

**GROUP**



**YELLOW PAINT AND THERMOPLASTIC TRAFFIC STRIPING INVESTIGATION  
TEMESCAL CANYON ROAD OVER TEMESCAL WASH  
BRIDGE REPLACEMENT PROJECT  
LAKE ELSINORE, CALIFORNIA  
BRLS-5074(015)**

Prepared for

**CITY OF LAKE ELSINORE**  
130 South Main Street  
Lake Elsinore, California 92530

**AGUILAR CONSULTING, INC.**  
2155 Chicago Avenue, Suite 301  
Riverside, California 92507

Prepared by

**GROUP DELTA CONSULTANTS, INC.**  
1035 South Milliken Avenue, Suite G  
Ontario, California 91761

Project No. EN617  
March 18, 2016



# GROUP DELTA

March 18, 2016

**City of Lake Elsinore**

130 South Main Street  
Lake Elsinore, California 92530

**Aguilar Consulting, Inc.**

2155 Chicago Avenue, Suite 301  
Riverside, California 92507

Attention: Ati Eskandari, PE and Ceazar Aguilar, PE

Subject: **Yellow Paint and Thermoplastic Striping Investigation**  
Temescal Canyon Road over Temescal Wash Bridge Replacement Project  
Lake Elsinore, California  
BRLS-5074(015)  
GDC Project No. EN617

Dear Ms. Eskandari and Mr. Aguilar,

Group Delta Consultants, Inc. is pleased to submit this Paint and Thermoplastic Striping Investigation Report for the Temescal Canyon Road over Temescal Wash Bridge Replacement Project located in Lake Elsinore, California. This assessment serves to evaluate the presence of chromium and lead in the yellow roadway striping located along the Project alignment.

We appreciate your selection of Group Delta Consultants, Inc. for this project and look forward to assisting you further on this and other projects. If you have any questions, please do not hesitate to contact us.

Sincerely,

**GROUP DELTA CONSULTANTS, INC.**

Glenn Burks, Ph.D., P.E.  
Director of Environmental Services

Jack Packwood  
Associate



# GROUP DELTA

A report prepared for:

**CITY OF LAKE ELSINORE**  
130 South Main Street  
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**YELLOW PAINT AND THERMOPLASTIC TRAFFIC STRIPING INVESTIGATION REPORT  
TEMESCAL CANYON ROAD OVER TEMESCAL WASH BRIDGE REPLACEMENT PROJECT  
LAKE ELSINORE, CALIFORNIA**

Prepared by:

Approved by:

\_\_\_\_\_  
Jack Packwood  
Associate

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City of Lake Elsinore

Reviewed by:

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**Enclosure:** CD containing a PDF copy of the report

## **1.0 INTRODUCTION**

### **1.1 Project Description**

The proposed Temescal Canyon Road over Temescal Wash Bridge Replacement Project (Project) is located in north Lake Elsinore, California (Figure 1).

The existing bridge at the site is a 2-span reinforced concrete structure with 2 abutments and a center bent in Temescal Wash. The approach roadway is a narrow 2-lane asphalt paved roadway with narrow unpaved shoulders. The current bridge will be replaced with a 4-lane structure west of the existing bridge. In addition, approximately 3,300 feet (ft) of Temescal Canyon Road will be reconstructed to follow a modified alignment.

### **1.2 Project Background**

Historically, lead and chromium have been used in yellow paint and thermoplastic striping (PTS) at high enough concentrations to necessitate special management during removal and disposal as hazardous waste. Although this PTS material has been phased out, it remains in place on Caltrans right-of way throughout California. There typically is low variability in the concentration of lead and chromium in the paint or thermoplastic material within a given construction project. Caltrans has developed the Caltrans Paint and Thermoplastic Striping Guidance (PTS Guidance) to provide instruction on the investigation and management of PTS.

The Project will require the disturbance and removal of existing yellow PTS. Yellow PTS that may be disturbed exists along the roadway centerline of the entire project alignment, and at the intersection of Temescal Canyon Road and Lake Street.

### **1.3 Purpose and Scope of Work**

The purpose of this assessment is to collect and analyze yellow PTS chip samples from the Project alignment to assess for the presence of chromium and lead in the PTS. This information may be used to address project health and safety and materials management. Our scope of work included the following:

- Perform sampling of existing centerline yellow striping at the following three locations:
  1. On the current alignment of Temescal Canyon Road
  2. On Lake Street at the current intersection with Temescal Canyon Road
  3. On Lake Street at the proposed intersection with Temescal Canyon Road
- Laboratory analyses of PTS samples

- Preparation of this summary report describing the investigation, and presenting the results and findings

This investigation program was conducted in accordance with the Work Plan for Site Investigation (Group Delta, 2016) prepared for the Project and approved by the City.

## **2.0 PTS CHIP SAMPLE COLLECTION**

### **2.1 Field Investigation**

On February 11, 2016, a total of 3 samples of yellow PTS were collected at the locations discussed above by Group Delta in accordance with the Work Plan for Site Investigation. Sampling locations were located on the centerline of Temescal Canyon Road (PTS-1), on Lake Street at the current intersection with Temescal Canyon Road (PTS-2), and on Lake Street at the proposed intersection with Temescal Canyon Road (PTS-3).

PTS sampling locations are shown on Figure 2, PTS Sample Location Plan.

### **2.2 Sampling Equipment**

The following equipment was used during sampling activities:

1. A chisel
2. A hammer
3. A sufficient number of 8-ounce (oz) sealed glass jars with Teflon lined lids (to be provided by the analytical laboratory)
4. Three buckets
5. Three one-gallon bottles of deionized water
6. One bottle of Liquinox
7. Box cooler with ice for storage of the collected jar samples
8. Self-adhesive jar labels and chain of custody sheets

### **2.3 Sampling Protocol**

Presented below is the sampling and decontamination methodology followed in the field:

1. Remove chip samples of PTS down to the underlying substrate using a hammer and chisel;
2. Transfer the PTS directly into the sealable 8-oz glass jars using disposable nitrile gloves;
3. Place self-adhesive labels on the jars marked with the sample number, sample location, and time and date of sample collection;
4. Place sample jars on ice in the cooler box;
5. Repeat the procedure for the remaining locations;

6. Clean and rinse the chisel after each sample is collected by washing with a solution of Liquinox followed by a deionized water rinse;
7. Record a summary of the observations, PTS color, and PTS condition for each sample location;
8. Fill out chain-of-custody form, and;
9. Transport the samples on ice to the chemical testing laboratory.

### 3.0 LABORATORY ANALYSES

All collected samples were transported for analysis to A & R Laboratories in Ontario, California. A & R is a laboratory certified by the California State Water Resources Control Board (SWRCB) Environmental Laboratory Accreditation Program (ELAP). A & R provided a signed test report that includes copies of the completed chain-of-custody forms, laboratory test results, quality control sample results, and a narrative of any deviations and corrective actions taken. The laboratory analytical report is included as Appendix A. A brief description of the analytical process is provided as follows:

- All PTS samples were analyzed for total chromium and total lead using Environmental Protection Agency (EPA) Method 6010B. Prior to analysis, each sample was homogenized by the laboratory to ensure that each sampling aliquot is representative of the entire sample submitted.
- Samples that contained greater or equal to 50 milligrams per kilogram (mg/kg) of total chromium or lead (10 times the Soluble Threshold Limit Concentration [STLC] value of 5 mg/L as recommended in 22 CCR 66261) were to be analyzed for soluble chromium and/or lead using the California Waste Extraction Test (WET).
- Samples that contain greater than or equal to 100 mg/kg of total chromium or lead (20 times the Toxic Characteristic Leaching Procedure [TCLP] value of 5 mg/L as recommended in 22 CCR 66261) were to be analyzed for soluble chromium and/or lead using the EPA TCLP and EPA Method 1311.

The table below summarizes the analytical methods for use on the Project:

**Table A: Analytical Methods**

Analyte	Analytical Method
Total Lead – TTLC	EPA Method 6010B
Soluble Lead – STLC	CA WET Method, HML Method 910
Soluble Lead – TCLP	Federal TCLP Method, EPA Method 1311
Total Chromium – TTLC	EPA Method 6010B
Soluble Chromium – STLC	CA WET Method, HML Method 910
Soluble Chromium – TCLP	Federal TCLP Method, EPA Method 1311

EPA = U.S. Environmental Protection Agency  
STLC = soluble threshold limit concentration  
TCLP = toxicity characteristic leaching procedure  
TTLC = total threshold limit concentration  
WET = waste extraction test

## **4.0 RESULTS**

The analytical results of this investigation are described in the following subsections. Laboratory analytical results have been summarized in Table 1 (attached). Laboratory analytical reports are included as Appendix A.

### **4.1 Chromium**

Total chromium was detected in 2 of 3 samples collected at concentrations ranging from 0.704 mg/kg to 3.67 mg/kg. Total chromium was not detected at concentrations in excess of the California Total Threshold Limit Concentration (TTLC) of 2500 mg/kg in any of the samples analyzed.

No samples were analyzed for soluble chromium using the California WET method because no sample concentrations exceeded 50 mg/kg total chromium.

No samples were analyzed for soluble chromium using the TCLP method because no sample concentrations exceeded 100 mg/kg total chromium.

### **4.2 Lead**

Total lead was detected in all 3 samples collected at concentrations ranging from 1.54 mg/kg to 17.7 mg/kg. Total lead was not detected at concentrations in excess of the California TTLC of 1000 mg/kg.

No samples were analyzed for soluble lead using the California WET method because no sample concentrations exceeded 50 mg/kg total lead.

No samples were analyzed for soluble lead using the TCLP because no sample concentrations exceeded 100 mg/kg total lead.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the PTS Investigation performed by Group Delta, the following conclusions are provided:

### **5.1 Conclusions**

Based upon the analytical results, concentrations of chromium and lead detected in yellow PTS along the Project alignment do not exceed the established California TTLC and STLC criteria for non-Resource Conservation and Recovery Act (non-RCRA) California hazardous waste. In addition, and federal TCLP criteria for RCRA hazardous waste was not exceeded. Striping with hazardous levels of chromium or lead does not exist on the Project.

### **5.2 Recommendations**

Striping does not require removal prior to construction and may be removed with the bulk road materials during construction. The PTS may be managed and disposed of as non-hazardous construction debris.

## 6.0 REFERENCES

California Division of Occupational Safety and Health (DOSH), 1997. Title 8, California Code of Regulations, Section 1532.1. Revised 1997.

Group Delta Consultants, "Workplan for Site Investigation, Temescal Canyon Road Bridge, Lake Elsinore, California, Group Delta Project No. EN-617, BRLS-5074(015)", dated January 12, 2016.

Occupational Safety and Health Administration (OSHA), 1993. Occupational Safety and Health Standards. Title 29, Code of Federal Regulations, Part 1926.62.



**Table 1: Summary of Analytical Results  
 Yellow Paint and Thermoplastic Striping Investigation  
 Temescal Canyon Road over Temescal Wash Bridge Replacement Project  
 Lake Elsinore, California**

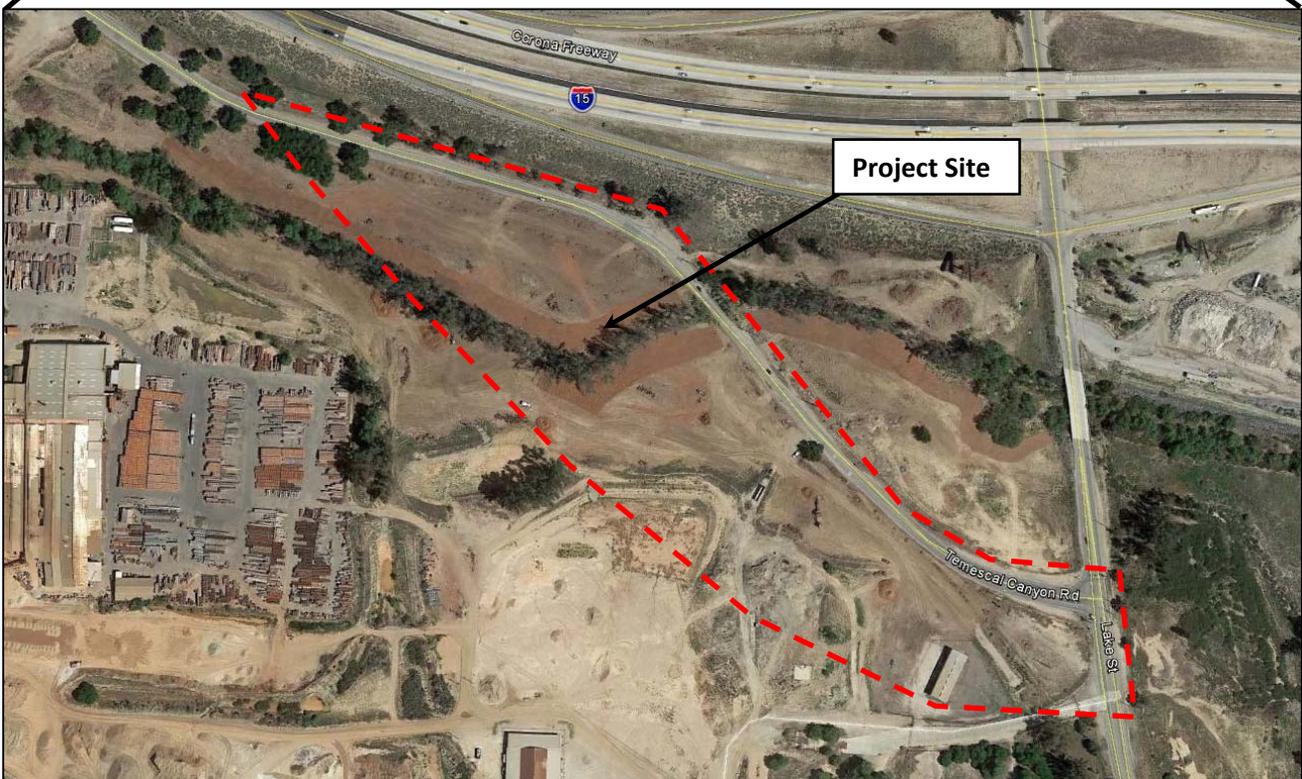
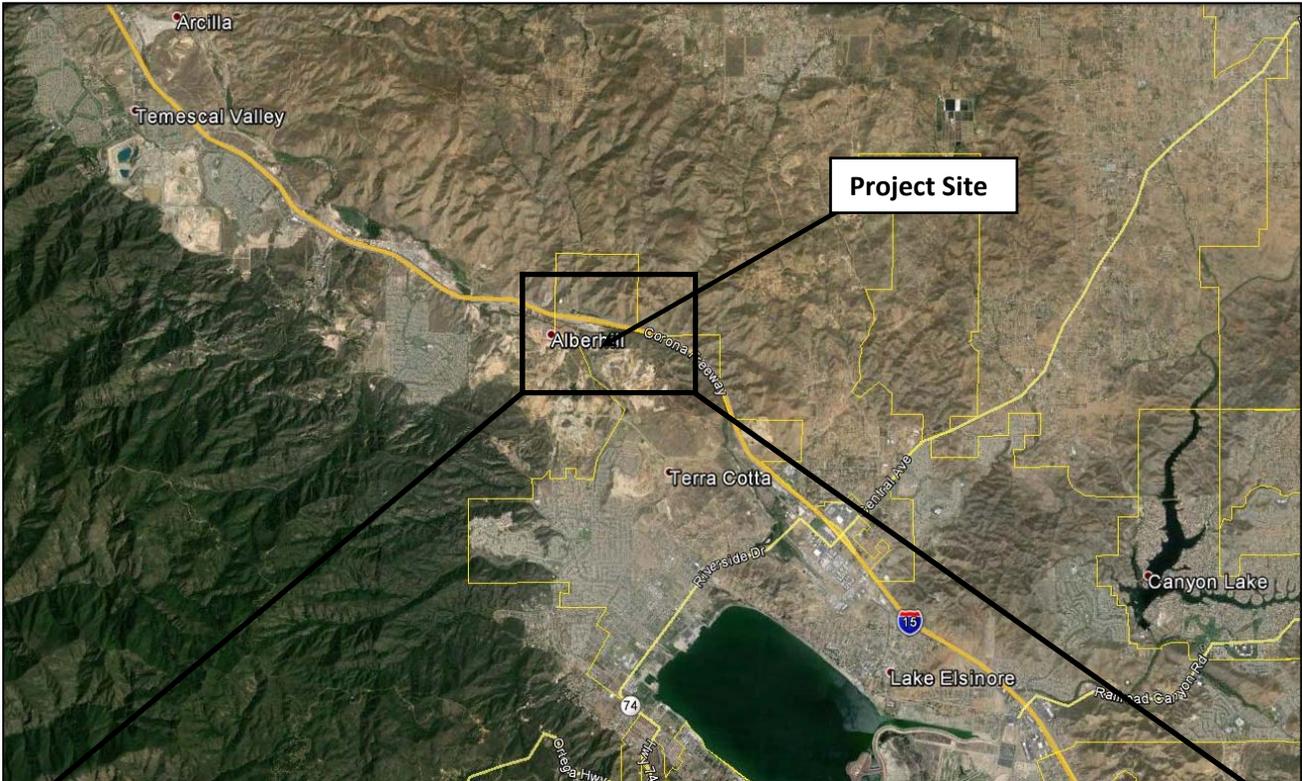
Sample Location	Sample ID	Chromium			Lead		
		Total - TTLC (mg/kg)	STLC (mg/L)	TCLP (mg/L)	Total - TTLC (mg/kg)	STLC (mg/L)	TCLP (mg/L)
Temescal Canyon Road	PTS-1	3.67	--	--	17.7	--	--
Lake Street (north)	PTS-2	<0.500	--	--	1.54	--	--
Lake Street (south)	PTS-3	0.704	--	--	2.79	--	--
<b>Hazardous Waste Threshold</b>		<b>2500</b>	<b>5</b>	<b>5</b>	<b>1000</b>	<b>5</b>	<b>5</b>

Notes:

- mg/kg = milligrams per kilogram
- mg/L = milligrams per liter
- TTLC = Total Threshold Limit Concentration
- STLC = Soluble Threshold Limit Concentration
- TCLP = Toxicity Characteristic Leaching Procedure
- = Not measured

***Figures***

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Reference: Google Earth



GDC Project No. EN617

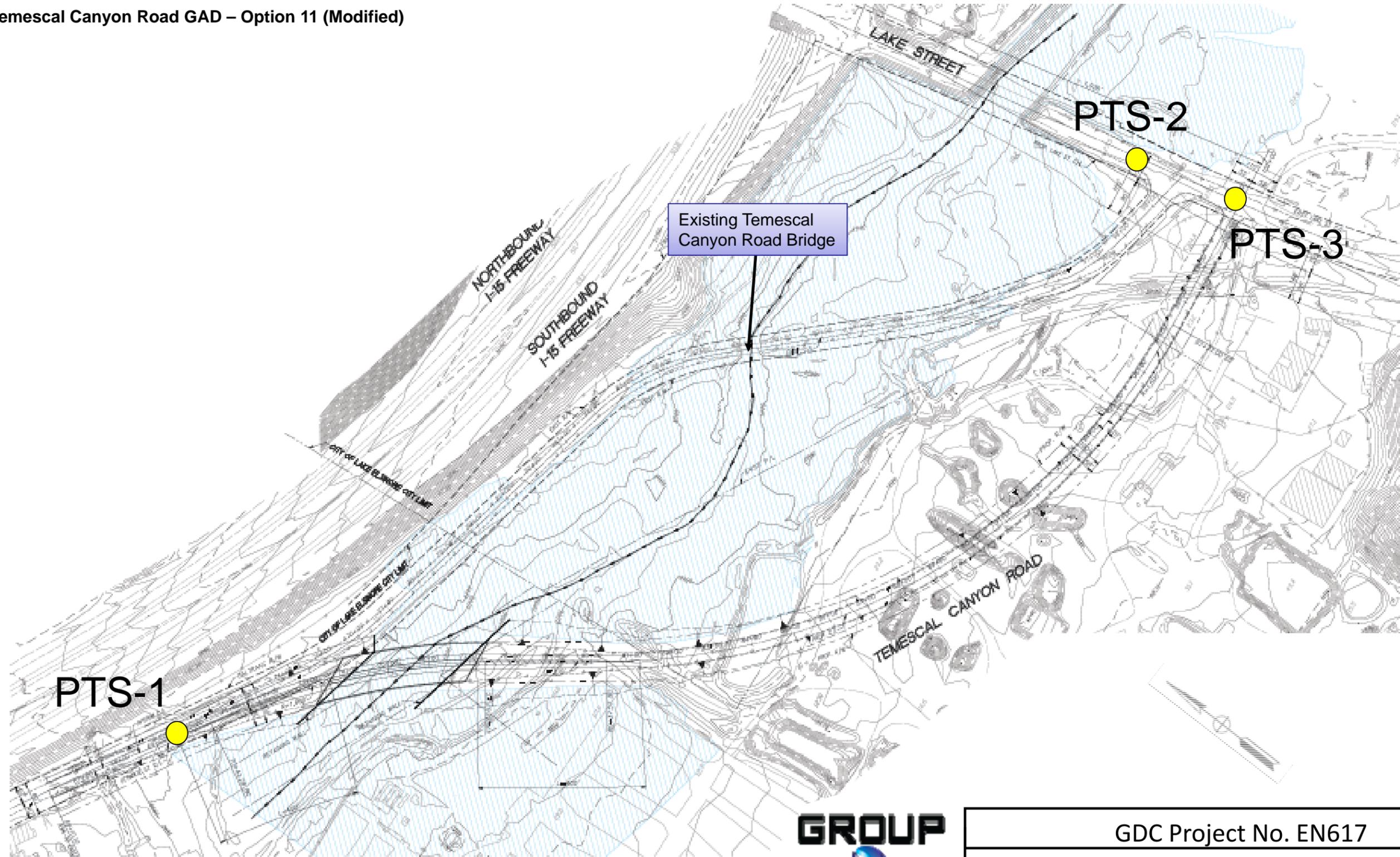
**Project Location Map**

Yellow Paint and Thermoplastic Traffic Striping Investigation

Temescal Canyon Road over Temescal Wash  
Lake Elsinore, California

**Figure 1**

Source: Temescal Canyon Road GAD – Option 11 (Modified)



**LEGEND**

 **Approximate Striping Sampling Location**



GDC Project No. EN617
<b>PTS Sample Location Plan</b>
Yellow Paint and Thermoplastic Traffic Striping Investigation
Temescal Canyon Road Bridge over Temescal Wash
Lake Elsinore, California

**Figure: 2**





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## CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	 Ken Zheng, President 02/12/2016 13:21:46
Laboratory Job No. (Certificate of Analysis No.)	1602-00083
Project Name / No.	TEMESCAL CANYON ROAD BRIDGE ADL / PTS EN617
Dates Sampled (from/to)	02/11/16 To 02/11/16
Dates Received (from/to)	02/11/16 To 02/11/16
Dates Reported (from/to)	02/12/16 To 2/12/2016
Chains of Custody Received	Yes

Comments:	
-----------	--

Subcontracting	
Inorganic Analyses	
No analyses sub-contracted	

Sample Condition(s)	
All samples intact	

Positive Results (Organic Compounds)	
None	



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**1602-00083**

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**SUITE G**

**ONTARIO, CA 91761**

**Project: TEMESCAL CANYON ROAD BRIDGE ADL / PTS**

Date Reported 02/12/16

Date Received 02/11/16

Invoice No. 75335

Cust # G083

Permit Number

Customer P.O. EN617

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 ADL-7-0.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 8:52	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	3.31		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 002 ADL-7-1.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 9:06	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	5.90		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 003 ADL-8-0.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 9:11	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	3.43		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 004 ADL-8-1.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 9:18	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	5.68		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 005 ADL-9-0.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 9:26	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	3.20		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 006 ADL-9-1.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 9:35	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	4.95		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB



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**Project: TEMESCAL CANYON ROAD BRIDGE ADL / PTS**

Date Reported 02/12/16

Date Received 02/11/16

Invoice No. 75335

Cust # G083

Permit Number

Customer P.O. EN617

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 ADL-10-0.5 Date & Time Sampled: 02/11/16 @ 9:40								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	5.49		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 008 ADL-10-0.5-DUP Date & Time Sampled: 02/11/16 @ 9:41								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	5.72		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 009 ADL-10-1.5 Date & Time Sampled: 02/11/16 @ 9:54								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	3.92		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 010 PTS-2 Date & Time Sampled: 02/11/16 @ 10:30								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Chromium	<0.500		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Lead	1.54		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 011 PTS-3 Date & Time Sampled: 02/11/16 @ 10:35								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Chromium	0.704		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Lead	2.79		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 012 ADL-1-0.5 Date & Time Sampled: 02/11/16 @ 11:40								
Sample Matrix: Soil								



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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 012 ADL-1-0.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 11:40	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	18.3		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 013 ADL-1-1.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 11:58	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	4.64		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 014 ADL-3-0.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 12:05	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	7.79		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 015 ADL-3-1.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 12:10	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	4.86		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 016 ADL-5-0.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 12:20	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	20.3		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 017 ADL-5-0.5-DUP Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 12:21	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	15.6		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB



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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 018 ADL-5-1.5 Date & Time Sampled: 02/11/16 @ 12:27								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	7.90		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 019 ADL-6-0.5 Date & Time Sampled: 02/11/16 @ 12:32								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	7.96		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 020 ADL-6-1.5 Date & Time Sampled: 02/11/16 @ 12:40								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	8.94		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 021 ADL-2-0.5 Date & Time Sampled: 02/11/16 @ 12:56								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	6.21		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 022 ADL-2-1.5 Date & Time Sampled: 02/11/16 @ 13:06								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	3.59		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 023 ADL-4-0.5 Date & Time Sampled: 02/11/16 @ 13:31								
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB



# A & R Laboratories

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## CERTIFICATE OF ANALYSIS

### 1602-00083

**GROUP DELTA CONSULTANTS, INC.**
**JACK PACKWOOD**
**1035 S. MILLIKEN AVENUE**
**SUITE G**
**ONTARIO, CA 91761**
**Project: TEMESCAL CANYON ROAD BRIDGE ADL / PTS**

Date Reported 02/12/16

Date Received 02/11/16

Invoice No. 75335

Cust # G083

Permit Number

Customer P.O. EN617

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 023 ADL-4-0.5 Sample Matrix: Soil .....continued							Date & Time Sampled: 02/11/16 @ 13:31	
Lead	21.8		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 024 ADL-4-1.5 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 13:40	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Lead	28.2		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 025 PTS-1 Sample Matrix: Soil							Date & Time Sampled: 02/11/16 @ 13:55	
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1		02/12/16	TLB
Chromium	3.67		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Lead	17.7		mg/Kg	EPA 6010B	1	0.500	02/12/16	TLB
Sample: 026 EB-02112016 Sample Matrix: Aqueous							Date & Time Sampled: 02/11/16 @ 14:38	
[Metals]								
Metals Acid Digestion	Complete			EPA 3010A	1		02/12/16	TLB
Chromium	<0.0100		mg/L	EPA 6010B	1	0.0100	02/12/16	TLB
Lead	<0.0200		mg/L	EPA 6010B	1	0.0200	02/12/16	TLB

**Respectfully Submitted:**

Ken Zheng - Lab Director



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### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.

B1 = BOD dilution water is over specifications . The reported result may be biased high.

D = Surrogate recoveries are not calculated due to sample dilution.

E = Estimated value; Value exceeds calibration level of instrument.

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

I = Matrix Interference.

J = Analyte concentration detected between RL and MDL.

Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.

S = Customer provided specification limit exceeded.

### ABBREVIATIONS

DF = Dilution Factor

RL = Reporting Limit, Adjusted by DF

MDL = Method Detection Limit, Adjusted by DF

Qual = Qualifier

Tech = Technician

*As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.*

*For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.*



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## QUALITY CONTROL DATA REPORT

**GROUP DELTA CONSULTANTS, INC.**

**1602-00083**

**JACK PACKWOOD**

**1035 S. MILLIKEN AVENUE**

**SUITE G**

**ONTARIO, CA 91761**

**Project: TEMESCAL CANYON ROAD BRIDGE ADL / PTS**

**Date Reported 02/12/2016**

**Date Received 02/11/2016**

**Date Sampled 02/11/2016**

**Invoice No. 75335**

**Customer # G083**

**Customer P.O. EN617**

Method # EPA 6010B

QC Reference # 53089 Date Analyzed: 2/12/2016 Technician: TLB

Samples 001 002 003 004 005 006 007 008 009 010 011 012 013 014 015 016 017 018 019 020

### Results

LCS %REC LCS %DUP LCS %RPD

Chromium 100 102 1.8

Lead 103 103 0.2

### Control Ranges

LCS %REC LCS %RPD

75 - 125 0 - 20

75 - 125 0 - 20

QC Reference # 53090 Date Analyzed: 2/12/2016 Technician: TLB

Samples 021 022 023 024 025

### Results

LCS %REC LCS %DUP LCS %RPD

Chromium 102 101 1.1

Lead 105 104 0.7

### Control Ranges

LCS %REC LCS %RPD

75 - 125 0 - 20

75 - 125 0 - 20

QC Reference # 53091 Date Analyzed: 2/12/2016 Technician: TLB

Samples 026

### Results

LCS %REC LCS %DUP LCS %RPD

Chromium 99 96 3.4

Lead 107 105 2.0

### Control Ranges

LCS %REC LCS %RPD

75 - 125 0 - 20

75 - 125 0 - 20

No method blank results were above reporting limit

**Respectfully Submitted:**

*Ken Zheng*

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.





