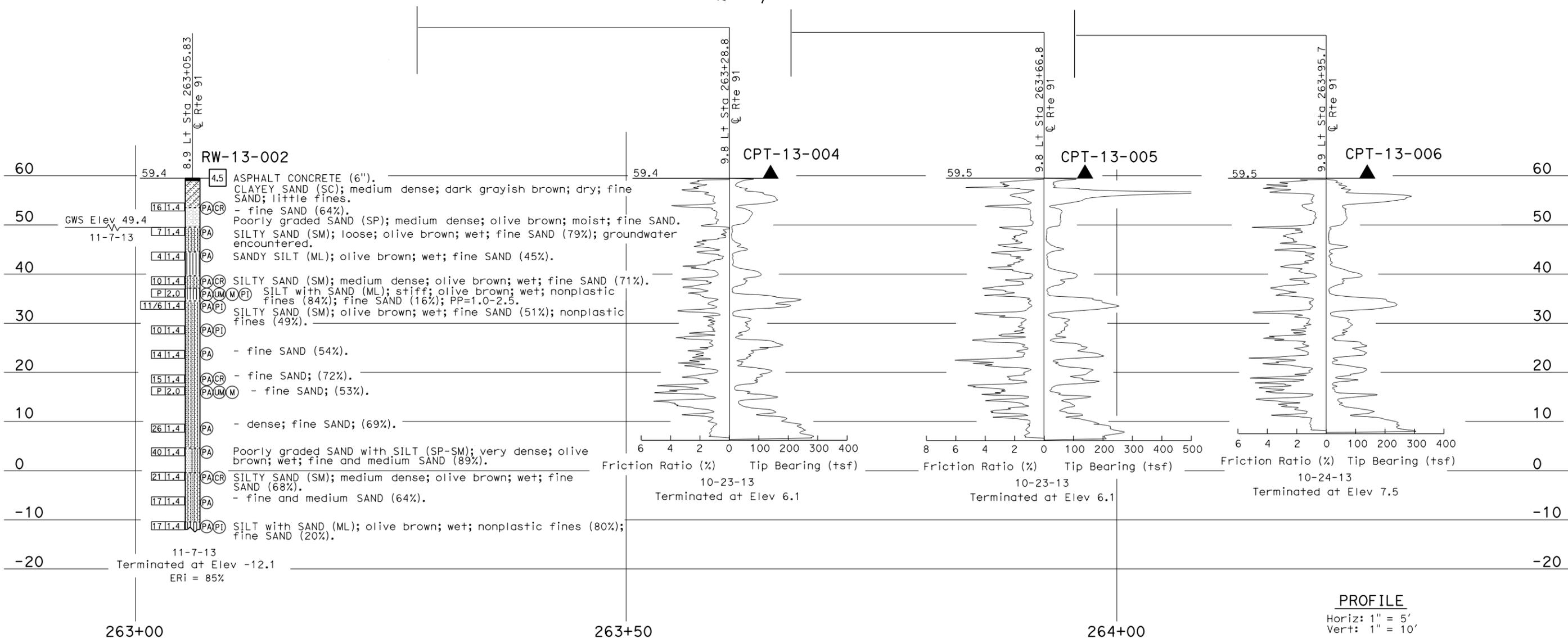
Exp. 8-31-15

CERTIFIED ENGINEERING GEOLOGIST

STATE OF CALIFORNIA

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).

See 2010 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.



PROFILE
 Horiz: 1" = 5'
 Vert: 1" = 10'

| | | | | | | | | | | | |
|-------------------------------------|--|--|--|--|--|---|--|-------------------------------------|--|---|--|
| ENGINEERING SERVICES | | MATERIALS AND GEOTECHNICAL SERVICES | | STATE OF CALIFORNIA | | DIVISION OF ENGINEERING SERVICES | | BRIDGE NO. | | VALLEY VIEW STREET OC RETROFIT | |
| FUNCTIONAL SUPERVISOR | | DRAWN BY: W. Tang 12/13 | | FIELD INVESTIGATION BY: | | CALIFORNIA | | 55-0302 | | LOG OF TEST BORINGS 1 OF 2 | |
| NAME: S. Karimi | | CHECKED BY: T. Halda | | K. Barker | | DEPARTMENT OF TRANSPORTATION | | POST MILE | | | |
| | | | | | | | | R0.85 | | | |
| OGS CIVIL LOG OF TEST BORINGS SHEET | | | | ORIGINAL SCALE IN INCHES FOR REDUCED PLANS | | | | UNIT: 3643 | | DISREGARD PRINTS BEARING EARLIER REVISION DATES | |
| | | | | 0 1 2 3 | | | | PROJECT NUMBER & PHASE: 12130000011 | | REVISION DATES | |
| | | | | | | | | CONTRACT NO.: 12-0M7201 | | SHEET OF | |
| | | | | | | | | FILE => valleyview1of2.dgn | | X X | |

USERNAME => s128444 DATE PLOTTED => 25-FEB-2014 TIME PLOTTED => 07:26



Geocon Project No. S9890-06-08

June 16, 2015

VIA EMAIL

Mr. David Yaghoubi
Caltrans – District 12
Office of Environmental Engineering & Corridor Studies
3347 Michaelson Drive, Suite 100
Irvine, California 92612

Subject: AERIALY DEPOSITED LEAD INVESTIGATION RESULTS
STATE ROUTE 91 BETWEEN LA COUNTY LINE (PM R0.0) AND
STANTON AVENUE UNDERCROSSING (PM R2.8)
LA PALMA AND BUENA PARK, CALIFORNIA
CONTRACT 12A1535; EA 12-0H2431; TO 12-0H2431-08

Dear Mr. Yaghoubi:

In accordance with the California Department of Transportation's (Caltrans) Contract No. 12A1535 and Task Order No. 12-0H2431-08, dated March 18, 2015, we performed sampling and analytical testing to evaluate the potential presence of aerially deposited lead in soil at locations specified by Caltrans along State Route 91 from Los Angeles County line Post Mile (PM) R0.0 to Stanton Avenue Undercrossing PM R2.8 (the Site) in the Cities of LA Palma and Buena Park, California. This report summarizes the purpose of the project and the scope of services requested by Caltrans, and outlines procedures and methods employed by Geocon to complete the project. The location of the Site is depicted on Figure 1.

PURPOSE AND SCOPE OF SERVICES

Caltrans intend to install fiber optics cables to depths of three feet below finish grade on shoulders and Closed-Circuit Televisions (CCTVs) and Electronic Equipment at various locations on State Route (SR) 91 from the Los Angeles County line to the Stanton Avenue Undercrossing. The proposed improvements will require excavation and management of the soil. The purpose of this investigation was to evaluate soil at locations specified by Caltrans for the potential presence of hazardous concentrations of lead suspected due to impact from vehicle exhaust emissions when leaded gasoline was used. It is our understanding that Caltrans will use information obtained from the investigation to determine soil reuse and/or disposal options and potential worker health and safety concerns. Our scope of services included collection and laboratory analysis of soil samples, and preparation of this report to document results of the investigation.

SAMPLING AND ANALYTICAL TESTING

On April 21, 2015, Geocon collected 40 soil samples from 10 hand-auger borings advanced at locations chosen by Caltrans. Soil samples were collected from each boring at depths of 0 to 0.5 foot, 1.0 to 1.5 foot, 2.5 to 3.0 feet, and 3.5 to 4.0 feet. The approximate locations of the borings are shown on Figures 2-1 through 2-13.

The soil samples were collected by transferring the soil from the bottom end of the hand-auger bucket to laboratory-provided glass sample jars with Teflon-lined lids. Samples jars were labeled with a unique sample identification number, Geocon project number, and date and time of collection. The samples were then placed in a cooler and transported to a certified laboratory for analyses under chain-of-custody procedures.

Sampling equipment was cleansed prior to each sampling effort using a non-phosphate detergent solution and two distilled/purified water rinses. Decontamination water was discharged to the ground surface away from areas potentially associated with surface water bodies or storm drain inlets. The hand-auger borings were backfilled with cuttings and surface soil from the immediate vicinity of the boring location.

The soil samples were submitted to Advanced Technology Laboratories (ATL), a State-certified laboratory located in Signal Hill, California following chain-of-custody procedures. Based on the sample analyses requested by Caltrans the samples were analyzed as follows:

- Forty soil samples were analyzed for total lead using U.S. Environmental Protection Agency (EPA) Test Method 6010B.
- Seven samples were analyzed for soluble lead by the Waste Extraction Test (WET) using EPA Test Method 7420 with citrate acid as the extractant.
- Four samples were analyzed for soluble lead using the WET with de-ionized water as the extractant (DI-WET) by EPA Test Method 7420.
- Four samples were analyzed for soluble lead by the Toxicity Characteristic Leaching Procedure (TCLP) by EPA Test Method 7420.
- Four Samples were analyzed for pH by EPA Test Method 9045C.

The borings were located utilizing a Global Positioning System (GPS) receiver. Data was recorded in the field and downloaded in the office using surveying TerraSync™ or similar software, in State Plane 83 coordinates. Boring latitude and longitudes coordinates in decimal degrees are provided in Table 1.

SAMPLE ANALYTICAL RESULTS

Analytical results are summarized below and in Table 1. Copies of laboratory reports and chain-of-custody documentations are attached.

- Total lead was reported for the samples at concentrations ranging from less than 1.8 to 840 milligrams per kilogram (mg/kg).
- WET lead was reported for the seven samples analyzed at concentrations ranging from 2.1 to 69 milligrams per liter (mg/l).
- DI-WET lead was reported one of the four samples analyzed at a concentration of 1.5 mg/l. DI-WET lead was not detected above the Method Detection Limit (MDL) of 0.027 mg/l for the other samples analyzed.
- TCLP lead was reported for the four samples analyzed from an estimated (J-flagged) concentration of 0.029 J to 1.1 mg/l. The reported concentrations that are J-flagged are considered estimated values because the results was greater than the MDL but below the laboratory Practical Quantitation Limit (PQL).
- Soil pH values in the four samples analyzed ranged from 8.1 to 8.7.

CONCLUSION AND RECOMMENDATION

Based on the reported total lead and WET soluble lead concentrations, the soil at the locations identified by borings B-2 through B-8 would be classified as non-hazardous with respect to lead content. Accordingly, the soil is suitable for onsite reuse without restriction (Caltrans Type X) with respect to lead content (see attached ADL Soil Management Table). If the excess soil is to be transported off-site for disposal, it would be characterized as non-hazardous soil with respect to lead content.

Based upon the reported maximum WET soluble lead concentrations, the soil at the locations identified by borings B-1, B-9 and B-10 would be classified as a California hazardous waste since the WET concentrations are greater than the Soluble Threshold Limit Concentration (STLC) of 5.0 mg/l. Specific recommendations for soil management at each of these location are provided below.

Boring B-1: Eastbound 91 shoulder, approximately 250 north of the Valley Boulevard:

Based upon the WET lead concentrations, excavated soil from the surface to a depth of 2.5 feet would be classified as a California hazardous waste since the WET lead concentration is greater than the STLC of 5.0 mg/l. The top 2.5 feet of the soil is not considered a RCRA hazardous waste based on the TCLP lead results. Based on the DI-WET lead and pH results, the top 2.5 feet of the soil may be reused onsite (as Caltrans Type Y-1) by placing the lead-impacted soil under at least one foot of clean soil or a pavement structure maintained by Caltrans. Surplus soil that would be transported off-site for disposal would be managed as Caltrans Type Z-2.

Underlying soil from a depth of 2.5 to 4.0 feet could be reused or disposed as non-hazardous with respect to lead content.

Boring B-9: Left shoulder of onramp to eastbound 91 from northbound Beach Boulevard:

Based upon the WET lead concentrations, excavated soil from the surface to a depth of 1.0 foot would be classified as a California hazardous waste since the WET lead concentration is greater than the STLC of 5.0 mg/l. The top 1.0 foot of soil is not considered a RCRA hazardous waste based on the TCLP lead results. Based on the DI-WET lead and pH results, the top 1.0 foot of the soil may be reused onsite (as Caltrans Type Y-1) by placing the lead-impacted soil under at least one foot of clean soil or a pavement structure maintained by Caltrans. Surplus soil that would be transported off-site for disposal would be managed as Caltrans Type Z-2.

Underlying soil from a depth of 1.0 to 4.0 feet could be reused or disposed as non-hazardous with respect to lead content.

Boring B-10: Right should of onramp to westbound 91 from northbound Beach Boulevard:

Based upon the WET lead concentrations, excavated soil from the surface to a depth of 1.0 foot would be classified as a California hazardous waste since the WET lead concentration is greater than the STLC of 5.0 mg/l. The top 1.0 foot of soil is not considered a RCRA hazardous waste based on the TCLP lead results. Based on the DI-WET lead and pH results, the top 1.0 foot of the soil may be reused onsite (as Caltrans Type Y-1) by placing the lead-impacted soil under at least one foot of clean soil or a pavement structure maintained by Caltrans. Surplus soil that would be transported off-site for disposal would be managed as Caltrans Type Z-2.

Underlying soil from a depth of 1.0 to 4.0 feet could be reused or disposed as non-hazardous with respect to lead content.

If the excess soil from any of the locations sampled during this investigation is to be disposed of off-site, disposal should be done in accordance with the recommendations of SSP 7-1.02K.

Please call if you have any questions or desire additional information.

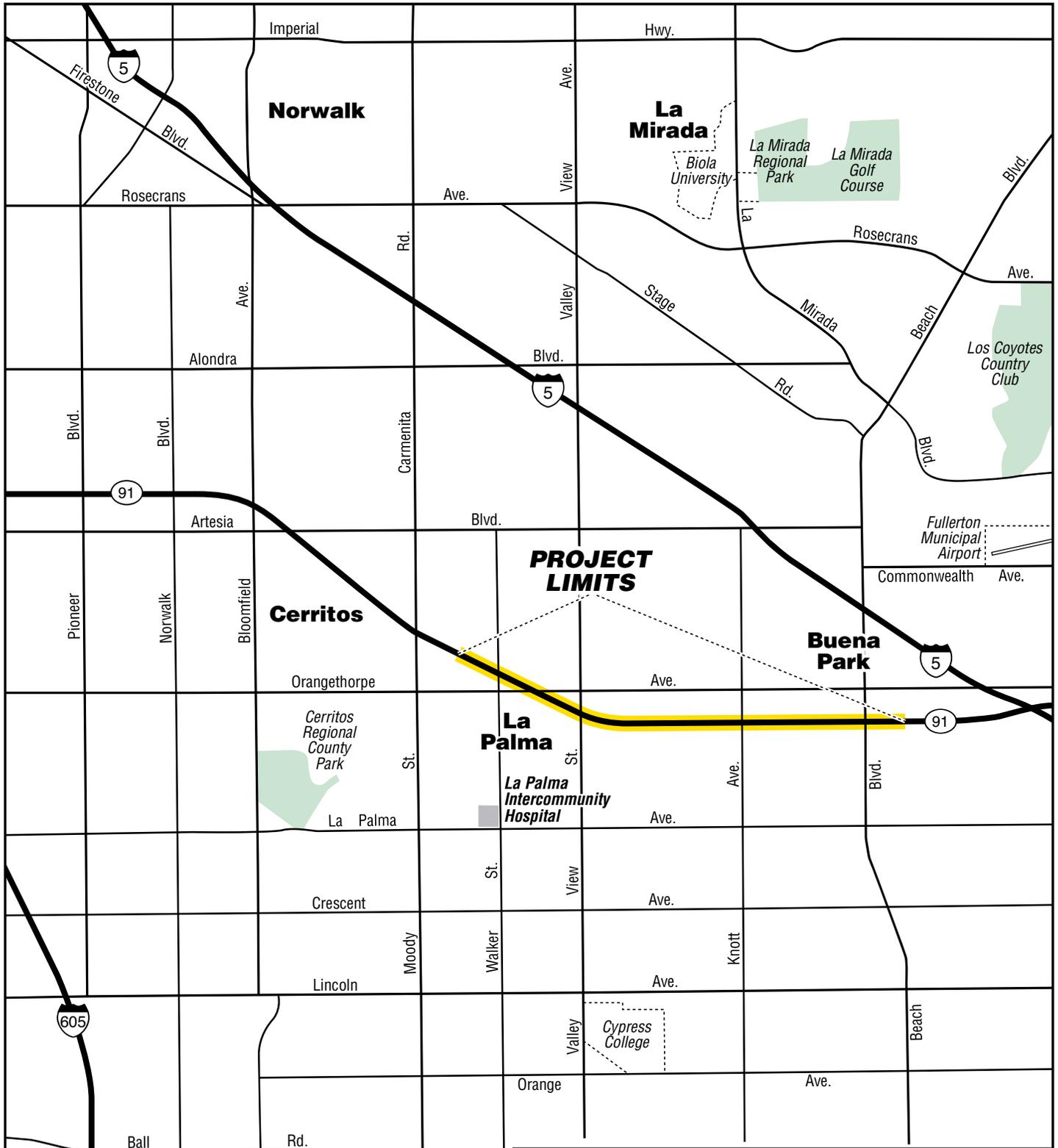
Very truly yours,

GEOCON CONSULTANTS, INC.


Mike Conkle, PG
Senior Geologist



Attachments: Figure 1, Vicinity Map
Figures 2-1 through 2-13, Site Plans
Table 1 – Boring Coordinates and Summary of Analytical Results
Aerially Deposited Lead Soil Management Table
Laboratory Analytical Reports and Chain-of-custody Documentation



GEOCON

CONSULTANTS, INC.

3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA. 91504
PHONE 818.841.8388 - FAX 818.841.1704

State Route 91 Orange County PM R0.0 to R2.8

Orange County,
California

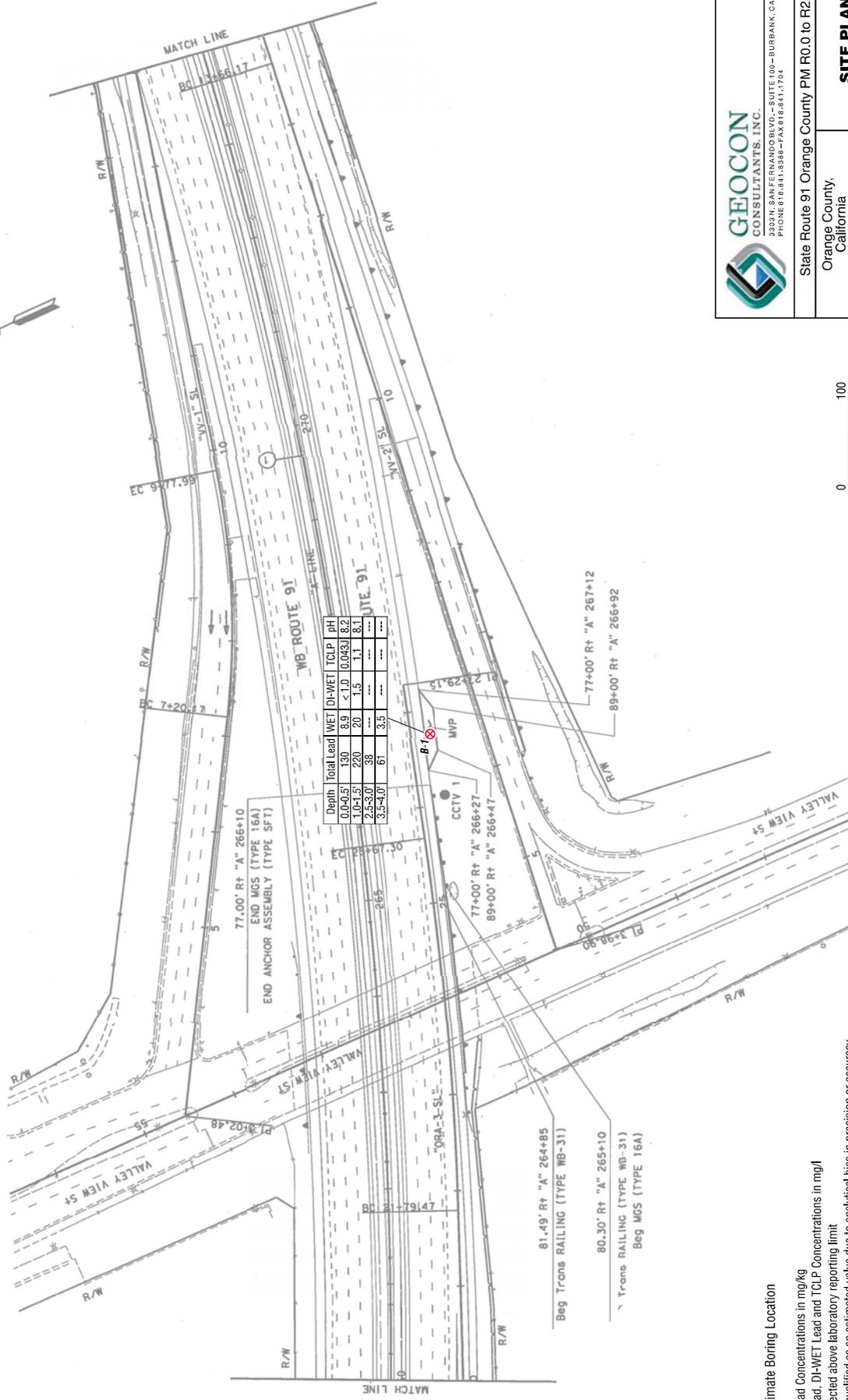
VICINITY MAP

GEOCON Proj. No. S9890-06-08

Task Order No. 12-0H2431-08

June 2015

Figure 1



| Depth | Total Lead | WET | DI-WET | TCLP | PH |
|---------|------------|-----|--------|-------|-----|
| 0.0-0.5 | 150 | 8.9 | <1.0 | 0.043 | 8.2 |
| 0.5-1.5 | 240 | 2.0 | 1.5 | 1.1 | 8.1 |
| 1.5-3.0 | 38 | --- | --- | --- | --- |
| 3.0-4.0 | 61 | 3.5 | --- | --- | --- |



GEOCON
CONSULTANTS, INC.
3302 N. SAN FERNANDO BLVD., SUITE 100—BURBANK, CA. 91504
PHONE 818.841.8388—FAX 818.841.1704

State Route 91 Orange County PM R0.0 to R2.8

Orange County,
California

GEOCON Proj. No. S9890-06-08

Task Order No. 12-0H2431-08

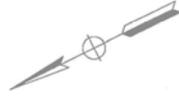
June 2015

Figure 2-1



LEGEND:

- X Approximate Boring Location
- Total Lead Concentrations in mg/kg
- WET Lead, DI-WET Lead and TCLP Concentrations in mg/l
- < = Not detected above laboratory reporting limit
- J = Result qualified as an estimated value due to analytical bias in precision or accuracy
- mg/kg = Milligram per kilogram
- mg/l = Milligram per liter



COYOTE CREEK
COYOTE CREEK
COYOTE CREEK

EXISTING MODEL 354 CABINET FOR CABLE NODE WITH FDU AND TERMINAL BLOCK

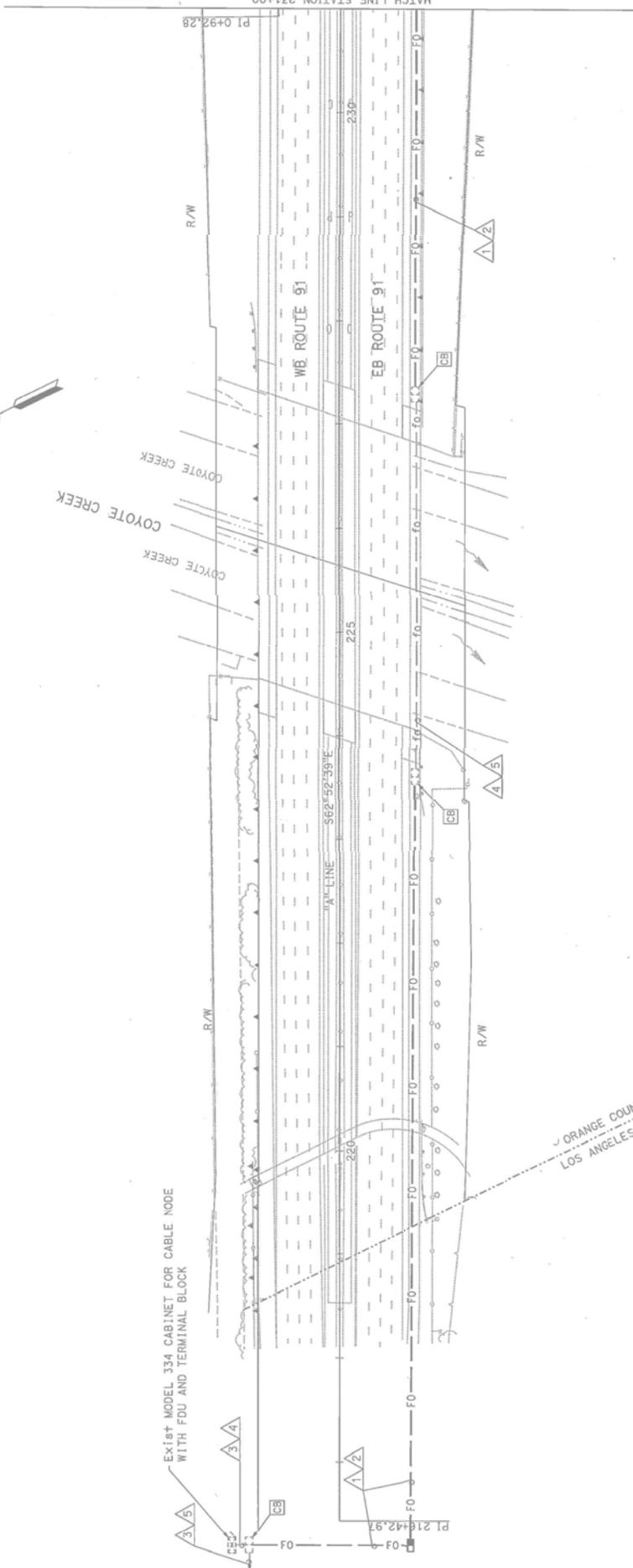
"A" LINE - S62°32'39"E

ORANGE COUNTY
LOS ANGELES COUNTY

MATCH LINE STATION 231+00

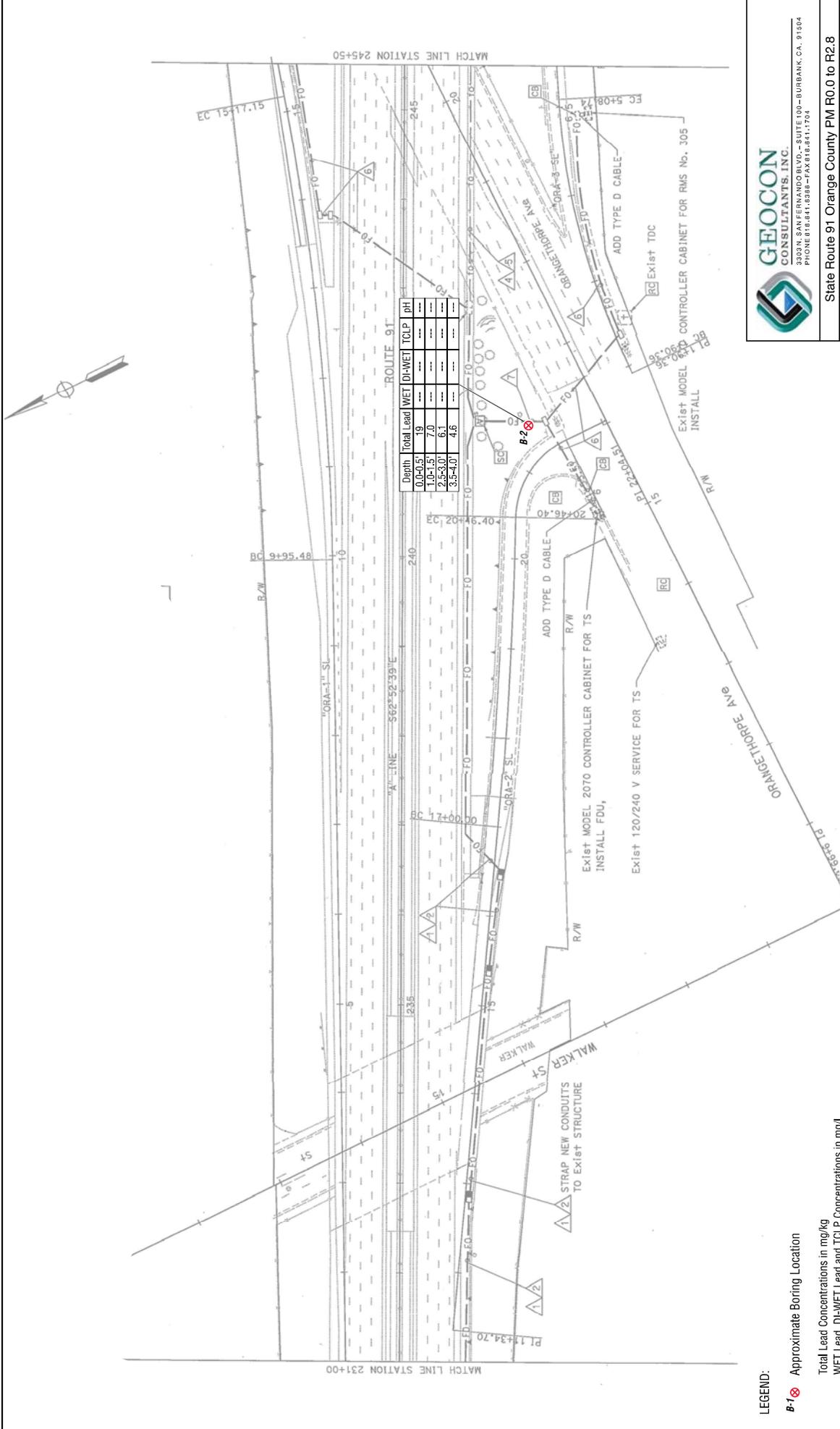
PI 0+92.28

PI 21+42.97



| | |
|--|------------------|
| State Route 91 Orange County PM R0.0 to R2.8 | |
| Orange County, California | SITE PLAN |
| GEOCON Proj. No. S9890-06-08 | |
| Task Order No. 12-0H2431-08 | June 2015 |
| Figure 2-2 | |





State Route 91 Orange County PM R0.0 to R2.8
 Orange County, California
 GEOCON Proj. No. S9890-06-08
 Task Order No. 12-0H2431-08



LEGEND:

B-1 Approximate Boring Location

Total Lead Concentrations in mg/kg

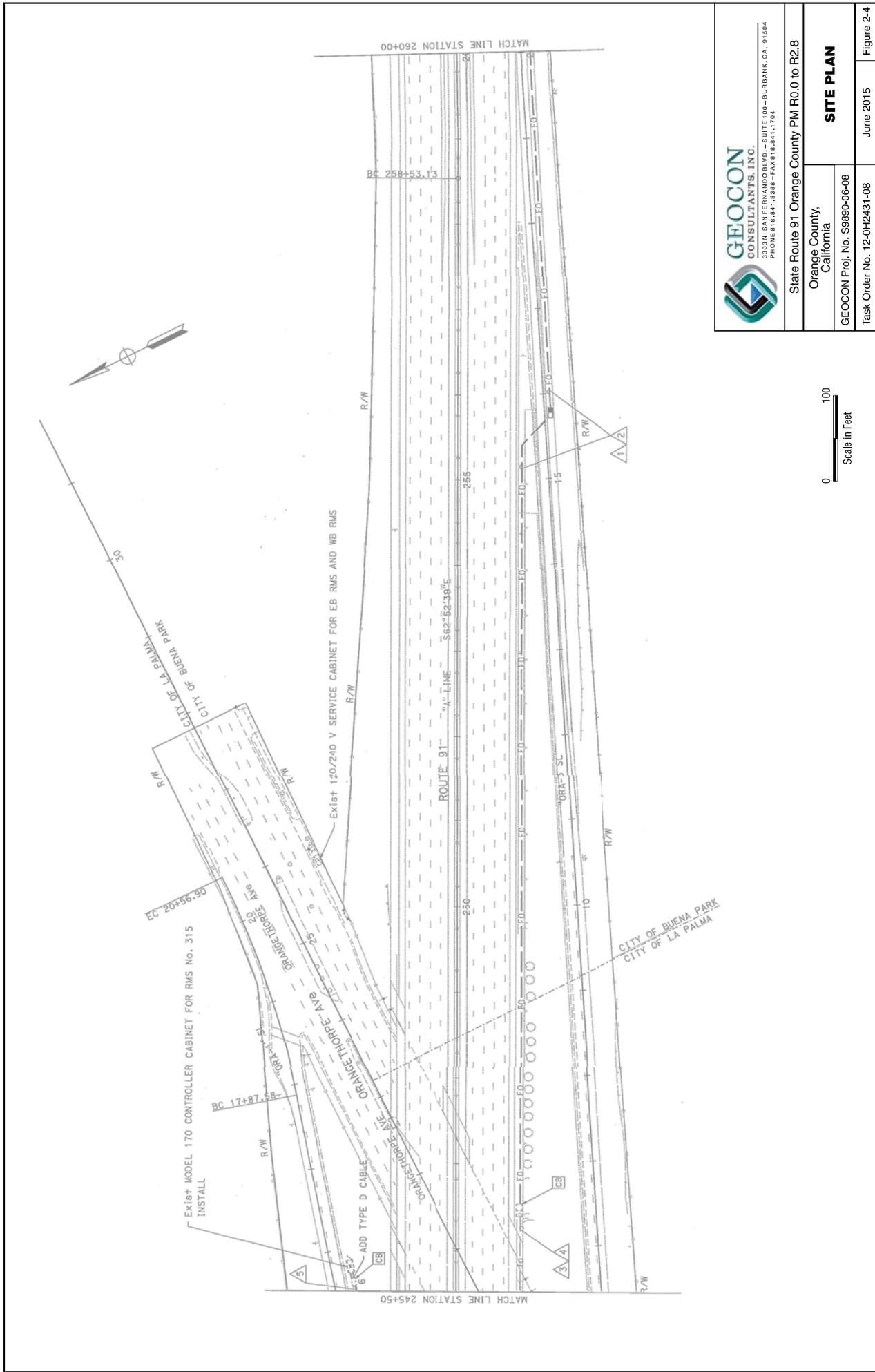
WET Lead, DI-WET Lead and TCLP Concentrations in mg/l

< = Not detected above laboratory reporting limit

J = Result qualified as an estimated value due to analytical bias in precision or accuracy

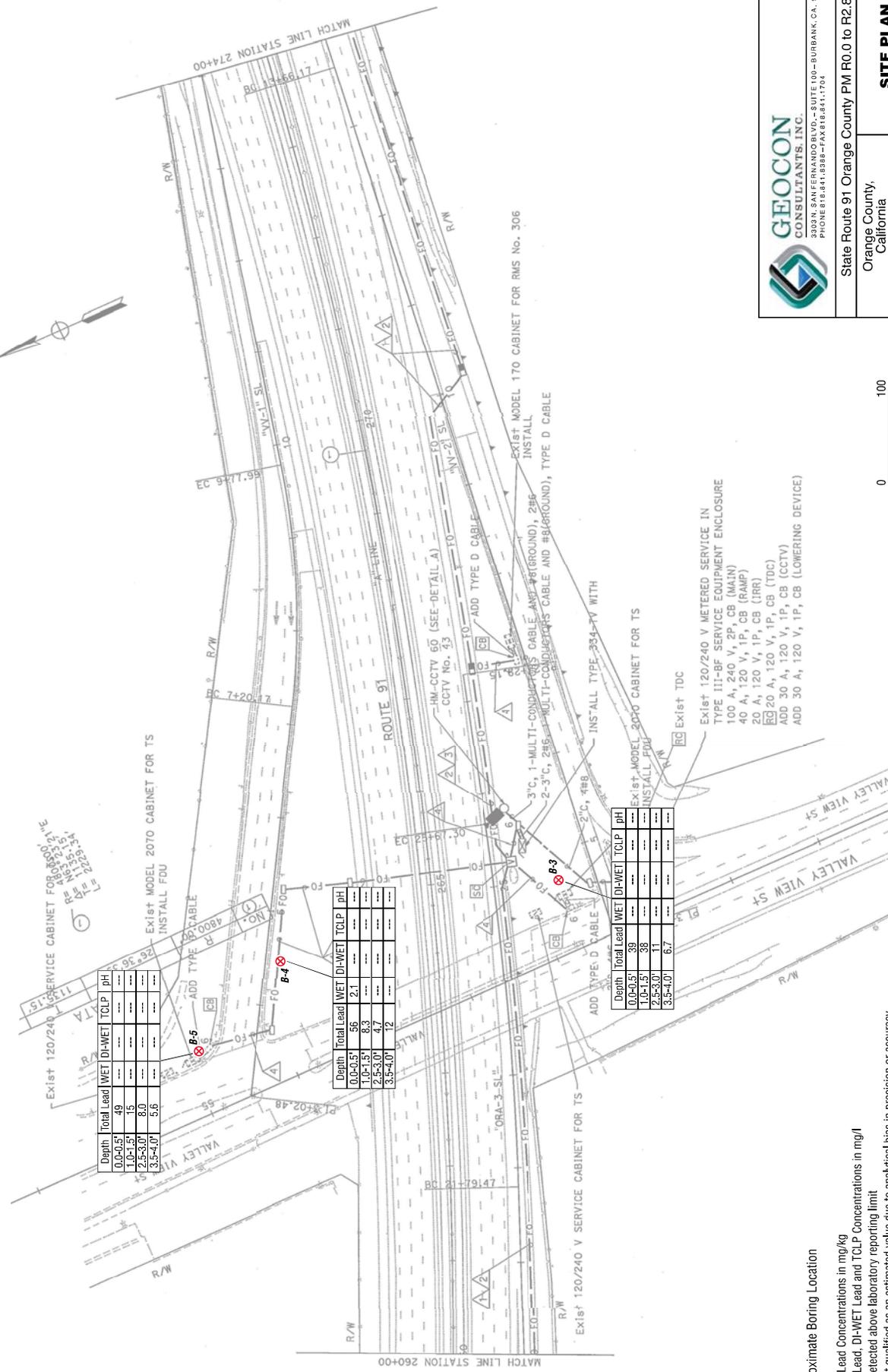
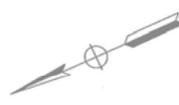
mg/kg = Milligram per kilogram

mg/l = Milligram per liter



3309 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA. 91504
 PHONE 818.841.8388 - FAX 818.841.1704

| | |
|--|------------------|
| State Route 91 Orange County PM R0.0 to R2.8 | |
| Orange County, California | SITE PLAN |
| GEOCON Proj. No. S9890-06-08 | |
| Task Order No. 12-0H2431-08 | June 2015 |
| Figure 2-4 | |



| Depth | Total Lead | WET | DI-WET | TCLP | pH |
|----------|------------|-----|--------|------|-----|
| 0.0-0.5' | 49 | --- | --- | --- | --- |
| 1.0-1.5' | 49 | --- | --- | --- | --- |
| 2.5-3.0' | 20 | --- | --- | --- | --- |
| 3.5-4.0' | 20 | --- | --- | --- | --- |

| Depth | Total Lead | WET | DI-WET | TCLP | pH |
|----------|------------|-----|--------|------|-----|
| 0.0-0.5' | 56 | --- | --- | --- | --- |
| 1.0-1.5' | 6.3 | --- | --- | --- | --- |
| 2.5-3.0' | 4.7 | --- | --- | --- | --- |
| 3.5-4.0' | 12 | --- | --- | --- | --- |

| Depth | Total Lead | WET | DI-WET | TCLP | pH |
|----------|------------|-----|--------|------|-----|
| 0.0-0.5' | 39 | --- | --- | --- | --- |
| 1.0-1.5' | 38 | --- | --- | --- | --- |
| 2.5-3.0' | 11 | --- | --- | --- | --- |
| 3.5-4.0' | 6.7 | --- | --- | --- | --- |

LEGEND:

B-1 ⊗ Approximate Boring Location

Total Lead Concentrations in mg/kg

WET Lead, DI-WET Lead and TCLP Concentrations in mg/l

< = Not detected above laboratory reporting limit

J = Result qualified as an estimated value due to analytical bias in precision or accuracy

mg/kg = Milligram per kilogram

mg/l = Milligram per liter



State Route 91 Orange County PM R0.0 to R2.8

Orange County, California

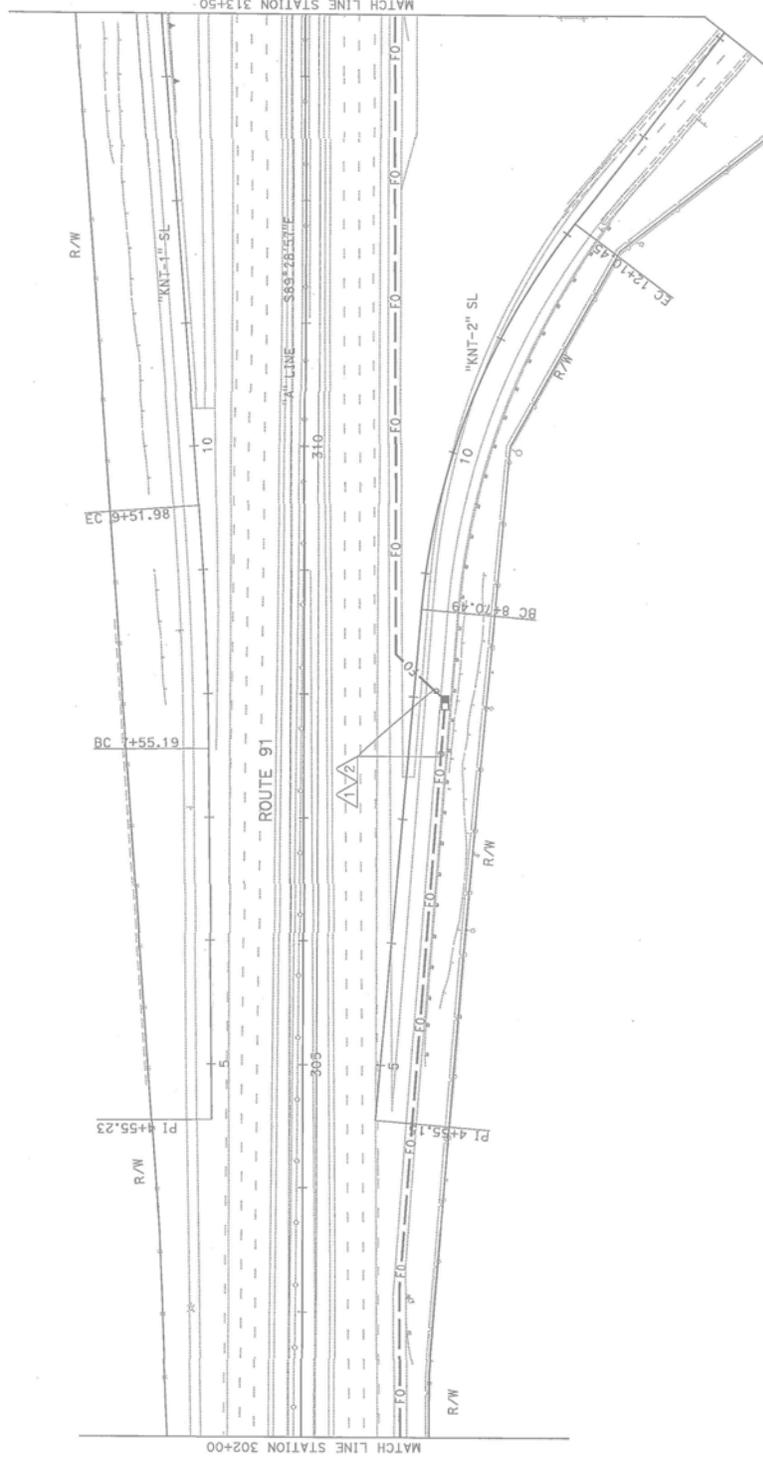
SITE PLAN

GEOCON Proj. No. S9890-06-08

Task Order No. 12-0H2431-08

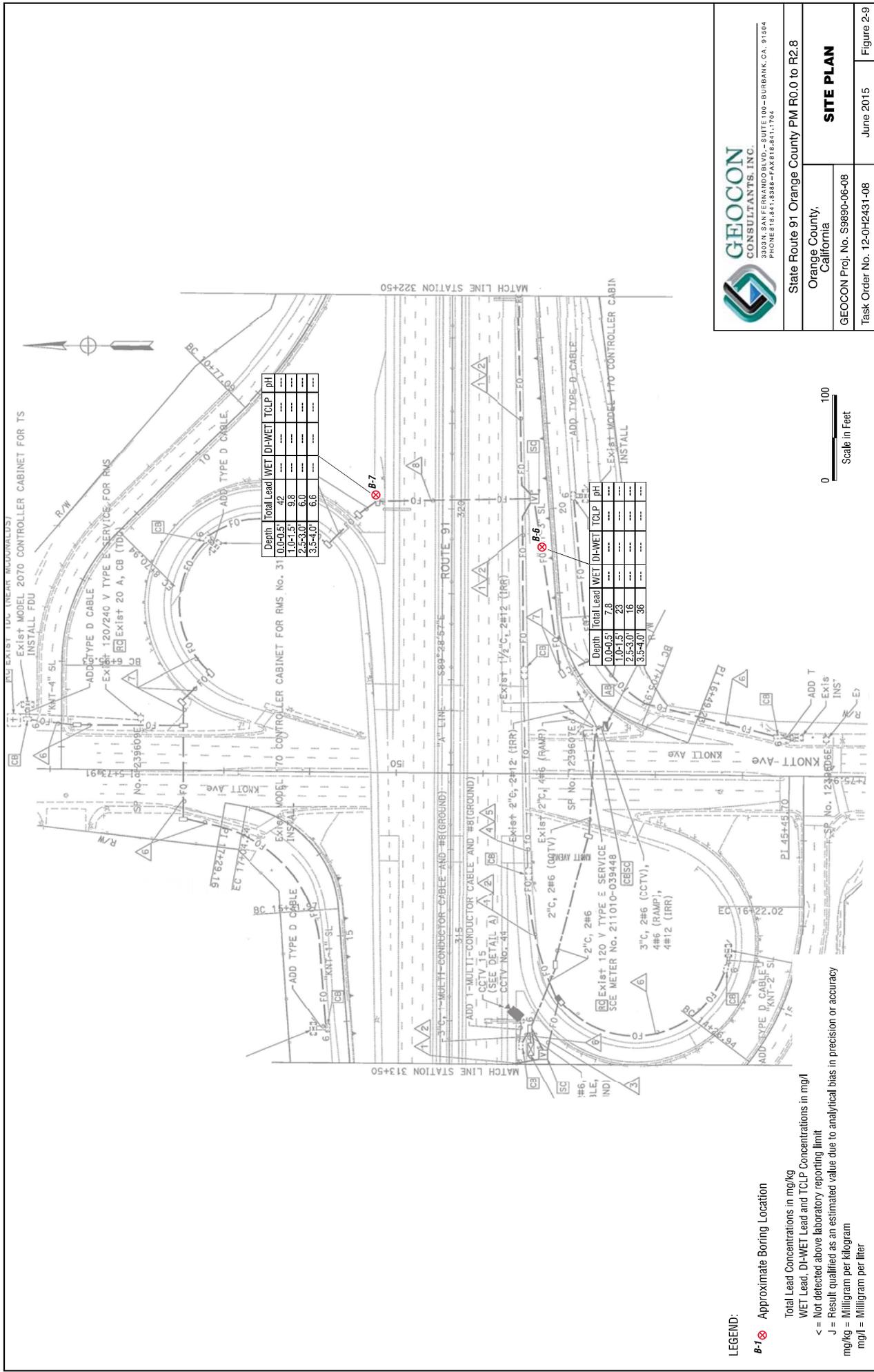
June 2015

Figure 2-5



| | |
|--|------------------|
| State Route 91 Orange County PM R0.0 to R2.8 | |
| Orange County, California | SITE PLAN |
| GEOCON Proj. No. S9890-06-08 | |
| Task Order No. 12-0H2431-08 | June 2015 |
| Figure 2-8 | |





| Depth | Total Lead | WET | DI-WET | TCLP | pH |
|---------|------------|-----|--------|------|-----|
| 0.0-0.5 | 42 | --- | --- | --- | --- |
| 1.0-1.5 | 9.8 | --- | --- | --- | --- |
| 2.5-3.0 | 6.0 | --- | --- | --- | --- |
| 3.5-4.0 | 6.6 | --- | --- | --- | --- |

| Depth | Total Lead | WET | DI-WET | TCLP | pH |
|---------|------------|-----|--------|------|-----|
| 0.0-0.5 | 7.8 | --- | --- | --- | --- |
| 1.0-1.5 | 23 | --- | --- | --- | --- |
| 2.5-3.0 | 16 | --- | --- | --- | --- |
| 3.5-4.0 | 36 | --- | --- | --- | --- |



3309 N. SAN FERNANDO BLVD., SUITE 100—BURBANK, CA, 91504
 PHONE 818.841.8388—FAX 818.841.1704

State Route 91 Orange County PM R0.0 to R2.8

Orange County, California

SITE PLAN

GEOCON Proj. No. S9890-06-08

Task Order No. 12-0H2431-08



LEGEND:

B-1 Approximate Boring Location

Total Lead Concentrations in mg/kg

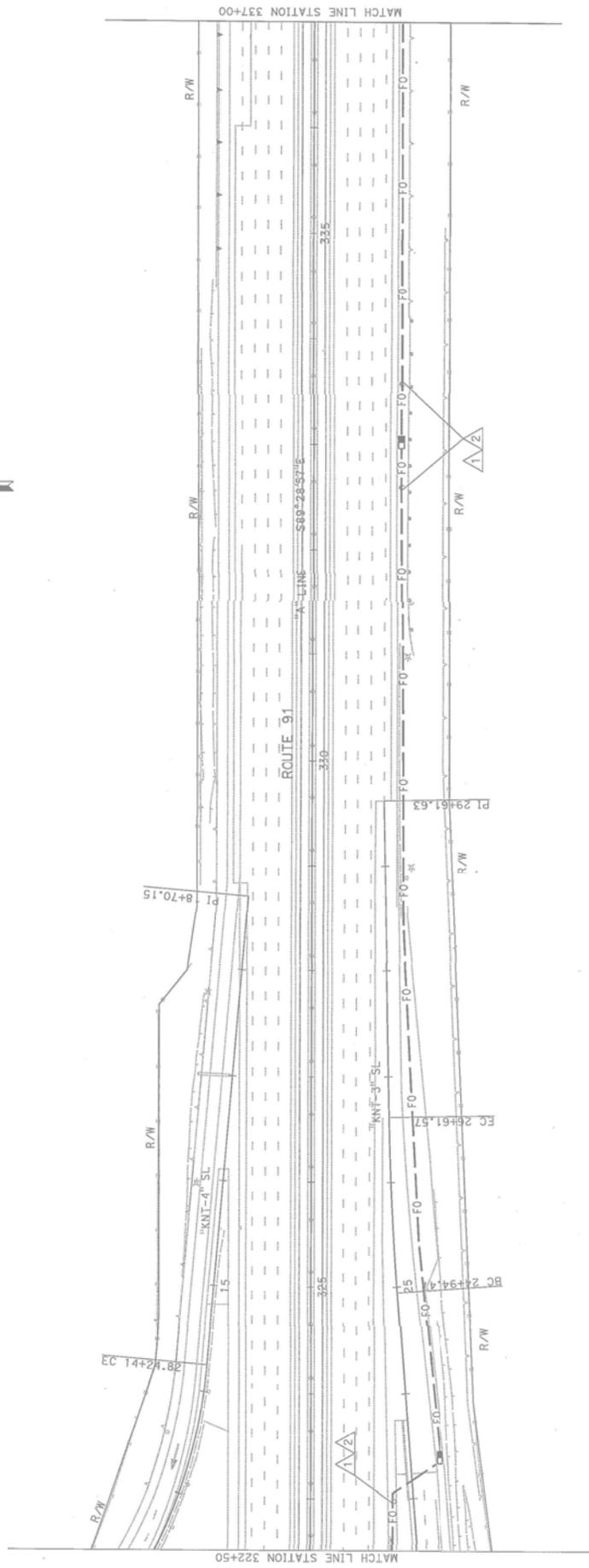
WET Lead, DI-WET Lead and TCLP Concentrations in mg/l

< = Not detected above laboratory reporting limit

J = Result qualified as an estimated value due to analytical bias in precision or accuracy

mg/kg = Milligram per kilogram

mg/l = Milligram per liter



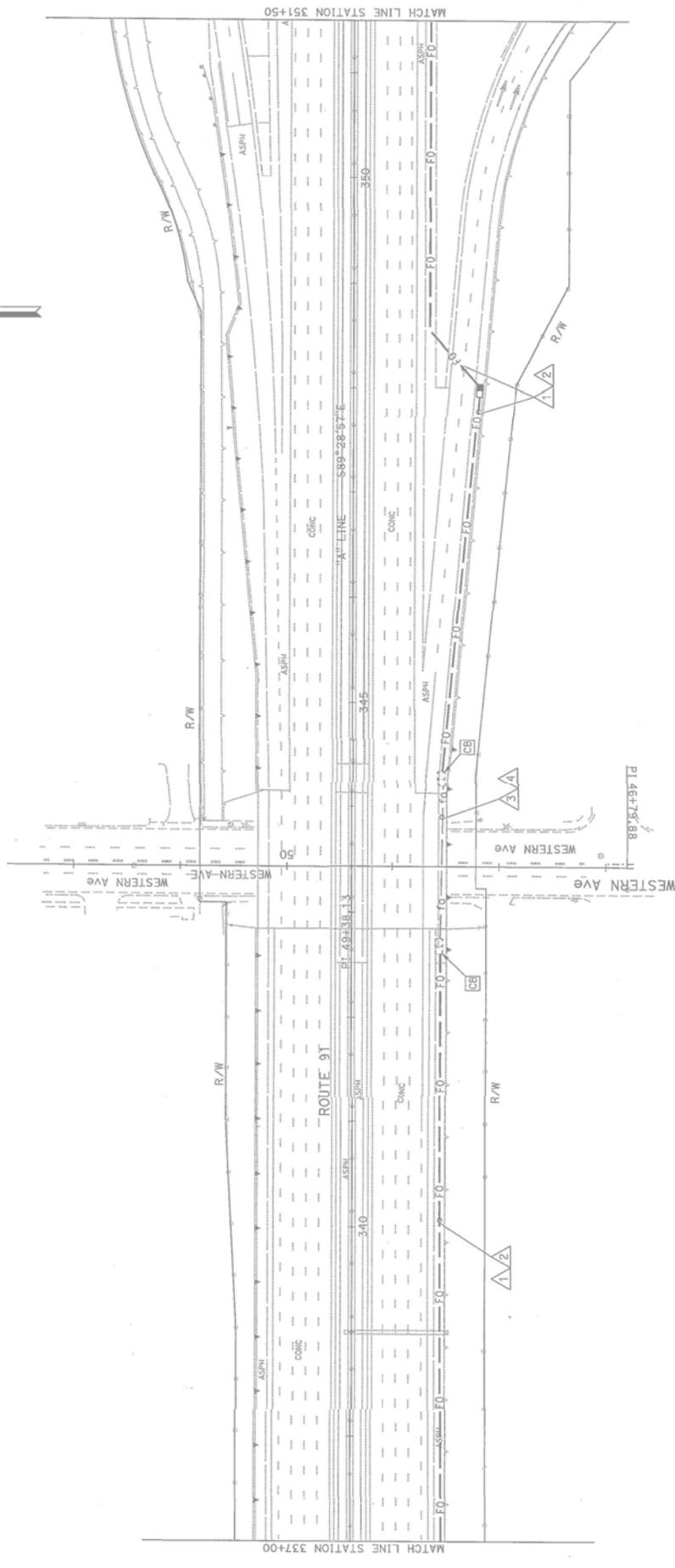
MATCH LINE STATION 337+00

MATCH LINE STATION 322+50



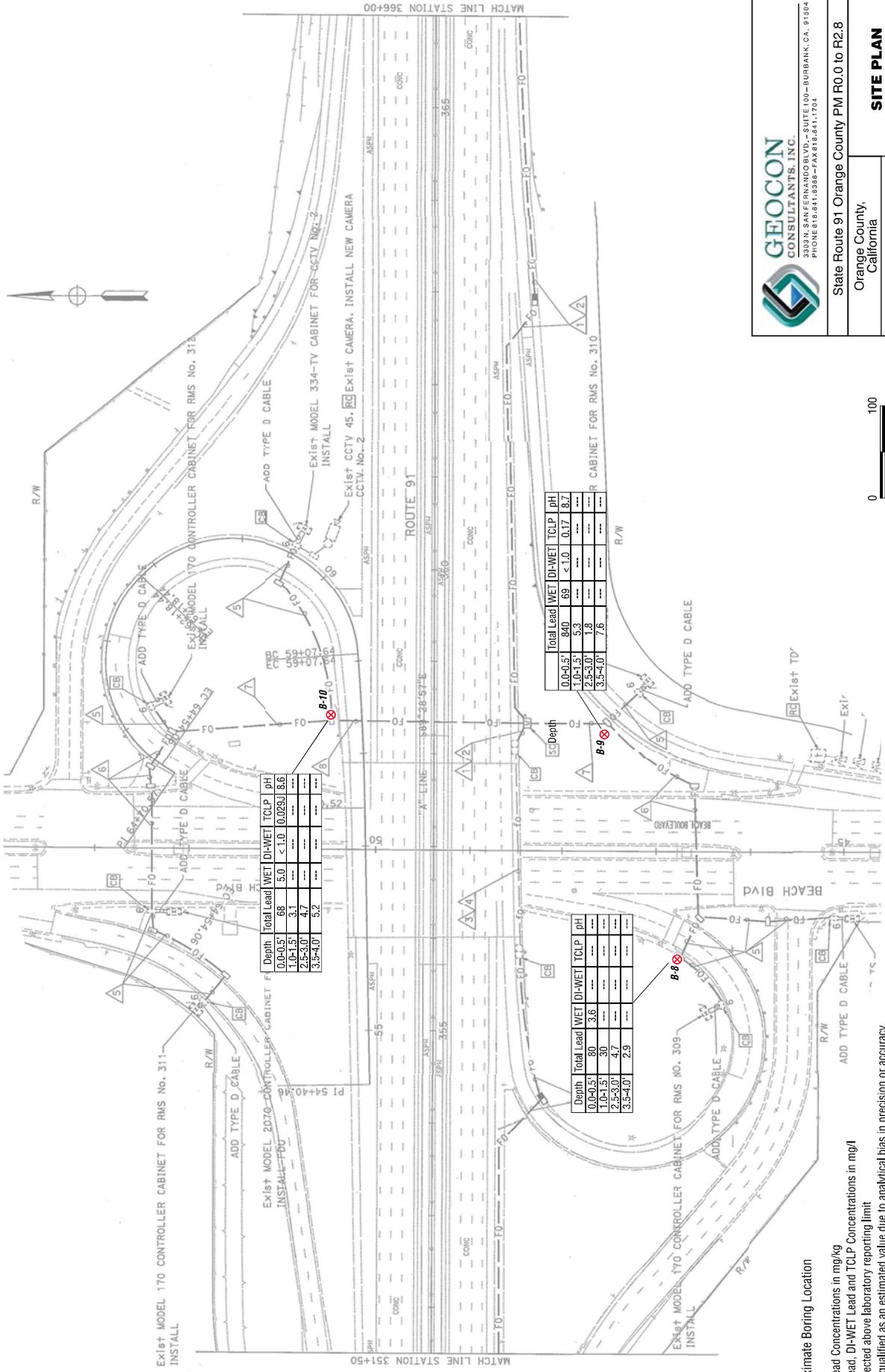
| | |
|--|------------------|
| State Route 91 Orange County PM R0.0 to R2.8 | |
| Orange County, California | SITE PLAN |
| GEOCON Proj. No. S9890-06-08 | |
| Task Order No. 12-0H2431-08 | June 2015 |
| Figure 2-10 | |





| | |
|--|------------------|
| State Route 91 Orange County PM R0.0 to R2.8 | |
| Orange County, California | SITE PLAN |
| GEOCON Proj. No. S9890-06-08 | |
| Task Order No. 12-0H2431-08 | June 2015 |
| Figure 2-11 | |

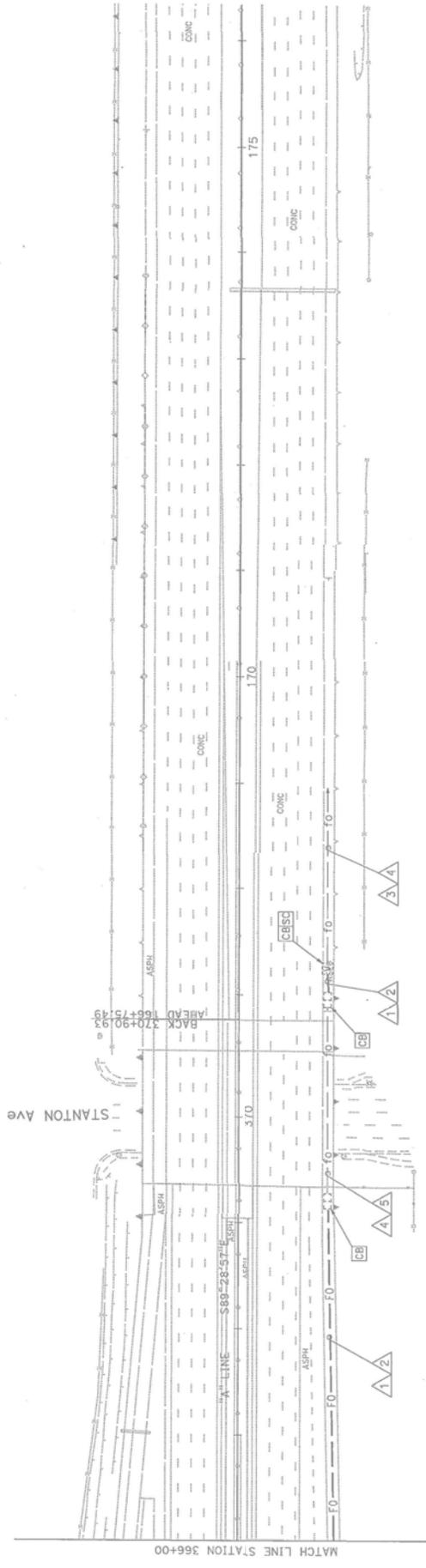




State Route 91 Orange County PM R0.0 to R2.8
 Orange County, California
 GEOCON Proj. No. S9890-06-08
 Task Order No. 12-0H2431-08



LEGEND:
 B-9 Approximate Boring Location
 Total Lead Concentrations in mg/kg
 WET Lead, DI-WET Lead and TCLP Concentrations in mg/l
 < = Not detected above laboratory reporting limit
 J = Result qualified as an estimated value due to analytical bias in precision or accuracy
 mg/kg = Milligram per kilogram
 mg/l = Milligram per liter



| | |
|--|------------------|
| State Route 91 Orange County PM R0.0 to R2.8 | |
| Orange County, California | SITE PLAN |
| GEOCON Proj. No. S9890-06-08 | |
| Task Order No. 12-0H2431-08 | June 2015 |



TABLE 1
 BORING COORDINATES AND SUMMARY OF LEAD AND pH ANALYTICAL RESULTS
 STATE ROUTE 91 BETWEEN LA COUNTY LINE (PN R0.0) AND STANTON AVENUE UNDERCROSSING (PM R2.8)
 LA PALMA AND BUENA PARK, CALIFORNIA

| Sample ID | LATITUDE | LONGITUDE | Sample Depth (feet) | Total Lead ³ (mg/kg) | WET Lead ⁴ (mg/l) | WET-DI Lead ⁵ (mg/l) | TCLP Lead ⁶ (mg/l) | pH ⁷ |
|-----------|-----------|-------------|---------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------|-----------------|
| B-1-0.0 | 33.856275 | -118.027950 | 0.0 - 0.5 | 130 | 8.9 | <1.0 | 0.043 J | 8.2 |
| B-1-1.0 | | | 1.0 - 1.5 | 220 | 20 | 1.5 | 1.1 | 8.1 |
| B-1-2.5 | | | 2.5 - 3.0 | 38 | -- | -- | -- | -- |
| B-1-3.5 | | | 3.5 - 4.0 | 61 | 3.5 | -- | -- | -- |
| B-2-0.0 | 33.858996 | -118.035436 | 0.0 - 0.5 | 19 | -- | -- | -- | -- |
| B-2-1.0 | | | 1.0 - 1.5 | 7.0 | -- | -- | -- | -- |
| B-2-2.5 | | | 2.5 - 3.0 | 6.1 | -- | -- | -- | -- |
| B-2-3.5 | | | 3.5 - 4.0 | 4.6 | -- | -- | -- | -- |
| B-3-0.0 | 33.856236 | -118.028389 | 0.0 - 0.5 | 39 | -- | -- | -- | -- |
| B-3-1.0 | | | 1.0 - 1.5 | 38 | -- | -- | -- | -- |
| B-3-2.5 | | | 2.5 - 3.0 | 11 | -- | -- | -- | -- |
| B-3-3.5 | | | 3.5 - 4.0 | 6.7 | -- | -- | -- | -- |
| B-4-0.0 | 33.857109 | -118.028269 | 0.0 - 0.5 | 56 | 2.1 | -- | -- | -- |
| B-4-1.0 | | | 1.0 - 1.5 | 8.3 | -- | -- | -- | -- |
| B-4-2.5 | | | 2.5 - 3.0 | 4.7 | -- | -- | -- | -- |
| B-4-3.5 | | | 3.5 - 4.0 | 12 | -- | -- | -- | -- |
| B-5-0.0 | 33.857389 | -118.028421 | 0.0 - 0.5 | 49 | -- | -- | -- | -- |
| B-5-1.0 | | | 1.0 - 1.5 | 15 | -- | -- | -- | -- |
| B-5-2.5 | | | 2.5 - 3.0 | 8.0 | -- | -- | -- | -- |
| B-5-3.5 | | | 3.5 - 4.0 | 5.6 | -- | -- | -- | -- |
| B-6-0.0 | 33.855709 | -118.010358 | 0.0 - 0.5 | 7.8 | -- | -- | -- | -- |
| B-6-1.0 | | | 1.0 - 1.5 | 23 | -- | -- | -- | -- |
| B-6-2.5 | | | 2.5 - 3.0 | 16 | -- | -- | -- | -- |
| B-6-3.5 | | | 3.5 - 4.0 | 36 | -- | -- | -- | -- |
| B-7-0.0 | 33.856263 | -118.010098 | 0.0 - 0.5 | 42 | -- | -- | -- | -- |
| B-7-1.0 | | | 1.0 - 1.5 | 9.8 | -- | -- | -- | -- |
| B-7-2.5 | | | 2.5 - 3.0 | 6.0 | -- | -- | -- | -- |
| B-7-3.5 | | | 3.5 - 4.0 | 6.6 | -- | -- | -- | -- |
| B-8-0.0 | 33.855355 | -117.998379 | 0.0 - 0.5 | 80 | 3.6 | -- | -- | -- |
| B-8-1.0 | | | 1.0 - 1.5 | 30 | -- | -- | -- | -- |
| B-8-2.5 | | | 2.5 - 3.0 | 4.7 | -- | -- | -- | -- |
| B-8-3.5 | | | 3.5 - 4.0 | 2.9 | -- | -- | -- | -- |
| B-9-0.0 | 33.855587 | -117.997582 | 0.0 - 0.5 | 840 | 69 | <1.0 | 0.17 | 8.7 |
| B-9-1.0 | | | 1.0 - 1.5 | 5.3 | -- | -- | -- | -- |
| B-9-2.5 | | | 2.5 - 3.0 | 1.8 | -- | -- | -- | -- |
| B-9-3.5 | | | 3.5 - 4.0 | 7.6 | -- | -- | -- | -- |

TABLE 1
 BORING COORDINATES AND SUMMARY OF LEAD AND pH ANALYTICAL RESULTS
 STATE ROUTE 91 BETWEEN LA COUNTY LINE (PN R0.0) AND STANTON AVENUE UNDERCROSSING (PM R2.8)
 LA PALMA AND BUENA PARK, CALIFORNIA

| Sample ID | LATITUDE | LONGITUDE | Sample Depth (feet) | Total Lead ³ (mg/kg) | WET Lead ⁴ (mg/l) | WET-DI Lead ⁵ (mg/l) | TCLP Lead ⁶ (mg/l) | pH ⁷ |
|--------------------|-----------|-------------|---------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------|-------------------|
| B-10-0.0 | 33.856375 | -117.997501 | 0.0 - 0.5 | 68 | 5.0 | <1.0 | 0.029 J | 8.6 |
| B-10-1.0 | | | 1.0 - 1.5 | 3.1 | -- | -- | -- | -- |
| B-10-2.5 | | | 2.5 - 3.0 | 4.7 | -- | -- | -- | -- |
| B-10-3.5 | | | 3.5 - 4.0 | 5.2 | -- | -- | -- | -- |
| Average Values: | | | | 48.5 | 16 | 0.8 | 0.3 | 8.4 |
| Regulatory Limits: | | | | 1,411 ⁹ | 5.0 ¹⁰ | 1.5 ¹¹ | 5.0 ¹² | 5.0 ¹¹ |

Notes:

1. Samples analyzed by Advanced Technology Laboratories of Signal Hill, California.
 2. Samples were collected using a hand auger; sample depths in feet below ground surface.
 3. U.S. Environmental Protection Agency (EPA) Method 6010; concentrations in milligrams per kilogram (mg/kg).
 4. Soluble lead using the Waste Extraction Test (WET) with citric acid as the extractant; concentrations in milligrams per liter (mg/l).
 5. Soluble lead using the WET with deionized water as the extractant (WET-DI); concentrations in mg/l.
 6. Soluble lead analyzed by the Toxicity Characteristic Leaching Procedure (TCLP); concentrations in mg/l.
 7. U.S. EPA Method 9045.
 8. -- = Not analyzed.
 9. Limit specified in addendum to Variance issued by the Department of Toxic Substances Control to Caltrans (DTSC Variance, September 22, 2000; Addendum, June 2014).
 10. Soluble Threshold Limit Concentration (STLC) for California hazardous waste (California Code of Regulations [CCR] Title 22, Section 66261.24).
 11. Limit Specified in DTSC Variance.
 12. Maximum concentration for the Toxicity Characteristic of Resource Conservation Recovery Act (RCRA) hazardous waste (CCR Title 22, Section 66261.24).
- J = Qualified as an estimated value because the result is greater than the method detection limit but less than the practical quantitation limit.

AERIALY DEPOSITED LEAD SOIL MANAGEMENT

| TOTAL LEAD (mg/kg) | | SOIL TYPE | HANDLING | |
|---------------------------|---|---|--|--|
| CALIFORNIA TESTING | | | | |
| STLC <5.0 | T TLC <1000 | X | Non-hazardous Waste. Notify and require Lead Compliance Plan for worker safety. | |
| | 1000 – 1411 and DI WET < 1.5 mg/l | Y1 | Hazardous Waste. Variance applies – cover with minimum 1 foot of clean soil.* | |
| | 1411 – 3397 and DI WET < 150 mg/l | Y2 | Hazardous Waste. Variance applies – cover with pavement structure. * | |
| | 1000 – 3397 but Surplus | Z2 | Hazardous Waste - Surplus. Dispose at Class 1 disposal site. | |
| | > 3397 or 1000 – 3397 & DI WET > 150 mg/l | Z2 | Hazardous Waste – not reusable under Variance. Dispose at Class 1 disposal site. | |
| | STLC >5.0 | T TLC < 1411 and DI WET < 1.5 mg/l | Y1 | Hazardous Waste. Variance applies – cover with minimum of 1 foot of clean soil.* |
| | | 1411 – 3397 and DI WET < 150 mg/l | Y2 | Hazardous Waste. Variance applies – cover with pavement structure.* |
| | | < 3397 and DI WET < 150 mg/l but Surplus | Z2 | Hazardous Waste - Surplus. Dispose at Class 1 disposal site. |
| | | > 3397 or DI WET > 150 mg/l | Z2 | Hazardous Waste – not reusable under Variance. Dispose at Class 1 disposal site. |
| FEDERAL TESTING | | | | |
| TCLP > 5.0 mg/l | N/A | Z3 | RCRA Hazardous Waste Dispose at Class 1 disposal site as a RCRA waste regardless of TTLC and STLC results. | |

*Note: For hazardous waste levels of lead - if pH is less than 5.5 soil must be placed under a pavement structure. If pH is less than 5.0 variance can not be used and the soil must be disposed as Z-2 material.



May 13, 2015

Mike Conkle
Geocon West, Inc.
3303 N. San Fernando Blvd., Suite 100
Burbank, CA 91504
Tel: (818) 841-8388
Fax:(818) 841-1704

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1501438
Client Reference : State Route 91 ADL, S9890-06-08

Enclosed are the results for sample(s) received on April 21, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

SUMMARY OF SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|---------------|---------------|
| B-1-0.0 | 1501438-01 | Soil | 4/21/15 11:32 | 4/21/15 16:32 |
| B-1-1.0 | 1501438-02 | Soil | 4/21/15 11:41 | 4/21/15 16:32 |
| B-1-2.5 | 1501438-03 | Soil | 4/21/15 12:00 | 4/21/15 16:32 |
| B-1-3.5 | 1501438-04 | Soil | 4/21/15 12:05 | 4/21/15 16:32 |
| B-2-0.0 | 1501438-05 | Soil | 4/21/15 11:02 | 4/21/15 16:32 |
| B-2-1.0 | 1501438-06 | Soil | 4/21/15 11:09 | 4/21/15 16:32 |
| B-2-2.5 | 1501438-07 | Soil | 4/21/15 11:16 | 4/21/15 16:32 |
| B-2-3.5 | 1501438-08 | Soil | 4/21/15 11:18 | 4/21/15 16:32 |
| B-3-0.0 | 1501438-09 | Soil | 4/21/15 12:10 | 4/21/15 16:32 |
| B-3-1.0 | 1501438-10 | Soil | 4/21/15 12:12 | 4/21/15 16:32 |
| B-3-2.5 | 1501438-11 | Soil | 4/21/15 12:14 | 4/21/15 16:32 |
| B-3-3.5 | 1501438-12 | Soil | 4/21/15 12:16 | 4/21/15 16:32 |
| B-4-0.0 | 1501438-13 | Soil | 4/21/15 10:09 | 4/21/15 16:32 |
| B-4-1.0 | 1501438-14 | Soil | 4/21/15 10:11 | 4/21/15 16:32 |
| B-4-2.5 | 1501438-15 | Soil | 4/21/15 10:13 | 4/21/15 16:32 |
| B-4-3.5 | 1501438-16 | Soil | 4/21/15 10:15 | 4/21/15 16:32 |
| B-5-0.0 | 1501438-17 | Soil | 4/21/15 10:18 | 4/21/15 16:32 |
| B-5-1.0 | 1501438-18 | Soil | 4/21/15 10:20 | 4/21/15 16:32 |
| B-5-2.5 | 1501438-19 | Soil | 4/21/15 10:23 | 4/21/15 16:32 |
| B-5-3.5 | 1501438-20 | Soil | 4/21/15 10:24 | 4/21/15 16:32 |
| B-6-0.0 | 1501438-21 | Soil | 4/21/15 12:40 | 4/21/15 16:32 |
| B-6-1.0 | 1501438-22 | Soil | 4/21/15 12:41 | 4/21/15 16:32 |
| B-6-2.5 | 1501438-23 | Soil | 4/21/15 12:45 | 4/21/15 16:32 |
| B-6-3.5 | 1501438-24 | Soil | 4/21/15 12:51 | 4/21/15 16:32 |
| B-7-0.0 | 1501438-25 | Soil | 4/21/15 9:36 | 4/21/15 16:32 |
| B-7-1.0 | 1501438-26 | Soil | 4/21/15 9:42 | 4/21/15 16:32 |
| B-7-2.5 | 1501438-27 | Soil | 4/21/15 9:46 | 4/21/15 16:32 |
| B-7-3.5 | 1501438-28 | Soil | 4/21/15 9:49 | 4/21/15 16:32 |
| B-8-0.0 | 1501438-29 | Soil | 4/21/15 13:08 | 4/21/15 16:32 |
| B-8-1.0 | 1501438-30 | Soil | 4/21/15 13:16 | 4/21/15 16:32 |
| B-8-2.5 | 1501438-31 | Soil | 4/21/15 13:20 | 4/21/15 16:32 |
| B-8-3.5 | 1501438-32 | Soil | 4/21/15 13:21 | 4/21/15 16:32 |
| B-9-0.0 | 1501438-33 | Soil | 4/21/15 13:40 | 4/21/15 16:32 |
| B-9-1.0 | 1501438-34 | Soil | 4/21/15 13:41 | 4/21/15 16:32 |



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

| | | | | |
|----------|------------|------|---------------|---------------|
| B-9-2.5 | 1501438-35 | Soil | 4/21/15 13:43 | 4/21/15 16:32 |
| B-9-3.5 | 1501438-36 | Soil | 4/21/15 13:45 | 4/21/15 16:32 |
| B-10-0.0 | 1501438-37 | Soil | 4/21/15 9:06 | 4/21/15 16:32 |
| B-10-1.0 | 1501438-38 | Soil | 4/21/15 9:08 | 4/21/15 16:32 |
| B-10-2.5 | 1501438-39 | Soil | 4/21/15 9:12 | 4/21/15 16:32 |
| B-10-3.5 | 1501438-40 | Soil | 4/21/15 9:14 | 4/21/15 16:32 |

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

| Laboratory ID | Client Sample ID | Result | Units | PQL | MDL | Dilution | Batch | Prepared | Date/Time | | Notes |
|---------------|------------------|--------|-------|------|------|----------|---------|------------|----------------|--|-------|
| | | | | | | | | | Analized | | |
| 1501438-01 | B-1-0.0 | 130 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:35 | | |
| 1501438-02 | B-1-1.0 | 220 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:36 | | |
| 1501438-03 | B-1-2.5 | 38 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:36 | | |
| 1501438-04 | B-1-3.5 | 61 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:37 | | |
| 1501438-05 | B-2-0.0 | 19 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:38 | | |
| 1501438-06 | B-2-1.0 | 7.0 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:39 | | |
| 1501438-07 | B-2-2.5 | 6.1 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:39 | | |
| 1501438-08 | B-2-3.5 | 4.6 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:53 | | |
| 1501438-09 | B-3-0.0 | 39 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:54 | | |
| 1501438-10 | B-3-1.0 | 38 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:55 | | |
| 1501438-11 | B-3-2.5 | 11 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:57 | | |
| 1501438-12 | B-3-3.5 | 6.7 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:58 | | |
| 1501438-13 | B-4-0.0 | 56 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 08:59 | | |
| 1501438-14 | B-4-1.0 | 8.3 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:00 | | |
| 1501438-15 | B-4-2.5 | 4.7 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:01 | | |
| 1501438-16 | B-4-3.5 | 12 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:56 | | |
| 1501438-17 | B-5-0.0 | 49 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:57 | | |
| 1501438-18 | B-5-1.0 | 15 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:58 | | |
| 1501438-19 | B-5-2.5 | 8.0 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:58 | | |
| 1501438-20 | B-5-3.5 | 5.6 | mg/kg | 1.0 | 0.07 | 1 | B5D0796 | 04/28/2015 | 04/29/15 09:59 | | |
| 1501438-21 | B-6-0.0 | 7.8 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:28 | | |
| 1501438-22 | B-6-1.0 | 23 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:29 | | |
| 1501438-23 | B-6-2.5 | 16 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:30 | | |
| 1501438-24 | B-6-3.5 | 36 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:31 | | |
| 1501438-25 | B-7-0.0 | 42 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:31 | | |
| 1501438-26 | B-7-1.0 | 9.8 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:32 | | |
| 1501438-27 | B-7-2.5 | 6.0 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:33 | | |
| 1501438-28 | B-7-3.5 | 6.6 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:34 | | |
| 1501438-29 | B-8-0.0 | 80 | mg/kg | 0.99 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 10:34 | | |
| 1501438-30 | B-8-1.0 | 30 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 15:05 | | |



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

Lead by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

| Laboratory ID | Client Sample ID | Result | Units | PQL | MDL | Dilution | Batch | Prepared | Date/Time | | Notes |
|---------------|------------------|--------|-------|-----|------|----------|---------|------------|-----------|-------|-------|
| | | | | | | | | | AnalYZed | | |
| 1501438-31 | B-8-2.5 | 4.7 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:10 | |
| 1501438-32 | B-8-3.5 | 2.9 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:12 | |
| 1501438-33 | B-9-0.0 | 840 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:13 | |
| 1501438-34 | B-9-1.0 | 5.3 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:15 | |
| 1501438-35 | B-9-2.5 | 1.8 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:17 | |
| 1501438-36 | B-9-3.5 | 7.6 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:19 | |
| 1501438-37 | B-10-0.0 | 68 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:21 | |
| 1501438-38 | B-10-1.0 | 3.1 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:28 | |
| 1501438-39 | B-10-2.5 | 4.7 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:30 | |
| 1501438-40 | B-10-3.5 | 5.2 | mg/kg | 1.0 | 0.07 | 1 | B5D0797 | 04/28/2015 | 04/29/15 | 15:32 | |

STLC Metals by ICP-AES by EPA 6010B

Analyte: Lead

Analyst: RR

| Laboratory ID | Client Sample ID | Result | Units | PQL | MDL | Dilution | Batch | Prepared | Date/Time | | Notes |
|---------------|------------------|--------|-------|-----|-------|----------|---------|------------|-----------|-------|-------|
| | | | | | | | | | AnalYZed | | |
| 1501438-01 | B-1-0.0 | 8.9 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:28 | |
| 1501438-02 | B-1-1.0 | 20 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:30 | |
| 1501438-04 | B-1-3.5 | 3.5 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:33 | |
| 1501438-13 | B-4-0.0 | 2.1 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:35 | |
| 1501438-29 | B-8-0.0 | 3.6 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:37 | |
| 1501438-33 | B-9-0.0 | 69 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:40 | |
| 1501438-37 | B-10-0.0 | 5.0 | mg/L | 1.0 | 0.027 | 20 | B5E0092 | 05/05/2015 | 05/05/15 | 12:42 | |



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

STLC DI Metals by ICP-AES by EPA 6010B

Analyte: Lead

Analyst: RR

| Laboratory ID | Client Sample ID | Result | Units | PQL | MDL | Dilution | Batch | Prepared | Date/Time | |
|---------------|------------------|--------|-------|-----|-------|----------|---------|------------|----------------|-------|
| | | | | | | | | | Analyzed | Notes |
| 1501438-01 | B-1-0.0 | ND | mg/L | 1.0 | 0.027 | 20 | B5E0238 | 05/11/2015 | 05/11/15 15:43 | |
| 1501438-02 | B-1-1.0 | 1.5 | mg/L | 1.0 | 0.027 | 20 | B5E0238 | 05/11/2015 | 05/11/15 15:46 | |
| 1501438-33 | B-9-0.0 | ND | mg/L | 1.0 | 0.027 | 20 | B5E0239 | 05/11/2015 | 05/11/15 16:05 | |
| 1501438-37 | B-10-0.0 | ND | mg/L | 1.0 | 0.027 | 20 | B5E0239 | 05/11/2015 | 05/11/15 16:20 | |



Certificate of Analysis

Geocon West, Inc.
 3303 N. San Fernando Blvd., Suite 100
 Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08
 Report To : Mike Conkle
 Reported : 05/13/2015

QUALITY CONTROL SECTION

Lead by ICP-AES EPA 6010B - Quality Control

| Analyte | Result (mg/kg) | PQL (mg/kg) | Spike Level | Source Result | % Rec | % Rec Limits | RPD | RPD Limit | Notes |
|--|-------------------|----------------|----------------|------------------|-------|-----------------|------|--------------|-------|
| Batch B5D0796 - EPA 3050 Modified_S | | | | | | | | | |
| Blank (B5D0796-BLK1) | | | | | | | | | |
| Lead | 0.343455 | 1.0 | | | | | | | J |
| Blank (B5D0796-BLK2) | | | | | | | | | |
| Lead | 0.230449 | 1.0 | | | | | | | J |
| LCS (B5D0796-BS1) | | | | | | | | | |
| Lead | 47.8531 | 1.0 | 50.0000 | | 95.7 | 80 - 120 | | | |
| Duplicate (B5D0796-DUP1) | | | | | | | | | |
| Lead | 5.09752 | 1.0 | | 5.57874 | NR | | 9.01 | 20 | |
| Duplicate (B5D0796-DUP2) | | | | | | | | | |
| Lead | 40.0306 | 0.99 | | 38.2579 | NR | | 4.53 | 20 | |
| Matrix Spike (B5D0796-MS1) | | | | | | | | | |
| Lead | 228.634 | 1.0 | 250.000 | 5.57874 | 89.2 | 35 - 129 | | | |
| Matrix Spike (B5D0796-MS2) | | | | | | | | | |
| Lead | 252.854 | 1.0 | 250.000 | 38.2579 | 85.8 | 35 - 129 | | | |
| Matrix Spike Dup (B5D0796-MSD1) | | | | | | | | | |
| Lead | 214.742 | 1.0 | 250.000 | 5.57874 | 83.7 | 35 - 129 | 6.27 | 20 | |



Certificate of Analysis

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 Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08
 Report To : Mike Conkle
 Reported : 05/13/2015

Lead by ICP-AES EPA 6010B - Quality Control

| Analyte | Result (mg/kg) | PQL (mg/kg) | Spike Level | Source Result | % Rec Limits | % Rec Limits | RPD | RPD Limit | Notes |
|--|-------------------|----------------|----------------|------------------|-----------------|-----------------|------|--------------|-------|
| Batch B5D0797 - EPA 3050 Modified_S | | | | | | | | | |
| Blank (B5D0797-BLK1) | | | | | | | | | |
| Lead | 0.246640 | 1.0 | | | | | | | J |
| Blank (B5D0797-BLK2) | | | | | | | | | |
| Lead | ND | 1.0 | | | | | | | |
| LCS (B5D0797-BS1) | | | | | | | | | |
| Lead | 50.4449 | 1.0 | 50.0000 | | 101 | 80 - 120 | | | |
| Duplicate (B5D0797-DUP1) | | | | | | | | | |
| | | | | | | | | | |
| Lead | 4.58411 | 1.0 | | 5.17878 | | | 12.2 | 20 | |
| Duplicate (B5D0797-DUP2) | | | | | | | | | |
| | | | | | | | | | |
| Lead | 25.8029 | 1.0 | | 29.6095 | | | 13.7 | 20 | |
| Matrix Spike (B5D0797-MS1) | | | | | | | | | |
| | | | | | | | | | |
| Lead | 191.059 | 1.0 | 250.000 | 5.17878 | 74.4 | 35 - 129 | | | |
| Matrix Spike (B5D0797-MS2) | | | | | | | | | |
| | | | | | | | | | |
| Lead | 215.933 | 1.0 | 250.000 | 29.6095 | 74.5 | 35 - 129 | | | |
| Matrix Spike Dup (B5D0797-MSD1) | | | | | | | | | |
| | | | | | | | | | |
| Lead | 186.645 | 1.0 | 250.000 | 5.17878 | 72.6 | 35 - 129 | 2.34 | 20 | |



Certificate of Analysis

Geocon West, Inc.
 3303 N. San Fernando Blvd., Suite 100
 Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08
 Report To : Mike Conkle
 Reported : 05/13/2015

STLC Metals by ICP-AES by EPA 6010B - Quality Control

| Analyte | Result (mg/L) | PQL (mg/L) | Spike Level | Source Result | % Rec | % Rec Limits | RPD | RPD Limit | Notes |
|--|------------------|---------------|----------------|------------------|-------|-----------------|---------------------------------------|--------------|-------|
| Batch B5E0092 - STLC_S Extraction | | | | | | | | | |
| Blank (B5E0092-BLK1) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 0.115481 | 1.0 | | | | NR | | | J |
| Blank (B5E0092-BLK2) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 0.076052 | 1.0 | | | | NR | | | J |
| LCS (B5E0092-BS1) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 2.00446 | | 2.00000 | | | 100 | 80 - 120 | | |
| Duplicate (B5E0092-DUP1) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 0.771064 | 1.0 | | 0.999001 | | NR | 25.8 | 20 | R, J |
| Duplicate (B5E0092-DUP2) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 0.754817 | 1.0 | | 0.710544 | | NR | 6.04 | 20 | J |
| Matrix Spike (B5E0092-MS1) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 3.22945 | | 2.50000 | 0.999001 | | 89.2 | 44 - 130 | | |
| Matrix Spike (B5E0092-MS2) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 3.02678 | | 2.50000 | 0.710544 | | 92.6 | 44 - 130 | | |
| Matrix Spike Dup (B5E0092-MSD1) | | | | | | | | | |
| | | | | | | | Prepared: 5/5/2015 Analyzed: 5/5/2015 | | |
| Lead | 3.17050 | | 2.50000 | 0.999001 | | 86.9 | 44 - 130 | 1.84 | 20 |



Certificate of Analysis

Geocon West, Inc.
 3303 N. San Fernando Blvd., Suite 100
 Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08
 Report To : Mike Conkle
 Reported : 05/13/2015

STLC DI Metals by ICP-AES by EPA 6010B - Quality Control

| Analyte | Result (mg/L) | PQL (mg/L) | Spike Level | Source Result | % Rec Limits | RPD | RPD Limit | Notes |
|---|------------------|---------------------------|----------------|---|---|------|--------------|-------|
| Batch B5E0238 - STLC DI_S Extraction | | | | | | | | |
| Blank (B5E0238-BLK1) | | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | | |
| Lead | ND | 1.0 | | | NR | | | |
| Blank (B5E0238-BLK2) | | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | | |
| Lead | ND | 1.0 | | | NR | | | |
| LCS (B5E0238-BS1) | | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | | |
| Lead | 2.07485 | | 2.00000 | | 104 80 - 120 | | | |
| Duplicate (B5E0238-DUP1) | | Source: 1501194-44 | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | ND | 1.0 | | ND | NR | | 20 | |
| Duplicate (B5E0238-DUP2) | | Source: 1501290-AD | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | 0.183587 | 1.0 | | ND | NR | | 20 | J |
| Matrix Spike (B5E0238-MS1) | | Source: 1501194-44 | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | 2.52970 | | 2.50000 | -0.018415 | 101 70 - 130 | | | |
| Matrix Spike (B5E0238-MS2) | | Source: 1501290-AD | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | 2.57186 | | 2.50000 | -0.003449 | 103 70 - 130 | | | |
| Matrix Spike Dup (B5E0238-MSD1) | | Source: 1501194-44 | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | 2.56048 | | 2.50000 | -0.018415 | 102 70 - 130 | 1.21 | 20 | |



Certificate of Analysis

Geocon West, Inc.
 3303 N. San Fernando Blvd., Suite 100
 Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08
 Report To : Mike Conkle
 Reported : 05/13/2015

STLC DI Metals by ICP-AES by EPA 6010B - Quality Control

| Analyte | Result (mg/L) | PQL (mg/L) | Spike Level | Source Result | % Rec Limits | RPD | RPD Limit | Notes |
|---|------------------|---------------------------|----------------|---|---|------|--------------|-------|
| Batch B5E0239 - STLC DI_S Extraction | | | | | | | | |
| Blank (B5E0239-BLK1) | | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | | |
| Lead | ND | 1.0 | | | NR | | | |
| LCS (B5E0239-BS1) | | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | | |
| Lead | 1.98512 | | 2.00000 | | 99.3 80 - 120 | | | |
| Duplicate (B5E0239-DUP1) | | Source: 1501438-33 | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | ND | 1.0 | | ND | NR | | 20 | |
| Matrix Spike (B5E0239-MS1) | | Source: 1501438-33 | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | 2.52297 | | 2.50000 | -0.011053 | 101 70 - 130 | | | |
| Matrix Spike Dup (B5E0239-MSD1) | | Source: 1501438-33 | | | Prepared: 5/11/2015 Analyzed: 5/11/2015 | | | |
| Lead | 2.56931 | | 2.50000 | -0.011053 | 103 70 - 130 | 1.82 | 20 | |



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

Notes and Definitions

| | |
|-----|---|
| R | RPD value outside acceptance criteria. Calculation is based on raw values. |
| J | Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration. |
| ND | Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL) |
| PQL | Practical Quantitation Limit |
| MDL | Method Detection Limit |
| NR | Not Reported |
| RPD | Relative Percent Difference |
| CA2 | CA-ELAP (CDPH) |
| OR1 | OR-NELAP (OSPHL) |
| TX1 | TX-NELAP (TCEQ) |

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

Method of Transport:
 Client
 ATL
 CA OverN
 FedEx
 Other:

Sample Condition Upon Receipt:
 1. CHILLED
 2. HEADSPACE (VOA)
 3. CONTAINER INTACT
 4. SEALED
 5. # OF SPLS MATCH COC
 6. PRESERVED

Client: Geocoin
 Attention: Mike Conkle
 Project Name: State Route 91 ADL
 Project #: S9890-06-08
 State: CA Zip Code: 91504
 Address: 3303 North San Fernando Blvd Suite 100
 City: Burbank State: CA Zip: 91504

Received by: (Signature and Printed Name)
 Date: 4/21/15
 Time: 6:30
 Received by: (Signature and Printed Name)
 Date: _____
 Time: _____

Special Instructions/Comments:
 CT Contract 12A1535
 Run samples with total lead greater than or equal to 50 mg/kg by WET. Run samples with WET results greater than or equal to 5.0 mg/l by DI-WET. Filler and preserve water samples at lab.

QA/QC
 RTNE
 CT
 SWRCB Logcode
 OTHER

| LAB USE ONLY: | Lab No. | Sample ID / Location | Date | Time | Sample Description | Analysis(es) Requested | Container(s) | TAT | Type | REMARKS | |
|---------------|---------|----------------------|---------|------|--------------------|------------------------|--------------|-----|------|---------|---|
| | 1507478 | 1-0-0 | 4/21/15 | 1:32 | | | WATER | E | 1 | G | J |
| | | 1-1-0 | | 1:41 | | | WASTEWATER | E | 1 | G | J |
| | | 1-2-5 | | 1:00 | | | GROUND WATER | E | 1 | G | J |
| | | 1-3-5 | | 1:02 | | | SOIL | E | 1 | G | J |
| | | 2-0-0 | | 1:09 | | | | E | 1 | G | J |
| | | 2-1-0 | | 1:16 | | | | E | 1 | G | J |
| | | 2-2-5 | | 1:18 | | | | E | 1 | G | J |
| | | 2-3-5 | | 1:18 | | | | E | 1 | G | J |
| | | 3-0-0 | | 1:10 | | | | E | 1 | G | J |
| | | 3-1-0 | | 1:21 | | | | E | 1 | G | J |
| | | 3-2-5 | | 1:19 | | | | E | 1 | G | J |
| | | 3-3-5 | | 1:16 | | | | E | 1 | G | J |
| | | 4-0-0 | | 1:09 | | | | E | 1 | G | J |
| | | 4-1-0 | | 1:11 | | | | E | 1 | G | J |
| | | 4-2-5 | | 1:13 | | | | E | 1 | G | J |
| | | 4-3-5 | | 1:15 | | | | E | 1 | G | J |
| | | 5-0-0 | | 1:18 | | | | E | 1 | G | J |
| | | 5-1-0 | | 1:20 | | | | E | 1 | G | J |
| | | 5-2-5 | | 1:23 | | | | E | 1 | G | J |
| | | 5-3-5 | | 1:24 | | | | E | 1 | G | J |

Send Report To:
 Attn: Mike Conkle
 Co: Geocoin Consultants Inc.
 Address: 3303 North San Fernando Blvd Suite 100
 City: Burbank State: CA Zip: 91504

Signature: *Mike Conkle*
 Date: 4/21/15

Storage Fees (applies when storage is requested):
 Sample: \$2.00 / sample /mo (after 45 days)
 Records: \$1 /ATL workorder /mo (after 1 year)

Container Types: T=Tube V=VOA L=Liter P=Pin L=Jar J=Jar B=Tedlar G=Glass P=Plastic M=Metal
 TAT: A = Overnight B = Emergency Next Workday C = Critical 2 Workdays D = Urgent 3 Workdays E = Routine 7 Workdays

Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C
 Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

CHAIN OF CUSTODY RECORD



Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

Method of Transport
 Client
 ATL
 CA OverN
 FedEx
 Other:

Sample Condition Upon Receipt
 1. CHILLED Y N 4. SEALED Y N
 2. HEADSPACE (VOA) Y N 5. # OF SPLS MATCH COC Y N
 3. CONTAINER INTACT Y N 6. PRESERVED Y N

Client: Geocoin
 Attention: Mike Conkle
 Project Name: State Route 91 ADL
 Address: 3303 North San Fernando Blvd Suite 100
 City: Burbank State: CA Zip: 91504
 Tel: 878-841-8388 Fax: 818-841-1704

Sampler: *Mike Conkle*
 Date: 4/21/15
 Received by: (Signature and Printed Name) *Mike Conkle*
 Date: 4/21/15
 Time: 10:15

Send Report To:
 Attn: Mike Conkle
 Co: Geocoin Consultants Inc.
 Address: 3303 North San Fernando Blvd Suite 100
 City: Burbank State: CA Zip: 91504

Special Instructions/Comments:
 CT Contract 12A1535
 Run samples with total lead greater than or equal to 50 mg/kg by WET. Run samples with WET results greater than or equal to 5.0 mg/l by D-WET. Filter and preserve water samples at lab.

I hereby authorize ATL to perform the work indicated below:
 Project Mgr./Submitter: *Mike Conkle* Date: *4/21/15*
 Signature: *Mike Conkle*

Sample/Records - Archival & Disposal
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
 ■ Sample: \$2.00 / sample /mo (after 45 days)
 ■ Records: \$1 /ATL workorder /mo (after 1 year)

| LAB USE ONLY: | Lab No. | Sample ID / Location | Date | Time | SPECIFY APPROPRIATE MATRIX | | | | QA/QC | |
|---------------|------------|----------------------|---------|-------|----------------------------|--------------|-------|------------|---------|------|
| | | | | | SOIL | GROUND WATER | WATER | WASTEWATER | | RTNE |
| | 130743Y-11 | 6-6-0-0 | 4/21/15 | 12:40 | x | | | | E 1 G J | |
| | | 6-6-1-0 | 4/21/15 | 12:41 | x | | | | E 1 G J | |
| | | 6-6-2-5 | 4/21/15 | 12:42 | x | | | | E 1 G J | |
| | | 6-6-3-5 | 4/21/15 | 12:43 | x | | | | E 1 G J | |
| | | 7-0-0-0 | 4/21/15 | 09:28 | x | | | | E 1 G J | |
| | | 7-1-0-0 | 4/21/15 | 09:29 | x | | | | E 1 G J | |
| | | 7-2-5 | 4/21/15 | 09:30 | x | | | | E 1 G J | |
| | | 7-3-5 | 4/21/15 | 09:31 | x | | | | E 1 G J | |
| | | 8-0-0-0 | 4/21/15 | 13:08 | x | | | | E 1 G J | |
| | | 8-1-0 | 4/21/15 | 13:16 | x | | | | E 1 G J | |
| | | 8-2-5 | 4/21/15 | 13:20 | x | | | | E 1 G J | |
| | | 8-3-5 | 4/21/15 | 13:21 | x | | | | E 1 G J | |
| | | 9-0-0-0 | 4/21/15 | 13:41 | x | | | | E 1 G J | |
| | | 9-1-0 | 4/21/15 | 13:41 | x | | | | E 1 G J | |
| | | 9-2-5 | 4/21/15 | 13:42 | x | | | | E 1 G J | |
| | | 9-3-5 | 4/21/15 | 13:43 | x | | | | E 1 G J | |
| | | 10-0-0-0 | 4/21/15 | 09:08 | x | | | | E 1 G J | |
| | | 10-1-0 | 4/21/15 | 09:08 | x | | | | E 1 G J | |
| | | 10-2-5 | 4/21/15 | 09:12 | x | | | | E 1 G J | |
| | | 10-3-5 | 4/21/15 | 09:14 | x | | | | E 1 G J | |

Bill To: *Geocon Consultants Inc.*
 Attn: *Mike Conkle*
 Co: *Geocon Consultants Inc.*
 Address: *3303 North San Fernando Blvd Suite 100*
 City: *Burbank* State: *CA* Zip: *91504*

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Preservatives:
 H=HCl N=HNO₃ S=H₂SO₄ C=4°C
 Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

Container Types: T=Tube V=VOA L=Liter P=Pint
 TAT: A = Overnight 5-24 hrs
 B = Emergency Next Workday
 C = Critical 2 Workdays
 D = Urgent 3 Workdays
 E = Routine 7 Workdays



May 13, 2015

Mike Conkle
Geocon West, Inc.
3303 N. San Fernando Blvd., Suite 100
Burbank, CA 91504
Tel: (818) 841-8388
Fax:(818) 841-1704

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1501438
Client Reference : State Route 91 ADL, S9890-06-08

Enclosed are the results for sample(s) received on April 21, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Rodriguez", written in a cursive style.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Geocon West, Inc.

3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

SUMMARY OF SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|---------------|---------------|
| B-1-0.0 | 1501438-01 | Soil | 4/21/15 11:32 | 4/21/15 16:32 |
| B-1-1.0 | 1501438-02 | Soil | 4/21/15 11:41 | 4/21/15 16:32 |
| B-9-0.0 | 1501438-33 | Soil | 4/21/15 13:40 | 4/21/15 16:32 |
| B-10-0.0 | 1501438-37 | Soil | 4/21/15 9:06 | 4/21/15 16:32 |

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.



Certificate of Analysis

Geocon West, Inc.
3303 N. San Fernando Blvd., Suite 100
Burbank , CA 91504

Project Number : State Route 91 ADL, S9890-06-08
Report To : Mike Conkle
Reported : 05/13/2015

TCLP Metals by ICP-AES EPA 6010B

Analyte: Lead

Analyst: RR

| Laboratory ID | Client Sample ID | Result | Units | PQL | MDL | Dilution | Batch | Prepared | Date/Time | | Notes |
|---------------|------------------|--------------|-------|-------|--------|----------|---------|------------|----------------|--|-------|
| | | | | | | | | | AnalYZed | | |
| 1501438-01 | B-1-0.0 | 0.043 | mg/L | 0.050 | 0.0014 | 1 | B5E0236 | 05/11/2015 | 05/12/15 12:28 | | J |
| 1501438-02 | B-1-1.0 | 1.1 | mg/L | 0.050 | 0.0014 | 1 | B5E0236 | 05/11/2015 | 05/12/15 12:31 | | |
| 1501438-33 | B-9-0.0 | 0.17 | mg/L | 0.050 | 0.0014 | 1 | B5E0236 | 05/11/2015 | 05/12/15 12:34 | | |
| 1501438-37 | B-10-0.0 | 0.029 | mg/L | 0.050 | 0.0014 | 1 | B5E0236 | 05/11/2015 | 05/12/15 12:37 | | J |

pH by EPA 9045C

Analyte: pH

Analyst: LA

| Laboratory ID | Client Sample ID | Result | Units | PQL | MDL | Dilution | Batch | Prepared | Date/Time | | Notes |
|---------------|------------------|------------|----------|------|------|----------|---------|------------|----------------|--|-------|
| | | | | | | | | | AnalYZed | | |
| 1501438-01 | B-1-0.0 | 8.2 | pH Units | 0.10 | 0.10 | 1 | B5E0277 | 05/12/2015 | 05/12/15 12:48 | | |
| 1501438-02 | B-1-1.0 | 8.1 | pH Units | 0.10 | 0.10 | 1 | B5E0277 | 05/12/2015 | 05/12/15 12:48 | | |
| 1501438-33 | B-9-0.0 | 8.7 | pH Units | 0.10 | 0.10 | 1 | B5E0277 | 05/12/2015 | 05/12/15 12:48 | | |
| 1501438-37 | B-10-0.0 | 8.6 | pH Units | 0.10 | 0.10 | 1 | B5E0277 | 05/12/2015 | 05/12/15 12:48 | | |



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Project Number : State Route 91 ADL, S9890-06-08
 Report To : Mike Conkle
 Reported : 05/13/2015

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

| Analyte | Result (mg/L) | PQL (mg/L) | Spike Level | Source Result | % Rec | % Rec Limits | RPD | RPD Limit | Notes |
|--|------------------|---------------|----------------|------------------|---|-----------------|-------|--------------|-------|
| Batch B5E0236 - EPA 3010A_S | | | | | | | | | |
| Blank (B5E0236-BLK1) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | ND | 0.050 | | | | | NR | | |
| Blank (B5E0236-BLK2) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | 0.005057 | 0.050 | | | | | NR | | J |
| LCS (B5E0236-BS1) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | 0.988134 | 0.050 | 1.00000 | | 98.8 | 80 - 120 | | | |
| Duplicate (B5E0236-DUP1) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | 0.041757 | 0.050 | | 0.041876 | NR | | 0.286 | 20 | J |
| Duplicate (B5E0236-DUP2) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | 0.090547 | 0.050 | | 0.091798 | NR | | 1.37 | 20 | |
| Matrix Spike (B5E0236-MS1) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | 1.90394 | 0.050 | 2.50000 | 0.041876 | 74.5 | 77 - 121 | | | M1 |
| Matrix Spike Dup (B5E0236-MSD1) | | | | | Prepared: 5/11/2015 Analyzed: 5/12/2015 | | | | |
| Lead | 2.38500 | 0.050 | 2.50000 | 0.041876 | 93.7 | 77 - 121 | 22.4 | 20 | R |



Certificate of Analysis

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3303 N. San Fernando Blvd., Suite 100

Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

pH by EPA 9045C - Quality Control

| Analyte | Result (pH Units) | PQL (pH Units) | Spike Level | Source Result | % Rec % Rec | % Rec Limits | RPD | RPD Limit | Notes |
|---------|----------------------|-------------------|----------------|------------------|----------------|-----------------|-----|--------------|-------|
|---------|----------------------|-------------------|----------------|------------------|----------------|-----------------|-----|--------------|-------|

Batch B5E0277 - Prep_WC1_S

Duplicate (B5E0277-DUP1)

Source: 1501438-37

Prepared: 5/12/2015 Analyzed: 5/12/2015

| | | | | | | | | | |
|----|---------|------|--|---------|----|--|-------|----|--|
| pH | 8.64000 | 0.10 | | 8.58000 | NR | | 0.697 | 20 | |
|----|---------|------|--|---------|----|--|-------|----|--|



Certificate of Analysis

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Burbank, CA 91504

Project Number : State Route 91 ADL, S9890-06-08

Report To : Mike Conkle

Reported : 05/13/2015

Notes and Definitions

| | |
|-----|---|
| R | RPD value outside acceptance criteria. Calculation is based on raw values. |
| M1 | Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample. |
| J | Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration. |
| ND | Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL) |
| PQL | Practical Quantitation Limit |
| MDL | Method Detection Limit |
| NR | Not Reported |
| RPD | Relative Percent Difference |
| CA2 | CA-ELAP (CDPH) |
| OR1 | OR-NELAP (OSPHL) |
| TX1 | TX-NELAP (TCEQ) |

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

Diane Galvan

From: Mike Conkle [conkle@geoconinc.com]
Sent: Wednesday, May 06, 2015 2:15 PM
To: Diane Galvan
Subject: RE: STLC Results - State Route 55 ADL (1501438)

Diane,

Please also run the 4 samples with STLC results > or = to 5.0 mg/l for TCLP lead and pH.



Michael P. Conkle, PG | *Senior Geologist*
Geocon

3303 N. San Fernando Blvd. Suite 100, Burbank, CA 91504

Tel 818.841.8388 Fax 818.841.1704 Cell 213.503.7841

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