INFORMATION HANDOUT

For Contract No. 12-0N3304
At 12-Ora-5-12.8/21.6

Identified by
Project ID 1213000197

MATERIALS INFORMATION

Aerially Deposited Lead Memo Dated 2-5-2015
Aerially Deposited Lead Investigation Report

State of California

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Christopher Le, Chief
Design Branch B

Date:
February 5, 2015

File:
Dist-County Route 12-Ora-5
PM: 12.8-21.6
EA No. 0N3301
1213000197

From: Reza Aurasteh, Chief
Environmental Engineering Branch

Subject: **Aerial Deposited Lead (ADL) SSP, CAPM Project, Replacement of Metal Beam Guardrails, at Various Locations along Route 5, City of Lake Forrest, Orange County, CA**

We have received the project description/layout and request for the preparation of ADL SSP from your branch. Accordingly, we have conducted extending research of all projects and found out the historical ADL sampling data (EA Nos: 0604U1, 0L8701, 0E1001 and 0E1601) that could be applied to this project. We also conducted the ADL sampling on December 17, 2014 for the remaining areas.

Based on the recent and previous testing results shown at the borehole numbers B01 to B6 (EA0604U1), B01 (0L8701), B11 (0E1001) and B04 (EA 0E1601), ADL is present in the soil and the average lead concentrations are below 1,000 mg/kg total lead and below 5 mg/L soluble lead that is considered to be non-hazardous waste.

Therefore, the excavated soil contained ADL at the project site considers to be non-hazardous waste and can be reused onsite without any restriction. The attached is SSP for the reuse of ADL contained soil onsite (no offsite disposal). If the offsite disposal is needed, please let us know so SSP could be revised.

According to SSP, the contractor needs to prepare a lead compliance plan. Please include a bid item for this plan. If you have any question regarding this review, feel free to call Wayne Chiou at 949-724-2221.

Cc: Wayne Chiou, Environmental Engineering Branch
YehHai Nguyen, Design Branch B

Enclosure: ADL SSP 7-1.02K(6)(j)(iii)_A01-18-13

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Geocon Project No. S9890-06-06
January 22, 2015

VIA EMAIL

Mr. Wayne Chiou
Caltrans – District 12
Office of Environmental Engineering & Corridor Studies
3347 Michaelson Drive, Suite 100
Irvine, CA 92612

Subject: AERIALLY DEPOSITED LEAD INVESTIGATION RESULTS
I-5 MBGR REPLACEMENT, I-5 NEAR I-5/I-405 JUNCTION
IRVINE, CALIFORNIA
CONTRACT 12A1535; EA 0N3301; TO 12-0N3301-06

Dear Mr. Chiou:

In accordance with the California Department of Transportation's (Caltrans) Contract No. 12A1535 and Task Order No. 12-0N3301-06, dated December 17, 2014, we performed sampling and analytical testing to evaluate the potential presence of aerially deposited lead in soil at six locations near the I-5/I-405 Junction (the Site) in the City of Irvine, California. This letter 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.

PURPOSE AND SCOPE OF SERVICES

Caltrans intends to replace guard rails near the I-5/I-405 Junction. The proposed improvements will require excavation and management of the soil. The purpose of this investigation was to evaluate soil at the Site 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 letter to document results of the investigation.

SAMPLING AND ANALYTICAL TESTING

On January 9, 2015, Geocon collected 24 soil samples from 6 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 1 through 5.

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, date and time of collection. The samples were then placed in a portable 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. The 24 soil samples were analyzed for total lead using U.S. Environmental Protection Agency (EPA) Test Method 6010B.

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 2.5 to 33 milligrams per kilogram (mg/kg).

None of the samples collected from Site exhibited total lead concentrations greater than the Total Threshold Limit Concentration (TTLC) of 1,000 mg/kg, or ten times the Soluble Threshold Limit Concentration (STLC) of 5.0 milligrams per liter (mg/l).

Based on these results further testing of the soil for soluble lead content was not necessary.

CONCLUSION AND RECOMMENDATION

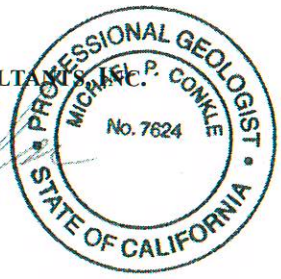
Based upon the reported total lead concentrations, the soil would be classified as non-hazardous with respect to lead content. Accordingly, the soil is suitable for onsite reuse without restriction (Caltrans Type X) with respect to lead content (see attached ADL Soil Management Table).

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. If the material 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.

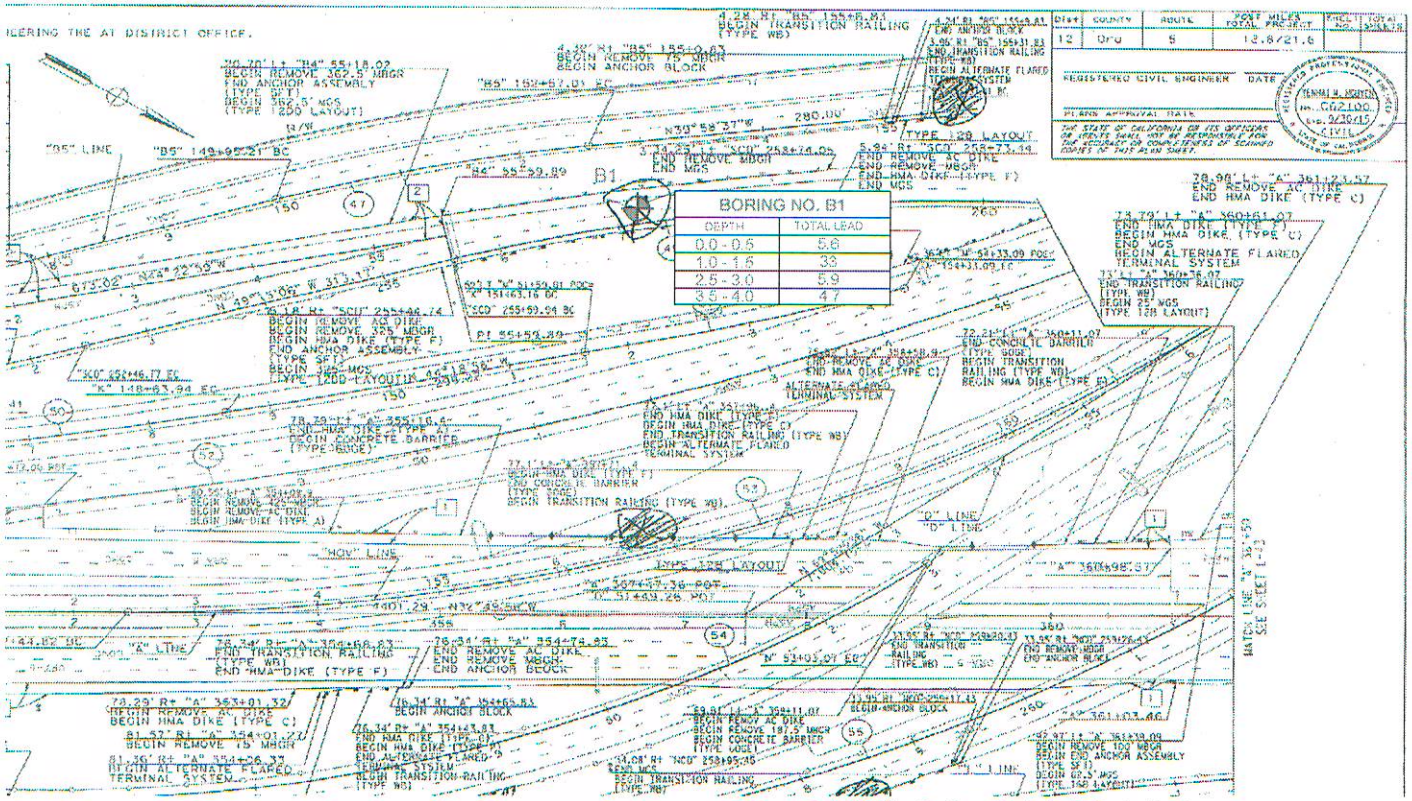
Very truly yours,

GEOCON CONSULTANTS, INC.



Mike Conkle, PG
Senior Geologist

Attachments: Figures 1 to 5: Sample Location Maps
Table 1 – Boring Coordinates and Summary of Analytical Results
Aerially Deposited Lead Soil Management Table
Laboratory Analytical Report and Chain-of-custody Documentation



PLAN BY: CALTRANS

LEGEND

B1 Approximate Location of Boring

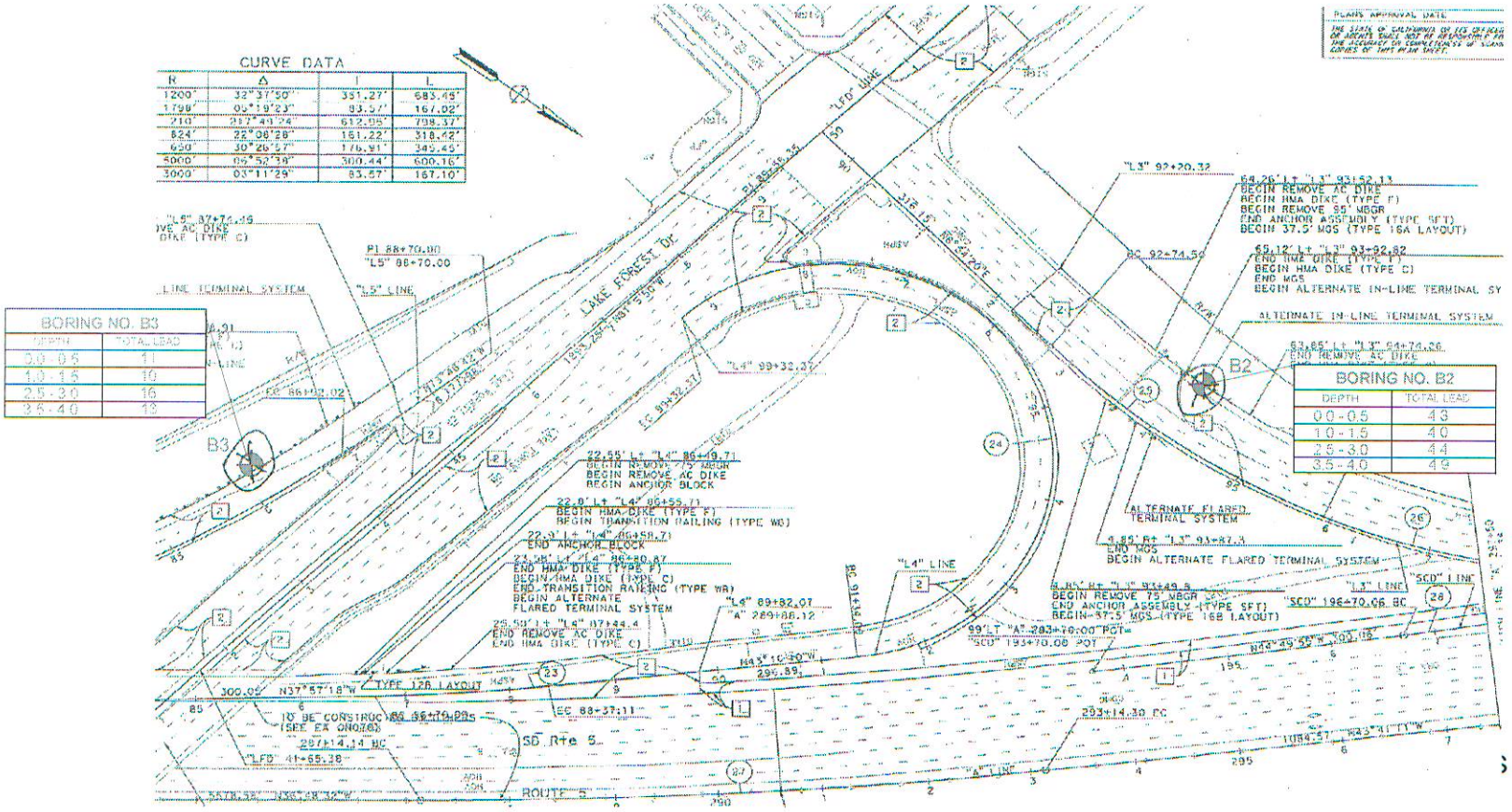
GEOCON CONSULTANTS, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

MKA		8000

BORING LOCATION MAP

I-5 MBGR REPLACEMENT, ADL STUDY
I-5 NEAR I-5 AND I-405 JUNCTION
IRVINE CALIFORNIA

JANUARY 2015	PROJECT NO. S9890-06-06	FIG. #1



LEGEND

Approximate Location of Boring
B3

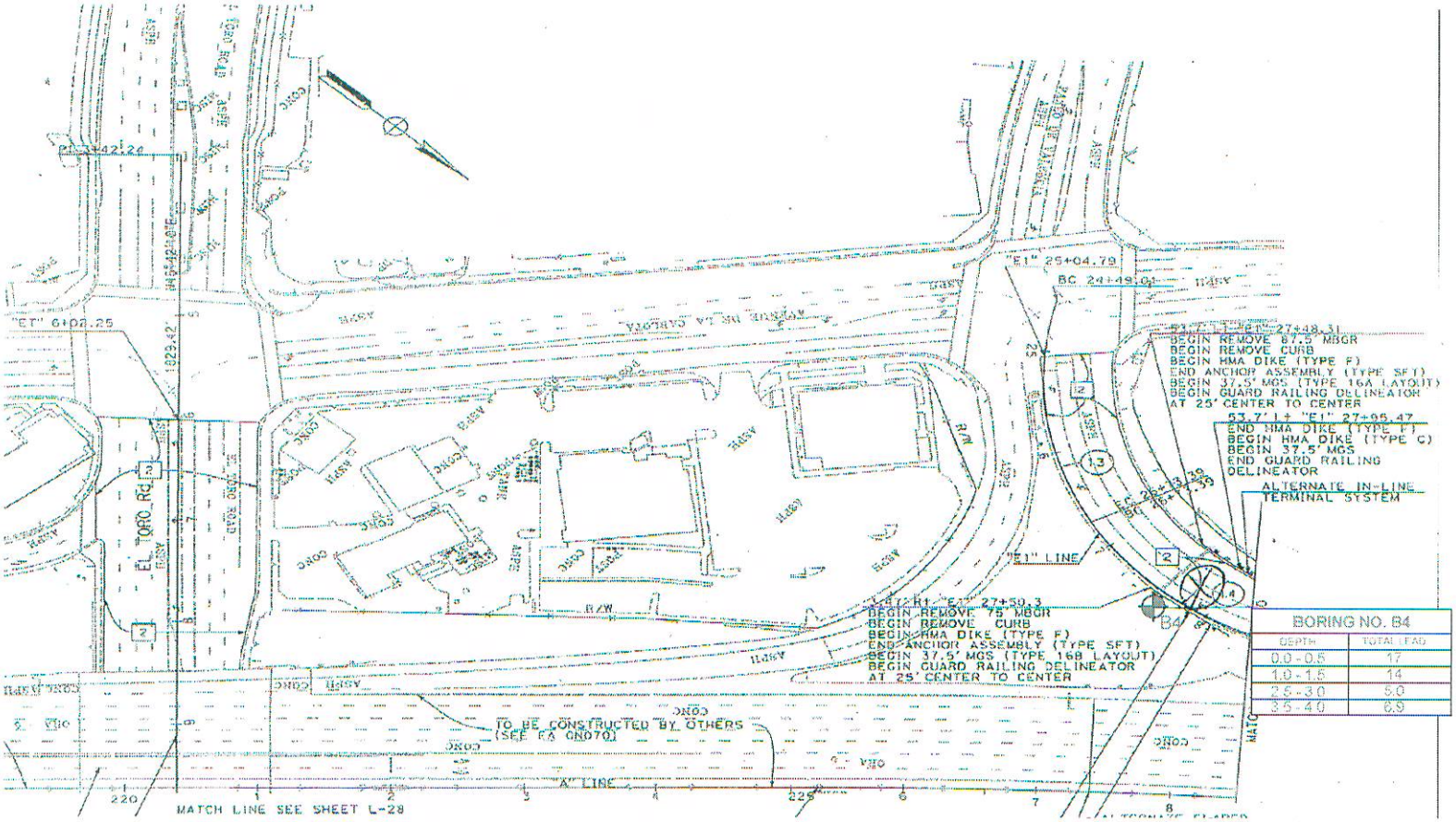
GEOCON CONSULTANTS, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

MKA		8000

BORING LOCATION MAP

I-5 MBGR REPLACEMENT, ADL STUDY
I-5 NEAR I-5 AND I-405 JUNCTION
IRVINE CALIFORNIA

JANUARY 2015	PROJECT NO. S9890-06-06	FIG. # 2



LEGEND

B4 Approximate Location of Boring

GEOCON CONSULTANTS, INC.

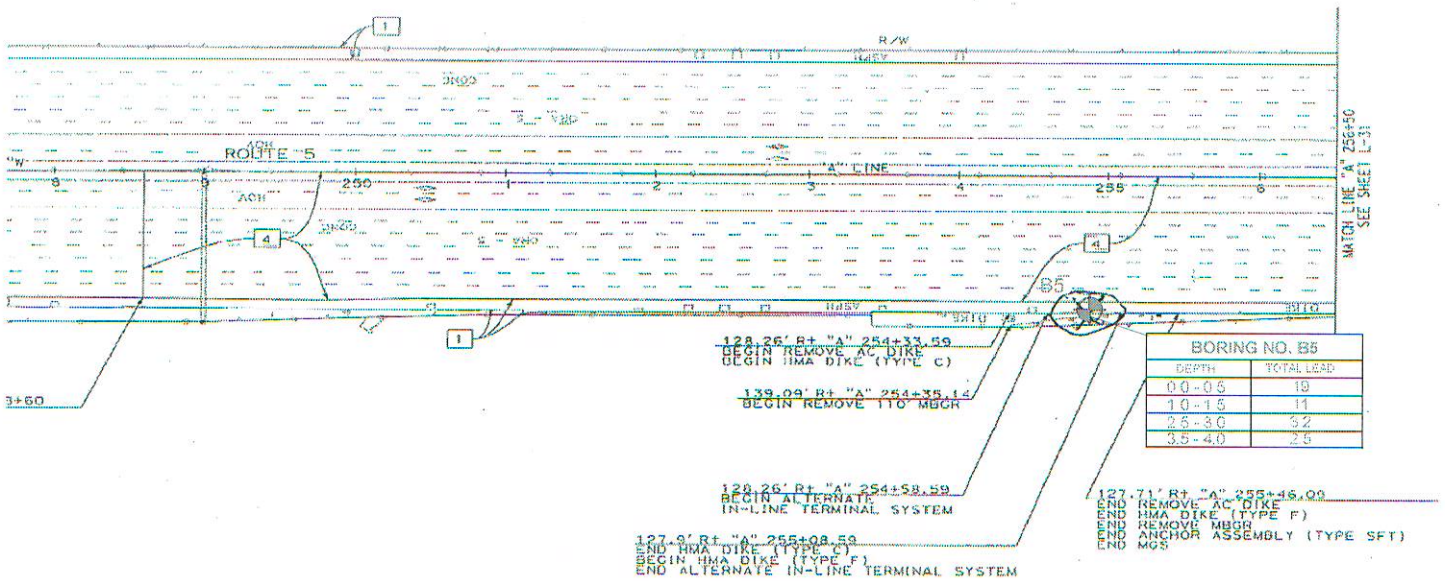
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

MKA		8000

BORING LOCATION MAP

I-5 MBGR REPLACEMENT, ADL STUDY
I-5 NEAR I-5 AND I-405 JUNCTION
IRVINE CALIFORNIA

JANUARY 2015	PROJECT NO. S9890-06-06	FIG. # 3



BORING NO. B5

DEPTH	TOTAL LEAD
00-05	19
10-15	11
25-30	32
35-40	25

LEGEND

B5 Approximate Location of Boring

GEOCON CONSULTANTS, INC.

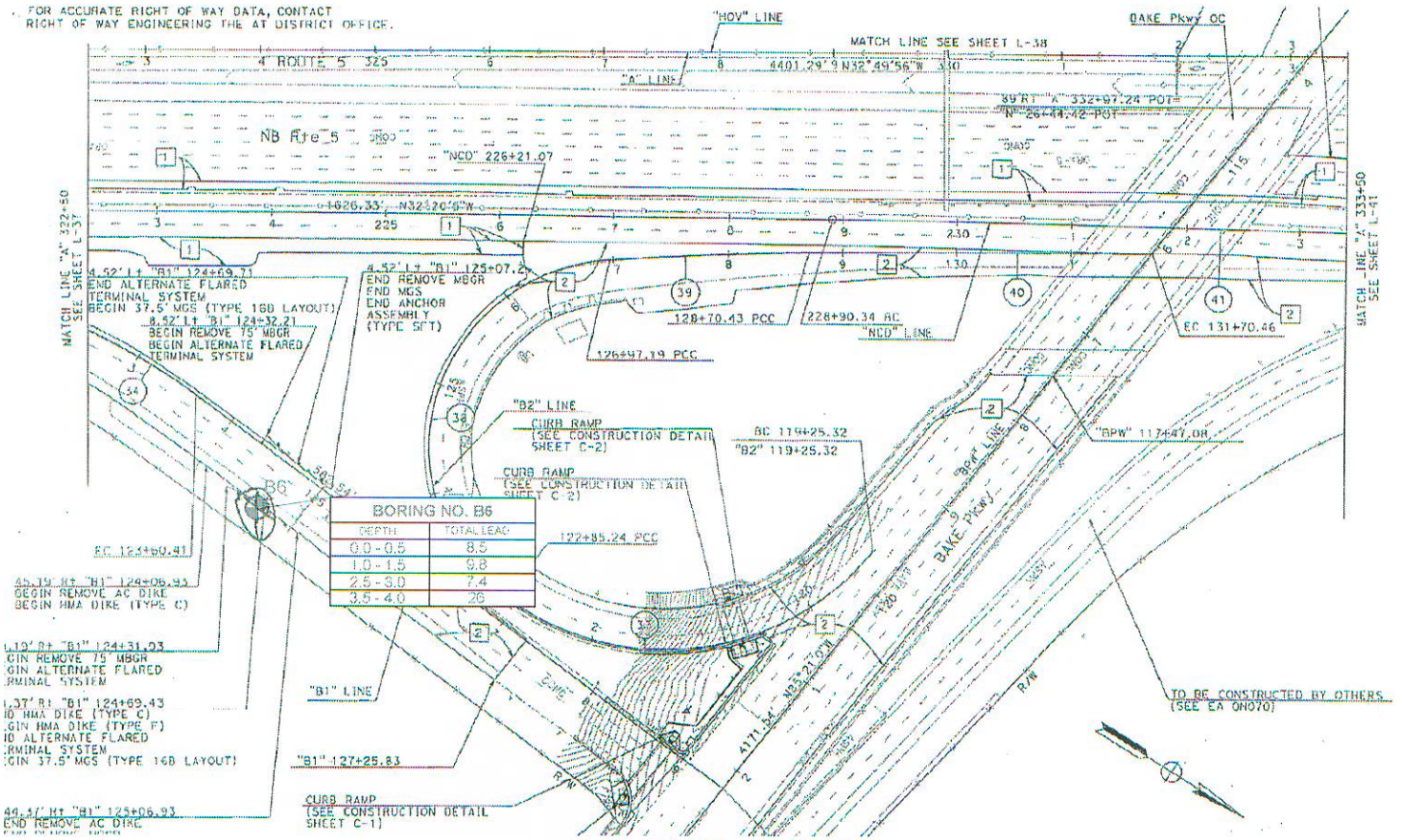
ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

MKA		8000

BORING LOCATION MAP

I-5 MBGR REPLACEMENT, ADL STUDY
I-5 NEAR I-5 AND I-405 JUNCTION
IRVINE CALIFORNIA

JANUARY 2015	PROJECT NO. S9890-06-06	FIG. # 4



PLAN BY: CALTRANS

LEGEND

B6 Approximate Location of Boring

GEOCON CONSULTANTS, INC.

ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

MKA		8000

BORING LOCATION MAP

I-5 MBGR REPLACEMENT, ADL STUDY
I-5 NEAR I-5 AND I-405 JUNCTION
IRVINE CALIFORNIA

JANUARY 2015	PROJECT NO. S9890-06-06	FIG. # 5

TABLE 1
BORING COORDINATES AND SUMMARY OF LEAD ANALYTICAL RESULTS
I-5 MBGR REPLACEMENT, ADL STUDY
I-5 NEAR I-5/I-405 JUNCTION
IRVINE, CALIFORNIA

Sample ID	Sample Date	Longitude	Latitude	Sample Depth Interval (feet)	Total Lead (mg/kg)
B1-0	1/9/2015	33.6436713	-117.7357801	0.0-0.5	5.6
B-1.0	1/9/2015			1.0-1.5	33
B1-2.5	1/9/2015			2.5-3.0	5.9
B1-3.5	1/9/2015			3.5-4.0	4.7
B2-0	1/9/2015	33.62992823	-117.7239406	0.0-0.5	4.3
B2-1.0	1/9/2015			1.0-1.5	4.0
B2-2.5	1/9/2015			2.5-3.0	4.4
B2-3.5	1/9/2015			3.5-4.0	4.9
B3-0	1/9/2015	33.62815895	-117.7218527	0.0-0.5	11
B3-1.0	1/9/2015			1.0-1.5	10
B3-2.5	1/9/2015			2.5-3.0	16
B3-3.5	1/9/2015			3.5-4.0	13
B4-0	1/9/2015	33.61587477	-117.709811	0.0-0.5	17
B4-1.0	1/9/2015			1.0-1.5	14
B4-2.5	1/9/2015			2.5-3.0	5.0
B4-3.5	1/9/2015			3.5-4.0	6.9
B5-0	1/9/2015	33.62229495	-117.714475	0.0-0.5	19
B5-1.0	1/9/2015			1.0-1.5	11
B5-2.5	1/9/2015			2.5-3.0	3.2
B5-3.5	1/9/2015			3.5-4.0	2.5
B6-0	1/9/2015	33.63753582	-117.7277845	0.0-0.5	8.5
B6-1.0	1/9/2015			1.0-1.5	9.8
B6-2.5	1/9/2015			2.5-3.0	7.4
B6-3.5	1/9/2015			3.5-4.0	26

Notes:

mg/kg = Milligrams per kilogram

AERIALLY DEPOSITED LEAD SOIL MANAGEMENT			
SOLUBLE LEAD (mg/l)	**TOTAL LEAD** (mg/kg)	**SOIL TYPE**	**HANDLING**
CALIFORNIA TESTING			
STLC <5.0	TTLC <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	TTLC < 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.

ADVANCED TECHNOLOGY LABORATORIES

January 19, 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 : 1500099

Client Reference : I-5 Near I-5 and I-405 Junction, S9890-06-06

Enclosed are the results for sample(s) received on January 09, 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,

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.	Project Number : I-5 Near I-5 and I-405 Junction, S9890-06-06
3303 N. San Fernando Blvd., Suite 100	Report To : Mike Conkle
Burbank , CA 91504	Reported : 01/19/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-0	1500099-01	Soil	1/09/15 9:46	1/09/15 18:00
B1-1.0	1500099-02	Soil	1/09/15 9:48	1/09/15 18:00
B1-2.5	1500099-03	Soil	1/09/15 10:00	1/09/15 18:00
B1-3.5	1500099-04	Soil	1/09/15 10:02	1/09/15 18:00
B2-0	1500099-05	Soil	1/09/15 10:26	1/09/15 18:00
B2-1.0	1500099-06	Soil	1/09/15 10:30	1/09/15 18:00
B2-2.5	1500099-07	Soil	1/09/15 10:33	1/09/15 18:00
B2-3.5	1500099-08	Soil	1/09/15 10:38	1/09/15 18:00
B3-0	1500099-09	Soil	1/09/15 10:52	1/09/15 18:00
B3-1.0	1500099-10	Soil	1/09/15 10:58	1/09/15 18:00
B3-2.5	1500099-11	Soil	1/09/15 11:15	1/09/15 18:00
B3-3.5	1500099-12	Soil	1/09/15 11:22	1/09/15 18:00
B4-0	1500099-13	Soil	1/09/15 11:36	1/09/15 18:00
B4-1.0	1500099-14	Soil	1/09/15 11:43	1/09/15 18:00
B4-2.5	1500099-15	Soil	1/09/15 11:50	1/09/15 18:00
B4-3.5	1500099-16	Soil	1/09/15 11:53	1/09/15 18:00
B5-0	1500099-17	Soil	1/09/15 12:41	1/09/15 18:00
B5-1.0	1500099-18	Soil	1/09/15 12:46	1/09/15 18:00
B5-2.5	1500099-19	Soil	1/09/15 12:50	1/09/15 18:00
B5-3.5	1500099-20	Soil	1/09/15 12:55	1/09/15 18:00
B6-0	1500099-21	Soil	1/09/15 13:20	1/09/15 18:00
B6-1.0	1500099-22	Soil	1/09/15 13:21	1/09/15 18:00
B6-2.5	1500099-23	Soil	1/09/15 13:30	1/09/15 18:00
B6-3.5	1500099-24	Soil	1/09/15 13:35	1/09/15 18:00

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.	Project Number : I-5 Near I-5 and I-405 Junction, S9890-06-06
3303 N. San Fernando Blvd., Suite 100	Report To : Mike Conkle
Burbank , CA 91504	Reported : 01/19/2015

Lead by ICP-AES EPA 6010B

Analyte: Lead **Analyst: RR**

Laboratory ID	Client Sample ID	Result	Units	PQL	MDL	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1500099-01	B1-0	**5.6**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 11:55	
1500099-02	B1-1.0	**33**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 11:56	
1500099-03	B1-2.5	**5.9**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 11:57	
1500099-04	B1-3.5	**4.7**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:19	
1500099-05	B2-0	**4.3**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 11:58	
1500099-06	B2-1.0	**4.0**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 11:59	
1500099-07	B2-2.5	**4.4**	mg/kg	0.99	0.07	1	B5A0321	01/15/2015	01/16/15 12:00	
1500099-08	B2-3.5	**4.9**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:02	
1500099-09	B3-0	**11**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:03	
1500099-10	B3-1.0	**10**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:04	
1500099-11	B3-2.5	**16**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:06	
1500099-12	B3-3.5	**13**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:07	
1500099-13	B4-0	**17**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:08	
1500099-14	B4-1.0	**14**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:08	
1500099-15	B4-2.5	**5.0**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:09	
1500099-16	B4-3.5	**6.9**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:12	
1500099-17	B5-0	**19**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:13	
1500099-18	B5-1.0	**11**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:14	
1500099-19	B5-2.5	**3.2**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:15	
1500099-20	B5-3.5	**2.5**	mg/kg	1.0	0.07	1	B5A0321	01/15/2015	01/16/15 12:16	
1500099-21	B6-0	**8.5**	mg/kg	1.0	0.07	1	B5A0323	01/15/2015	01/16/15 12:25	
1500099-22	B6-1.0	**9.8**	mg/kg	1.0	0.07	1	B5A0323	01/15/2015	01/16/15 12:26	
1500099-23	B6-2.5	**7.4**	mg/kg	1.0	0.07	1	B5A0323	01/15/2015	01/16/15 12:27	
1500099-24	B6-3.5	**26**	mg/kg	1.0	0.07	1	B5A0323	01/15/2015	01/16/15 12:27	

Certificate of Analysis

Geocon West, Inc.	Project Number : I-5 Near I-5 and I-405 Junction, S9890-06-06
3303 N. San Fernando Blvd., Suite 100	Report To : Mike Conkle
Burbank , CA 91504	Reported : 01/19/2015

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 B5A0321 - EPA 3050 Modified_S									
Blank (B5A0321-BLK1)					Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	0.226508	1.0			NR				J
Blank (B5A0321-BLK2)					Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	ND	1.0			NR				
LCS (B5A0321-BS1)					Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	49.3891	1.0	50.0000		98.8	80 - 120			
Duplicate (B5A0321-DUP1)		**Source: 1500099-20**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	2.57912	1.0		2.48847	NR		3.58	20	
Duplicate (B5A0321-DUP2)		**Source: 1500099-10**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	10.6777	0.99		10.2602	NR		3.99	20	
Matrix Spike (B5A0321-MS1)		**Source: 1500099-20**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	184.793	1.0	250.000	2.48847	72.9	33 - 134			
Matrix Spike (B5A0321-MS2)		**Source: 1500099-10**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	192.662	1.0	250.000	10.2602	73.0	33 - 134			
Matrix Spike Dup (B5A0321-MSD1)		**Source: 1500099-20**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	186.862	1.0	250.000	2.48847	73.7	33 - 134	1.11	20	
Batch B5A0323 - EPA 3050 Modified_S									
Blank (B5A0323-BLK1)					Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	ND	1.0			NR				
Blank (B5A0323-BLK2)					Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	0.154536	1.0			NR				J
LCS (B5A0323-BS1)					Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	47.9526	1.0	50.0000		95.9	80 - 120			
Duplicate (B5A0323-DUP1)		**Source: 1500153-20**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	93.8318	1.0		127.936	NR		30.8	20	R
Duplicate (B5A0323-DUP2)		**Source: 1500153-11**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	49.6979	1.0		21.4479	NR		79.4	20	R
Matrix Spike (B5A0323-MS1)		**Source: 1500153-20**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	389.776	1.0	250.000	127.936	105	33 - 134			
Matrix Spike (B5A0323-MS2)		**Source: 1500153-11**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	139.009	0.99	247.525	21.4479	47.5	33 - 134			

Certificate of Analysis

Geocon West, Inc.	Project Number : I-5 Near I-5 and I-405 Junction, S9890-06-06
3303 N. San Fernando Blvd., Suite 100	Report To : Mike Conkle
Burbank , CA 91504	Reported : 01/19/2015

Lead by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5A0323 - EPA 3050 Modified_S (continued)									
Matrix Spike Dup (B5A0323-MSD1)		**Source: 1500153-20**			Prepared: 1/15/2015 Analyzed: 1/16/2015				
Lead	309.559	1.0	250.000	127.936	72.6	33 - 134	22.9	20	R

Certificate of Analysis

Geocon West, Inc.	Project Number : I-5 Near I-5 and I-405 Junction, S9890-06-06
3303 N. San Fernando Blvd., Suite 100	Report To : Mike Conkle
Burbank , CA 91504	Reported : 01/19/2015

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.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport: ☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:

Sample Conditions Upon Receipt

Condition	Y	N	Condition	Y	N
1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.9	
4. SEALED	☐	☑			

CUSTOMER

Company: Geocon
Address: 3303 N. San Fernando Blvd Ste 100
City: Burbank State: CA Zip: 91504
Tel: 818-841-8388 Fax: 818-841-1724

SEND REPORT TO:
Attn: Mike Antcliff Email:
Company: Geocon
Address: 3303 N. San Fernando Blvd Ste 100
City: Burbank State: CA Zip: 91504

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Same Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: S9890-06-06
Project No.: S9890-06-06
Sampler: Mike Alcoto
Quote No:
PO #:
Special Instructions/Comments: 2-EDF and 1-PDF to Jonathan

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15 Lead	SOIL/SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1500099-1	B1 – 0.	1/9/15	0946								X	X					5	1	5	1		
2	-2	B1 – 1.0		0948								X	X										
3	-3	B1 – 2.5		1002								X	X										
4	-4	B1 – 3.5		1002								X	X										
5	-5	B2 – 0		1026								X	X										
6	-6	B2 – 1.0		1030								X	X										
7	-7	B2 – 2.5		1033								X	X										
8	-8	B2 – 3.5		1038								X	X										
9	-9	B3 – 0		1052								X	X										
10	-10	B3 – 1.0		1058								X	X										

Encircle or Write Requested Analysis

Encircle Sample Matrix

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Mike Alcoto — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Mike Alcoto	1/9/15	1800	Edward Rodriguez	1/9/15	1800
Edward Rodriguez	1/9/15	1930		1/9/15	1930

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport: ☐ Client ☐ FedEx ☐ GSO ☐ Other: ☐ Air ☐ OnTrac

Sample Conditions Upon Receipt

Condition	Y	N	Condition	Y	N
1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.9	
4. SEALED	☐	☑			

CUSTOMER

Company: Geocon
Address: 3303 N. San Fernando Blvd Ste 110
City: San Bernardino State: CA Zip: 91504 Tel: 818-841-8388 Fax: 818-841-1724

SEND REPORT TO:
Attn: Mike Conkle
Email:
Company: Geocon
Address: 3303 N. San Fernando Blvd Ste 110
City: San Bernardino State: CA Zip: 91504

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Same
Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: I-5 Pkwy I-5 and I-405 Junction
Project No.: S9890-06-06
Sampler: Mike Alcoto
Quote No:
PO #:
Special Instructions/Comments:

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15 Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: TAT; # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Ziplar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	SOIL / SEDIMENT / SLUDGE	TAT	#	Type	Material	REMARKS
1	1500099-11	B3-2.5	1/9/15	1115	X	5	1	5	1	
2	-12	B3-3.5		1122			1			
3	-13	B4-0		1136			1			
4	-14	B4-1.0		1143			1			
5	-15	B4-2.5		1152			1			
6	-16	B4-3.5		1153			1			
7	-17	B5-1.0		1241			1			
8	-18	B5-1.0		1246			1			
9	-19	B5-2.5		1250			1			
10	-20	B5-3.5	↓	1255	↓	↓	1	↓	↓	

TERMS

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Mike Alcoto — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Mike Alcoto	1/9/15	1800	Edward Rodriguez	1/9/15	1800
Edward Rodriguez	1/9/15	1930	FEDEX	1/9/15	1930

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport: ☐ Client ☒ ATL ☐ FedEx ☐ OnTrac ☐ GSO ☐ Other:

Sample Conditions Upon Receipt

Condition	Y	N	Condition	Y	N
1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5 - 4	
4. SEALED	☐	☐			

CUSTOMER

Company: Geocon — Address: 3303 N. San Fernando Blvd Ste 100 — Tel: 818-841-8388

City: Burbank — State: CA — Zip: 91504 — Fax: 818-841-7510

SEND REPORT TO: Attn: Mike Conkle — Email:

Company: Geocon

Address: 3303 N. San Fernando Blvd Ste 100

City: Burbank — State: CA — Zip: 91504

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: — Email:

Company:

Address:

City: — State: — Zip:

PROJECT SAMPLES

Project Name: I-5 and I-405 Junction

Project No.: 07890-06-06

Samples: Mike Hicks

Quote No:

PO #:

Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1500099-21	B6-0	1/9/15	1320
2	-22	B6-1.0		1321
3	-23	B6-2.5		1330
4	-24	B6-3.5		1335
5				
6				
7				
8				
9				
10				

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Lead

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ITEM	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	5	1	5	1		
2	5	1				
3	5	1				
4	5	1	V	4		

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

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As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Mike Hicks — Submitter Print Name — Signature

CUSTODY

	Date	Time
Relinquished by: (Signature and Printed Name) Mike Hicks	1/9/15	1800
Relinquished by: (Signature and Printed Name) Edward Rodriguez	1/9/15	1930
Relinquished by: (Signature and Printed Name)		

	Date	Time
Received by: (Signature and Printed Name) Edward Rodriguez	1/9/15	1800
Received by: (Signature and Printed Name) FEDEX	1/9/15	1930
Received by: (Signature and Printed Name)		