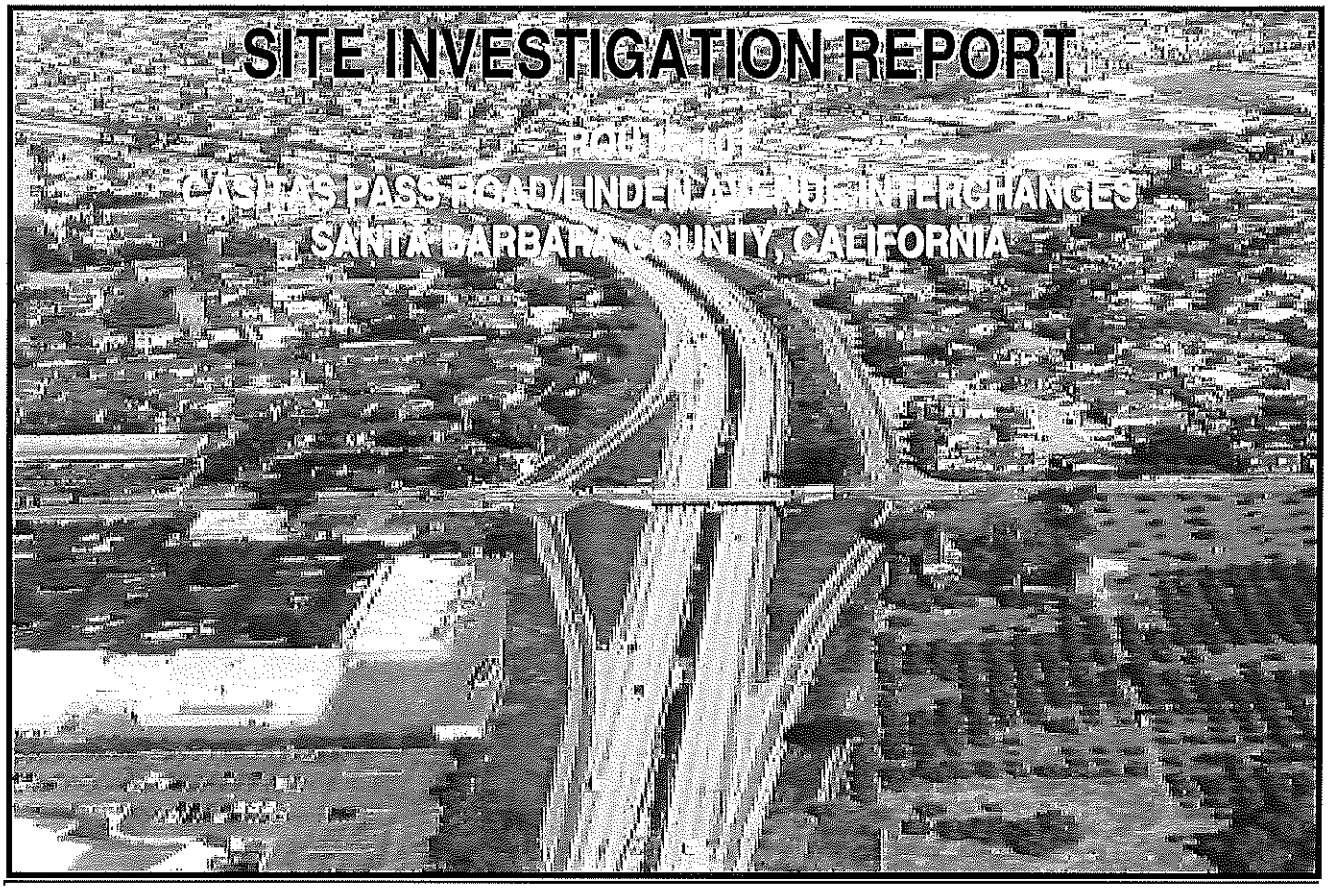

SITE INVESTIGATION REPORT

ROUTE 101
CASITAS PASS ROAD/LINDEN AVENUE INTERCHANGES
SANTA BARBARA COUNTY, CALIFORNIA

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 5
ENVIRONMENTAL ENGINEERING BRANCH
50 HIGUERA STREET
SAN LUIS OBISPO, CALIFORNIA

Caltrans

PREPARED BY:

GEOCON CONSULTANTS, INC.
2356 RESEARCH DRIVE
LIVERMORE, CALIFORNIA

GEOCON

CONTRACT NO. 43A0012
TASK ORDER NO. 05-448200-GI
GEOCON PROJECT NO. E8000-06-33

JUNE 2001

GEOCON
CONSULTANTS, INC.
ENVIRONMENTAL ■ GEOTECHNICAL ■ MATERIALS

Project No. E8000-06-33
June 28, 2001

James Tkach, Contract Manager
California Department of Transportation
District 5
50 Higuera Street
San Luis Obispo, California 93401-5415

Subject: SITE INVESTIGATION REPORT
ROUTE 101 – CASITAS PASS/LINDEN AVENUE INTERCHANGES
SANTA BARBARA COUNTY, CALIFORNIA
CONTRACT NO. 43A0012, TASK ORDER NO. 05-448200-GI

Dear Mr. Tkach:

In accordance with Caltrans Contract No. 43A0012 and Task Order No. 05-448200-GI, Geocon Consultants, Inc. has performed environmental engineering services at the project site. The project site consists of the north and southbound shoulders, median, and overcrossings on Route 101 from 300 meters south of the Carpinteria Creek Bridge to 400 meters north of the Linden Avenue overcrossing (K.P. 3.5 to 5.3) in southern Santa Barbara County, California.

The accompanying report summarizes the services performed including the advancement of hand-auger boreholes, limited soil sampling, and laboratory testing.

The contents of this report reflect the views of Geocon Consultants, Inc., who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

If there are any questions concerning the contents of this report, or if Geocon may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

Ross J. White
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(10) Addressee

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EXECUTIVE SUMMARY

This Site Investigation report for the Route 101 – Casitas Pass/Linden Avenue Interchanges was prepared under Caltrans Contract No. 43A0012 and Task Order (TO) No. 05-448200-GI.

The project site consists of the north and southbound shoulders, median, and overcrossings on Route 101 from 300 meters south of the Carpinteria Creek Bridge to 400 meters north of the Linden Avenue overcrossing (K.P. 3.5 to 5.3) in southern Santa Barbara County, California. Proposed improvements include median, shoulder, on-ramp, off-ramp, and overcrossing modifications.

The purpose of the scope of work performed by Geocon was to evaluate the extent of lead-impacted soil within the excavation and clearing/grubbing boundaries for the proposed modifications. The investigative results will be used by Caltrans to inform the contractor performing the modifications of the presence of lead-impacted soil within the project boundaries for health, safety, and waste management purposes. Note that by the time the construction activities commence, Caltrans, District 5 may obtain a variance from the Department of Toxic Substances Control (DTSC) that would allow for the re-use of lead-impacted soil with certain restrictions.

On May 9 through May 11, 2000 soil samples were collected from various areas along the median, southbound shoulder, abutments, and ramps. On August 31, 2000 additional borings were advanced to evaluate the lateral extent of lead-impacted soil adjacent to the southbound and northbound shoulders. To evaluate the depth of lead impacts, soil samples were collected at depths ranging from the surface to approximately 1.5 meters (5 feet) below the ground surface (bgs). To evaluate the lateral extent of lead impacts, borings were located at various distances from the edge of pavement.

The soil samples obtained from the borings were placed in re-sealable plastic bags. The bags were labeled and placed in containers for transport to the analytical laboratory, utilizing standard chain-of-custody documentation.

The laboratory analyses performed are summarized below:

- All soil samples were analyzed for total lead following EPA Test Method 6010;
- Thirty soil samples, chosen at random, were tested for soil pH following EPA Test Method 9045; and
- Select soil samples were analyzed for soluble lead via the waste extraction test (WET) using citric acid as the extractant, the waste extraction test using deionized water as the extractant (WET-DI), and the toxicity characteristics leaching procedure (TCLP).

The laboratory reports indicated the following:

- Total lead concentrations ranged from 2.1 to 1050 mg/kg. Eighty-three of the 322 soil samples analyzed for total lead exhibited total lead concentrations greater than 50 mg/kg.
- Soluble lead (WET) concentrations ranged from 1.7 to 56 milligrams per liter (mg/l). Fifty-five of the 60 soil samples analyzed for soluble lead via the WET exhibited soluble lead concentrations greater than the lead STLC of 5.0 mg/l.

- Soluble lead (WET-DI) concentrations ranged from less than the laboratory reporting limit of 0.15 mg/l to 0.23 mg/l. These soluble lead concentrations are less than the DTSC variance threshold of 0.50 mg/l.

- Soluble lead (TCLP) concentrations ranged from 0.49 to 1.3 mg/l. These soluble lead concentrations are less than the Federal threshold of 5.0 mg/l for soluble lead.

Soil waste classification was performed in accordance with an EPA document entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition* (SW-846) as recommended by Julia Turney with Caltrans. The statistical methods were also applied to evaluate the correlation between total and soluble (WET) lead.

The 90% and 95% UCLs of the true mean are defined as the values that, when calculated repeatedly for randomly drawn subsets of site data, equal or exceed the true mean 90% and 95% of the time, respectively. According to a statistics guidance letter prepared by Caltrans and dated February 5, 1998, the 90% UCL (80% confidence interval) is applicable if the soil will be re-used on-site, and the 95% UCL is applicable if the soil will be relinquished to the contractor for re-use or disposal.

The 90% and 95% UCLs were calculated for each depth that soil samples were collected at each interval measured from the edge of the pavement. The UCLs were calculated for each data set and have been combined using weighted averages to evaluate different soil mixing scenarios for soil samples collected from the following areas:

- Soil samples collected along on-ramps and off-ramps;
- Soil samples collected at the Casitas Pass and Linden Avenue Overcrossing abutments;
- Soil samples collected in the vicinity of Ogan Road;
- Soil samples collected adjacent to the southbound median;
- Soil samples collected adjacent to the southbound shoulder; and
- Soil samples collected adjacent to the northbound shoulder.

To estimate the degree of interrelation between total and corresponding soluble (WET) lead values (x and y, respectively), the *correlation coefficient [r]* is used (see Davis pg. 40). The *correlation coefficient* was calculated for the 60 (x, y) data points and indicated that an acceptable correlation between total and soluble lead concentrations exists for data collected from the subject site.

Since the *correlation coefficient* indicates that a linear relationship exists between total and soluble (WET) lead concentrations, it is possible to compute the line of dependence, or a best-fit line between the two variables (i.e., regression line). The equation of the regression line was determined to be $y = 0.0784x$, where x represents total lead concentrations and y represents predicted soluble lead (WET) concentrations. This equation was used to estimate the expected soluble lead (WET) concentrations for the 90% and 95% UCLs.

The following sections summarize the total lead UCLs, predicted soluble (WET) lead concentrations that correspond with the UCLs, and the waste classification (95% UCLs) for soil generated from the areas investigated based on varying excavation scenarios. In addition, the re-use of soil excavated for each scenario has been evaluated based on DTSC requirements (90% UCLs) for the Caltrans variance. It is likely that if the DTSC grants a variance to Caltrans District 5 the re-use options will be similar.

Soil Along On-ramps and Off-ramps

The following table summarizes how soil waste is expected to be classified if soil re-use is not an option.

Table E.1A
Excavation Scenarios if Soil Will be Disposed of as a Waste

Excavation Scenario	95% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	129 mg/kg	10 mg/l	**California-hazardous**
Remaining Soil (1 to 3 ft)	7.6 mg/kg	0.60 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	69 mg/kg	5.4 mg/l	**California-hazardous**
Remaining Soil (2 to 3 ft)	6.1 mg/kg	0.48 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	48 mg/kg	3.8 mg/l	Non-hazardous

Based on the information in Table E.1A, if excavations are less than 0.9 meter (3 feet) in depth, the soil would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentrations for Scenarios A and B are greater than the lead STLC of 5.0 mg/l. If excavations are at least 0.9 meter (3 feet) in depth, the soil would not likely be classified as a California-hazardous waste and could be disposed of as such.

The following table summarizes how soil waste is expected to be classified if the soil will be re-used on-site or within the Route 101 corridor.

Table E.1B
Excavation Scenarios if Soil Will Re-used

Excavation Scenario	90% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	100 mg/kg	7.8 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (1 to 3 ft)	6.5 mg/kg	0.51 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	54 mg/kg	4.2 mg/l	Non-hazardous
Remaining Soil (2 to 3 ft)	5.3 mg/kg	0.42 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	38 mg/kg	3.0 mg/l	Non-hazardous

Based on the information in Table E.1B, if excavations are less than 0.6 meter (2 feet) in depth, the soil would likely be classified as a California-hazardous waste since the predicted soluble lead concentration for Scenarios A is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL for Scenario A is less than the HSC threshold of 350 mg/kg, the soil generated from excavation Scenario A could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If excavations are at least 0.6 meter (2 feet) in depth (i.e., Scenarios B and C), the soil would not likely be classified as a California-hazardous waste and could be re-used without restrictions.

Soil at the Casitas Pass and Linden Avenue Overcrossing Abutments

The following table summarizes how soil waste is expected to be classified if soil re-use is not an option.

Table E.2A
Excavation Scenarios if Soil Will be Disposed of as a Waste

Excavation Scenario	95% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	231 mg/kg	18 mg/l	**California-hazardous**
Remaining Soil (1 to 4 ft)	32 mg/kg	2.5 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	151 mg/kg	12 mg/l	**California-hazardous**
Remaining Soil (2 to 4 ft)	14 mg/kg	1.1 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	105 mg/kg	8.2 mg/l	**California-hazardous**
Remaining Soil (3 to 4 ft)	13 mg/kg	1.0 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	82 mg/kg	6.4 mg/l	**California-hazardous**

Based on the information in Table E.2A, soil waste generated from all four excavation scenarios would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentrations for Scenarios A through D are greater than the lead STLC of 5.0 mg/l. Geocon recommends using excavation Scenario A since after removing the top 0.3 meter (1 foot) of soil, the underlying soil (1 to 4 feet if mixed together) would not likely be classified as a California-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l

The following table summarizes how soil waste is expected to be classified if the soil will be re-used on-site or within the Route 101 corridor.

Table E.2B
Excavation Scenarios if Soil Will be Re-used

Excavation Scenario	90% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	220 mg/kg	17 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (1 to 4 ft)	29 mg/kg	2.3 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	141 mg/kg	11 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (2 to 4 ft)	13 mg/kg	1.0 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	98 mg/kg	7.7 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (3 to 4 ft)	12 mg/kg	0.94 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	77 mg/kg	6.0 mg/l	**California-hazardous (Variance Applicable)**

Based on the information in Table E.2B, soil waste generated from all four excavation scenarios would likely be classified as a California-hazardous waste since the predicted soluble lead concentrations for Scenarios A through D are greater than the lead STLC of 5.0 mg/l. Since the 90% UCL for all the excavation Scenarios (A through D) are less than the HSC threshold of 350 mg/kg, the soil generated from excavation Scenarios A through D could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

Another option would be to use excavation scenario A. If excavation Scenario A is used, the top 0.3 meter (1 foot) of soil could be re-used in accordance with the variance. The underlying soil (1 to 4 feet), if mixed together, could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

Soil in the Vicinity of Ogan Road

The following table summarizes how soil waste is expected to be classified if soil re-use is not an option.

Table E.3A
Excavation Scenarios if Soil Will be Disposed of as a Waste

Excavation Scenario	95% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	57 mg/kg	4.5 mg/l	Non-hazardous
Remaining Soil (1 to 4 ft)	8.8 mg/kg	0.69 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	34 mg/kg	2.7 mg/l	Non-hazardous
Remaining Soil (2 to 4 ft)	8.2 mg/kg	0.64 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	24 mg/kg	1.9 mg/l	Non-hazardous
Remaining Soil (3 to 4 ft)	10 mg/kg	0.78 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	21 mg/kg	1.6 mg/l	Non-hazardous

Based on the information in Table E.3A, soil waste generated from all four excavation scenarios would likely be classified as a non-hazardous waste and could be disposed of as such since the predicted soluble lead concentrations for Scenarios A through D are less than the lead STLC of 5.0 mg/l.

The following table summarizes how soil waste is expected to be classified if the soil will be re-used on-site or within the Route 101 corridor.

Table E.3B
Excavation Scenarios if Soil Will be Re-used

Excavation Scenario	90% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	44 mg/kg	3.4 mg/l	Non-hazardous
Remaining Soil (1 to 4 ft)	7.2 mg/kg	0.56 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	26 mg/kg	2.0 mg/l	Non-hazardous
Remaining Soil (2 to 4 ft)	6.8 mg/kg	0.53 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	19 mg/kg	1.5 mg/l	Non-hazardous
Remaining Soil (3 to 4 ft)	7.9 mg/kg	0.62 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	16 mg/kg	1.3 mg/l	Non-hazardous

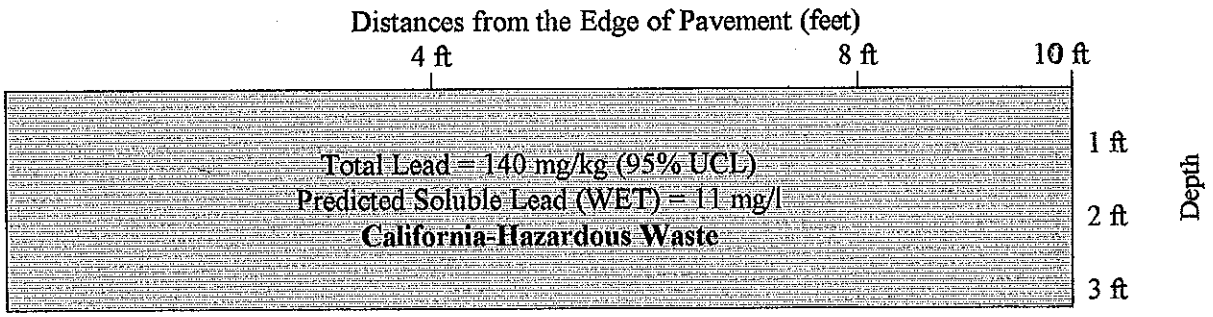
Based on the information in Table E.3B, soil waste generated from all four excavation scenarios would likely be classified as a non-hazardous waste since the predicted soluble lead concentrations for

Scenarios A through D are less than the lead STLC of 5.0 mg/l. Consequently, soil generated from any of the excavation scenarios could be re-used as clean fill material.

Soil Adjacent to the Southbound Median

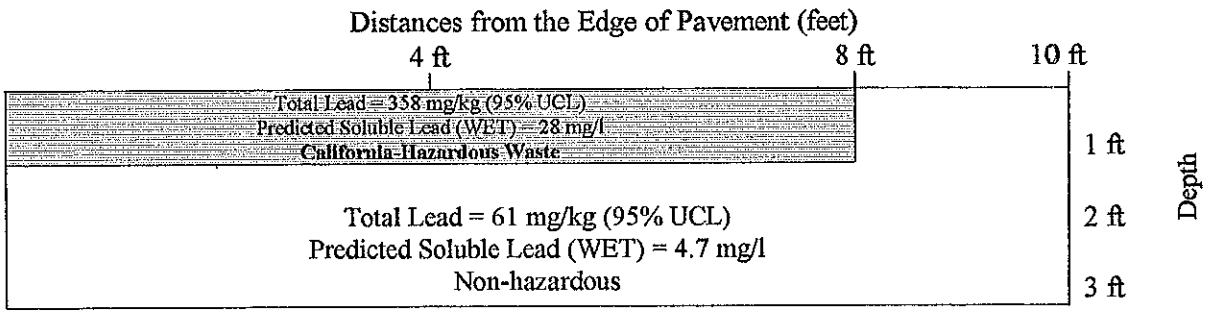
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if soil re-use is not an option.

Chart E.4A
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Disposed of as a Waste



If the soil will be treated as one unit (Excavation Scenario A), Chart E.4A indicates that the soil waste would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

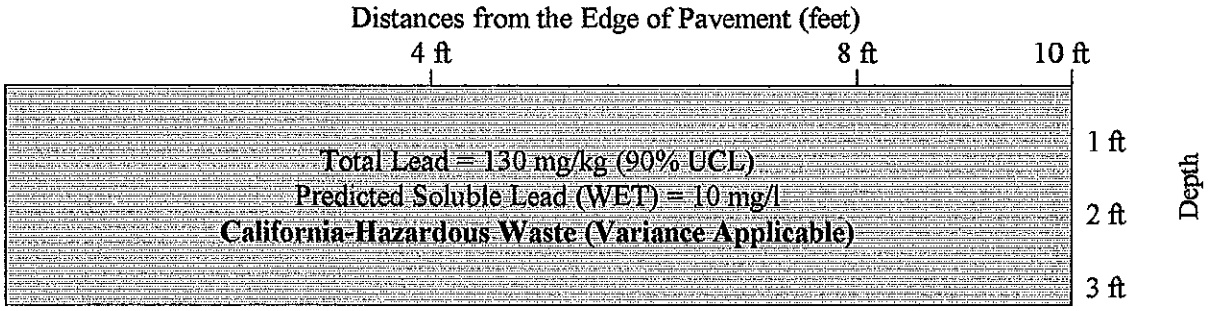
Chart E.4B
Excavation Scenario B – Segregate Soil – Soil Will be Disposed of as a Waste



Excavation scenario B, summarized above in Chart E.4B, indicates that the top 0.3 meter (1 foot) of soil from the edge of pavement to 2.4 meters (8 feet) from the edge of pavement would be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. If this soil is removed, Chart E.4B indicates that the remaining soil (if mixed together) could be disposed of as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

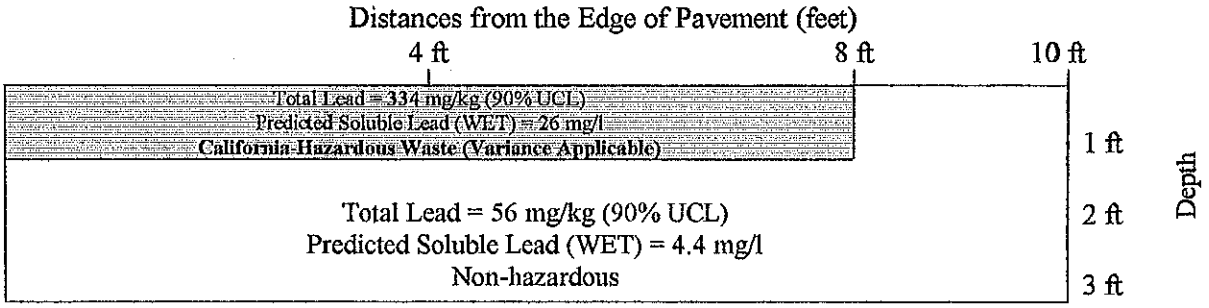
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if the soil will be re-used on-site or within the Route 101 corridor.

Chart E.4C
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Re-used



If the soil will be treated as one unit (Excavation Scenario A), Chart E.4C indicates that the soil waste would likely be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is less than the HSC threshold of 350 mg/kg, the soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

Chart E.4D
Excavation Scenario B – Segregate Soil – Soil will be Re-Used



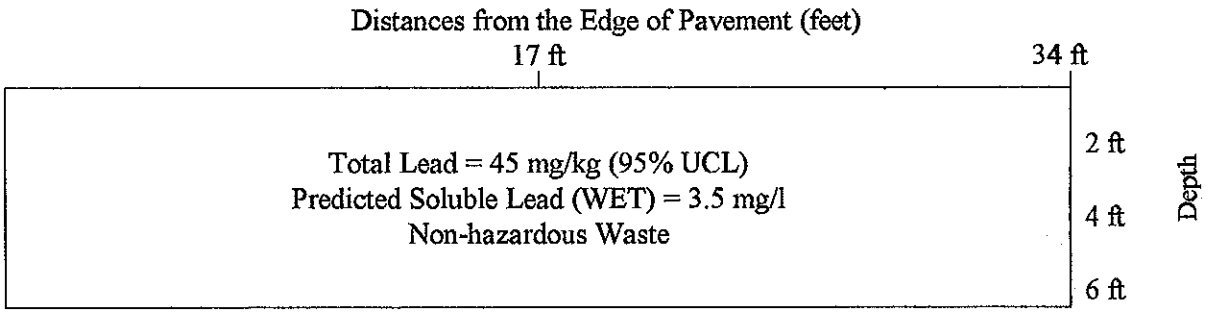
Excavation scenario B, summarized above in Chart E.4D, indicates that the top 0.3 meter (1 foot) of soil from the edge of pavement to 2.4 meters (8 feet) from the edge of pavement would be classified as a California-hazardous waste. Since the 90% UCL is 334 mg/kg and is less than the HSC threshold of 350 mg/kg, this soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If the top 0.3 meter (1 foot) of soil from the edge of pavement to 2.4 meters (8 feet) from the edge of pavement is removed, Chart E.4D indicates that the remaining soil (if mixed together) could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

Soil Samples Collected Adjacent to the Southbound Shoulder

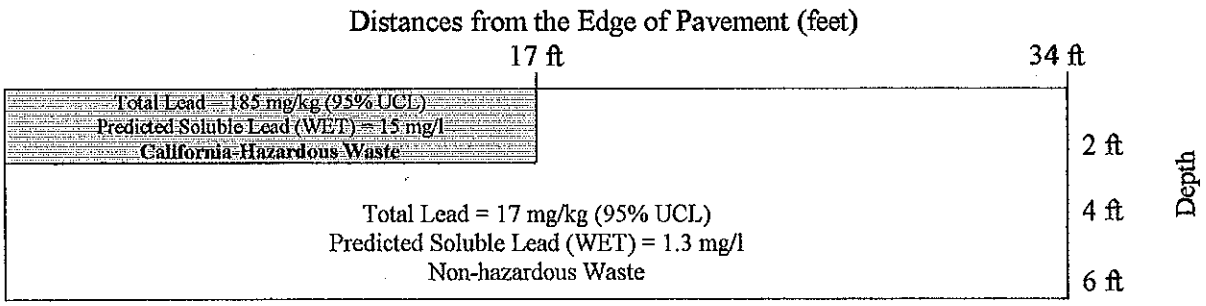
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if soil re-use is not an option.

Chart E.5A
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Disposed of as a Waste



If the soil will be treated as one unit (Excavation Scenario A), Chart E.5A indicates that, if all the soil is mixed together, the soil waste would likely be classified as a non-hazardous waste and could be disposed of as such since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

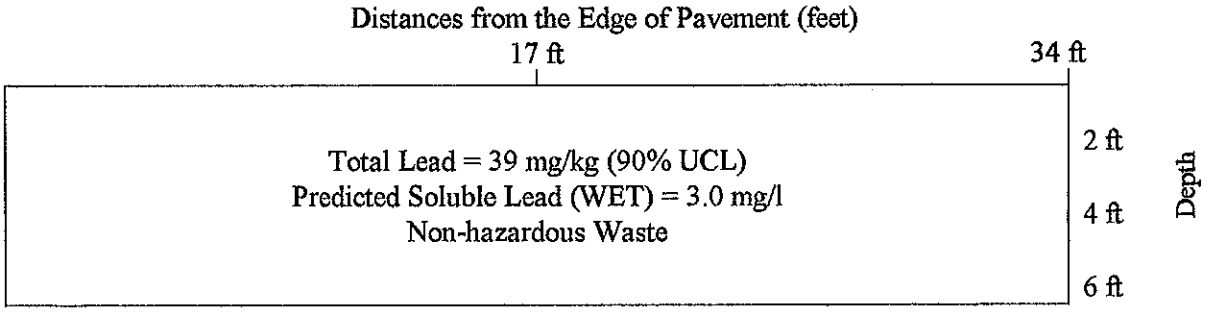
Chart E.5B
Excavation Scenario B – Segregate Soil – Soil Will be Disposed of as a Waste



Excavation scenario B, summarized above in Chart E.5B, indicates that the top 0.6 meter (2 feet) of soil from the edge of pavement to 5.2 meters (17 feet) from the edge of pavement would be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. If this soil is removed, Chart E.5B indicates that the remaining soil (if mixed together) could be disposed of as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

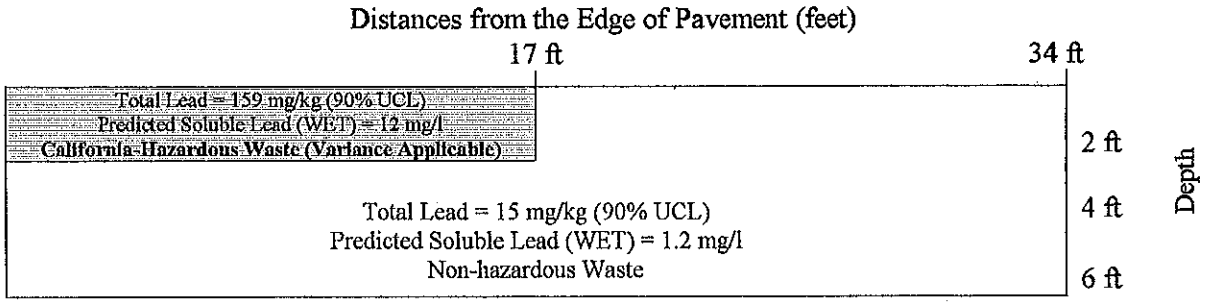
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if the soil will be re-used on-site or within the Route 101 corridor.

Chart E.5C
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Re-used



If the soil will be treated as one unit (Excavation Scenario A), Chart E.5C indicates that, if all the soil is mixed together, the soil waste would likely be classified as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l. Consequently, the soil could be re-used on-site or within the Route 101 corridor as clean fill material.

Chart E.5D
Excavation Scenario B – Segregate Soil – Soil Will be Re-used



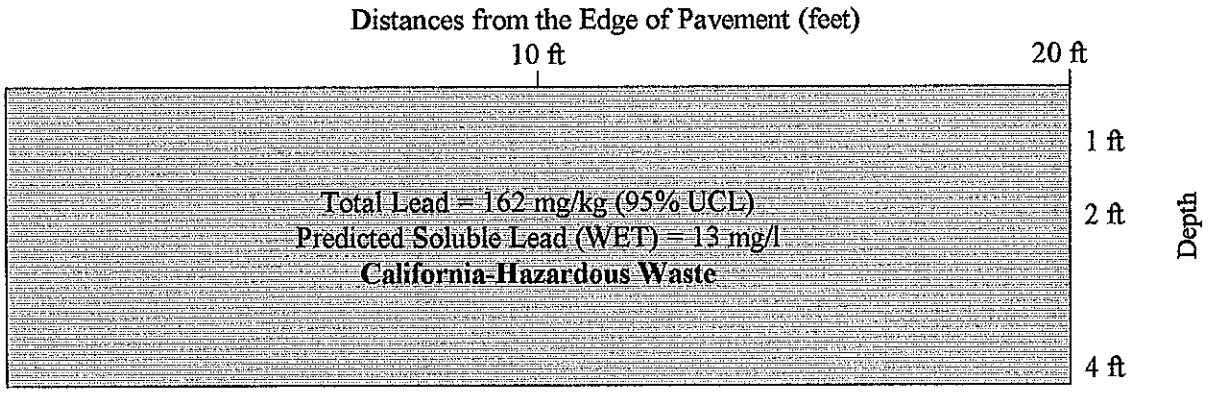
Excavation scenario B, summarized above in Chart E.5D, indicates that the top 0.6 meter (2 feet) of soil from the edge of pavement to 5.2 meters (17 feet) from the edge of pavement would be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is 159 mg/kg and is less than the HSC threshold of 350 mg/kg, this soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If the top 0.6 meter (2 feet) of soil from the edge of pavement to 5.2 meters (17 feet) from the edge of pavement is removed, Chart E.5D indicates that the remaining soil (if mixed together) could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

Soil Samples Collected Adjacent to the Northbound Shoulder

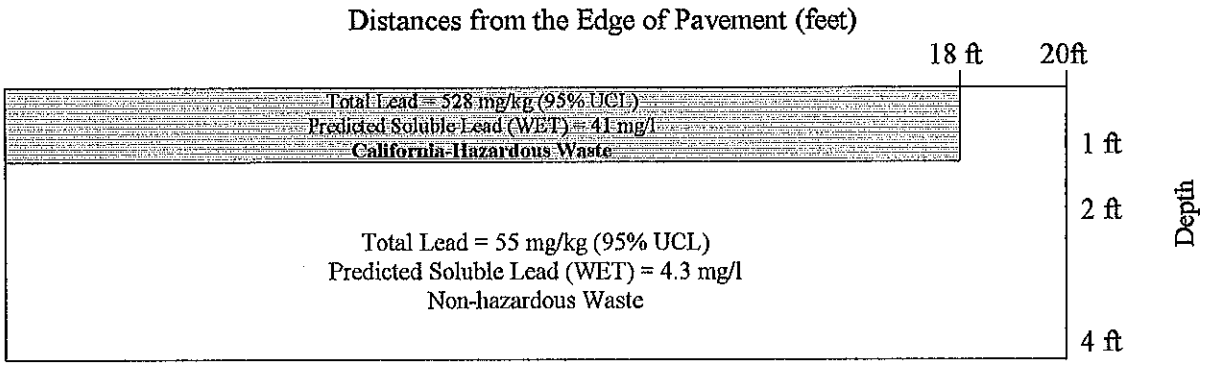
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if soil re-use is not an option.

Chart E.6A
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Disposed of as a Waste



If the soil will be treated as one unit (Excavation Scenario A), Chart E.6A indicates that, if all the soil is mixed together, the soil waste would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

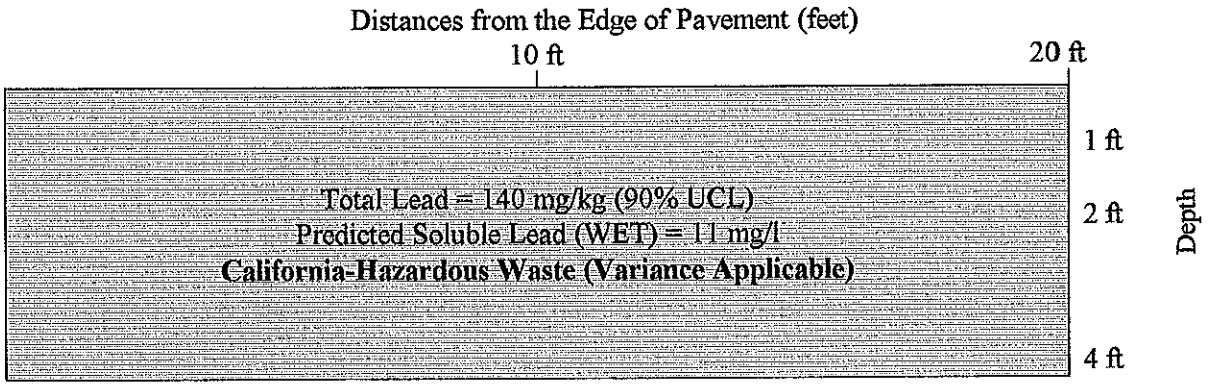
Chart E.6B
Excavation Scenario B – Segregate Soil – Soil will be Disposed of as a Waste



Excavation scenario B, summarized above in Chart E.6B, indicates that the top 0.3 meter (1 foot) of soil from the edge of pavement to 5.5 meters (18 feet) from the edge of pavement would be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. If this soil is removed, Chart E.6B indicates that the remaining soil (if mixed together) could be disposed of as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

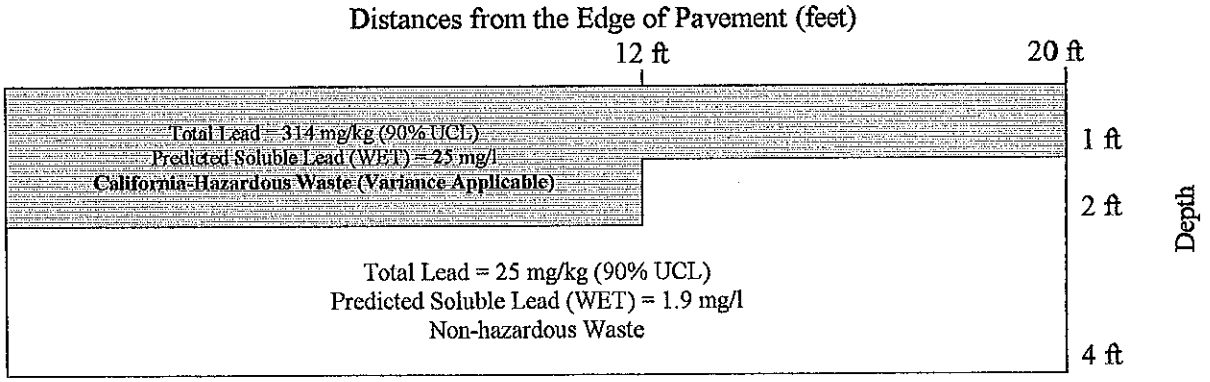
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if the soil will be re-used on-site or within the Route 101 corridor.

Chart E.6C
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Re-used



If the soil will be treated as one unit (Excavation Scenario A), Chart E.6C indicates that, if all the soil is mixed together, the soil waste would likely be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is less than the HSC threshold of 350 mg/kg, the soil, if mixed together, could be re-used on-site, or within the Route 101, corridor in accordance with the DTSC variance.

Chart E.6D
Excavation Scenario B – Segregate Soil – Soil Will be Re-used



Excavation scenario B, summarized above in Chart E.6D, indicates that the top 0.6 meter (2 feet) of soil from the edge of pavement to 3.7 meters (12 feet) from the edge of pavement and the top 0.3 meter (1 foot) of soil between 3.7 meters (12 feet) and 6.1 meters (20 feet) from the edge of pavement would be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is 314 mg/kg and is less than the HSC threshold of 350 mg/kg, this soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If the top 0.6 meter (2 feet) of soil from the edge of pavement to 3.7 meters (12 feet) from the edge of pavement and the top 0.3 meter (1 foot) of soil between 3.7 meters (12 feet) and 6.1 meters (20 feet) from the edge of pavement is removed, Chart E.6D indicates that the remaining soil (if mixed together) could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

Risk to Human Health

Based on current and proposed use of the subject site and adjacent properties, it is appropriate to compare the highest calculated UCL to EPA Region 9 Preliminary Remediation Goal (PRG) for lead in industrial soil. PRGs are used to estimate contaminant concentrations in environmental media (soil, air, and water) that are protective of human health, including sensitive groups, over a lifetime. The total lead PRG for industrial soil is 750 mg/kg. Total lead concentrations above the PRG would not automatically trigger a response action or suggest that a significant risk to human health exists. Exceeding a PRG does suggest that further evaluation of the potential risks that may be posed by site contaminants is appropriate.

The highest calculated UCLs for the areas discussed above are less than the PRG of 750 mg/kg. Therefore, it is concluded that lead-impacted soil in the areas investigated does not pose a significant risk to the health of workers performing the construction activities.

SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Site Investigation report for the Route 101 – Casitas Pass/Linden Avenue Interchanges was prepared under Caltrans Contract No. 43A0012 and Task Order (TO) No. 05-448200-GI.

1.1 Site Description and Proposed Improvements

The project site consists of the north and southbound shoulders, median, and overcrossings on Route 101 from 300 meters south of the Carpinteria Creek Bridge to 400 meters north of the Linden Avenue overcrossing (K.P. 3.5 to 5.3) in southern Santa Barbara County, California. Proposed improvements include median, shoulder, on-ramp, off-ramp, and overcrossing modifications. The approximate project location is depicted on the attached Vicinity Map, Figure 1.

1.2 Purpose

The purpose of the scope of work outlined in TO No. 05-448200-GI was to evaluate the extent of lead-impacted soil within the excavation and clearing/grubbing boundaries for the proposed modifications. The investigative results will be used by Caltrans to inform the contractor performing the modifications of the presence of lead-impacted soil within the project boundaries for health, safety, and waste management purposes.

2.0 BACKGROUND

2.1 Potential Lead Impacts

Ongoing testing by Caltrans has indicated that aerial deposited lead exists along major freeway routes due to emissions from vehicles powered by leaded gasoline. Caltrans reports that total lead concentrations in soil adjacent to the freeways have typically ranged between 50 and 3,000 milligrams per kilogram (mg/kg). At sites where soil has not been disturbed, the aerial deposited lead is generally limited to the upper 0.6 meter (2 feet) of soil within unpaved shoulder and median areas.

2.2 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as "California hazardous" for handling and disposal purposes are contained in the *California Code of Regulations (CCR)*, Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as "Resource, Conservation, and Recovery Act (RCRA) hazardous" are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), Section 261.

For a waste containing metals, the waste is classified as "California hazardous" when: 1) the total metal content exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the soluble metal content exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the Waste Extraction Test (WET). A waste containing metals is classified as "RCRA hazardous" when the soluble metal content exceeds the Federal Regulatory Level based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on toxicity. Wastes may also be classified as hazardous based on other criteria such as flammability, reactivity, and ignitability. However, for the purposes of this investigation, toxicity (i.e., lead concentration) is the primary factor considered for waste classification. Based on current and past site usage, on-site soil is not expected to exhibit other hazardous waste characteristics. Waste that is classified as either "California hazardous" or "RCRA hazardous", requires management as a hazardous waste and disposal at an appropriately permitted disposal facility.

Per section 25157.8 of the California Health and Safety Code (HSC), after January 1, 1999, no person shall dispose of waste that contains total lead in excess of 350 mg/kg to land other than a Class I hazardous waste disposal facility. This new requirement applies if surplus soil is generated for off-site disposal.

2.3 DTSC Variance

The Department of Toxic Substances Control (DTSC) issued a variance on September 22, 2000 for select Caltrans Districts regarding the disposition of aerial deposited lead-impacted soils within Caltrans projects. While, as of the date of this report, the DTSC has not issued a variance for Caltrans District 5, Caltrans District 5 has applied for the variance. Review of the variance indicates the following conditions regarding Caltrans' reuse and management of aerial lead impacted soil as fill material for construction and maintenance operations.

Category 1:

Soil exhibiting soluble lead concentrations less than or equal to 0.5 milligrams per liter (mg/l) [based on a modified waste extraction test using deionized water as the extractant (WET-DI)] and total lead concentrations of 350 mg/kg or less may be used as fill provided that the lead-impacted soil is placed a minimum of 1.5 meters (5 feet) above the maximum water table elevation and covered with at least 0.3 meter (1 foot) of clean soil.

Category 2:

Soil exhibiting soluble lead concentrations greater than 0.5 mg/l and less than 50 mg/l (based on the WET-DI) and total lead concentrations less of 350 mg/kg or less may be used as fill provided that the lead-impacted soil is placed a minimum of 1.5 meters (5 feet) above the maximum water table elevation and protected from infiltration by a pavement structure maintained by Caltrans.

Category 3:

Lead-impacted soil with a pH less than 5.0 shall only be used as fill material under the paved portion of the roadway.

If the excavated soil is not intended to be reused within the Caltrans right of way, then hazardous waste determination of the soil is based on total and soluble lead concentrations using the lead TTLC and STLC contained in Title 22 of the *California Code of Regulations* Article 3, Section 66261.24. When the total lead concentration is greater than ten times the lead STLC, regulatory agencies typically initiate the requirement for a solubility test. The solubility test is known as the Waste Extraction Test using acid extract (WET) and it is the results from the WET that are compared to the STLC value. The TTLC value for lead is 1,000 mg/kg and the STLC for lead using acid extract is 5.0 mg/l.

3.0 SCOPE OF SERVICES

The following scope of services was performed as requested by Caltrans in TO No. 05-448200-GI:

3.1 Pre-Field Activities

- A Task Order Meeting was conducted on-site prior to the commencement of the field activities. The purpose of the meeting was to become familiar with the site layout, to review proposed boring locations, and to address worker and public safety issues.
- A Health and Safety Plan, dated April 28, 2000, was prepared to provide guidelines on the use of personal protective equipment and the health and safety procedures to be implemented during the field activities.
- A Workplan, dated April 28, 2000, was prepared to summarize the scope of services to be performed by Geocon.
- Geocon provided 48-hour notification to Underground Service Alert prior to commencement of the field activities.
- Geocon retained the services of Advanced Technology Laboratories (ATL), a California-licensed laboratory, to provide the lead analyses.

3.2 Field Activities

On May 9 through May 11, 2000 soil samples were collected from various areas along the median, southbound shoulder, abutments, and ramps. On August 31, 2000 additional borings were advanced to evaluate the lateral extent of lead-impacted soil adjacent to the southbound and northbound shoulders. The approximate boring locations are depicted on the Site Plans, Figures 2a and 2b. The field activities performed at each area are summarized below.

3.2.1 Median Borings

Thirty-four borings were advanced at 100-meter (328-foot) intervals adjacent to the existing southbound median. Two borings were advanced at each 100-meter interval for the entire length of the subject site (approximately 1600 meters). The two borings at each interval were located either approximately 0.33 and 1.3 meters (1 and 4 feet) or 1.22 and 2.44 meters (4 and 8 feet) from the edge of the pavement. Caltrans maintenance crews provided traffic control consisting of a lane closure during the advancement of the borings.

Each boring was advanced to a maximum depth of approximately 0.6 meter (2 feet) below the ground surface (bgs) utilizing a hand-auger. Soil samples were collected from each boring at the surface and from depths of approximately 0.3 and 0.6 meter (1 and 2 feet) bgs.

3.2.2 Northbound Shoulder Borings

Eleven borings were advanced adjacent to the existing northbound shoulder between Casitas Pass Road and Linden Avenue Overcrossings. The borings were advanced at four general areas at varying lateral distances ranging from 0.9 meter to 5.5 meter (3 feet to 18 feet) from the edge of pavement.

Each boring was advanced to a maximum depth of approximately 0.9 meter (3 feet) bgs utilizing a hand-auger. Soil samples were collected from each boring at the surface and from depths of approximately 0.3, 0.6, and 0.9 meter (1, 2, and 3 feet) bgs.

3.2.3 Southbound Shoulder Borings

Twenty-eight borings were advanced adjacent to the existing southbound shoulder from approximately 100 feet north of the Linden Avenue Overcrossing to approximately 100 meters south of the Casitas Pass Overcrossing. The borings were advanced at nine general areas at varying lateral distances ranging from 0.9 meter to 9.8 meters (3 to 32 feet) from the edge of pavement.

The borings were advanced to depths ranging from approximately 0.6 to 1.5 meters (2 to 5 feet) bgs utilizing a hand-auger. Soil samples were collected from each boring at the surface and from approximately 0.3-meter (1-foot) intervals to the maximum depth of exploration.

3.2.4 On-ramp and Off-ramp Borings

One boring was advanced along the shoulder of the southbound Route 101 off-ramp to Linden Avenue (R1); one boring was advanced along the shoulder of the southbound Route 101 off-ramp to Casitas Pass (R2); and one boring was advanced along the shoulder of the Casitas Pass on-ramp to southbound Route 101 (R3). Each boring was located approximately 6 feet from the edge of the pavement.

Each boring was advanced to a maximum depth of approximately 0.6 meter (2 feet) bgs utilizing a hand-auger. Soil samples were collected from each boring at the surface and from depths of approximately 0.3 and 0.6 meter (1 and 2 feet) bgs.

3.2.5 Other Borings

Two borings were advanced in the vicinity of Ogan Road, four borings were advanced adjacent to the abutments of the Linden Avenue Overcrossing, and four borings were advanced adjacent to the abutments of the Casitas Pass Overcrossings.

Each boring was advanced to a maximum depth of approximately 0.91 meter (3 feet) bgs utilizing a hand-auger. Soil samples will be collected from each boring at the surface and from depths of approximately 0.3, 0.6, and 0.91 meter (1, 2, and 3 feet) bgs.

4.0 INVESTIGATIVE METHODS

4.1 Borehole Location Rationale

The soil borehole locations were designated by Caltrans in areas were excavation and/or clearing/grubbing activities are proposed.

4.2 Sampling Procedures

The soil samples obtained from the borings were placed in re-sealable plastic bags. The bags were labeled and placed in containers for transport to the analytical laboratory.

Completed borings were backfilled to surface grade with soil cuttings. The soil samples were transported to Advanced Technology Laboratories, a California-certified environmental laboratory, utilizing standard chain-of-custody documentation.

Sampling equipment was cleansed between each soil borehole by washing the equipment with an Alconox solution followed by two successive rinses with distilled water. The fieldwork was performed under the direct supervision of Geocon's project manager.

4.3 Laboratory Analyses

As required by the subject TO, Geocon instructed the analytical laboratory to perform laboratory analyses under standard turn-around-time. Reproductions of the laboratory reports and chain-of-custody documentation are presented as Appendix A. The laboratory analyses performed are summarized below:

- All soil samples were analyzed for total lead following EPA Test Method 6010; and
- Thirty soil samples, chosen at random, were tested for soil pH following EPA Test Method 9045.

At the request of Caltrans, 60 of the 83 soil samples that exhibited total lead concentrations greater than 50 mg/kg were analyzed for soluble lead via the WET. Twenty-three of the soil samples that were collected during supplemental sampling activities performed during August 2000 exhibited total lead concentrations greater than 50 mg/kg. These soil samples were not analyzed for soluble lead since an acceptable correlation between total and soluble lead concentrations for soil samples collected at the site had been previously demonstrated. In addition, five soil samples were analyzed for soluble lead via

the WET with deionized water used as the extractant (WET-DI), and four soil samples were analyzed for soluble lead via the TCLP.

QA/QC procedures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC.

The laboratory QA/QC procedures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was more frequent, with spike made at ten times the detection limit or at the analyte level.
- One laboratory control sample for every batch of samples to check the standard used in the calibration curve.

Prior to submitting the soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness.

5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

5.1 Site Geology and Hydrogeology

Soil encountered during the field activities generally consisted of fine to medium sand and clayey sand to the maximum depth of exploration, approximately 1.5 meters (5 feet) bgs. Groundwater was not encountered during the advancement of the boreholes.

5.2 Soil Analytical Results

A summary of the analytical laboratory test results for soil pH, total lead, and soluble lead is presented as Table 1. The laboratory reports indicated the following:

- Total lead concentrations ranged from 2.1 to 1050 mg/kg. Eighty-three of the 322 soil samples analyzed for total lead exhibited total lead concentrations greater than 50 mg/kg.
- Soluble lead (WET) concentrations ranged from 1.7 to 56 milligrams per liter (mg/l). Fifty-five of the 60 soil samples analyzed for soluble lead via the WET exhibited soluble lead concentrations greater than the lead STLC of 5.0 mg/l.
- Soluble lead (WET-DI) concentrations ranged from less than the laboratory reporting limit of 0.15 mg/l to 0.23 mg/l. These soluble lead concentrations are less than the DTSC variance threshold of 0.50 mg/l.
- Soluble lead (TCLP) concentrations ranged from 0.49 to 1.3 mg/l. These soluble lead concentrations are less than the Federal threshold of 5.0 mg/l for soluble lead.

5.3 Statistical Evaluation for Lead Detected in Soil Samples

Statistical methods were applied to the total and soluble lead data to evaluate: 1) the distribution of the total lead data; 2) the upper one-sided confidence limits (UCLs) on the true means of the total lead concentrations for each sampling depth and for each distance from the edge of pavement; and 3) if an acceptable correlation between total and soluble lead concentrations exists that would allow the prediction of soluble lead concentrations based on calculated UCLs. The statistical methods used to calculate the UCLs are provided in an EPA document entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition* (SW-846) as recommended by Julia Turney with Caltrans. The statistical methods for evaluating the correlation between total and soluble (WET) lead are provided in *Statistics and Data Analysis in Geology*, by John Davis.

5.3.1 Total Lead Distribution

The presence of nondetects and/or low concentrations in total lead data can strongly skew sample data towards low values. Classical statistical methods do not work properly in these cases since they assume that the data exhibits an underlying normal distribution. Consequently, it is necessary to evaluate the distribution of the total lead data to apply the appropriate methods when determining the UCLs on the true total lead means. When evaluating the distribution of total lead concentrations, each sampling depth was treated as a separate data set.

According to SW-846, if the variance is greater than the mean, the total lead data may be characterized by a negative binomial distribution; and if the variance and the mean are approximately equal, the total lead data may be assumed to be normally distributed. In the case of a negative binomial distribution, according to SW-846, normality can often be achieved by transforming data by the arcsine transformation. Consequently, for data sets that exhibited a total lead variance greater than the total lead mean, the total lead data was converted into decimal form by dividing the total lead concentrations in each data set by the maximum total lead concentration observed in each data set. This resulted in fractionalized total lead concentrations that ranged from close to zero to 1. The fractionalized data was then transformed by taking the arcsine of the fractionalized data. UCLs were calculated in the next section using the transformed data for data sets that were negative binomially distributed. If the data set contained less than six data points, or if the total lead variance and mean were approximately equal, UCLs were calculated in the next section assuming that the data were normally distributed.

5.3.2 Calculating the UCLs for the True Mean

The 90% and 95% UCLs of the true mean are defined as the values that, when calculated repeatedly for randomly drawn subsets of site data, equal or exceed the true mean 90% and 95% of the time, respectively. According to a statistics guidance letter prepared by Caltrans and dated February 5, 1998, the 90% UCL (80% confidence interval) is applicable if the soil will be re-used on-site, and the 95% UCL (90% confidence interval) is applicable if the soil will be relinquished to the contractor for re-use or disposal.

Statistical confidence limits are the classical tool for addressing uncertainties of a distribution mean. The UCLs of the true mean concentration are used as the mean concentrations because it is not possible to know the true mean due to the essentially infinite number of soil samples that could be collected from the site. The UCLs therefore account for uncertainties due to limited sampling data. As data become less limited at a site, uncertainties decrease and the UCLs move closer to the true mean.

Procedures for obtaining the UCLs were used as described in Chapter 9 of SW-846. UCLs were calculated for each depth that soil samples were collected at each interval measured from the edge of the pavement. The UCLs were calculated for each data set and have been combined using weighted averages to evaluate different soil mixing scenarios for soil samples collected from the following areas:

- Soil samples collected along on-ramps and off-ramps;
- Soil samples collected at the Casitas Pass and Linden Avenue Overcrossing abutments;
- Soil samples collected in the vicinity of Ogan Road;
- Soil samples collected adjacent to the southbound median;
- Soil samples collected adjacent to the southbound shoulder; and
- Soil samples collected adjacent to the northbound shoulder.

The UCLs for different mixing scenarios at on-ramps and off-ramps, at the Casitas Pass and Linden Avenue Overcrossing abutments, and in the vicinity of Ogan Road are presented as a portion of Table 2. The UCLs for ideal mixing scenarios at the southbound median, at the southbound shoulder, and at the northbound shoulder are presented as Tables 3 through 5, respectively.

The UCLs calculated for each area are summarized in the tables below.

Soil Samples Collected Along On-ramps and Off-ramps
Vertical Total Lead Concentrations (mg/kg)

Depth	90% UCL	95% UCL
Surface	100	129
0.3 meter (1 foot)	7.7	9.1
0.6 meter (2 feet)	5.3	6.1

Soil Samples Collected at the Casitas Pass and Linden Avenue Overcrossing Abutments
Vertical Total Lead Concentrations (mg/kg)

Depth	90% UCL	95% UCL
Surface	220	231
0.3 meter (1 foot)	61	70
0.6 meter (2 feet)	13	14
0.9 meter (3 feet)	12	13

Soil Samples Collected in the Vicinity of Ogan Road
Vertical Total Lead Concentrations (mg/kg)

Depth	90% UCL	95% UCL
Surface	44	57
0.3 meter (1 foot)	7.8	10
0.6 meter (2 feet)	5.8	6.3
0.9 meter (3 feet)	7.9	10

Soil Samples Collected Adjacent to the Southbound Median
Vertical and Lateral Total Lead Concentrations (mg/kg)

Depth	Distances from the Edge of Pavement					
	0.3 meter (1 foot)		1.2 meters (4 feet)		2.4 meters (8 feet)	
	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL
Surface	416	450	252	265	219	231
0.3 meter(1 foot)	31	34	59	64	137	155
0.6 meter(2 feet)	9.4	10	26	28	7.2	7.5

Soil Samples Collected Adjacent to the Southbound Shoulder
Vertical and Lateral Total Lead Concentrations (mg/kg)

Depth	Distances from the Edge of Pavement							
	0.9 meter (3 feet)		1.8 meters (6 feet)		2.7 meters (9 feet)		3.7 meters (12 feet)	
	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL
Surface	308	338	236	263	408	495	69	85
0.3 meter (1 foot)	70	86	115	139	58	72	67	85
0.6 meter (2 feet)	25	30	19	22	11	12	22	28
0.9 meter (3 feet)	---	---	---	---	---	---	13	15
1.2 meters (4 feet)	---	---	---	---	---	---	---	---
1.5 meters (5 feet)	---	---	---	---	---	---	---	---
	5.2 meters (17 feet)		6.7 meters (22 feet)		8.2 meters (27 feet)		9.8 meters (32 feet)	
	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL
Surface	51	55	39	43	47	53	32	35
0.3 meter (1 foot)	6.7	7.4	8.7	10	10	12	11	12
0.6 meter (2 feet)	6.9	8.2	4.3	4.4	6.3	7.0	4.8	5.2
0.9 meter (3 feet)	4.8	5.7	5.3	5.8	4.8	5.1	5.5	6.2
1.2 meters (4 feet)	5.1	5.8	---	---	6.2	6.9	---	---
1.5 meters (5 feet)	6.5	8.0	---	---	4.6	4.9	---	---

Note: --- = Samples not collected from this depth

Soil Samples Collected Adjacent to the Northbound Shoulder
Vertical and Lateral Total Lead Concentrations (mg/kg)

Depth	Distances from the Edge of Pavement							
	0.9 meter (3 feet)		1.8 meters (6 feet)		3.7 meters (12 feet)		5.5 meters (18 feet)	
	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL	90% UCL	95% UCL
Surface	814	940	399	434	186	209	125	137
0.3 meter (1 foot)	120	143	115	143	33	39	14	17
0.6 meter (2 feet)	107	134	6.0	6.6	13	15	21	28
0.9 meter (3 feet)	10	12	8.4	9.0	6.0	6.8	7.1	7.8

Since soil samples were collected at both lateral and vertical positions at sampling locations along the southbound median, southbound shoulder, and northbound shoulder, a large number of different soil mixing scenarios are possible at these three areas. Procedures for evaluating the expected total lead concentration for any soil mixing scenario at these three areas are presented as a portion of Appendix B. Ideal mixing scenarios are presented in the Conclusions section of this report.

5.3.3 Correlation of Total and Soluble Lead

Total and corresponding soluble (WET) lead concentrations are bivariate data with a linear structure. This linear structure should allow for the prediction of soluble lead (WET) concentrations based on the UCLs calculated in above in Section 5.3.2.

To estimate the degree of interrelation between total and corresponding soluble (WET) lead values (x and y, respectively), the *correlation coefficient [r]* is used (see Davis pg. 40). The correlation coefficient is a ratio that ranges from +1 to –1. A *correlation coefficient* of +1 indicates a perfect direct relationship between two variables; a *correlation coefficient* of -1 indicates that one variable changes inversely with relation to the other. Between the two extremes is a spectrum of less-than-perfect relationships, including zero, which indicates the lack of any sort of linear relationship at all. The *correlation coefficient* was calculated for the 60 (x, y) data points (i.e., soil samples analyzed for both total [x] and soluble [y] (WET) lead) and equaled 0.91. According to the previously-referenced Caltrans statistics guidance letter, a *correlation coefficient* greater than or equal to 0.8, is an acceptable indicator that a correlation exists. Consequently, an acceptable correlation between total and soluble lead concentrations exists for data collected from the subject site since the *correlation coefficient* is greater than 0.8.

Note that 13 soil samples exhibited soluble (WET) lead concentrations greater than 1/10 of the corresponding total lead concentration. Since this is not theoretically possible since the WET uses a 1:10 dilution ratio, the soluble lead concentrations were calculated by dividing the total lead concentration by 10 for the 13 soil samples that exhibited a soluble lead concentration greater than 1/10 of the total lead concentration. The values used in the regression analysis are presented as a portion of Appendix B.

Since the *correlation coefficient* indicates that a linear relationship exists between total and soluble (WET) lead concentrations, it is possible to compute the line of dependence, or a best-fit line between the two variables. Following methods outlined in Davis (pg. 180), a least squares method was used to find the equation of a best-fit line (regression line) by forcing the y-intercept equal to zero since that is a known point. The equation of the regression line was determined to be $y = 0.0784x$, where x represents total lead concentrations and y represents predicted soluble lead (WET) concentrations.

This equation was used to estimate the expected soluble lead (WET) concentrations for the UCLs calculated in Section 5.3.2. Regression analysis results and a scatter plot depicting the 60 (x, y) data points along with the regression line are included as a portion of Appendix B. In addition, the expected soluble lead concentrations are shown next to the UCLs in Table 2.

6.0 CONCLUSIONS

The limited soil sampling and laboratory analyses indicate the following:

- The soil pH values were greater than 5 and ranged from 6.6 to 8.9.
- Total lead concentrations ranged from 2.1 mg/kg to 1,050 mg/kg.
- Soluble lead (WET) concentrations ranged from 1.7 to 56 mg/l. Fifty-five of the 60 soil samples analyzed for soluble lead via the WET exhibited soluble lead concentrations greater than the lead STLC of 5.0 mg/l.
- Soluble lead (WET-DI) concentrations were less than the DTSC variance threshold of 0.5 mg/l and ranged from less than the laboratory reporting limit of 0.15 mg/l to 0.23 mg/l.
- Soluble lead (TCLP) concentrations were less than the Federal threshold of 5.0 mg/l and ranged from 0.49 to 1.3 mg/l.

The following sections summarize the total lead UCLs, predicted soluble (WET) lead concentrations that correspond with the UCLs, and the waste classification (95% UCLs) for soil generated from the areas investigated based on varying excavation scenarios. In addition, the re-use of soil excavated for each scenario has been evaluated based on DTSC requirements (90% UCLs) for the Caltrans variance. It is likely that if the DTSC grants a variance to Caltrans District 5 the re-use options will be similar.

6.1 Soil Along On-ramps and Off-ramps

The following table summarizes how soil waste is expected to be classified if soil re-use is not an option.

Table 6.1A
Excavation Scenarios if Soil Will be Disposed of as a Waste

Excavation Scenario	95% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	129 mg/kg	10 mg/l	**California-hazardous**
Remaining Soil (1 to 3 ft)	7.6 mg/kg	0.60 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	69 mg/kg	5.4 mg/l	**California-hazardous**
Remaining Soil (2 to 3 ft)	6.1 mg/kg	0.48 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	48 mg/kg	3.8 mg/l	Non-hazardous

Based on the information in Table 6.1A, if excavations are less than 0.9 meter (3 feet) in depth, the soil would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentrations for Scenarios A and B are greater than the lead

STLC of 5.0 mg/l. If excavations are at least 0.9 meter (3 feet) in depth, the soil would not likely be classified as a California-hazardous waste and could be disposed of as such.

The following table summarizes how soil waste is expected to be classified if the soil will be re-used on-site or within the Route 101 corridor.

Table 6.1B
Excavation Scenarios if Soil Will Re-used

Excavation Scenario	90% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	100 mg/kg	7.8 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (1 to 3 ft)	6.5 mg/kg	0.51 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	54 mg/kg	4.2 mg/l	Non-hazardous
Remaining Soil (2 to 3 ft)	5.3 mg/kg	0.42 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	38 mg/kg	3.0 mg/l	Non-hazardous

Based on the information in Table 6.1B, if excavations are less than 0.6 meter (2 feet) in depth, the soil would likely be classified as a California-hazardous waste since the predicted soluble lead concentration for Scenarios A is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL for Scenario A is less than the HSC threshold of 350 mg/kg, the soil generated from excavation Scenario A could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If excavations are at least 0.6 meter (2 feet) in depth (i.e., Scenarios B and C), the soil would not likely be classified as a California-hazardous waste and could be re-used without restrictions.

6.2 Soil at the Casitas Pass and Linden Avenue Overcrossing Abutments

The following table summarizes how soil waste is expected to be classified if soil re-use is not an option.

Table 6.2A
Excavation Scenarios if Soil Will be Disposed of as a Waste

Excavation Scenario	95% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	231 mg/kg	18 mg/l	**California-hazardous**
Remaining Soil (1 to 4 ft)	32 mg/kg	2.5 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	151 mg/kg	12 mg/l	**California-hazardous**
Remaining Soil (2 to 4 ft)	14 mg/kg	1.1 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	105 mg/kg	8.2 mg/l	**California-hazardous**
Remaining Soil (3 to 4 ft)	13 mg/kg	1.0 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	82 mg/kg	6.4 mg/l	**California-hazardous**

Based on the information in Table 6.2A, soil waste generated from all four excavation scenarios would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentrations for Scenarios A through D are greater than the lead STLC of 5.0 mg/l. Geocon recommends using excavation Scenario A since after removing the top 0.3 meter (1 foot) of soil, the underlying soil (1 to 4 feet if mixed together) would not likely be classified as a California-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l

The following table summarizes how soil waste is expected to be classified if the soil will be re-used on-site or within the Route 101 corridor.

Table 6.2B
Excavation Scenarios if Soil Will be Re-used

Excavation Scenario	90% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	220 mg/kg	17 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (1 to 4 ft)	29 mg/kg	2.3 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	141 mg/kg	11 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (2 to 4 ft)	13 mg/kg	1.0 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	98 mg/kg	7.7 mg/l	**California-hazardous (Variance Applicable)**
Remaining Soil (3 to 4 ft)	12 mg/kg	0.94 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	77 mg/kg	6.0 mg/l	**California-hazardous (Variance Applicable)**

Based on the information in Table 6.2B, soil waste generated from all four excavation scenarios would likely be classified as a California-hazardous waste since the predicted soluble lead concentrations for Scenarios A through D are greater than the lead STLC of 5.0 mg/l. Since the 90% UCL for all the excavation Scenarios (A through D) are less than the HSC threshold of 350 mg/kg, the soil generated from excavation Scenarios A through D could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

Another option would be to use excavation scenario A. If excavation Scenario A is used, the top 0.3 meter (1 foot) of soil could be re-used in accordance with the variance. The underlying soil (1 to 4 feet), if mixed together, could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

6.3 Soil in the Vicinity of Ogan Road

The following table summarizes how soil waste is expected to be classified if soil re-use is not an option.

Table 6.3A
Excavation Scenarios if Soil Will be Disposed of as a Waste

Excavation Scenario	95% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	57 mg/kg	4.5 mg/l	Non-hazardous
Remaining Soil (1 to 4 ft)	8.8 mg/kg	0.69 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	34 mg/kg	2.7 mg/l	Non-hazardous
Remaining Soil (2 to 4 ft)	8.2 mg/kg	0.64 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	24 mg/kg	1.9 mg/l	Non-hazardous
Remaining Soil (3 to 4 ft)	10 mg/kg	0.78 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	21 mg/kg	1.6 mg/l	Non-hazardous

Based on the information in Table 6.3A, soil waste generated from all four excavation scenarios would likely be classified as a non-hazardous waste and could be disposed of as such since the predicted soluble lead concentrations for Scenarios A through D are less than the lead STLC of 5.0 mg/l.

The following table summarizes how soil waste is expected to be classified if the soil will be re-used on-site or within the Route 101 corridor.

Table 6.3B
Excavation Scenarios if Soil Will be Re-used

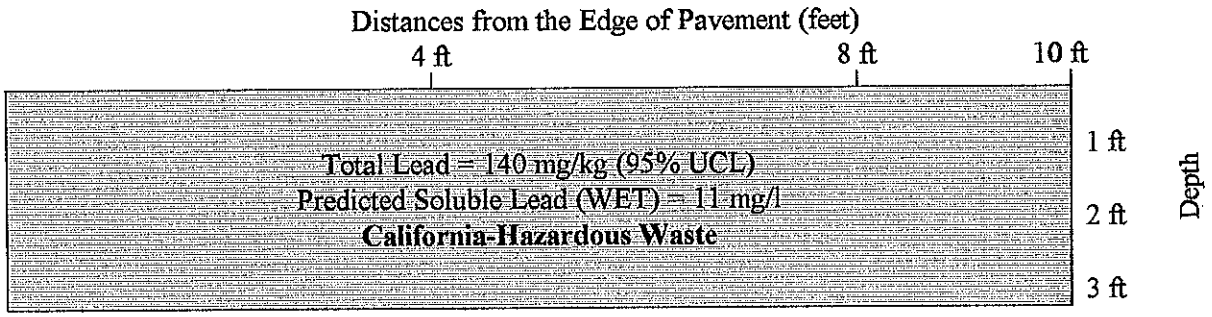
Excavation Scenario	90% UCL	Predicted Soluble Lead (WET)	Waste Classification
Scenario A			
Excavate top 0.3 m (1 ft)	44 mg/kg	3.4 mg/l	Non-hazardous
Remaining Soil (1 to 4 ft)	7.2 mg/kg	0.56 mg/l	Non-hazardous
Scenario B			
Excavate top 0.6 m (2 ft)	26 mg/kg	2.0 mg/l	Non-hazardous
Remaining Soil (2 to 4 ft)	6.8 mg/kg	0.53 mg/l	Non-hazardous
Scenario C			
Excavate top 0.9 m (3 ft)	19 mg/kg	1.5 mg/l	Non-hazardous
Remaining Soil (3 to 4 ft)	7.9 mg/kg	0.62 mg/l	Non-hazardous
Scenario D			
Excavate top 1.2 m (4 ft)	16 mg/kg	1.3 mg/l	Non-hazardous

Based on the information in Table 6.3B, soil waste generated from all four excavation scenarios would likely be classified as a non-hazardous waste since the predicted soluble lead concentrations for Scenarios A through D are less than the lead STLC of 5.0 mg/l. Consequently, soil generated from any of the excavation scenarios could be re-used as clean fill material.

6.4 Soil Adjacent to the Southbound Median

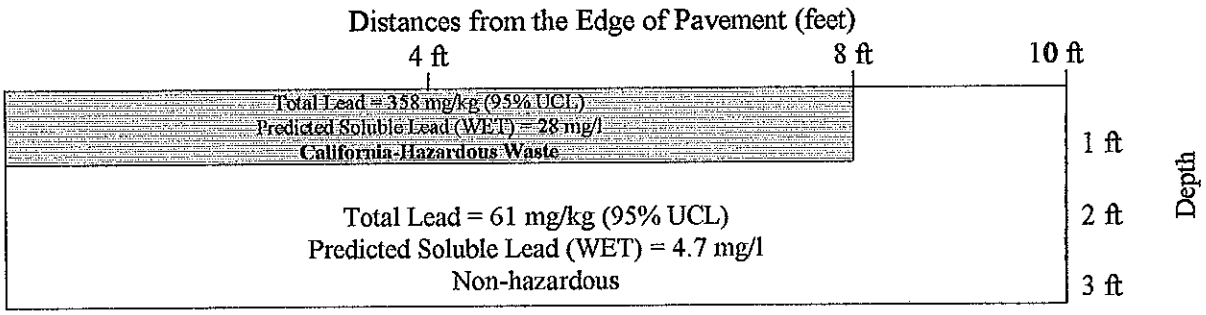
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if soil re-use is not an option.

Chart 6.4A
Excavation Scenario A – Treat All Soil as One Unit – Soil Will be Disposed of as a Waste



If the soil will be treated as one unit (Excavation Scenario A), Chart 6.4A indicates that the soil waste would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

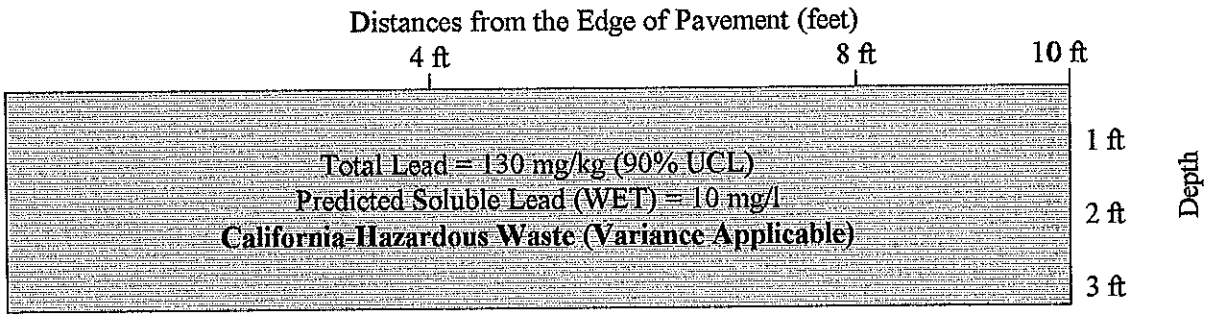
Chart 6.4B
Excavation Scenario B – Segregate Soil – Soil Will be Disposed of as a Waste



Excavation scenario B, summarized above in Chart 6.4B, indicates that the top 0.3 meter (1 foot) of soil from the edge of pavement to 2.4 meters (8 feet) from the edge of pavement would be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. If this soil is removed, Chart 6.4B indicates that the remaining soil (if mixed together) could be disposed of as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

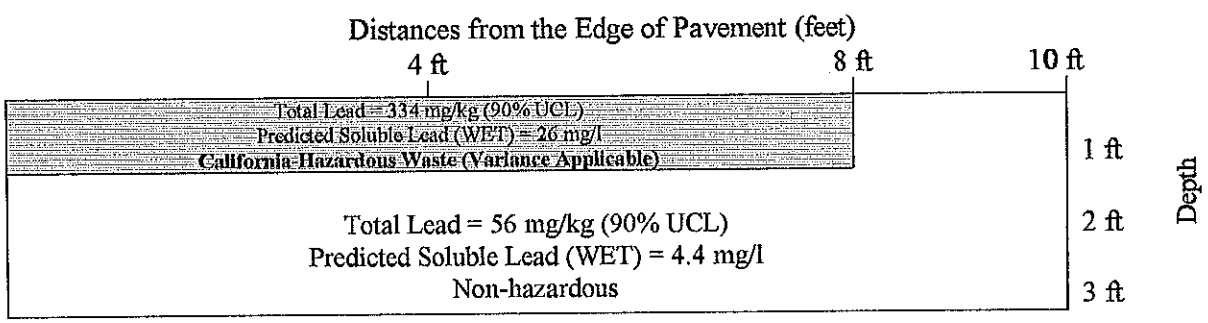
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if the soil will be re-used on-site or within the Route 101 corridor.

Chart 6.4C
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Re-used



If the soil will be treated as one unit (Excavation Scenario A), Chart 6.4C indicates that the soil waste would likely be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is less than the HSC threshold of 350 mg/kg, the soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

Chart 6.4D
Excavation Scenario B – Segregate Soil – Soil will be Re-Used



Excavation scenario B, summarized above in Chart 6.4D, indicates that the top 0.3 meter (1 foot) of soil from the edge of pavement to 2.4 meters (8 feet) from the edge of pavement would be classified as a California-hazardous waste. Since the 90% UCL is 334 mg/kg and is less than the HSC threshold of 350 mg/kg, this soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

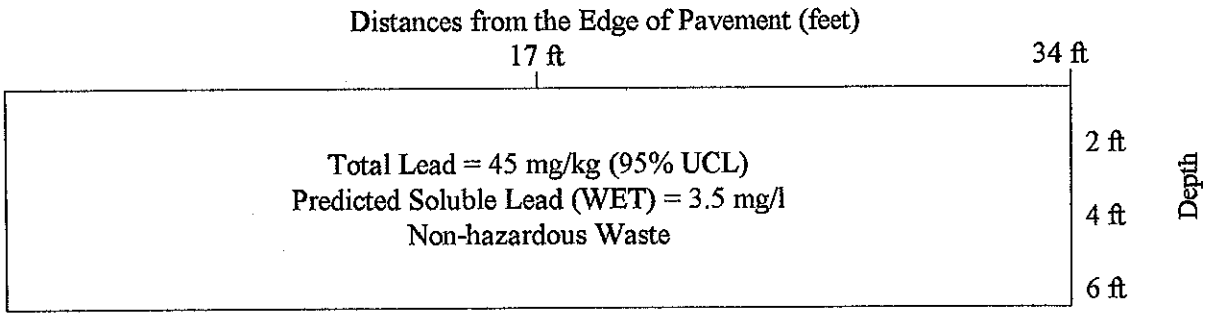
If the top 0.3 meter (1 foot) of soil from the edge of pavement to 2.4 meters (8 feet) from the edge of pavement is removed, Chart 6.4D indicates that the remaining soil (if mixed together) could be re-used

as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

6.5 Soil Samples Collected Adjacent to the Southbound Shoulder

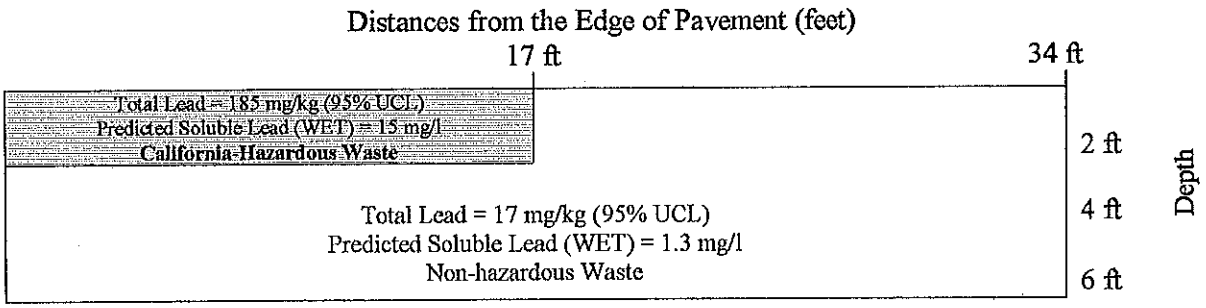
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if soil re-use is not an option.

Chart 6.5A
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Disposed of as a Waste



If the soil will be treated as one unit (Excavation Scenario A), Chart 6.5A indicates that, if all the soil is mixed together, the soil waste would likely be classified as a non-hazardous waste and could be disposed of as such since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

Chart 6.5B
Excavation Scenario B – Segregate Soil – Soil Will be Disposed of as a Waste

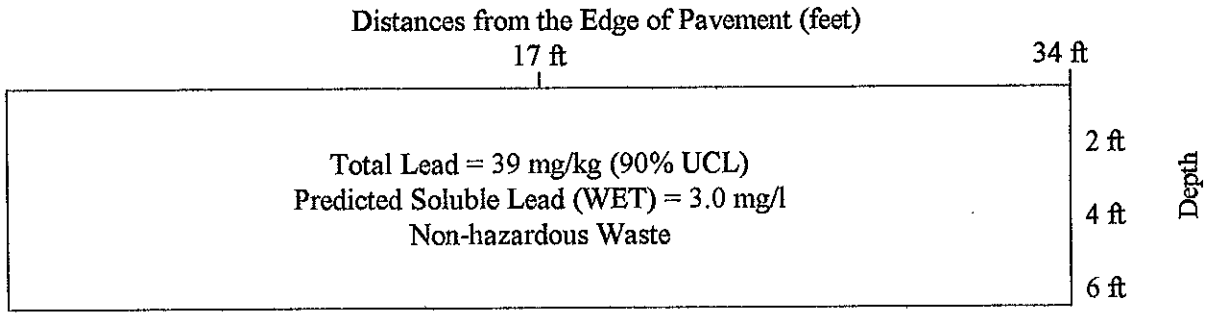


Excavation scenario B, summarized above in Chart 6.5B, indicates that the top 0.6 meter (2 feet) of soil from the edge of pavement to 5.2 meters (17 feet) from the edge of pavement would be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. If this soil is removed,

Chart 6.5B indicates that the remaining soil (if mixed together) could be disposed of as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

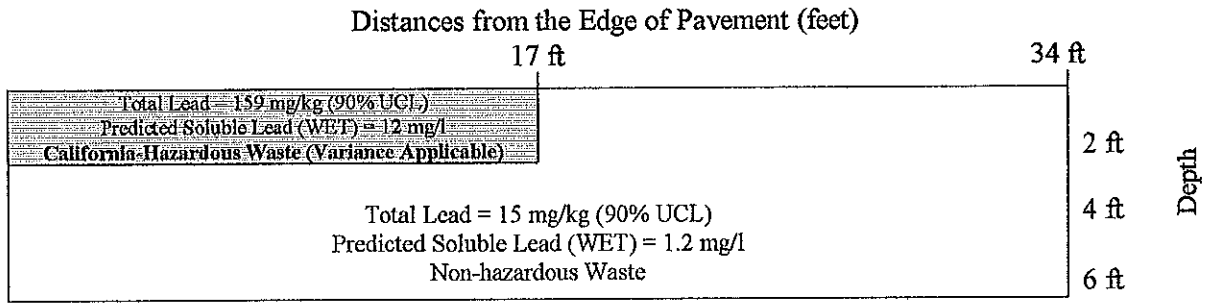
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if the soil will be re-used on-site or within the Route 101 corridor.

Chart 6.5C
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Re-used



If the soil will be treated as one unit (Excavation Scenario A), Chart 6.5C indicates that, if all the soil is mixed together, the soil waste would likely be classified as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l. Consequently, the soil could be re-used on-site or within the Route 101 corridor as clean fill material.

Chart 6.5D
Excavation Scenario B – Segregate Soil – Soil Will be Re-used



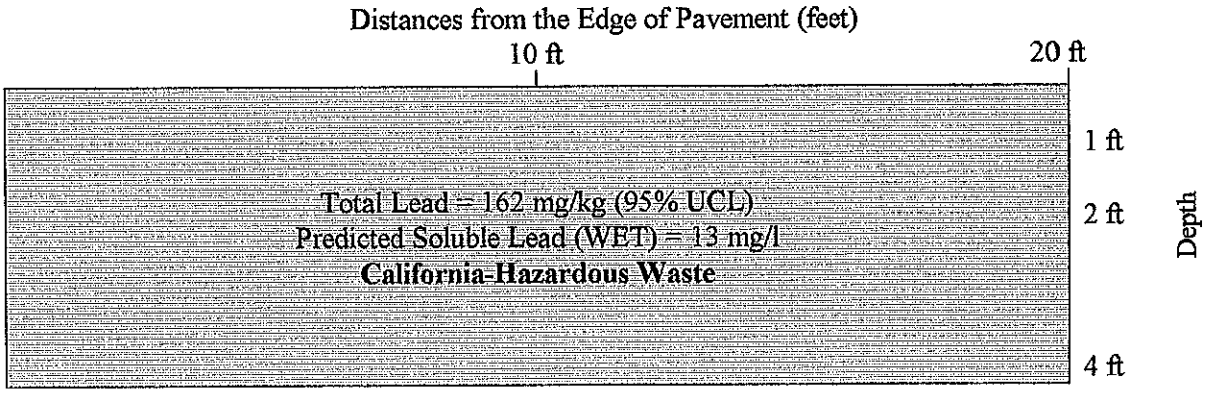
Excavation scenario B, summarized above in Chart 6.5D, indicates that the top 0.6 meter (2 feet) of soil from the edge of pavement to 5.2 meters (17 feet) from the edge of pavement would be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is 159 mg/kg and is less than the HSC threshold of 350 mg/kg, this soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If the top 0.6 meter (2 feet) of soil from the edge of pavement to 5.2 meters (17 feet) from the edge of pavement is removed, Chart 6.5D indicates that the remaining soil (if mixed together) could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

6.6 Soil Samples Collected Adjacent to the Northbound Shoulder

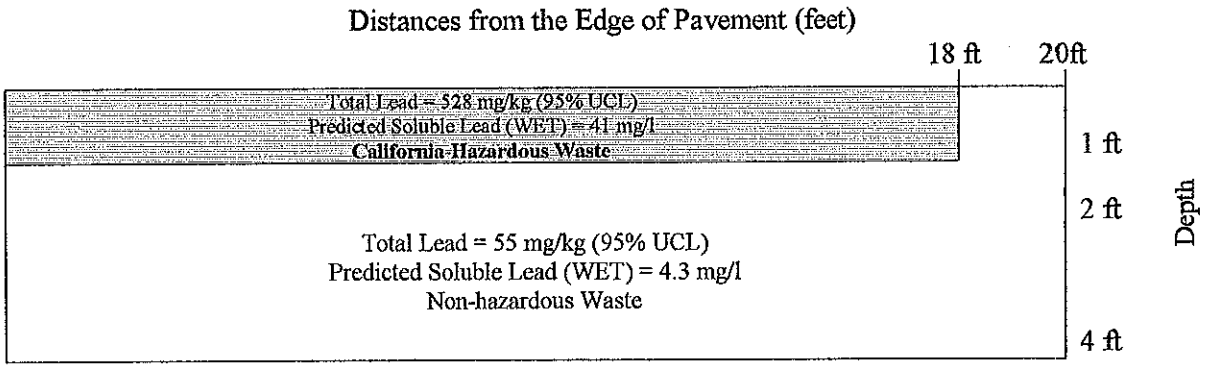
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if soil re-use is not an option.

Chart 6.6A
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Disposed of as a Waste



If the soil will be treated as one unit (Excavation Scenario A), Chart 6.6A indicates that, if all the soil is mixed together, the soil waste would likely be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

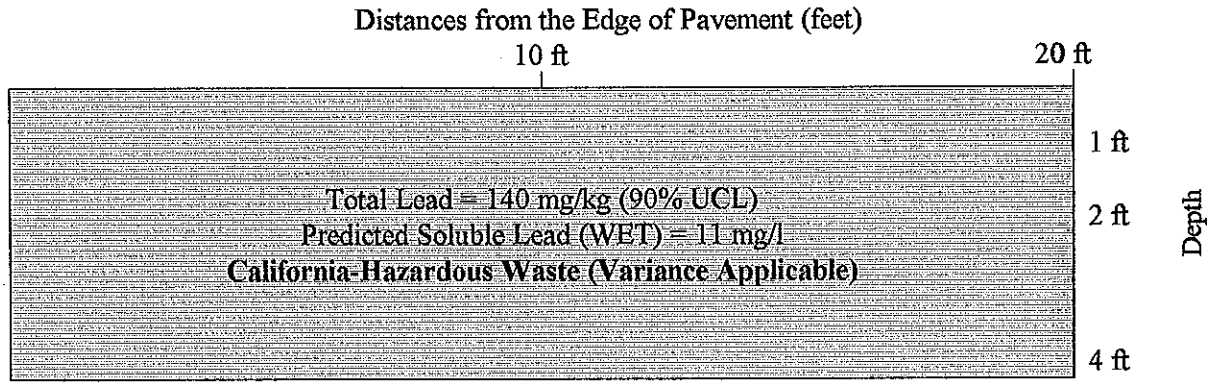
Chart 6.6B
Excavation Scenario B – Segregate Soil – Soil will be Disposed of as a Waste



Excavation scenario B, summarized above in Chart 6.6B, indicates that the top 0.3 meter (1 foot) of soil from the edge of pavement to 5.5 meters (18 feet) from the edge of pavement would be classified as a California-hazardous waste and would need to be disposed of at a Class I landfill since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. If this soil is removed, Chart 6.6B indicates that the remaining soil (if mixed together) could be disposed of as a non-hazardous waste since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

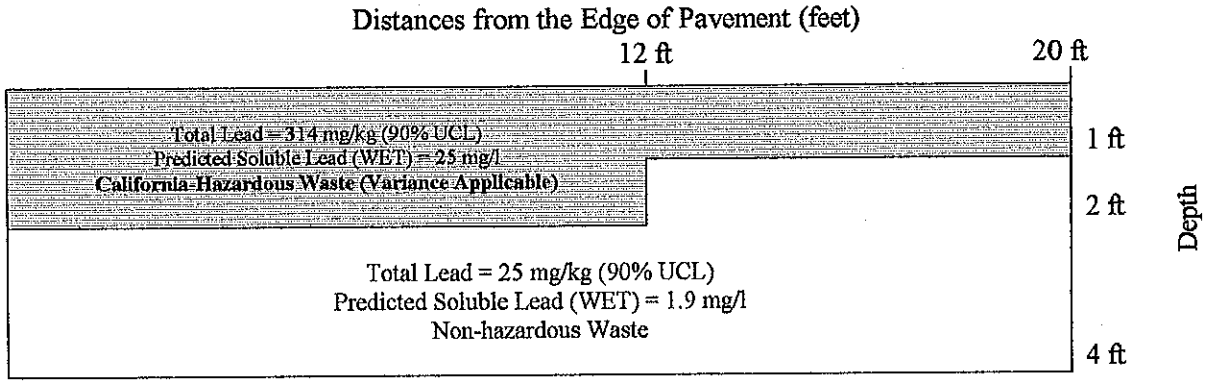
The following charts summarize how soil waste is expected to be classified for two excavation scenarios if the soil will be re-used on-site or within the Route 101 corridor.

Chart 6.6C
Excavation Scenario A – Treat All Soil as One Unit – Soil will be Re-used



If the soil will be treated as one unit (Excavation Scenario A), Chart 6.6C indicates that, if all the soil is mixed together, the soil waste would likely be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is less than the HSC threshold of 350 mg/kg, the soil, if mixed together, could be re-used on-site, or within the Route 101, corridor in accordance with the DTSC variance.

Chart 6.6D
Excavation Scenario B – Segregate Soil – Soil Will be Re-used



Excavation scenario B, summarized above in Chart 6.6D, indicates that the top 0.6 meter (2 feet) of soil from the edge of pavement to 3.7 meters (12 feet) from the edge of pavement and the top 0.3 meter (1 foot) of soil between 3.7 meters (12 feet) and 6.1 meters (20 feet) from the edge of pavement would be classified as a California-hazardous waste since the predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l. Since the 90% UCL is 314 mg/kg and is less than the HSC threshold of 350 mg/kg, this soil could be re-used on-site or within the Route 101 corridor in accordance with the DTSC variance.

If the top 0.6 meter (2 feet) of soil from the edge of pavement to 3.7 meters (12 feet) from the edge of pavement and the top 0.3 meter (1 foot) of soil between 3.7 meters (12 feet) and 6.1 meters (20 feet) from the edge of pavement is removed, Chart 6.6D indicates that the remaining soil (if mixed together) could be re-used as clean fill material since the predicted soluble lead concentration is less than the lead STLC of 5.0 mg/l.

6.7 Risk to Human Health

Based on current and proposed use of the subject site and adjacent properties, it is appropriate to compare the highest calculated UCL to EPA Region 9 Preliminary Remediation Goal (PRG) for lead in industrial soil. PRGs are used to estimate contaminant concentrations in environmental media (soil, air, and water) that are protective of human health, including sensitive groups, over a lifetime. The total lead PRG for industrial soil is 750 mg/kg. Total lead concentrations above the PRG would not automatically trigger a response action or suggest that a significant risk to human health exists. Exceeding a PRG does suggest that further evaluation of the potential risks that may be posed by site contaminants is appropriate.

The highest calculated UCLs for the areas discussed above are less than the PRG of 750 mg/kg. Therefore, it is concluded that lead-impacted soil in the areas investigated does not pose a significant risk to the health of workers performing the construction activities.

7.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report, and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from EOP	Total Lead (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead WET-DI (mg/l)	Soluble Lead TCLP (mg/l)	pH
Borings at Casitas Pass Road Overcrossing Abutments							
CP1-0	Surface	NA	263	26	---	---	---
CP1-1	0.3 (1)		25	---	---	---	---
CP1-2	0.6 (2)		12	---	---	---	---
CP1-3	0.9 (3)		14	---	---	---	---
CP2-0	Surface	NA	57	3.9	---	---	---
CP2-1	0.3 (1)		25	---	---	---	---
CP2-2	0.6 (2)		16	---	---	---	---
CP2-3	0.9 (3)		9.9	---	---	---	6.6
CP3-0	Surface	NA	195	16	---	---	---
CP3-1	0.3 (1)		9.7	---	---	---	---
CP3-2	0.6 (2)		7.5	---	---	---	---
CP3-3	0.9 (3)		3.9	---	---	---	---
CP4-0	Surface	NA	159	20	---	---	---
CP4-1	0.3 (1)		5.6	---	---	---	---
CP4-2	0.6 (2)		4.4	---	---	---	---
CP4-3	0.9 (3)		2.7	---	---	---	---
Borings at Linden Avenue Overcrossing Abutments							
L1-0	Surface	NA	257	21	---	---	---
L1-1	0.3 (1)		117	7.3	---	---	---
L1-2	0.6 (2)		15	---	---	---	7.8
L1-3	0.9 (3)		17	---	---	---	---
L2-0	Surface	NA	142	12	---	---	---
L2-1	0.3 (1)		10	---	---	---	---
L2-2	0.6 (2)		5.4	---	---	---	---
L2-3	0.9 (3)		6.2	---	---	---	---
L3-0	Surface	NA	136	13	---	---	7.7
L3-1	0.3 (1)		7.9	---	---	---	---
L3-2	0.6 (2)		6.0	---	---	---	---
L3-3	0.9 (3)		6.1	---	---	---	---
L4-0	Surface	NA	46	---	---	---	---
L4-1	0.3 (1)		6.6	---	---	---	---
L4-2	0.6 (2)		8.7	---	---	---	7.6
L4-3	0.9 (3)		7.2	---	---	---	---
Borings in Vicinity of Ogan Road							
O1-0	Surface	NA	36	---	---	---	---
O1-1	0.3 (1)		6.7	---	---	---	---
O1-2	0.6 (2)		5.5	---	---	---	---
O1-3	0.9 (3)		6.4	---	---	---	---
O2-0	Surface	NA	28	---	---	---	---
O2-1	0.3 (1)		5.6	---	---	---	7.9
O2-2	0.6 (2)		5.2	---	---	---	---
O2-3	0.9 (3)		5.0	---	---	---	---

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from SB EOP	Total Lead (mg/kg)	Soluble Lead			pH
				WET (mg/l)	WET-DI (mg/l)	TCLP (mg/l)	
Median Borings							
M1A-0	Surface	1 foot	28	---	---	---	---
M1A-1	0.3 (1)		21	---	---	---	---
M1A-2	0.6 (2)		8.2	---	---	---	7.2
M1B-0	Surface	4 feet	44	---	---	---	---
M1B-1	0.3 (1)		14	---	---	---	---
M1B-2	0.6 (2)		7.5	---	---	---	---
M2A-0	Surface	4 feet	22	---	---	---	---
M2A-1	0.3 (1)		12	---	---	---	7.4
M2A-2	0.6 (2)		7.6	---	---	---	---
M2B-0	Surface	8 feet	47	---	---	---	---
M2B-1	0.3 (1)		28	---	---	---	---
M2B-2	0.6 (2)		5.3	---	---	---	---
M3A-0	Surface	1 foot	31	---	---	---	---
M3A-1	0.3 (1)		5.8	---	---	---	---
M3A-2	0.6 (2)		6.5	---	---	---	---
M3B-0	Surface	4 feet	44	---	---	---	---
M3B-1	0.3 (1)		123	7.9	---	---	---
M3B-2	0.6 (2)		6.7	---	---	---	7.7
M4A-0	Surface	4 feet	135	6.7	---	---	---
M4A-1	0.3 (1)		6.8	---	---	---	---
M4A-2	0.6 (2)		5.0	---	---	---	---
M4B-0	Surface	8 feet	192	14	---	---	---
M4B-1	0.3 (1)		20	---	---	---	---
M4B-2	0.6 (2)		5.3	---	---	---	---
M5A-0	Surface	1 foot	145	16	---	---	---
M5A-1	0.3 (1)		16	---	---	---	---
M5A-2	0.6 (2)		4.3	---	---	---	7.6
M5B-0	Surface	4 feet	110	10	---	---	---
M5B-1	0.3 (1)		13	---	---	---	---
M5B-2	0.6 (2)		5.2	---	---	---	---
M6A-0	Surface	4 feet	155	19	---	---	---
M6A-1	0.3 (1)		5.3	---	---	---	---
M6A-2	0.6 (2)		8.3	---	---	---	---
M6B-0	Surface	8 feet	135	13	---	---	---
M6B-1	0.3 (1)		6.6	---	---	---	---
M6B-2	0.6 (2)		4.5	---	---	---	---
M7A-0	Surface	1 foot	258	29	---	---	---
M7A-1	0.3 (1)		8.9	---	---	---	---
M7A-2	0.6 (2)		6.1	---	---	---	---
M7B-0	Surface	4 feet	252	21	---	---	---
M7B-1	0.3 (1)		7.8	---	---	---	7.4
M7B-2	0.6 (2)		9.0	---	---	---	---

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from SB EOP	Total Lead (mg/kg)	Soluble Lead			pH
				WET (mg/l)	WET-DI (mg/l)	TCLP (mg/l)	
Median Borings (continued)							
M8A-0	Surface	4 feet	103	4.8	---	---	---
M8A-1	0.3 (1)		121	7.0	---	---	---
M8A-2	0.6 (2)		16	---	---	---	---
M8B-0	Surface	8 feet	72	5.4	---	---	---
M8B-1	0.3 (1)		9.7	---	---	---	7.8
M8B-2	0.6 (2)		6.5	---	---	---	---
M9A-0	Surface	1 foot	520	47	0.18	0.49	---
M9A-1	0.3 (1)		6.1	---	---	---	---
M9A-2	0.6 (2)		10	---	---	---	---
M9B-0	Surface	4 feet	397	27	---	---	---
M9B-1	0.3 (1)		57	3.4	---	---	---
M9B-2	0.6 (2)		21	---	---	---	---
M10A-0	Surface	4 feet	342	35	< 0.15	0.63	---
M10A-1	0.3 (1)		6.5	---	---	---	7.6
M10A-2	0.6 (2)		5.5	---	---	---	---
M10B-0	Surface	8 feet	238	14	---	---	---
M10B-1	0.3 (1)		144	12	---	---	---
M10B-2	0.6 (2)		5.0	---	---	---	---
M11A-0	Surface	1 foot	323	28	---	---	---
M11A-1	0.3 (1)		6.5	---	---	---	---
M11A-2	0.6 (2)		11	---	---	---	---
M11B-0	Surface	4 feet	298	34	---	---	---
M11B-1	0.3 (1)		7.3	---	---	---	---
M11B-2	0.6 (2)		6.1	---	---	---	---
M12A-0	Surface	4 feet	374	32	---	1.2	---
M12A-1	0.3 (1)		49	---	---	---	---
M12A-2	0.6 (2)		9.0	---	---	---	---
M12B-0	Surface	8 feet	271	29	0.19	---	---
M12B-1	0.3 (1)		242	19	---	---	7.7
M12B-2	0.6 (2)		9.2	---	---	---	---
M13A-0	Surface	1 foot	69	5.2	---	---	---
M13A-1	0.3 (1)		9.7	---	---	---	---
M13A-2	0.6 (2)		9.4	---	---	---	---
M13B-0	Surface	4 feet	113	13	---	---	---
M13B-1	0.3 (1)		97	5.5	---	---	7.6
M13B-2	0.6 (2)		72	5.6	---	---	---
M14A-0	Surface	4 feet	126	9.7	---	---	---
M14A-1	0.3 (1)		7.0	---	---	---	---
M14A-2	0.6 (2)		8.4	---	---	---	---

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from SB EOP	Total Lead (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead WET-DI (mg/l)	Soluble Lead TCLP (mg/l)	pH
Median Borings (continued)							
M14B-0	Surface	8 feet	92	11	---	---	---
M14B-1	0.3 (1)		34	---	---	---	---
M14B-2	0.6 (2)		7.0	---	---	---	---
M15A-0	Surface	1 foot	362	41	< 0.15	---	---
M15A-1	0.3 (1)		8.5	---	---	---	---
M15A-2	0.6 (2)		6.0	---	---	---	---
M15B-0	Surface	4 feet	145	14	---	---	---
M15B-1	0.3 (1)		7.3	---	---	---	---
M15B-2	0.6 (2)		6.1	---	---	---	---
M16A-0	Surface	4 feet	167	21	---	---	---
M16A-1	0.3 (1)		7.1	---	---	---	---
M16A-2	0.6 (2)		7.0	---	---	---	---
M16B-0	Surface	8 feet	213	15	---	---	7.6
M16B-1	0.3 (1)		9.4	---	---	---	---
M16B-2	0.6 (2)		8.1	---	---	---	---
M17A-0	Surface	1 foot	604	56	0.23	1.3	---
M17A-1	0.3 (1)		58	6.7	---	---	---
M17A-2	0.6 (2)		12	---	---	---	7.7
M17B-0	Surface	4 feet	321	26	---	---	---
M17B-1	0.3 (1)		28	---	---	---	---
M17B-2	0.6 (2)		51	1.7	---	---	---

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from NB EOP	Total Lead (mg/kg)	Soluble Lead			pH
				WET (mg/l)	WET-DI (mg/l)	TCLP (mg/l)	
Northbound Shoulder Borings							
NS1-3-0	Surface	3 feet	339	---	---	---	---
NS1-3-1	0.3 (1)		7.3	---	---	---	---
NS1-3-2	0.6 (2)		158	---	---	---	---
NS1-3-3	0.9 (3)		5.1	---	---	---	---
NS1-6-0	Surface	6 feet	463	---	---	---	---
NS1-6-1	0.3 (1)		167	---	---	---	---
NS1-6-2	0.6 (2)		5.2	---	---	---	8.9
NS1-6-3	0.9 (3)		8.1	---	---	---	---
NS1-12-0	Surface	12 feet	205	---	---	---	---
NS1-12-1	0.3 (1)		6.5	---	---	---	---
NS1-12-2	0.6 (2)		17	---	---	---	---
NS1-12-3	0.9 (3)		5.4	---	---	---	---
NS1-18-0	Surface	18 feet	77	---	---	---	8.3
NS1-18-1	0.3 (1)		14	---	---	---	---
NS1-18-2	0.6 (2)		3	---	---	---	---
NS1-18-3	0.9 (3)		7.1	---	---	---	---
NS2-3-0	Surface	3 feet	407	---	---	---	---
NS2-3-1	0.3 (1)		43	---	---	---	---
NS2-3-2	0.6 (2)		6.6	---	---	---	---
NS2-3-3	0.9 (3)		4.9	---	---	---	---
NS2-6-0	Surface	6 feet	291	---	---	---	---
NS2-6-1	0.3 (1)		20	---	---	---	---
NS2-6-2	0.6 (2)		3.9	---	---	---	---
NS2-6-3	0.9 (3)		8.4	---	---	---	---
NS2-12-0	Surface	12 feet	59	---	---	---	---
NS2-12-1	0.3 (1)		45	---	---	---	---
NS2-12-2	0.6 (2)		5.3	---	---	---	---
NS2-12-3	0.9 (3)		3.4	---	---	---	8.4

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from NB EOP	Total Lead (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead WET-DI (mg/l)	Soluble Lead TCLP (mg/l)	pH
Northbound Shoulder Borings (continued)							
NS3-3-0	Surface	3 feet	308	---	---	---	---
NS3-3-1	0.3 (1)		69	---	---	---	---
NS3-3-2	0.6 (2)		8.6	---	---	---	---
NS3-3-3	0.9 (3)		13	---	---	---	---
NS3-6-0	Surface	6 feet	243	---	---	---	---
NS3-6-1	0.3 (1)		16	---	---	---	---
NS3-6-2	0.6 (2)		2.7	---	---	---	---
NS3-6-3	0.9 (3)		4.4	---	---	---	8.8
NS3-12-0	Surface	12 feet	118	---	---	---	---
NS3-12-1	0.3 (1)		12	---	---	---	---
NS3-12-2	0.6 (2)		3.9	---	---	---	---
NS3-12-3	0.9 (3)		4.9	---	---	---	---
NS3-18-0	Surface	18 feet	110	---	---	---	---
NS3-18-1	0.3 (1)		5.9	---	---	---	---
NS3-18-2	0.6 (2)		2.3	---	---	---	---
NS3-18-3	0.9 (3)		5.4	---	---	---	---
NS4-3-0	Surface	3 feet	1050	---	---	---	---
NS4-3-1	0.3 (1)		155	---	---	---	---
NS4-3-2	0.6 (2)		12	---	---	---	---
NS4-3-3	0.9 (3)		6.4	---	---	---	---
NS4-6-0	Surface	6 feet	275	---	---	---	---
NS4-6-1	0.3 (1)		8.7	---	---	---	---
NS4-6-2	0.6 (2)		6.7	---	---	---	---
NS4-6-3	0.9 (3)		6.5	---	---	---	---
NS4-12-0	Surface	12 feet	160	---	---	---	---
NS4-12-1	0.3 (1)		8.9	---	---	---	---
NS4-12-2	0.6 (2)		7.2	---	---	---	---
NS4-12-3	0.9 (3)		6.8	---	---	---	---
NS4-18-0	Surface	18 feet	117	---	---	---	---
NS4-18-1	0.3 (1)		3.7	---	---	---	---
NS4-18-2	0.6 (2)		22	---	---	---	---
NS4-18-3	0.9 (3)		4.8	---	---	---	---

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from SB EOP	Total Lead (mg/kg)	Soluble Lead			pH
				WET (mg/l)	WET-DI (mg/l)	TCLP (mg/l)	
Southbound Shoulder Borings							
S1-0	Surface	6 feet	190	12	---	---	---
S1-1	0.3 (1)		15	---	---	---	---
S1-2	0.6 (2)		8.1	---	---	---	---
S2A-0	Surface	3 feet	321	22	---	---	---
S2A-1	0.3 (1)		5.3	---	---	---	---
S2A-2	0.6 (2)		8	---	---	---	---
S2B-0	Surface	9 feet	194	12	---	---	7.9
S2B-1	0.3 (1)		11	---	---	---	---
S2B-2	0.6 (2)		7.3	---	---	---	---
S3-0	Surface	6 feet	227	12	---	---	---
S3-1	0.3 (1)		35	---	---	---	---
S3-2	0.6 (2)		7.9	---	---	---	---
S3-12-0	Surface	12 feet	60	---	---	---	---
S3-12-1	0.3 (1)		9	---	---	---	---
S3-12-2	0.6 (2)		5.1	---	---	---	---
S3-12-3	0.9 (3)		5.4	---	---	---	8.8
S3-17-0	Surface	17 feet	43	---	---	---	---
S3-17-1	0.3 (1)		5.2	---	---	---	---
S3-17-2	0.6 (2)		4.8	---	---	---	---
S3-17-3	0.9 (3)		4.9	---	---	---	---
S3-17-4	1.2 (4)		5.0	---	---	---	---
S3-17-5	1.5 (5)		6.7	---	---	---	---
S3-22-0	Surface	22 feet	29	---	---	---	---
S3-22-1	0.3 (1)		7.6	---	---	---	---
S3-22-2	0.6 (2)		4.3	---	---	---	8.5
S3-22-3	0.9 (3)		4.7	---	---	---	---
S3-27-0	Surface	27 feet	40	---	---	---	---
S3-27-1	0.3 (1)		5.7	---	---	---	---
S3-27-2	0.6 (2)		4.6	---	---	---	---
S3-27-3	0.9 (3)		4.4	---	---	---	---
S3-27-4	1.2 (4)		3.8	---	---	---	---
S3-27-5	1.5 (5)		4.5	---	---	---	---
S3-32-0	Surface	32 feet	22	---	---	---	---
S3-32-1	0.3 (1)		6.3	---	---	---	---
S3-32-2	0.6 (2)		4.6	---	---	---	---
S3-32-3	0.9 (3)		4.8	---	---	---	8.7

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Total Lead - EPA Test Method 6010
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Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from SB EOP	Total Lead (mg/kg)	Soluble Lead			pH
				WET (mg/l)	WET-DI (mg/l)	TCLP (mg/l)	
Southbound Shoulder Borings (continued)							
S4A-0	Surface	3 feet	190	8.2	---	---	---
S4A-1	0.3 (1)		7.9	---	---	---	---
S4A-2	0.6 (2)		5.6	---	---	---	7.7
S4B-0	Surface	9 feet	52	6.4	---	---	---
S4B-1	0.3 (1)		5.8	---	---	---	---
S4B-2	0.6 (2)		4.5	---	---	---	---
S5-0	Surface	6 feet	106	5.3	---	---	---
S5-1	0.3 (1)		6.8	---	---	---	---
S5-2	0.6 (2)		5.3	---	---	---	---
S5-12-0	Surface	12 feet	9.3	---	---	---	---
S5-12-1	0.3 (1)		68	---	---	---	---
S5-12-2	0.6 (2)		6.3	---	---	---	---
S5-12-3	0.9 (3)		13	---	---	---	---
S5-17-0	Surface	17 feet	35	---	---	---	---
S5-17-1	0.3 (1)		6.7	---	---	---	---
S5-17-2	0.6 (2)		6.6	---	---	---	---
S5-17-3	0.9 (3)		2.1	---	---	---	---
S5-17-4	1.2 (4)		2.7	---	---	---	---
S5-17-5	1.5 (5)		2.4	---	---	---	8.8
S5-22-0	Surface	22 feet	26	---	---	---	---
S5-22-1	0.3 (1)		2.5	---	---	---	---
S5-22-2	0.6 (2)		3.9	---	---	---	---
S5-22-3	0.9 (3)		5.1	---	---	---	---
S5-27-0	Surface	27 feet	26	---	---	---	---
S5-27-1	0.3 (1)		3.4	---	---	---	---
S5-27-2	0.6 (2)		3.9	---	---	---	---
S5-27-3	0.9 (3)		3.4	---	---	---	---
S5-27-4	1.2 (4)		5.4	---	---	---	---
S5-27-5	1.5 (5)		3.4	---	---	---	8.5
S5-32-0	Surface	32 feet	32	---	---	---	---
S5-32-1	0.3 (1)		7.8	---	---	---	---
S5-32-2	0.6 (2)		4.3	---	---	---	---
S5-32-3	0.9 (3)		3.1	---	---	---	---

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Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from SB EOP	Total Lead (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead WET-DI (mg/l)	Soluble Lead TCLP (mg/l)	pH
Southbound Shoulder Borings (continued)							
S6A-0	Surface	3 feet	151	6.2	---	---	---
S6A-1	0.3 (1)		21	---	---	---	---
S6A-2	0.6 (2)		6.0	---	---	---	---
S6B-0	Surface	9 feet	42	---	---	---	---
S6B-1	0.3 (1)		6.1	---	---	---	---
S6B-2	0.6 (2)		5.5	---	---	---	---
S6-12-0	Surface	12 feet	50	---	---	---	---
S6-12-1	0.3 (1)		22	---	---	---	---
S6-12-2	0.6 (2)		23	---	---	---	---
S6-12-3	0.9 (3)		8.1	---	---	---	---
S6-17-0	Surface	17 feet	50	---	---	---	---
S6-17-1	0.3 (1)		4.3	---	---	---	---
S6-17-2	0.6 (2)		2.4	---	---	---	---
S6-17-3	0.9 (3)		2.3	---	---	---	---
S6-17-4	1.2 (4)		3.8	---	---	---	---
S6-17-5	1.5 (5)		2.3	---	---	---	---
S6-22-0	Surface	22 feet	39	---	---	---	---
S6-22-1	0.3 (1)		7.0	---	---	---	---
S6-22-2	0.6 (2)		4.1	---	---	---	---
S6-22-3	0.9 (3)		3.6	---	---	---	8.6
S6-27-0	Surface	27 feet	44	---	---	---	---
S6-27-1	0.3 (1)		10	---	---	---	---
S6-27-2	0.6 (2)		6.3	---	---	---	---
S6-27-3	0.9 (3)		4.5	---	---	---	---
S6-27-4	1.2 (4)		5.9	---	---	---	8.7
S6-27-5	1.5 (5)		4.0	---	---	---	---
S6-32-0	Surface	32 feet	27	---	---	---	---
S3-32-1	0.3 (1)		11	---	---	---	---
S3-32-2	0.6 (2)		3.3	---	---	---	---
S3-32-3	0.9 (3)		5.1	---	---	---	---
S7-0	Surface	6 feet	37	---	---	---	---
S7-1	0.3 (1)		5.1	---	---	---	---
S7-2	0.6 (2)		7.4	---	---	---	---
S8A-0	Surface	3 feet	300	21	---	---	---
S8A-1	0.3 (1)		100	6.8	---	---	---
S8A-2	0.6 (2)		35	---	---	---	---
S8B-0	Surface	9 feet	557	26	---	0.75	---
S8B-1	0.3 (1)		84	4.2	---	---	---
S8B-2	0.6 (2)		13	---	---	---	---
S9-0	Surface	6 feet	285	11	---	---	---
S9-1	0.3 (1)		211	9.9	---	---	---
S9-2	0.6 (2)		31	---	---	---	---

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Total Lead - EPA Test Method 6010
Soluble Lead (WET,WET-DI, and TCLP) - EPA Test Method 7420
Soil pH - EPA Test Method 9045

Sample ID.	Sample Depth meters (feet)	Distance from EOP	Total Lead (mg/kg)	Soluble Lead			pH
				WET (mg/l)	WET-DI (mg/l)	TCLP (mg/l)	
On-ramp and Off-ramp Borings							
R1-0	Surface	6 feet	18	---	---	---	---
R1-1	0.3 (1)		7.8	---	---	---	---
R1-2	0.6 (2)		5.4	---	---	---	7.9
R2-0	Surface	6 feet	17	---	---	---	---
R2-1	0.3 (1)		3.5	---	---	---	---
R2-2	0.6 (2)		3.0	---	---	---	---
R3-0	Surface	6 feet	103	5.5	---	---	---
R3-1	0.3 (1)		3.9	---	---	---	---
R3-2	0.6 (2)		3.1	---	---	---	---

Note:
mg/kg = milligrams per kilogram
mg/l = milligrams per liter
--- = Analysis not performed
< = Less than indicated laboratory reporting limit

TABLE 2
LEAD STATISTICS
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

90% and 95% UCLs and Their Predicted Soluble (WET) Lead Concentrations

Soil Along On-ramps and Off-ramps

Excavation Scenario	90% UCL* (mg/kg)	Predicted Soluble Lead (mg/l)	95% UCL** (mg/kg)	Predicted Soluble Lead (mg/l)
Surface to 1 foot	100	**7.8**	129	**10**
Underlying soil (1 to 3 feet)	*6.5*	*0.51*	*7.6*	*0.60*
Surface to 2 feet	54	4.2	69	**5.4**
Underlying soil (2 to 3 feet)	*3.3*	*0.42*	*6.1*	*0.48*
Surface to 3 feet	38	3.0	48	3.8

Soil at Casitas Pass and Linden Avenue Overcrossing Abutments

Excavation Scenario	90% UCL* (mg/kg)	Predicted Soluble Lead (mg/l)	95% UCL** (mg/kg)	Predicted Soluble Lead (mg/l)
Surface to 1 foot	220	**17**	231	**18**
Underlying soil (1 to 4 feet)	*29*	*2.3*	*32*	*2.5*
Surface to 2 feet	141	**11**	151	**12**
Underlying soil (2 to 4 feet)	*13*	*1.02*	*14*	*1.10*
Surface to 3 feet	98	**7.7**	105	**8.2**
Underlying soil (3 to 4 feet)	*12*	*0.94*	*13*	*1.02*
Surface to 4 feet	77	**6.0**	82	**6.4**

Soil in the Vicinity of Ogan Road

Excavation Scenario	90% UCL* (mg/kg)	Predicted Soluble Lead (mg/l)	95% UCL** (mg/kg)	Predicted Soluble Lead (mg/l)
Surface to 1 foot	44	3.4	57	4.5
Underlying soil (1 to 4 feet)	*7.2*	*0.56*	*8.8*	*0.69*
Surface to 2 feet	26	2.0	34	2.7
Underlying soil (2 to 4 feet)	*6.8*	*0.53*	*8.2*	*0.64*
Surface to 3 feet	19	1.5	24	1.9
Underlying soil (3 to 4 feet)	*7.9*	*0.62*	*10*	*0.78*
Surface to 4 feet	16	1.3	21	1.6

Notes:

* = 90% UCL applicable if soil will be reused on-site

** = 95% UCL applicable if soil will be relinquished to contractor for disposal

mg/kg = milligrams per kilogram

mg/l = miligrams per liter

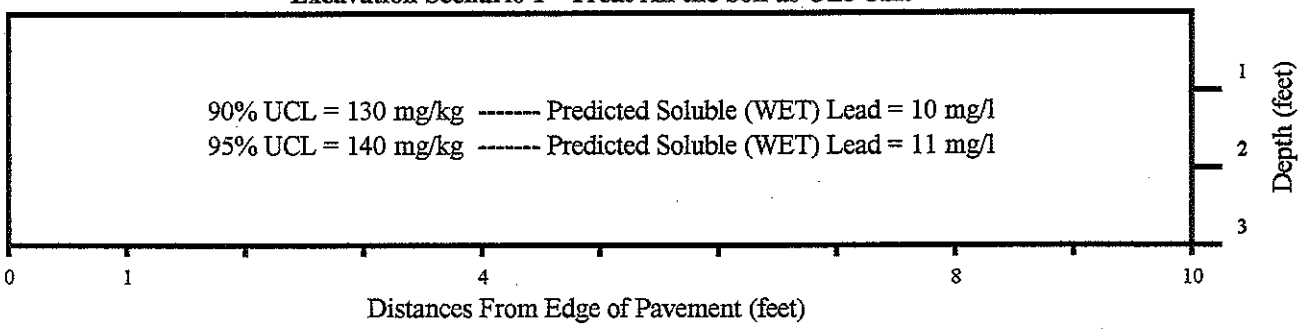
Soluble lead concentrations were predicted using the equation of the regression line (y=0.0784x).

Concentrations shown in **bold** are equal to or greater than the lead STLC of 5.0 mg/l.

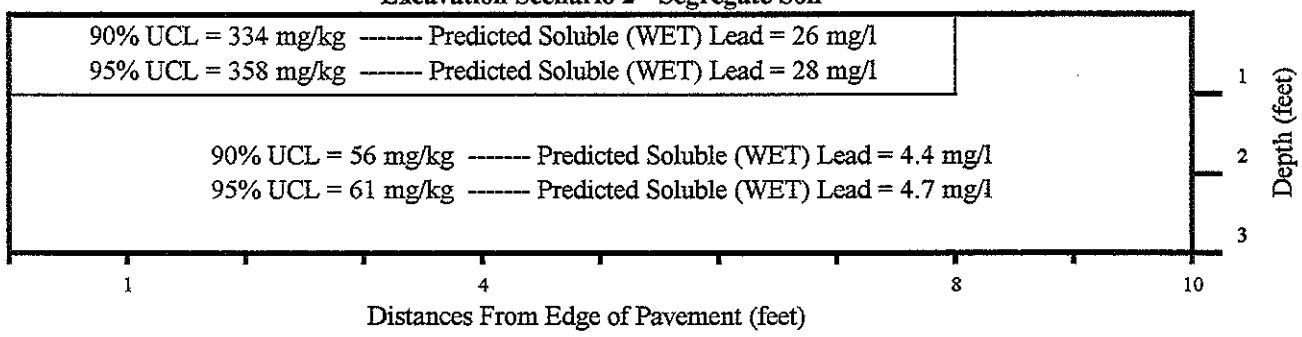
TABLE 3
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Soil Mixing Scenarios for the Southbound Median

Excavation Scenario 1 - Treat All the Soil as One Unit



Excavation Scenario 2 - Segregate Soil



Notes:

90% UCL applicable if soil will be reused on-site

95% UCL applicable if soil will be relinquished to contractor for disposal

mg/kg = milligrams per kilogram

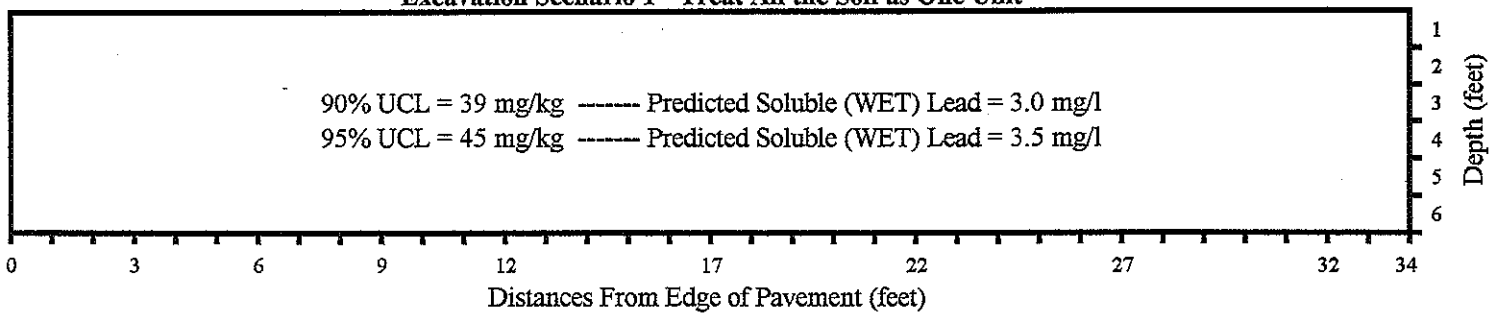
mg/l = miligrams per liter

Soluble lead concentrations were predicted using the equation of the regression line (y=0.0784x).

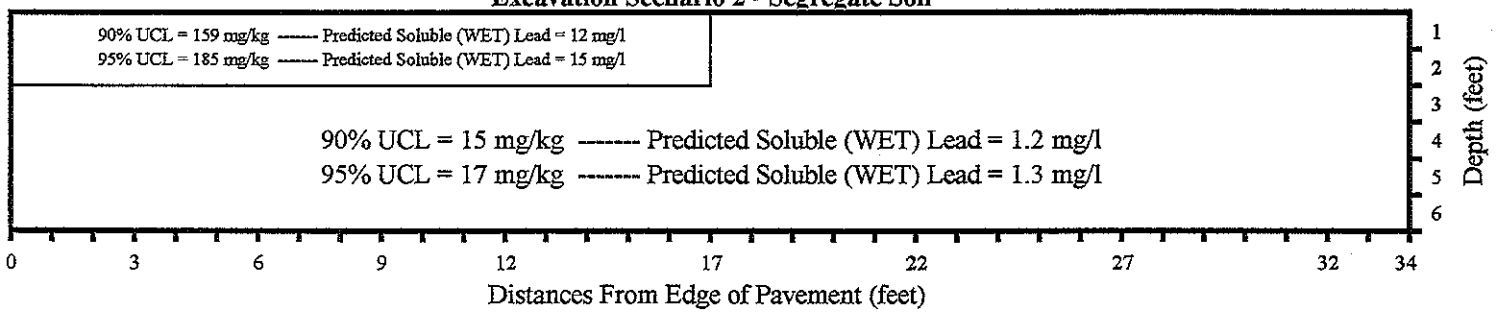
TABLE 4
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Soil Mixing Scenarios for the Southbound Shoulder

Excavation Scenario 1 - Treat All the Soil as One Unit



Excavation Scenario 2 - Segregate Soil



Notes:

90% UCL applicable if soil will be reused on-site

95% UCL applicable if soil will be relinquished to contractor for disposal

mg/kg = milligrams per kilogram

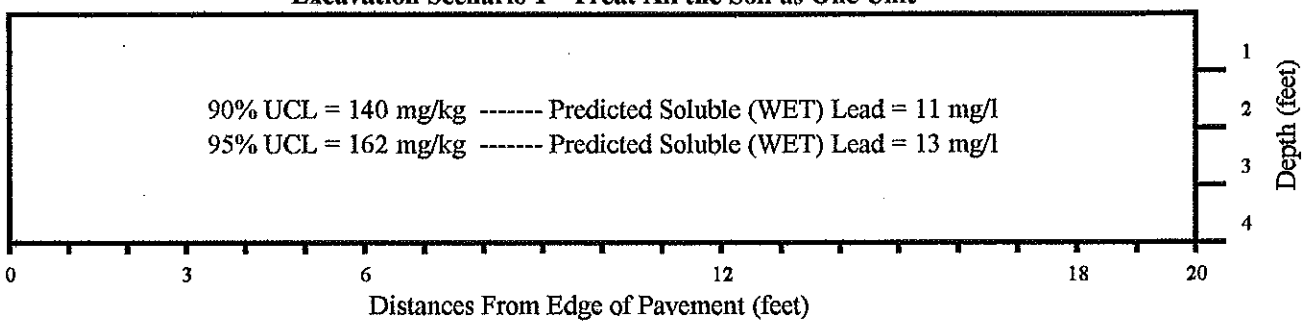
mg/l = miligrams per liter

Soluble lead concentrations were predicted using the equation of the regression line (y=0.0784x).

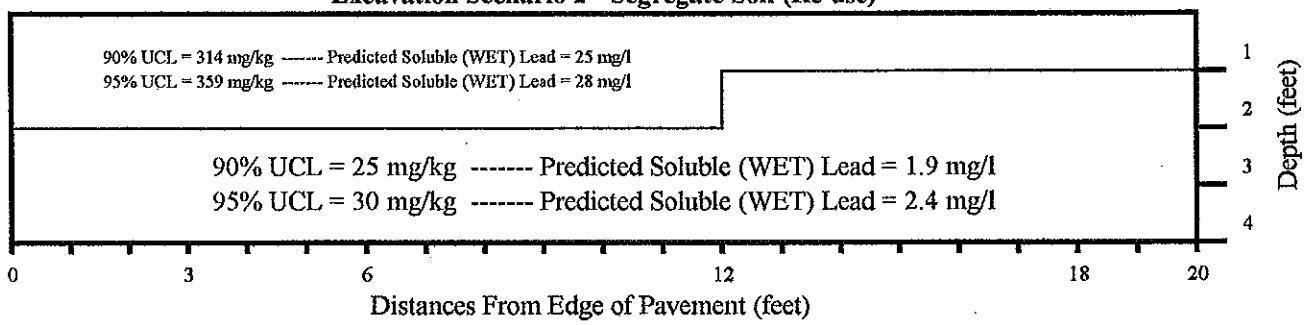
TABLE 5
ROUTE 101 - CASITAS PASS/LINDEN AVENUE INTERCHANGES

Soil Mixing Scenarios for the Northbound Shoulder

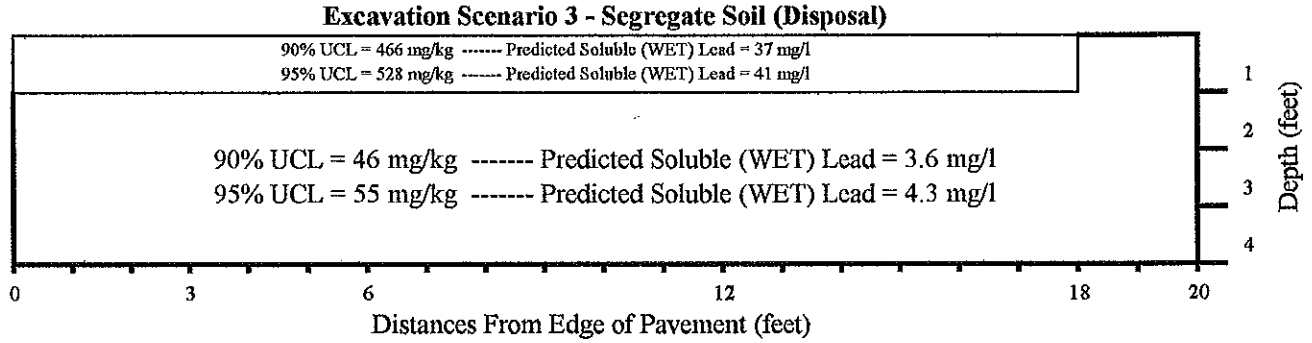
Excavation Scenario 1 - Treat All the Soil as One Unit



Excavation Scenario 2 - Segregate Soil (Re-use)



Excavation Scenario 3 - Segregate Soil (Disposal)



Notes:

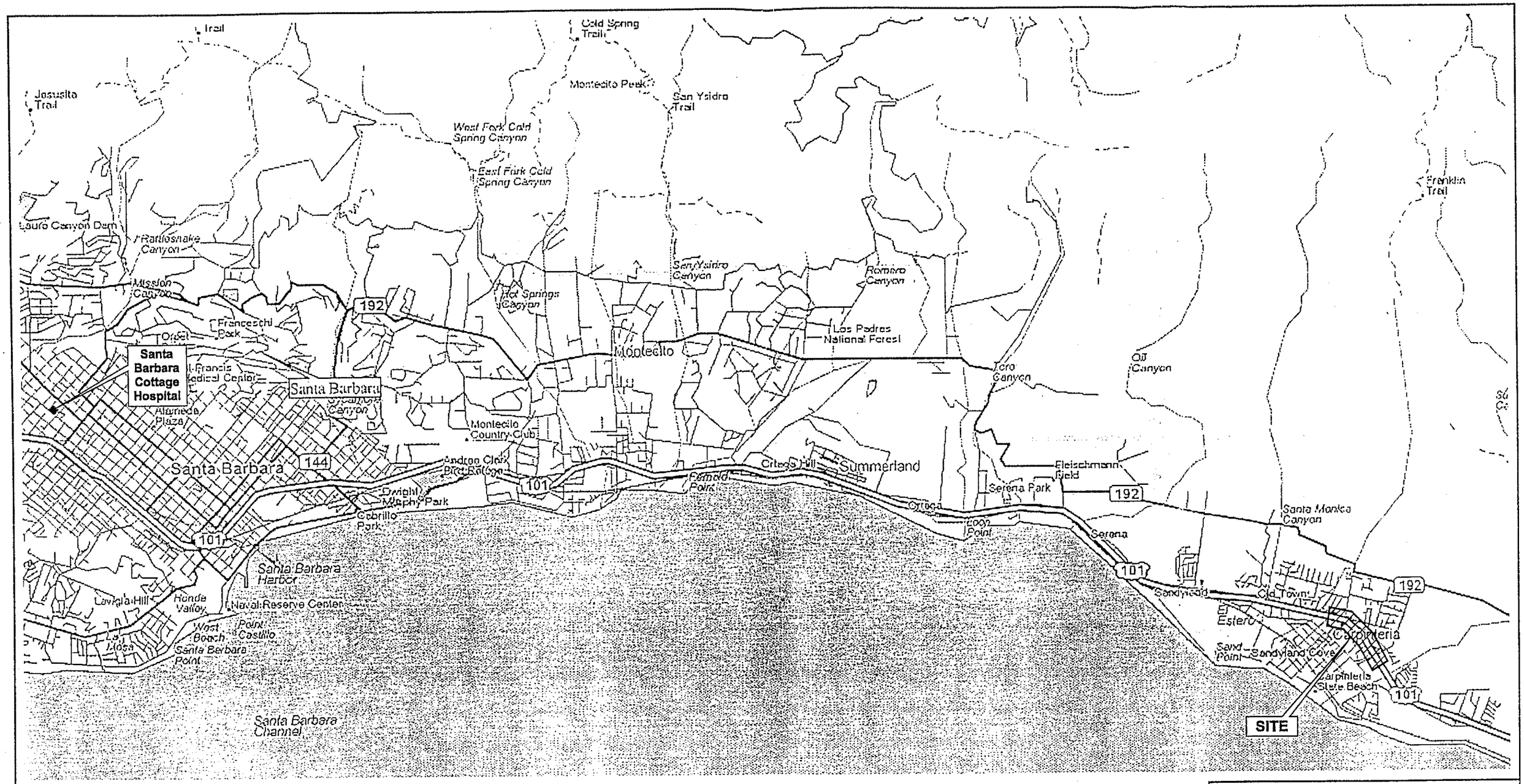
90% UCL applicable if soil will be reused on-site

95% UCL applicable if soil will be relinquished to contractor for disposal

mg/kg = milligrams per kilogram

mg/l = miligrams per liter

Soluble lead concentrations were predicted using the equation of the regression line (y=0.0784x).



N

NOT TO SCALE

GEOCON
CONSULTANTS INC.
5673 W. LAS POSITAS BLVD. SUITE 205 - PLEASANTON, CA 94588
PHONE 925 469-9750 - FAX 925 469-9749

Route 101-Casitas Pass/Linden Avenue Interchanges

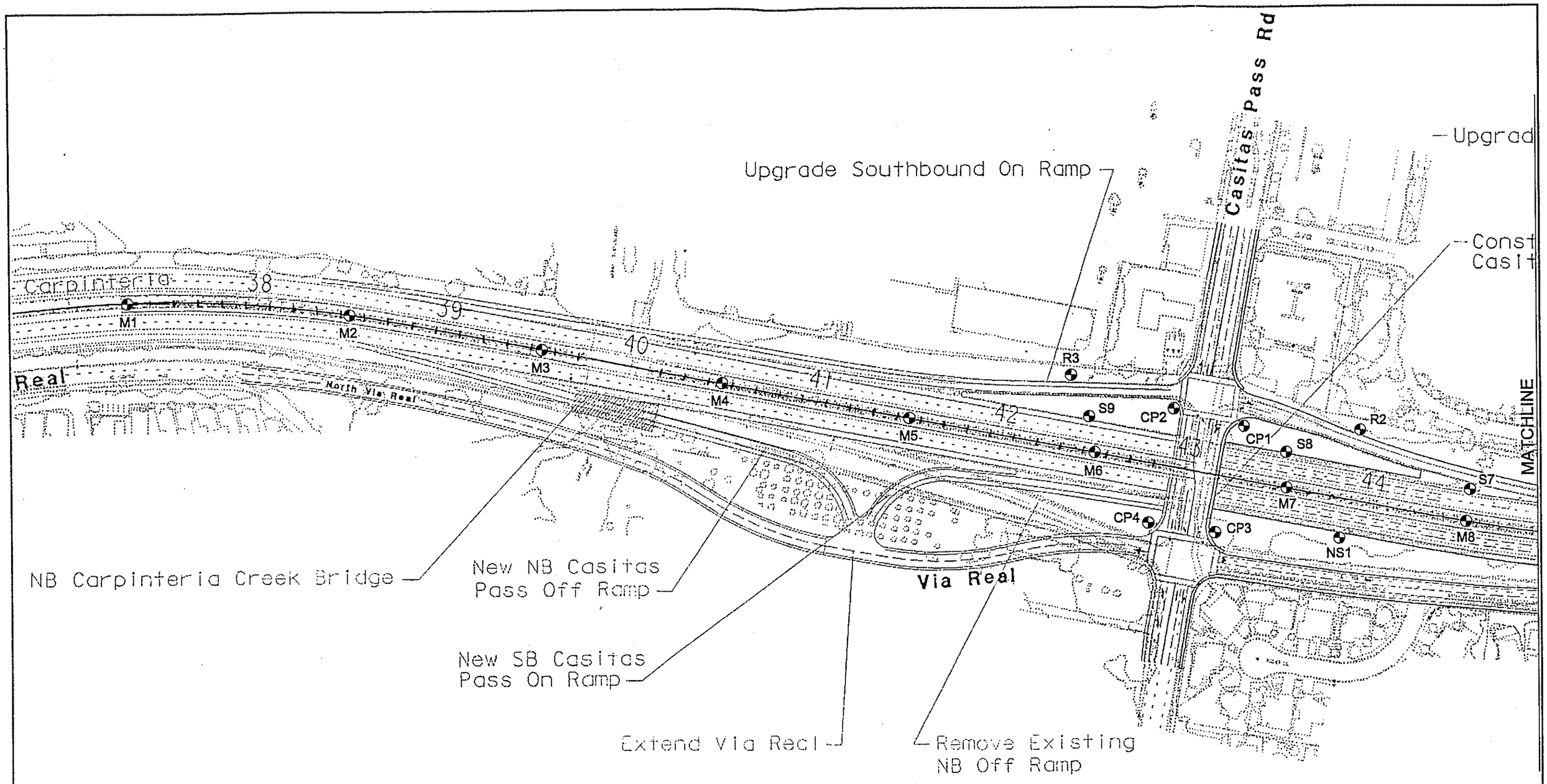
Santa Barbara County, California

VICINITY MAP

GEOCON Proj. No. E8000-06-33

Task Order No. 05-448200-GI | November 2000 | Figure 1

VICINITY.DWG



LEGEND:

Approximate Hand Auger Boring Location(s)

Note: The hand auger boring location may contain numerous borings advanced at varying distances from the edge of pavement. See Table 1 for more information.

N

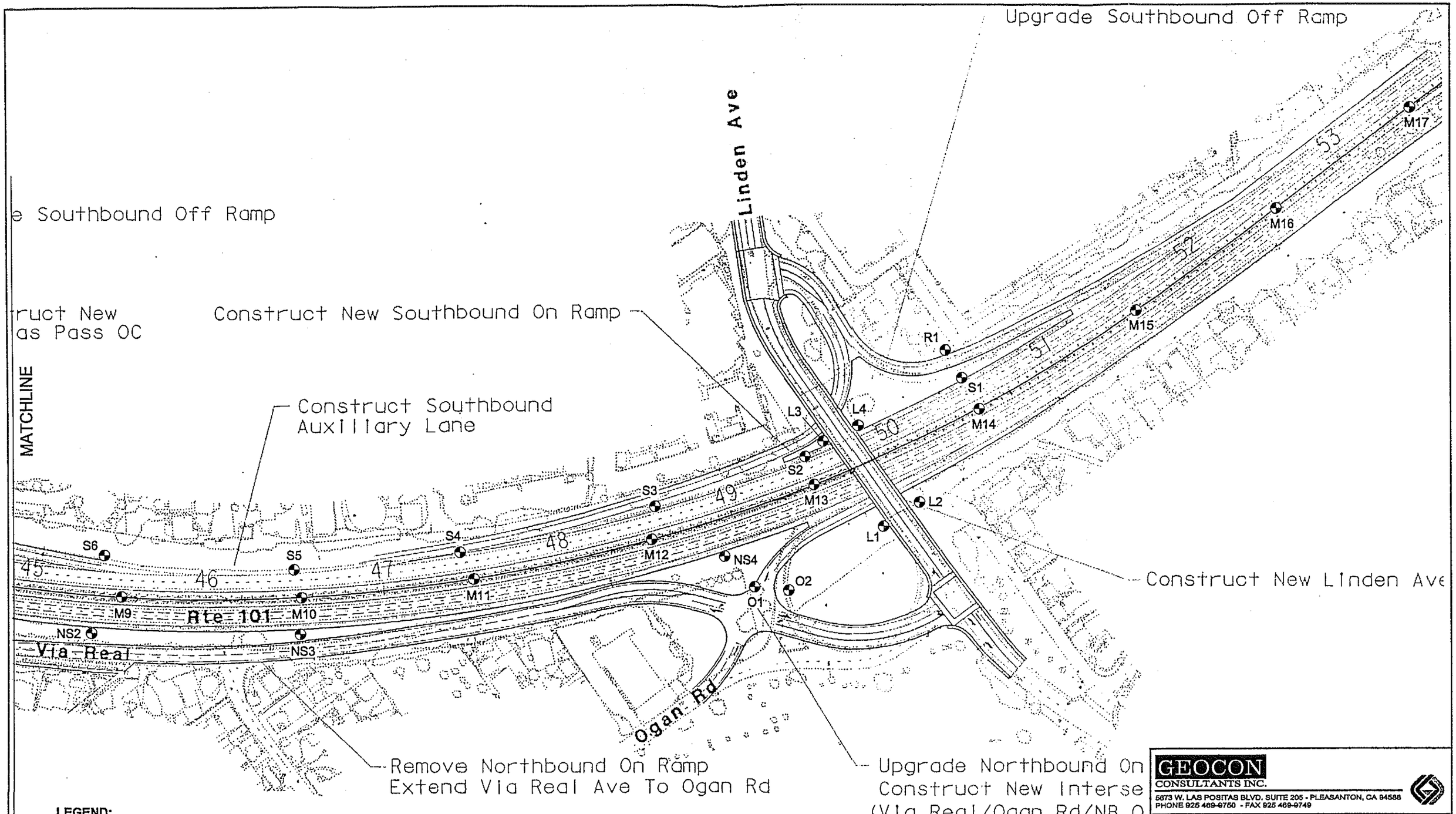
1:2000

GEOCON
CONSULTANTS INC.
5673 W. LAS POSITAS BLVD. SUITE 205 - PLEASANTON, CA 94588
PHONE 925 469-9750 - FAX 925 469-9749

Route 101-Casitas Pass/Linden Avenue Interchanges

Santa Barbara County, California	**SITE PLAN**
GEOCON Proj. No. E8000-06-33	
Task Order No. 05-448200-GI	November 2000	Figure 2a

S-BARBRA.DWG



LEGEND:

Approximate Hand Auger Boring Location(s)

Note: The hand auger boring location may contain numerous borings advanced at varying distances from the edge of pavement. See Table 1 for more information.

N

1:2000

GEOCON
CONSULTANTS INC.
5673 W. LAS POSITAS BLVD. SUITE 205 - PLEASANTON, CA 94588
PHONE 925 469-9750 - FAX 925 469-9749

Route 101-Casitas Pass/Linden Avenue Interchanges

Santa Barbara County, California	SITE PLAN	
GEOCON Proj. No. E8000-06-33		
Task Order No. 05-448200-GI	November 2000	Figure 2b

S-BARBRA.DWG

APPENDIX A

June 13, 2000

ELAP No.: 1838

Geocon Environmental
5673 W. Las Positas Blvd, Ste 205
Pleasanton, CA 94588

ATTN: Ross White

Client's Project: Evans/Casitas
Lab No.: 44581-001/012

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Cheryl De Los Reyes
Technical Operations Manager
CDR/jh

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Evans/Casitas

Date Received: 06/09/00
Date Sampled: 05/10&11/00
Date Extracted: 06/11/00
Extraction Method: WET (Title 22, CCR, 66261.100 Appendix II) Modified

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44581-001	ES2-0	EPA 7420 (Lead)	06/13/00	0.37	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-002	ES3-0	EPA 7420 (Lead)	06/13/00	0.41	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-003	ES5A-0	EPA 7420 (Lead)	06/13/00	1.1	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-004	ES9-0	EPA 7420 (Lead)	06/13/00	0.25	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-005	ES9-1	EPA 7420 (Lead)	06/13/00	0.27	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-006	M9A-0	EPA 7420 (Lead)	06/13/00	0.18	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-007	M10A-0	EPA 7420 (Lead)	06/13/00	ND	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-008	M12B-0	EPA 7420 (Lead)	06/13/00	0.19	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-009	M15A-0	EPA 7420 (Lead)	06/13/00	ND	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-010	M17A-0	EPA 7420 (Lead)	06/13/00	0.23	STLC DI Water Extract, mg/L	0.15	0.15	HP
44581-010Dup	M17A-0	EPA 7420 (Lead)	06/13/00	0.16	STLC DI Water Extract, mg/L	0.15	0.15	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 6/13/00
Cheryl de los Reyes
Technical Operations Manager

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Evans/Casitas

Date Received: 06/09/00
Date Sampled: 05/10&11/00
Date Digested: 06/13/00
Digestion Method: EPA 3010
Date Extracted: 06/11/00
Extraction Method: EPA 1311

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44581-006	M9A-0	EPA 7420 (Lead)	06/13/00	0.49	TCLP Extract, mg/L	0.15	0.15	HP
44581-007	M10A-0	EPA 7420 (Lead)	06/13/00	0.63	TCLP Extract, mg/L	0.15	0.15	HP
44581-010	M17A-0	EPA 7420 (Lead)	06/13/00	1.3	TCLP Extract, mg/L	0.15	0.15	HP
44581-011	M12A-0	EPA 7420 (Lead)	06/13/00	1.2	TCLP Extract, mg/L	0.15	0.15	HP
44581-012	S8B-0	EPA 7420 (Lead)	06/13/00	0.75	TCLP Extract, mg/L	0.15	0.15	HP
44581-012Dup	S8B-0	EPA 7420 (Lead)	06/13/00	1.5	TCLP Extract, mg/L	0.15	0.15	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 6/13/00
Cheryl de los Reyes
Technical Operations Manager

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report

Method: EPA 7420
Analyst: HP
Data File: 00613DI-1
QA File: 0167-1

ANALYTE LEAD
Date Analyzed: 6/13/00
Date Extracted: 6/11/00
Matrix: DI
QC Batch No: PBF000613DI-1

SAMPLE ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPDLimit	MDL
044581-010	mg/L	5.0	5.4	108	ND	0.23	0.16	36	5.0	5.4	5.4	103	103	80-120	0	20	0.15
044581-012	mg/L	5.0	5.2	104	ND	ND	ND	0	5.0	5.2	5.2	104	104	80-120	0	20	0.15

Approved by: CN
Cheryl De Los Reyes
Technical Operations Manager

Date: 6/13/00

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040
Advanced Technology Laboratories

Spike Recovery and RPD Summary Report

Method: EPA 7420
Analyst: HP
Data File: 00613TCLP-1
QA File: 0165-1

ANALYTE: LEAD
Date Extracted: 6/11/00
Date Analyzed: 6/13/00
Date Digested: 6/13/00
Matrix: TCLP
QC Batch No: PBF000613TCLP-1

SAMPLE ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPDLimit	MDL
BLANK	mg/L	1.0	1.2	120	ND	ND	ND	0	5.0	5.6	5.6	112	112	80-120	0	20	0.15

Approved by: _____
Cheryl De Los Reyes
Technical Operations Manager

Date: 6/13

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

FAX

Date 6/9/00

Number of pages including cover sheet 1

TO: Compton (Sheryl)

Phone
Fax Phone

FROM: Ross J. White
Geocon Consultants, Inc.
5673 W. Las Positas Blvd., Suite 205
Pleasanton, CA 94588

Phone 925.469.9750
Fax 925.469.9749

CC:

REMARKS: ☑ Urgent ☐ For your review ☐ Reply ASAP ☐ Please Comment

PLEASE PERFORM THE FOLLOWING ANALYSES

EVANS

Soluble lead (WET-DI)
- ES2-Ø (44027-4)
- ES3-Ø (" -7)
- ES5A-Ø (" -13)
- ES9-Ø (" -30)
- ES9-1 (" -31)

CASITAS

Soluble lead (WET-DI)
- M9A-Ø (44028-94)
- M10A-Ø (" -100)
- M12B-Ø (" -115)
- M15A-Ø (" -130)
- M17A-Ø (" -142)

Soluble lead (TCLP)
- M9A-Ø (44028-94)
- M10A-Ø (-100)
- M12A-Ø (-112)
- M17A-Ø (-142)
- SBB-Ø (-181)

48-HR TAT!

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ___

Logged By: [illegible] Date: 6-9 Time: 11:15

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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: Geocon
Attn: Ross White
Address: 5673 W. Las Positas Blvd, Suite 205
City: Pleasanton State: CA Zip Code: 94588
TEL: (925) 469-9750
FAX: (925) 469-9749

Project Name: Evans/ Casitas Project #: Sampler: (Printed Name) Diane Galvan (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 5/10/00 Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name ___ Date ___
Signature ___

Send Report To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Bill To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); WET-OIL Lead; TOLP Lead

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL • SLUDGE); OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	WET-OIL Lead	TOLP Lead	SOLID (SOIL • SLUDGE)	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44581-001	44027-004/ES2-0	5/10								X		X											
	002	007/ES3-0																						
	003	013/ES5A-0																						
	004	030/ES9-0																						
	005	031/ES9-1																						
	006	44028-094/M9A-0	5/10									X												
	007	100/M10A-0																						
	008	115/M12B-0																						
	009	130/M15A-0																						
	010	142/M17A-0										X												

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: Date: 6-9 Time: 11:15

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon
Attn: Ross White
Address: See page 1
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Evans/Casitas
Project #:
Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 5/10/00 Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); TCLP Lead

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8015M TPH/D (Diesel-GC)	SOLID • SOIL • SLUDGE	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44581-011	44028-112/M12A-0	5/10		X	X					
	012	181/S8B-0	5/11		↓	↓					

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

June 7, 2000

ELAP No.: 1838

Geocon Environmental
5673 W. Las Positas Blvd, Ste 205
Pleasanton, CA 94588

ATTN: Ross White

Client's Project: Casitas, #E8000-06-33
Lab No.: 44392-001/060

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Cheryl De Los Reyes
Technical Operations Manager
CDR/jh

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Digested: 06/14/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44392-022	M9B-0	EPA 7420 (Lead)	06/14/00	397	Soil, mg/kg	5.0	5.0	HP
44392-035	M13B-2	EPA 7420 (Lead)	06/14/00	72	Soil, mg/kg	5.0	5.0	HP
44392-042	M17A-0	EPA 7420 (Lead)	06/14/00	604	Soil, mg/kg	5.0	5.0	HP
44392-056	S8B-0	EPA 7420 (Lead)	06/14/00	557	Soil, mg/kg	5.0	5.0	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CV
Cheryl de los Reyes
Technical Operations Manager

Date: 6/14/

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Extracted: 06/11/00
Extraction Method: WET (Title 22 CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44392-022	M9B-0	EPA 7420 (Lead)	06/11/00	27	STLC Extract, mg/L	0.15	1.5	HP
44392-035	M13B-2	EPA 7420 (Lead)	06/11/00	5.6	STLC Extract, mg/L	0.15	0.15	HP
44392-042	M17A-0	EPA 7420 (Lead)	06/11/00	56	STLC Extract, mg/L	0.15	1.5	HP
44392-056	S8B-0	EPA 7420 (Lead)	06/11/00	26	STLC Extract, mg/L	0.15	1.5	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CN
Cheryl de los Reyes
Technical Operations Manager

Date: 6/14/00

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report

Method: EPA 7420
Analyst: HP
Data File: 00614S-1
QA File: 0166-1

ANALYTE: LEAD
Date Analyzed: 6/14/00
Date Digested: 6/14/00
Matrix: Soil
QC Batch No: PBF00614S-1

SAMPLE ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLK	SPL C	SPK ADDED	MS RSLT	MSD RSLT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
044027-048	mg/kg	250	253	101	ND	669	250	949	933	112	106	50-150	6	30	5.0

Approved by: _____
Cheryl De Los Reyes
Technical Operations Manager

Date: 6/14/00

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040
Advanced Technology Laboratories

Spike Recovery and RPD Summary Report

Method: EPA 7420
Analyst: HP
Data File: 00613STLC-1
QA File: 0165-1

ANALYTE: LEAD
Date Analyzed: 6/13/00
Date Extracted: 6/11/00
Matrix: STLC
QC Batch No: PBF000613STLC-1

SAMPLE ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPDLimit	MDL
044027-048	mg/L	5.0	5.3	106	ND	94	69	31	50	147	147	106	106	80-120	0	20	0.15

Approved by: _____
Cheryl De Los Reyes
Technical Operations Manager

Date: 6/14/

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Extracted:
Extraction Method: WET (Title 22 CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44392-001	CP2-0	EPA 7420 (Lead)	06/06/00	3.9	STLC Extract, mg/L	0.15	0.15	HP
44392-002	CP1-0	EPA 7420 (Lead)	06/06/00	26	STLC Extract, mg/L	0.15	1.5	HP
44392-003	CP3-0	EPA 7420 (Lead)	06/06/00	16	STLC Extract, mg/L	0.15	1.5	HP
44392-004	CP4-0	EPA 7420 (Lead)	06/06/00	20	STLC Extract, mg/L	0.15	1.5	HP
44392-005	L1-0	EPA 7420 (Lead)	06/06/00	21	STLC Extract, mg/L	0.15	1.5	HP
44392-006	L1-1	EPA 7420 (Lead)	06/06/00	7.3	STLC Extract, mg/L	0.15	0.5	HP
44392-007	L2-0	EPA 7420 (Lead)	06/06/00	12	STLC Extract, mg/L	0.15	1.5	HP
44392-008	L3-0	EPA 7420 (Lead)	06/06/00	13	STLC Extract, mg/L	0.15	1.5	HP
44392-009	M3B-1	EPA 7420 (Lead)	06/06/00	7.9	STLC Extract, mg/L	0.15	0.15	HP
44392-010	M4A-0	EPA 7420 (Lead)	06/06/00	6.7	STLC Extract, mg/L	0.15	0.15	HP
44392-010Dup	M4A-0	EPA 7420 (Lead)	06/06/00	7.2	STLC Extract, mg/L	0.15	0.15	HP
44392-011	M4B-0	EPA 7420 (Lead)	06/06/00	14	STLC Extract, mg/L	0.15	1.5	HP
44392-012	M5A-0	EPA 7420 (Lead)	06/06/00	16	STLC Extract, mg/L	0.15	1.5	HP
44392-013	M5B-0	EPA 7420 (Lead)	06/06/00	10	STLC Extract, mg/L	0.15	1.5	HP
44392-014	M6A-0	EPA 7420 (Lead)	06/06/00	19	STLC Extract, mg/L	0.15	1.5	HP
44392-015	M6B-0	EPA 7420 (Lead)	06/06/00	13	STLC Extract, mg/L	0.15	1.5	HP
44392-016	M7A-0	EPA 7420 (Lead)	06/06/00	29	STLC Extract, mg/L	0.15	1.5	HP
44392-017	M7B-0	EPA 7420 (Lead)	06/06/00	21	STLC Extract, mg/L	0.15	1.5	HP
44392-018	M8A-0	EPA 7420 (Lead)	06/06/00	4.8	STLC Extract, mg/L	0.15	0.15	HP
44392-019	M8A-1	EPA 7420 (Lead)	06/06/00	7.0	STLC Extract, mg/L	0.15	0.15	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 6/7/00
Cheryl de los Reyes
Technical Operations Manager

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Extracted:
Extraction Method: WET (Title 22 CCR, 66261.100 Appendix II)

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44392-020	M8B-0	EPA 7420 (Lead)	06/06/00	5.4	STLC Extract, mg/L	0.15	0.15	HP
44392-020Dup	M8B-0	EPA 7420 (Lead)	06/06/00	6.5	STLC Extract, mg/L	0.15	0.15	HP
44392-021	M9A-0	EPA 7420 (Lead)	06/06/00	47	STLC Extract, mg/L	0.15	1.5	HP
44392-022	M9B-0	EPA 7420 (Lead)	06/06/00	32	STLC Extract, mg/L	0.15	1.5	HP
44392-023	M9B-1	EPA 7420 (Lead)	06/06/00	3.4	STLC Extract, mg/L	0.15	0.15	HP
44392-024	M10A-0	EPA 7420 (Lead)	06/06/00	35	STLC Extract, mg/L	0.15	1.5	HP
44392-025	M10B-0	EPA 7420 (Lead)	06/06/00	14	STLC Extract, mg/L	0.15	1.5	HP
44392-026	M10B-1	EPA 7420 (Lead)	06/06/00	12	STLC Extract, mg/L	0.15	1.5	HP
44392-027	M11A-0	EPA 7420 (Lead)	06/06/00	28	STLC Extract, mg/L	0.15	1.5	HP
44392-028	M11B-0	EPA 7420 (Lead)	06/06/00	34	STLC Extract, mg/L	0.15	1.5	HP
44392-029	M12A-0	EPA 7420 (Lead)	06/06/00	32	STLC Extract, mg/L	0.15	1.5	HP
44392-030	M12B-0	EPA 7420 (Lead)	06/06/00	29	STLC Extract, mg/L	0.15	1.5	HP
44392-030Dup	M12B-0	EPA 7420 (Lead)	06/06/00	28	STLC Extract, mg/L	0.15	1.5	HP
44392-031	M12B-1	EPA 7420 (Lead)	06/06/00	19	STLC Extract, mg/L	0.15	1.5	HP
44392-032	M13A-0	EPA 7420 (Lead)	06/06/00	5.2	STLC Extract, mg/L	0.15	0.15	HP
44392-033	M13B-0	EPA 7420 (Lead)	06/06/00	13	STLC Extract, mg/L	0.15	1.5	HP
44392-034	M13B-1	EPA 7420 (Lead)	06/06/00	5.5	STLC Extract, mg/L	0.15	0.15	HP
44392-035	M13B-2	EPA 7420 (Lead)	06/06/00	45	STLC Extract, mg/L	0.15	0.15	HP
44392-036	M14A-0	EPA 7420 (Lead)	06/06/00	9.7	STLC Extract, mg/L	0.15	1.5	HP
44392-037	M14B-0	EPA 7420 (Lead)	06/06/00	11	STLC Extract, mg/L	0.15	1.5	HP

Reanalyzed

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 6/7/00
Cheryl de los Reyes
Technical Operations Manager

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Extracted:
Extraction Method: WET (Title 22 CCR, 66261.100 Appendix II)

Re-analyzed

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44392-038	M15A-0	EPA 7420 (Lead)	06/06/00	41	STLC Extract, mg/L	0.15	1.5	HP
44392-039	M15B-0	EPA 7420 (Lead)	06/06/00	14	STLC Extract, mg/L	0.15	1.5	HP
44392-040	M16A-0	EPA 7420 (Lead)	06/06/00	21	STLC Extract, mg/L	0.15	1.5	HP
44392-040Dup	M16A-0	EPA 7420 (Lead)	06/06/00	19	STLC Extract, mg/L	0.15	1.5	HP
44392-041	M16B-0	EPA 7420 (Lead)	06/06/00	15	STLC Extract, mg/L	0.15	1.5	HP
44392-042	M17A-0	EPA 7420 (Lead)	06/06/00	65	STLC Extract, mg/L	0.15	1.5	HP
44392-043	M17A-1	EPA 7420 (Lead)	06/06/00	6.7	STLC Extract, mg/L	0.15	0.15	HP
44392-044	M17B-0	EPA 7420 (Lead)	06/06/00	26	STLC Extract, mg/L	0.15	1.5	HP
44392-045	M17B-1	EPA 7420 (Lead)	06/06/00	1.7	STLC Extract, mg/L	0.15	0.15	HP
44392-046	S1-0	EPA 7420 (Lead)	06/06/00	12	STLC Extract, mg/L	0.15	1.5	HP
44392-047	S2A-0	EPA 7420 (Lead)	06/06/00	22	STLC Extract, mg/L	0.15	1.5	HP
44392-048	S2B-0	EPA 7420 (Lead)	06/06/00	12	STLC Extract, mg/L	0.15	1.5	HP
44392-049	S3-0	EPA 7420 (Lead)	06/06/00	12	STLC Extract, mg/L	0.15	1.5	HP
44392-050	S4A-0	EPA 7420 (Lead)	06/06/00	8.2	STLC Extract, mg/L	0.15	0.15	HP
44392-050Dup	S4A-0	EPA 7420 (Lead)	06/06/00	8.8	STLC Extract, mg/L	0.15	0.15	HP
44392-051	S4B-0	EPA 7420 (Lead)	06/06/00	6.4	STLC Extract, mg/L	0.15	0.15	HP
44392-052	S5-0	EPA 7420 (Lead)	06/06/00	5.3	STLC Extract, mg/L	0.15	0.15	HP
44392-053	S6A-0	EPA 7420 (Lead)	06/06/00	6.2	STLC Extract, mg/L	0.15	0.15	HP
44392-054	S8A-0	EPA 7420 (Lead)	06/06/00	21	STLC Extract, mg/L	0.15	1.5	HP
44392-055	S8A-1	EPA 7420 (Lead)	06/06/00	6.8	STLC Extract, mg/L	0.15	0.15	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CW
Cheryl de los Reyes
Technical Operations Manager

Date: 6/7/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Extracted:
Extraction Method: WET (Title 22 CCR, 66261.100 Appendix II)

re-analyzed

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44392-056	S8B-0	EPA 7420 (Lead)	06/06/00	2.0	STLC Extract, mg/L	0.15	0.15	HP
44392-057	S8B-1	EPA 7420 (Lead)	06/06/00	4.2	STLC Extract, mg/L	0.15	0.15	HP
44392-058	S9-0	EPA 7420 (Lead)	06/06/00	11	STLC Extract, mg/L	0.15	0.15	HP
44392-059	S9-1	EPA 7420 (Lead)	06/06/00	9.9	STLC Extract, mg/L	0.15	0.15	HP
44392-060	R3-0	EPA 7420 (Lead)	06/06/00	5.5	STLC Extract, mg/L	0.15	0.15	HP
44392-060Dup	R3-0	EPA 7420 (Lead)	06/06/00	5.3	STLC Extract, mg/L	0.15	0.15	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CW
Cheryl de los Reyes
Technical Operations Manager

Date: 6/7/00

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 7420
Analyst: HP
Data File: 00606STLC-1
QA File: 0158-1

ANALYTE: LEAD
Date Analyzed: 6/6/00
Date Extracted: 06/03/00, 05/31/00
Matrix: STLC
QC Batch No: PBF000606STLC-1

SAMPLE ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPDLimit	MDL
044253-032	mg/L	5.0	4.8	96	ND	7.1	6.0	17	5.0	13	13	118	118	80-120	0	20	0.15
044253-080	mg/L	5.0	5.4	108	ND	6.0	5.9	2	5.0	11	11	100	100	80-120	0	20	0.15
044253-109	mg/L	5.0	5.4	108	ND	6.9	7.4	7	5.0	11	12	82	102	80-120	22	20	0.15
044253-145	mg/L	5.0	5.4	108	ND	4.2	3.8	10	5.0	8.5	8.4	86	84	80-120	2	20	0.15
044253-157	mg/L	5.0	5.5	110	ND	6.1	6.2	2	10	16	16	99	99	80-120	0	20	0.15
044357-010	mg/L	5.0	5.5	110	ND	111	114	3	100	209	212	98	101	80-120	3	20	0.15
044357-020	mg/L	5.0	5.5	110	ND	64	71	10	50	118	120	108	112	80-120	4	20	0.15
044357-030	mg/L	5.0	5.3	106	ND	8.5	8.0	6	10	18	18	95	95	80-120	0	20	0.15
044357-040	mg/L	5.0	5.2	104	ND	4.4	4.7	7	5.0	9.2	9.2	96	96	80-120	0	20	0.15
044357-048	mg/L	5.0	5.3	106	ND	8.2	10	20	10	18	17	98	88	80-120	11	20	0.15
044392-010	mg/L	5.0	5.4	108	ND	6.7	7.2	7	5.0	12	12	106	106	80-120	0	20	0.15
044392-020	mg/L	5.0	5.2	104	ND	5.4	6.5	18	5.0	11	11	112	112	80-120	0	20	0.15
044392-030	mg/L	5.0	5.2	104	ND	29.0	28	4	50	78	78	98	98	80-120	0	20	0.15
044392-040	mg/L	5.0	4.8	96	ND	21	19	10	50	71	69	100	96	80-120	4	20	0.15
044392-050	mg/L	5.0	5.0	100	ND	8.2	8.8	7	5.0	12	12	76	76	80-120	0	20	0.15
044392-060	mg/L	5.0	4.3	86	ND	5.5	5.3	4	25	27	27	86	86	80-120	0	20	0.15

Approved by: CW
Cheryl De Los Reyes
Technical Operations Manager

Date: 6/7/00

Advanced Technology Laboratories
1510 E. 33rd Street, Signal Hill, CA 90806 Tel: 562 989-4045 Fax: 562 989-4040

FAX

Date 5/31/00

Number of pages including cover sheet 3

TO: Compton et. al
ATL

Phone
Fax Phone

CC:

FROM: Ross J. White
Geocon Consultants, Inc.
5673 W. Las Positas Blvd., Suite 205
Pleasanton, CA 94588

Phone 925.469.9750
Fax 925.469.9749

REMARKS: ☐ Urgent ☐ For your review ☑ Reply ASAP ☐ Please Comment

Please analyze the following soil samples for soluble lead via the WET-CITRIC.

Samples shown with a "Yes" total of 60 samples

48-HR TAT.

Thanks

- Ross

ATL ID.	Sample ID.	Total Lead (mg/kg)	Soluble Lead - WET (mg/l)
44028- 1	CP2-0	57	YES
44028- 2	CP2-1	23	---
44028- 3	CP2-2	12	---
44028- 4	CP2-3	9.9	---
44028- 5	CP1-0	263	YES
44028- 6	CP1-1	25	---
44028- 7	CP1-2	12	---
44028- 8	CP1-3	14	---
44028- 9	CP3-0	195	YES
44028- 10	CP3-1	9.7	---
44028- 11	CP3-2	7.5	---
44028- 12	CP3-3	3.9	---
44028- 13	CP4-0	159	YES
44028- 14	CP4-1	5.6	---
44028- 15	CP4-2	4.4	---
44028- 16	CP4-3	2.7	---
44028- 20	L1-0	257	YES
44028- 21	L1-1	117	YES
44028- 22	L1-2	15	---
44028- 23	L1-3	17	---
44028- 24	L2-0	142	YES
44028- 25	L2-1	10	---
44028- 26	L2-2	5.4	---
44028- 27	L2-3	6.2	---
44028- 28	L3-0	136	YES
44028- 29	L3-1	7.9	---
44028- 30	L3-2	6.0	---
44028- 31	L3-3	5.1	---
44028- 38	O1-0	36	---
44028- 39	O1-1	6.7	---
44028- 40	O1-2	5.5	---
44028- 41	O1-3	6.4	---
44028- 42	O2-0	28	---
44028- 43	O2-1	5.6	---
44028- 44	O2-2	5.2	---
44028- 45	O2-3	5.0	---
44028- 46	M1A-0	28	---
44028- 47	M1A-1	21	---
44028- 48	M1A-2	8.2	---
44028- 49	M1B-0	44.0	---
44028- 50	M1B-1	14	---
44028- 51	M1B-2	7.5	---
44028- 52	M2A-0	22	---
44028- 53	M2A-1	12	---
44028- 54	M2A-2	7.5	---
44028- 55	M2B-0	47	---
44028- 56	M2B-1	25	---
44028- 57	M2B-2	5.3	---
44028- 58	M3A-0	31	---
44028- 59	M3A-1	5.8	---
44028- 60	M3A-2	6.3	---
44028- 61	M3B-0	42	---
44028- 62	M3B-1	123	YES
44028- 63	M3B-2	6.7	---
44028- 64	M4A-0	135	YES
44028- 65	M4A-1	6.8	---
44028- 66	M4A-2	5.0	---
44028- 67	M4B-0	192	YES
44028- 68	M4B-1	20	---
44028- 69	M4B-2	5.3	---
44028- 70	M5A-0	145	YES
44028- 71	M5A-1	16	---
44028- 72	M5A-2	8.3	---
44028- 73	M5B-0	110	YES
44028- 74	M5B-1	13	---
44028- 75	M5B-2	5.2	---
44028- 76	M6A-0	157	YES
44028- 77	M6A-1	5.3	---
44028- 78	M6A-2	8.3	---
44028- 79	M6B-0	135	YES
44028- 80	M6B-1	6.6	---
44028- 81	M6B-2	4.3	---
44028- 82	M7A-0	258	YES
44028- 83	M7A-1	8.9	---
44028- 84	M7A-2	5.1	---
44028- 85	M7B-0	252	YES
44028- 86	M7B-1	7.3	---
44028- 87	M7B-2	2.0	---
44028- 88	M8A-0	103	YES
44028- 89	M8A-1	121	YES
44028- 90	M8A-2	16	---
44028- 91	M8B-0	75	YES
44028- 92	M8B-1	9.7	---
44028- 93	M8B-2	6.5	---
44028- 94	M9A-0	520	YES
44028- 95	M9A-1	8.1	---
44028- 96	M9A-2	10	---
44028- 97	M9B-0	133	YES
44028- 98	M9B-1	27	YES
44028- 99	M9B-2	21	---
44028- 100	M10A-0	342	YES
44028- 101	M10A-1	8.5	---
44028- 102	M10A-2	5.5	---
44028- 103	M10B-0	228	YES
44028- 104	M10B-1	144	YES
44028- 105	M10B-2	3.0	---

ATL ID.	Sample ID.	Total Lead (mg/kg)	Soluble Lead - WET (mg/l)
44028-106	M11A-0	223	YES
44028-107	M11A-1	6.5	---
44028-108	M11A-2	11	---
44028-109	M11B-0	298	YES
44028-110	M11B-1	7.3	---
44028-111	M11B-2	6.1	---
44028-112	M12A-0	374	YES
44028-113	M12A-1	49	---
44028-114	M12A-2	9.0	---
44028-115	M12B-0	271	YES
44028-116	M12B-1	242	YES
44028-117	M12B-2	9.2	---
44028-118	M13A-0	69	YES
44028-119	M13A-1	9.7	---
44028-120	M13A-2	9.4	---
44028-121	M13B-0	113	YES
44028-122	M13B-1	97	YES
44028-123	M13B-2	78	YES
44028-124	M14A-0	126	YES
44028-125	M14A-1	7.9	---
44028-126	M14A-2	8.4	---
44028-127	M14B-0	92	YES
44028-128	M14B-1	34	---
44028-129	M14B-2	9.0	---
44028-130	M15A-0	362	YES
44028-131	M15A-1	8.5	---
44028-132	M15A-2	6.0	---
44028-133	M15B-0	145	YES
44028-134	M15B-1	7.3	---
44028-135	M15B-2	6.1	---
44028-136	M16A-0	160	YES
44028-137	M16A-1	7.1	---
44028-138	M16A-2	7.0	---
44028-139	M16B-0	2.0	YES
44028-140	M16B-1	3.4	---
44028-141	M16B-2	8.1	---
44028-142	M17A-0	555	YES
44028-143	M17A-1	33	YES
44028-144	M17A-2	12	---
44028-145	M17B-0	321	YES
44028-146	M17B-1	28	---
44028-147	M17B-2	51	YES
44028-148	S1-0	190	YES
44028-149	S1-1	15	---
44028-150	S1-2	8.1	---
44028-151	S2A-0	321	YES
44028-152	S2A-1	5.3	---
44028-153	S2A-2	8	---
44028-154	S2B-0	174	YES
44028-155	S2B-1	11	---
44028-156	S2B-2	7.9	---
44028-157	S3-0	227	YES
44028-158	S3-1	35	---
44028-159	S3-2	7.9	---
44028-160	S4A-0	190	YES
44028-161	S4A-1	3.9	---
44028-162	S4A-2	7.6	---
44028-163	S4B-0	52	YES
44028-164	S4B-1	5.8	---
44028-165	S4B-2	4.5	---
44028-166	S5-0	106	YES
44028-167	S5-1	6.8	---
44028-168	S5-2	3.3	---
44028-169	S6A-0	151	YES
44028-170	S6A-1	21	---
44028-171	S6A-2	6.0	---
44028-172	S6B-0	42	---
44028-173	S6B-1	6.1	---
44028-174	S6B-2	5.3	---
44028-175	S7-0	37	---
44028-176	S7-1	7.1	---
44028-177	S7-2	7.4	---
44028-178	S8A-0	300	YES
44028-179	S8A-1	100	YES
44028-180	S8A-2	35	---
44028-181	S8B-0	362	YES
44028-182	S8B-1	84	YES
44028-183	S8B-2	13	---
44028-184	S9-0	253	YES
44028-185	S9-1	211	YES
44028-186	S9-2	31	---
44028-187	R1-0	18	---
44028-188	R1-1	7.8	---
44028-189	R1-2	5.4	---
44028-190	L4-0	46	---
44028-191	L4-1	6.6	---
44028-192	L4-2	8.7	---
44028-193	L4-3	7.2	---
44028-194	R2-0	7	---
44028-195	R2-1	3.5	---
44028-196	R2-2	3.0	---
44028-197	R3-0	193	YES
44028-198	R3-1	3.9	---
44028-199	R3-2	3.7	---

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: B Date: 6-1 Time:

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon
Attn: Ross White
Address:
City Pleasanton State CA Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas Project #: ES000-06-33 Sampler: (Printed Name) (Signature) Diane Halvan

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
			Diane Halvan	5-16-00	
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); Silica Lead

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPHD (Diesel-GC)	Silica Lead	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44392-001	44028-001/CP2-0	5/10								X						X				1	Bag	
	002	005/CP1-0																					
	003	009/CP3-0																					
	004	013/CP4-0																					
	005	020/L1-0																					
	006	021/L1-1																					
	007	024/L2-0																					
	008	028/L3-0																					
	009	062/M3B-1																					
	010	064/M4A-0																					

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ____ of ____

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____

Logged By: (B) Date: 6-1 Time: ____

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon
Attn: Ross White
Address: See page 1
City ____ State ____ Zip Code ____
TEL: ( )
FAX: ( )

Project Name: Casitas
Project #: E8000-06-33
Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
			Diane Kilian	5-16-00	

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: ____ Print Name ____ Date ____ Signature

Send Report To: Attn: ____ Co: ____ Address ____ City ____ State ____ Zip ____

Bill To: Attn: ____ Co: ____ Address ____ City ____ State ____ Zip ____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); SILC Lead

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER; TAT

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	SILC Lead	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44392-011	44028-067/M4B-D	5/10								X						X				1	Bag	
	012	070/M5A-D																					
	013	073/M5B-D																					
	014	076/M6A-D																					
	015	079/M6B-D																					
	016	082/M7A-D																					
	017	085/M7B-D																					
	018	088/M8A-D																					
	019	089/M8A-1																					
	020	091/M8B-D																					

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 2 of 4

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: B Date: 6-1 Time:

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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: Geocon
Attn: Ross White
Address: See page 1
City State Zip Code
TEL: ( ) FAX: ( )

Project Name: Casitas Project #: E8000-06-33 Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
			Dave Halvan	5-16-00	

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To: Attn: Co: Address City State Zip

Bill To: Attn: Co: Address City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); STLC Lead

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	STLC Lead	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44392-021	44028-094/M9A-0	5/10							X						X				1	Bag	
	022	097/M9B-0																				
	023	098/M9B-1																				
	024	100/M10A-0																				
	025	103/M10B-0																				
	026	104/M10B-1																				
	027	106/M11A-0																				
	028	109/M11B-0																				
	029	112/M12A-0																				
	030	115/M12B-0																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 6

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: (B) Date: 6-1 Time:

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon
Attn: Ross White

Address: See page 1
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas Project #: E8000-06-33 Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Diane Galvan Date: 5-16-00 Time:

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

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

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	STLC Lead	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44392-031	44028-116/M12B-1	5/10								X	X								1	Bag		
	032	118/M13A-0																					
	033	121/M13B-0																					
	034	122/M13B-1																					
	035	123/M13B-2																					
	036	124/M14A-0																					
	037	127/M14B-0																					
	038	130/M15A-0																					
	039	133/M15B-0																					
	040	136/M16A-0																					

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ___

Logged By: [signature] Date: 6-1 Time: ___

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon
Attn: Ross White
Address: See page 1
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas Project #: E8000-06-33 Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) [signature] Date: 5-16-00 Time:

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

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

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Bill To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	SILC lead	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44392-041	44028-139/M16B-0	5/10								X	X								1	Bag		
	042	142/M17A-0																					
	043	143/M17A-1																					
	044	145/M17B-0																					
	045	147/M17B-1																					
	046	148/S1-0																					
	047	151/S2A-0																					
	048	154/S2B-0																					
	049	157/S3-0																					
	050	160/S4A-0	5/11																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ___

Logged By: (R) Date: 6-1 Time: ___

Method of Transport: Walk-in ☐ Courier ☒ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client: Geocon
Attn: Ross White
Address: See page 1
City ___ State ___ Zip Code ___
TEL: ( )
FAX: ( )

Project Name: Casitas
Project #: ES000-06-33
Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
			Diane Halvan	5-16-00	

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name ___ Date ___
Signature ___

Send Report To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Bill To:
Attn: ___
Co: ___
Address ___
City ___ State ___ Zip ___

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ___
☐ Return To: ___

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); STL Lab

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	STL Lab	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	44392-051	44028-1163/S4B-0	5/11								X				X						1	Bag	
	052	1166/S5-0																					
	053	1169/S6A-0																					
	054	178/S8A-0																					
	055	179/S8A-1																					
	056	181/S8B-0																					
	057	182/S8B-1																					
	058	184/S9-0																					
	059	185/S9-1																					
	060	197/R3-0																					

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ___

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

(25)

Advanced Technology Laboratories

Advanced Technology Laboratories, Inc.
1510 E. 33rd St.
Signal Hill, CA 90807
(562) 989-4045 Phone
(562) 989-4040 Fax

FACSIMILE TRANSMITTAL

To: ROSS W

Total Pages (incl. cover): 1

Company: GEOCON

From: Rachelle (BA)

Subject: CASITAS

Phone:

Comments: O Urgent O As requested O Please respond

Message: PB + PH RESULTS

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the address above.

Thank you.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/09/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-001	CP2-0	EPA 6010 (Lead)	05/25/00	57	Soil, mg/kg	0.25	0.25	JS
44028-002	CP2-1	EPA 6010 (Lead)	05/25/00	25	Soil, mg/kg	0.25	0.25	JS
44028-003	CP2-2	EPA 6010 (Lead)	05/25/00	16	Soil, mg/kg	0.25	0.25	JS
44028-004	CP2-3	EPA 6010 (Lead)	05/25/00	9.9	Soil, mg/kg	0.25	0.25	JS
44028-005	CP1-0	EPA 6010 (Lead)	05/25/00	263	Soil, mg/kg	0.25	0.25	JS
44028-006	CP1-1	EPA 6010 (Lead)	05/25/00	25	Soil, mg/kg	0.25	0.25	JS
44028-007	CP1-2	EPA 6010 (Lead)	05/25/00	12	Soil, mg/kg	0.25	0.25	JS
44028-008	CP1-3	EPA 6010 (Lead)	05/25/00	14	Soil, mg/kg	0.25	0.25	JS
44028-009	CP3-0	EPA 6010 (Lead)	05/25/00	195	Soil, mg/kg	0.25	0.25	JS
44028-010	CP3-1	EPA 6010 (Lead)	05/25/00	9.7	Soil, mg/kg	0.25	0.25	JS
44028-011	CP3-2	EPA 6010 (Lead)	05/25/00	7.5	Soil, mg/kg	0.25	0.25	JS
44028-012	CP3-3	EPA 6010 (Lead)	05/25/00	3.9	Soil, mg/kg	0.25	0.25	JS
44028-013	CP4-0	EPA 6010 (Lead)	05/25/00	159	Soil, mg/kg	0.25	0.25	JS
44028-014	CP4-1	EPA 6010 (Lead)	05/25/00	5.6	Soil, mg/kg	0.25	0.25	JS
44028-015	CP4-2	EPA 6010 (Lead)	05/25/00	4.4	Soil, mg/kg	0.25	0.25	JS
44028-016	CP4-3	EPA 6010 (Lead)	05/25/00	2.7	Soil, mg/kg	0.25	0.25	JS
44028-020	L1-0	EPA 6010 (Lead)	05/25/00	257	Soil, mg/kg	0.25	0.25	JS
44028-021	L1-1	EPA 6010 (Lead)	05/25/00	117	Soil, mg/kg	0.25	0.25	JS
44028-022	L1-2	EPA 6010 (Lead)	05/25/00	15	Soil, mg/kg	0.25	0.25	JS
44028-023	L1-3	EPA 6010 (Lead)	05/25/00	17	Soil, mg/kg	0.25	0.25	JS
44028-024	L2-0	EPA 6010 (Lead)	05/25/00	142	Soil, mg/kg	0.25	0.25	JS
44028-025	L2-1	EPA 6010 (Lead)	05/25/00	10	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: [signature]
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/09&10/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-026	L2-2	EPA 6010 (Lead)	05/25/00	5.4	Soil, mg/kg	0.25	0.25	JS
44028-027	L2-3	EPA 6010 (Lead)	05/25/00	6.2	Soil, mg/kg	0.25	0.25	JS
44028-028	L3-0	EPA 6010 (Lead)	05/25/00	136	Soil, mg/kg	0.25	0.25	JS
44028-029	L3-1	EPA 6010 (Lead)	05/25/00	7.9	Soil, mg/kg	0.25	0.25	JS
44028-030	L3-2	EPA 6010 (Lead)	05/25/00	6.0	Soil, mg/kg	0.25	0.25	JS
44028-031	L3-3	EPA 6010 (Lead)	05/25/00	6.1	Soil, mg/kg	0.25	0.25	JS
44028-038	~~O1-1~~ O1-0	EPA 6010 (Lead)	05/25/00	36	Soil, mg/kg	0.25	0.25	JS
44028-039	~~O1-2~~ O1-1	EPA 6010 (Lead)	05/25/00	6.7	Soil, mg/kg	0.25	0.25	JS
44028-040	O1-2	EPA 6010 (Lead)	05/25/00	5.5	Soil, mg/kg	0.25	0.25	JS
44028-041	O1-3	EPA 6010 (Lead)	05/25/00	6.4	Soil, mg/kg	0.25	0.25	JS
44028-042	O2-0	EPA 6010 (Lead)	05/25/00	28	Soil, mg/kg	0.25	0.25	JS
44028-043	O2-1	EPA 6010 (Lead)	05/25/00	5.6	Soil, mg/kg	0.25	0.25	JS
44028-044	O2-2	EPA 6010 (Lead)	05/25/00	5.2	Soil, mg/kg	0.25	0.25	JS
44028-045	O2-3	EPA 6010 (Lead)	05/25/00	5.0	Soil, mg/kg	0.25	0.25	JS
44028-046	M1A-0	EPA 6010 (Lead)	05/25/00	28	Soil, mg/kg	0.25	0.25	JS
44028-047	M1A-1	EPA 6010 (Lead)	05/25/00	21	Soil, mg/kg	0.25	0.25	JS
44028-048	M1A-2	EPA 6010 (Lead)	05/25/00	8.2	Soil, mg/kg	0.25	0.25	JS
44028-049	M1B-0	EPA 6010 (Lead)	05/25/00	44	Soil, mg/kg	0.25	0.25	JS
44028-050	M1B-1	EPA 6010 (Lead)	05/25/00	14	Soil, mg/kg	0.25	0.25	JS
44028-051	M1B-2	EPA 6010 (Lead)	05/25/00	7.5	Soil, mg/kg	0.25	0.25	JS
44028-052	M2A-0	EPA 6010 (Lead)	05/25/00	22	Soil, mg/kg	0.25	0.25	JS
44028-053	M2A-1	EPA 6010 (Lead)	05/25/00	12	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CW
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-054	M2A-2	EPA 6010 (Lead)	05/25/00	7.6	Soil, mg/kg	0.25	0.25	JS
44028-055	M2B-0	EPA 6010 (Lead)	05/25/00	47	Soil, mg/kg	0.25	0.25	JS
44028-056	M2B-1	EPA 6010 (Lead)	05/25/00	28	Soil, mg/kg	0.25	0.25	JS
44028-057	M2B-2	EPA 6010 (Lead)	05/25/00	5.3	Soil, mg/kg	0.25	0.25	JS
44028-058	M3A-0	EPA 6010 (Lead)	05/25/00	31	Soil, mg/kg	0.25	0.25	JS
44028-059	M3A-1	EPA 6010 (Lead)	05/25/00	5.8	Soil, mg/kg	0.25	0.25	JS
44028-060	M3A-2	EPA 6010 (Lead)	05/25/00	6.5	Soil, mg/kg	0.25	0.25	JS
44028-061	M3B-0	EPA 6010 (Lead)	05/25/00	44	Soil, mg/kg	0.25	0.25	JS
44028-062	M3B-1	EPA 6010 (Lead)	05/25/00	123	Soil, mg/kg	0.25	0.25	JS
44028-063	M3B-2	EPA 6010 (Lead)	05/25/00	6.7	Soil, mg/kg	0.25	0.25	JS
44028-064	M4A-0	EPA 6010 (Lead)	05/25/00	135	Soil, mg/kg	0.25	0.25	JS
44028-065	M4A-1	EPA 6010 (Lead)	05/25/00	6.8	Soil, mg/kg	0.25	0.25	JS
44028-066	M4A-2	EPA 6010 (Lead)	05/25/00	5.0	Soil, mg/kg	0.25	0.25	JS
44028-067	M4B-0	EPA 6010 (Lead)	05/25/00	192	Soil, mg/kg	0.25	0.25	JS
44028-068	M4B-1	EPA 6010 (Lead)	05/25/00	20	Soil, mg/kg	0.25	0.25	JS
44028-069	M4B-2	EPA 6010 (Lead)	05/25/00	5.3	Soil, mg/kg	0.25	0.25	JS
44028-070	M5A-0	EPA 6010 (Lead)	05/25/00	145	Soil, mg/kg	0.25	0.25	JS
44028-071	M5A-1	EPA 6010 (Lead)	05/25/00	16	Soil, mg/kg	0.25	0.25	JS
44028-072	M5A-2	EPA 6010 (Lead)	05/25/00	4.3	Soil, mg/kg	0.25	0.25	JS
44028-073	M5B-0	EPA 6010 (Lead)	05/25/00	110	Soil, mg/kg	0.25	0.25	JS
44028-074	M5B-1	EPA 6010 (Lead)	05/25/00	13	Soil, mg/kg	0.25	0.25	JS
44028-075	M5B-2	EPA 6010 (Lead)	05/25/00	5.2	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: [signature]
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-076	M6A-0	EPA 6010 (Lead)	05/25/00	155	Soil, mg/kg	0.25	0.25	JS
44028-077	M6A-1	EPA 6010 (Lead)	05/25/00	5.3	Soil, mg/kg	0.25	0.25	JS
44028-078	M6A-2	EPA 6010 (Lead)	05/25/00	8.3	Soil, mg/kg	0.25	0.25	JS
44028-079	M6B-0	EPA 6010 (Lead)	05/25/00	135	Soil, mg/kg	0.25	0.25	JS
44028-080	M6B-1	EPA 6010 (Lead)	05/25/00	6.6	Soil, mg/kg	0.25	0.25	JS
44028-081	M6B-2	EPA 6010 (Lead)	05/25/00	4.5	Soil, mg/kg	0.25	0.25	JS
44028-082	M7A-0	EPA 6010 (Lead)	05/25/00	258	Soil, mg/kg	0.25	0.25	JS
44028-083	M7A-1	EPA 6010 (Lead)	05/25/00	8.9	Soil, mg/kg	0.25	0.25	JS
44028-084	M7A-2	EPA 6010 (Lead)	05/25/00	6.1	Soil, mg/kg	0.25	0.25	JS
44028-085	M7B-0	EPA 6010 (Lead)	05/25/00	252	Soil, mg/kg	0.25	0.25	JS
44028-086	M7B-1	EPA 6010 (Lead)	05/25/00	7.8	Soil, mg/kg	0.25	0.25	JS
44028-087	M7B-2	EPA 6010 (Lead)	05/25/00	9.0	Soil, mg/kg	0.25	0.25	JS
44028-088	M8A-0	EPA 6010 (Lead)	05/25/00	103	Soil, mg/kg	0.25	0.25	JS
44028-089	M8A-1	EPA 6010 (Lead)	05/25/00	121	Soil, mg/kg	0.25	0.25	JS
44028-090	M8A-2	EPA 6010 (Lead)	05/25/00	16	Soil, mg/kg	0.25	0.25	JS
44028-091	M8B-0	EPA 6010 (Lead)	05/25/00	72	Soil, mg/kg	0.25	0.25	JS
44028-092	M8B-1	EPA 6010 (Lead)	05/25/00	9.7	Soil, mg/kg	0.25	0.25	JS
44028-093	M8B-2	EPA 6010 (Lead)	05/25/00	6.5	Soil, mg/kg	0.25	0.25	JS
44028-094	M9A-0	EPA 6010 (Lead)	05/25/00	520	Soil, mg/kg	0.25	0.25	JS
44028-095	M9A-1	EPA 6010 (Lead)	05/25/00	6.1	Soil, mg/kg	0.25	0.25	JS
44028-096	M9A-2	EPA 6010 (Lead)	05/25/00	10	Soil, mg/kg	0.25	0.25	JS
44028-097	M9B-0	EPA 6010 (Lead)	05/25/00	183	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
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DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CW
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-098	M9B-1	EPA 6010 (Lead)	05/25/00	57	Soil, mg/kg	0.25	0.25	JS
44028-099	M9B-2	EPA 6010 (Lead)	05/25/00	21	Soil, mg/kg	0.25	0.25	JS
44028-100	M10A-0	EPA 6010 (Lead)	05/25/00	342	Soil, mg/kg	0.25	0.25	JS
44028-101	M10A-1	EPA 6010 (Lead)	05/25/00	6.5	Soil, mg/kg	0.25	0.25	JS
44028-102	M10A-2	EPA 6010 (Lead)	05/25/00	5.5	Soil, mg/kg	0.25	0.25	JS
44028-103	M10B-0	EPA 6010 (Lead)	05/25/00	238	Soil, mg/kg	0.25	0.25	JS
44028-104	M10B-1	EPA 6010 (Lead)	05/25/00	144	Soil, mg/kg	0.25	0.25	JS
44028-105	M10B-2	EPA 6010 (Lead)	05/25/00	5.0	Soil, mg/kg	0.25	0.25	JS
44028-106	M11A-0	EPA 6010 (Lead)	05/25/00	323	Soil, mg/kg	0.25	0.25	JS
44028-107	M11A-1	EPA 6010 (Lead)	05/25/00	6.5	Soil, mg/kg	0.25	0.25	JS
44028-108	M11A-2	EPA 6010 (Lead)	05/25/00	11	Soil, mg/kg	0.25	0.25	JS
44028-109	M11B-0	EPA 6010 (Lead)	05/25/00	298	Soil, mg/kg	0.25	0.25	JS
44028-110	M11B-1	EPA 6010 (Lead)	05/25/00	7.3	Soil, mg/kg	0.25	0.25	JS
44028-111	M11B-2	EPA 6010 (Lead)	05/25/00	6.1	Soil, mg/kg	0.25	0.25	JS
44028-112	M12A-0	EPA 6010 (Lead)	05/25/00	374	Soil, mg/kg	0.25	0.25	JS
44028-113	M12A-1	EPA 6010 (Lead)	05/25/00	49	Soil, mg/kg	0.25	0.25	JS
44028-114	M12A-2	EPA 6010 (Lead)	05/25/00	9.0	Soil, mg/kg	0.25	0.25	JS
44028-115	M12B-0	EPA 6010 (Lead)	05/25/00	271	Soil, mg/kg	0.25	0.25	JS
44028-116	M12B-1	EPA 6010 (Lead)	05/25/00	242	Soil, mg/kg	0.25	0.25	JS
44028-117	M12B-2	EPA 6010 (Lead)	05/25/00	9.2	Soil, mg/kg	0.25	0.25	JS
44028-118	M13A-0	EPA 6010 (Lead)	05/25/00	69	Soil, mg/kg	0.25	0.25	JS
44028-119	M13A-1	EPA 6010 (Lead)	05/25/00	9.7	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CN
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-120	M13A-2	EPA 6010 (Lead)	05/25/00	9.4	Soil, mg/kg	0.25	0.25	JS
44028-121	M13B-0	EPA 6010 (Lead)	05/25/00	113	Soil, mg/kg	0.25	0.25	JS
44028-122	M13B-1	EPA 6010 (Lead)	05/25/00	97	Soil, mg/kg	0.25	0.25	JS
44028-123	M13B-2	EPA 6010 (Lead)	05/25/00	78	Soil, mg/kg	0.25	0.25	JS
44028-124	M14A-0	EPA 6010 (Lead)	05/25/00	126	Soil, mg/kg	0.25	0.25	JS
44028-125	M14A-1	EPA 6010 (Lead)	05/25/00	7.0	Soil, mg/kg	0.25	0.25	JS
44028-126	M14A-2	EPA 6010 (Lead)	05/25/00	8.4	Soil, mg/kg	0.25	0.25	JS
44028-127	M14B-0	EPA 6010 (Lead)	05/25/00	92	Soil, mg/kg	0.25	0.25	JS
44028-128	M14B-1	EPA 6010 (Lead)	05/25/00	34	Soil, mg/kg	0.25	0.25	JS
44028-129	M14B-2	EPA 6010 (Lead)	05/25/00	7.0	Soil, mg/kg	0.25	0.25	JS
44028-130	M15A-0	EPA 6010 (Lead)	05/25/00	362	Soil, mg/kg	0.25	0.25	JS
44028-131	M15A-1	EPA 6010 (Lead)	05/25/00	8.5	Soil, mg/kg	0.25	0.25	JS
44028-132	M15A-2	EPA 6010 (Lead)	05/25/00	6.0	Soil, mg/kg	0.25	0.25	JS
44028-133	M15B-0	EPA 6010 (Lead)	05/25/00	145	Soil, mg/kg	0.25	0.25	JS
44028-134	M15B-1	EPA 6010 (Lead)	05/25/00	7.3	Soil, mg/kg	0.25	0.25	JS
44028-135	M15B-2	EPA 6010 (Lead)	05/25/00	6.1	Soil, mg/kg	0.25	0.25	JS
44028-136	M16A-0	EPA 6010 (Lead)	05/25/00	167	Soil, mg/kg	0.25	0.25	JS
44028-137	M16A-1	EPA 6010 (Lead)	05/25/00	7.1	Soil, mg/kg	0.25	0.25	JS
44028-138	M16A-2	EPA 6010 (Lead)	05/25/00	7.0	Soil, mg/kg	0.25	0.25	JS
44028-139	M16B-0	EPA 6010 (Lead)	05/25/00	213	Soil, mg/kg	0.25	0.25	JS
44028-140	M16B-1	EPA 6010 (Lead)	05/25/00	9.4	Soil, mg/kg	0.25	0.25	JS
44028-141	M16B-2	EPA 6010 (Lead)	05/25/00	8.1	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: [signature]
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/10&11/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-142	M17A-0	EPA 6010 (Lead)	05/25/00	555	Soil, mg/kg	0.25	0.25	JS
44028-143	M17A-1	EPA 6010 (Lead)	05/25/00	58	Soil, mg/kg	0.25	0.25	JS
44028-144	M17A-2	EPA 6010 (Lead)	05/25/00	12	Soil, mg/kg	0.25	0.25	JS
44028-145	M17B-0	EPA 6010 (Lead)	05/25/00	321	Soil, mg/kg	0.25	0.25	JS
44028-146	M17B-1	EPA 6010 (Lead)	05/25/00	28	Soil, mg/kg	0.25	0.25	JS
44028-147	M17B-2	EPA 6010 (Lead)	05/25/00	51	Soil, mg/kg	0.25	0.25	JS
44028-148	S1-0	EPA 6010 (Lead)	05/25/00	190	Soil, mg/kg	0.25	0.25	JS
44028-149	S1-1	EPA 6010 (Lead)	05/25/00	15	Soil, mg/kg	0.25	0.25	JS
44028-150	S1-2	EPA 6010 (Lead)	05/25/00	8.1	Soil, mg/kg	0.25	0.25	JS
44028-151	S2A-0	EPA 6010 (Lead)	05/25/00	321	Soil, mg/kg	0.25	0.25	JS
44028-152	S2A-1	EPA 6010 (Lead)	05/25/00	5.3	Soil, mg/kg	0.25	0.25	JS
44028-153	S2A-2	EPA 6010 (Lead)	05/25/00	8.0	Soil, mg/kg	0.25	0.25	JS
44028-154	S2B-0	EPA 6010 (Lead)	05/25/00	194	Soil, mg/kg	0.25	0.25	JS
44028-155	S2B-1	EPA 6010 (Lead)	05/25/00	11	Soil, mg/kg	0.25	0.25	JS
44028-156	S2B-2	EPA 6010 (Lead)	05/25/00	7.3	Soil, mg/kg	0.25	0.25	JS
44028-157	S3-0	EPA 6010 (Lead)	05/25/00	227	Soil, mg/kg	0.25	0.25	JS
44028-158	S3-1	EPA 6010 (Lead)	05/25/00	35	Soil, mg/kg	0.25	0.25	JS
44028-159	S3-2	EPA 6010 (Lead)	05/25/00	7.9	Soil, mg/kg	0.25	0.25	JS
44028-160	S4A-0	EPA 6010 (Lead)	05/25/00	190	Soil, mg/kg	0.25	0.25	JS
44028-161	S4A-1	EPA 6010 (Lead)	05/25/00	7.9	Soil, mg/kg	0.25	0.25	JS
44028-162	S4A-2	EPA 6010 (Lead)	05/25/00	5.6	Soil, mg/kg	0.25	0.25	JS
44028-163	S4B-0	EPA 6010 (Lead)	05/25/00	52	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CN
Cheryl de las Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/11/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-164	S4B-1	EPA 6010 (Lead)	05/25/00	5.8	Soil, mg/kg	0.25	0.25	JS
44028-165	S4B-2	EPA 6010 (Lead)	05/25/00	4.5	Soil, mg/kg	0.25	0.25	JS
44028-166	S5-0	EPA 6010 (Lead)	05/25/00	106	Soil, mg/kg	0.25	0.25	JS
44028-167	S5-1	EPA 6010 (Lead)	05/25/00	6.8	Soil, mg/kg	0.25	0.25	JS
44028-168	S5-2	EPA 6010 (Lead)	05/25/00	5.3	Soil, mg/kg	0.25	0.25	JS
44028-169	S6A-0	EPA 6010 (Lead)	05/25/00	151	Soil, mg/kg	0.25	0.25	JS
44028-170	S6A-1	EPA 6010 (Lead)	05/25/00	21	Soil, mg/kg	0.25	0.25	JS
44028-171	S6A-2	EPA 6010 (Lead)	05/25/00	6.0	Soil, mg/kg	0.25	0.25	JS
44028-172	SB6-0	EPA 6010 (Lead)	05/25/00	42	Soil, mg/kg	0.25	0.25	JS
44028-173	SB6-1	EPA 6010 (Lead)	05/25/00	6.1	Soil, mg/kg	0.25	0.25	JS
44028-174	SB6-2	EPA 6010 (Lead)	05/25/00	5.5	Soil, mg/kg	0.25	0.25	JS
44028-175	S7-0	EPA 6010 (Lead)	05/25/00	37	Soil, mg/kg	0.25	0.25	JS
44028-176	S7-1	EPA 6010 (Lead)	05/25/00	5.1	Soil, mg/kg	0.25	0.25	JS
44028-177	S7-2	EPA 6010 (Lead)	05/25/00	7.4	Soil, mg/kg	0.25	0.25	JS
44028-178	S8A-0	EPA 6010 (Lead)	05/25/00	300	Soil, mg/kg	0.25	0.25	JS
44028-179	S8A-1	EPA 6010 (Lead)	05/25/00	100	Soil, mg/kg	0.25	0.25	JS
44028-180	S8A-2	EPA 6010 (Lead)	05/25/00	35	Soil, mg/kg	0.25	0.25	JS
44028-181	S8B-0	EPA 6010 (Lead)	05/25/00	362	Soil, mg/kg	0.25	0.25	JS
44028-182	S8B-1	EPA 6010 (Lead)	05/25/00	84	Soil, mg/kg	0.25	0.25	JS
44028-183	S8B-2	EPA 6010 (Lead)	05/25/00	13	Soil, mg/kg	0.25	0.25	JS
44028-184	S9-0	EPA 6010 (Lead)	05/25/00	285	Soil, mg/kg	0.25	0.25	JS
44028-185	S9-1	EPA 6010 (Lead)	05/25/00	211	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 5/30/00
Cheryl de los Reyes
Technical Operations Manager

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/11/00
Date Digested: 05/22/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-186	S9-2	EPA 6010 (Lead)	05/25/00	31	Soil, mg/kg	0.25	0.25	JS
44028-187	R1-0	EPA 6010 (Lead)	05/25/00	18	Soil, mg/kg	0.25	0.25	JS
44028-188	R1-1	EPA 6010 (Lead)	05/25/00	7.8	Soil, mg/kg	0.25	0.25	JS
44028-189	R1-2	EPA 6010 (Lead)	05/25/00	5.4	Soil, mg/kg	0.25	0.25	JS
44028-190	L4-0	EPA 6010 (Lead)	05/25/00	46	Soil, mg/kg	0.25	0.25	JS
44028-191	L4-1	EPA 6010 (Lead)	05/25/00	6.6	Soil, mg/kg	0.25	0.25	JS
44028-192	L4-2	EPA 6010 (Lead)	05/25/00	8.7	Soil, mg/kg	0.25	0.25	JS
44028-193	L4-3	EPA 6010 (Lead)	05/25/00	7.2	Soil, mg/kg	0.25	0.25	JS
44028-194	R2-0	EPA 6010 (Lead)	05/25/00	17	Soil, mg/kg	0.25	0.25	JS
44028-195	R2-1	EPA 6010 (Lead)	05/25/00	3.5	Soil, mg/kg	0.25	0.25	JS
44028-196	R2-2	EPA 6010 (Lead)	05/25/00	3.0	Soil, mg/kg	0.25	0.25	JS
44028-197	R3-0	EPA 6010 (Lead)	05/25/00	103	Soil, mg/kg	0.25	0.25	JS
44028-198	R3-1	EPA 6010 (Lead)	05/25/00	3.9	Soil, mg/kg	0.25	0.25	JS
44028-199	R3-2	EPA 6010 (Lead)	05/25/00	3.1	Soil, mg/kg	0.25	0.25	JS

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 5/30/00
Cheryl de los Reyes
Technical Operations Manager

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories 1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas, #E8000-06-33

Date Received: 05/16/00
Date Sampled: 05/09, 10, &11/00

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
44028-004	CP2-3	EPA 9045 (pH)	05/18/00	6.6	Soil, pH units	---	---	HLP
44028-022	L1-2	EPA 9045 (pH)	05/18/00	7.8	Soil, pH units	---	---	HLP
44028-028	L3-0	EPA 9045 (pH)	05/18/00	7.7	Soil, pH units	---	---	HLP
44028-043	O2-1	EPA 9045 (pH)	05/18/00	7.9	Soil, pH units	---	---	HLP
44028-048	M1A-2	EPA 9045 (pH)	05/18/00	7.2	Soil, pH units	---	---	HLP
44028-053	M2A-1	EPA 9045 (pH)	05/18/00	7.4	Soil, pH units	---	---	HLP
44028-063	M3B-2	EPA 9045 (pH)	05/18/00	7.7	Soil, pH units	---	---	HLP
44028-072	M5A-2	EPA 9045 (pH)	05/18/00	7.6	Soil, pH units	---	---	HLP
44028-086	M7B-1	EPA 9045 (pH)	05/18/00	7.4	Soil, pH units	---	---	HLP
44028-092	M8B-1	EPA 9045 (pH)	05/18/00	7.8	Soil, pH units	---	---	HLP
44028-101	M10A-1	EPA 9045 (pH)	05/18/00	7.6	Soil, pH units	---	---	HLP
44028-116	M12B-1	EPA 9045 (pH)	05/18/00	7.7	Soil, pH units	---	---	HLP
44028-122	M13B-1	EPA 9045 (pH)	05/18/00	7.6	Soil, pH units	---	---	HLP
44028-139	M16B-0	EPA 9045 (pH)	05/18/00	7.6	Soil, pH units	---	---	HLP
44028-144	M17A-2	EPA 9045 (pH)	05/18/00	7.7	Soil, pH units	---	---	HLP
44028-154	S2B-0	EPA 9045 (pH)	05/18/00	7.9	Soil, pH units	---	---	HLP
44028-162	S4A-2	EPA 9045 (pH)	05/18/00	7.7	Soil, pH units	---	---	HLP
44028-189	R1-2	EPA 9045 (pH)	05/18/00	7.9	Soil, pH units	---	---	HLP
44028-192	L4-2	EPA 9045 (pH)	05/18/00	7.6	Soil, pH units	---	---	HLP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: CW
Cheryl de los Reyes
Technical Operations Manager

Date: 5/30/00

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories 1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

FAX

Date 5/31/00

Number of pages including cover sheet 11

TO: JIM TKACH

Phone
Fax Phone

FROM: Ross J. White
Geocon Consultants, Inc.
5673 W. Las Positas Blvd., Suite 205
Pleasanton, CA 94588

Phone 925.469.9750
Fax 925.469.9749

CC:

REMARKS: ☐ Urgent ☑ For your review ☐ Reply ASAP ☐ Please Comment

FOLLOWING ARE THE TOTAL LEAD RESULTS FOR 101/CASITAS.
DOESN'T LOOK LIKE WE WILL NEED TO DO AS MANY SOLUBLE
LEAD AS 101/EVANS!

TRANSMISSION VERIFICATION REPORT

TIME : 05/31/2000 08:16

DATE,TIME	05/31 08:10
FAX NO./NAME	CALTRANS DIST 5
DURATION	00:05:34
PAGE(S)	11
RESULT	OK
MODE	STANDARD ECM

ELAP No.: 1838

Geocon Environmental
5673 W. Las Positas Blvd, Ste 205
Pleasanton, CA 94588

ATTN: Ross White

Client's Project: Casitas II, #E8000-06-33
Lab No.: 46367-001/132

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Date: 9/26/

Cheryl De Los Reyes
Technical Operations Manager
CDR/jh

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E8000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White — Date: Time: — Received by: (Signature and Printed Name) — Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) — Date: Time: — Received by: (Signature and Printed Name) — Date: Time:
Relinquished by: (Signature and Printed Name) — Date: Time: — Received by: (Signature and Printed Name) — Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: Homogenize

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); Total Pb 6010; pH grab

CIRCLE APPROPRIATE MATRIX: SOLID • (SOIL) SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

PRESERVATION

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPHD (Diesel-GC)	Total Pb 6010	pH grab	SOLID • (SOIL) SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	46367-001	S3-32-0	8/31	730							X		X							E	1	Bag		
	2	S3-32-1		731																				
	3	S3-32-2		732																				
	4	S3-32-3		733						X														
	5	S3-27-0		735																				
	6	S3-27-1		736																				
	7	S3-27-2		737																				
	8	S3-27-3		738																				
	9	S3-27-4		739																				
	10	S3-27-5		740																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E8000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31/10
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: Sam

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Tetra Chl (6020); PH 9045

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Tetra Chl (6020)	PH 9045	SOLID (SOIL) SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	11	S3-22-0	8/31	750							X		X							E	1	Bag		
	12	S3-22-1		751																				
	13	S3-22-2		752								X												
	14	S3-22-3		753																				
	15	S3-17-0		755																				
	16	S3-17-1		756																				
	17	S3-17-2		757																				
	18	S3-17-3		758																				
	19	S3-17-4		759																				
	20	S3-17-5		800																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: ES000-06-32
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White — Date: Time: — Received by: (Signature and Printed Name) — Date: 8/31 Time: 1900
Relinquished by: (Signature and Printed Name) — Date: Time: — Received by: (Signature and Printed Name) — Date: Time:
Relinquished by: (Signature and Printed Name) — Date: Time: — Received by: (Signature and Printed Name) — Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total Pb (6010); pH 9045

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH 9045	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	21	S3-12-0		805							X						X					E	1	Bag
	22	S3-12-1		806																				
	23	S3-12-2		807																				
	24	S3-12-3		808								X												
	25	S5-32-0		815																				
	26	S5-32-1		816																				
	27	S5-32-2		817																				
	28	S5-32-3		818																				
	29	S5-27-0		820																				
	30	S5-27-1		821																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E8000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time:
Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:
See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☑ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total PL (6010)	pH (9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	31	S5-27-2	8/31	822							X			X						E	1	Bag		
	32	S5-27-3		823																				
	33	S5-27-4		824																				
	34	S5-27-5		825								X												
	35	S5-22-0		830																				
	36	S5-22-1		831																				
	37	S5-22-2		832																				
	38	S5-22-3		832																				
	39	S5-17-0		835																				
	40	S5-17-1		836																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 17

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E8000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:
See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH 9045	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	41	S5-17-2	8/31	837							X			X						E	1	Bag		
	42	S5-17-3		838																				
	43	S5-17-4		839																				
	44	S5-17-5		840								X												
	49	S5-12-Ø		850																				
	46	S5-12-1		851																				
	47	S5-12-2		852																				
	48	S5-12-3		853																				
	49	S6-32-Ø		900																				
	50	S6-32-1		901																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Cositas II Project #: E8000-06-33 Sampler: (Printed Name) Ross Wahl (Signature)

Relinquished by: (Signature and Printed Name) Ross Wahl Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500

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

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

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross Wahl 8/31/000
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total Pb (6010); pH 9045

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH 9045	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	51	S6-32-2	8/31	902					X				X							E	1	Bag		
	52	S6-32-3		903																				
	53	S6-27-0		910																				
	54	S6-27-1		911																				
	55	S6-27-2		912																				
	56	S6-27-3		913																				
	57	S6-27-4		914						X														
	58	S6-27-5		915																				
	59	S6-22-0		920																				
	60	S6-22-1		921																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Castaic II
Project #: E8000-06-37
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White — Date: Time: — Received by: (Signature and Printed Name) — Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) — Date: Time: — Received by: (Signature and Printed Name) — Date: Time:
Relinquished by: (Signature and Printed Name) — Date: Time: — Received by: (Signature and Printed Name) — Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total Pb (6010); PN (8015)

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	61	S6-22-2	8/31	922	E	1	Bag		
	62	S6-22-3		923					
	63	S6-17-0		925					
	64	S6-17-1		926					
	65	S6-17-2		927					
	66	S6-17-3		928					
	67	S6-17-4		929					
	68	S6-17-5		930					
	69	S6-12-0		931					
	70	S6-12-1		932					

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 0 of 1-1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E8000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time:
Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31/06
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:
See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH 9045	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	21	S6-12-2	8/31	933							X		X							E	1	Bag		
	22	S6-12-3		934																				
	23	NS1-18-0		1010								X												
	24	NS1-18-1		1011																				
	25	NS1-18-2		1012																				
	26	NS1-18-3		1013																				
	27	NS1-12-0		1020																				
	28	NS1-12-1		1021																				
	29	NS1-12-2		1022																				
	30	NS1-12-3		1023																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

CHAIN OF CUSTODY RECORD

Pg ___ of ___

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____

Logged By: ____ Date: ____ Time: ____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E8000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White — Date: Time:
Received by: (Signature and Printed Name) — Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) — Date: Time:
Received by: (Signature and Printed Name) — Date: Time:
Relinquished by: (Signature and Printed Name) — Date: Time:
Received by: (Signature and Printed Name) — Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn: ____
Co: ____
Address ____
City ____ State ____ Zip ____

Bill To:
Attn: ____
Co: ____
Address ____
City ____ State ____ Zip ____

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total Pb (6010); pH 9045

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH 9045	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	81	NS1-6-0	8/31	1025							X		X							E	1	Bags		
	82	NS1-6-1		1026																				
	83	NS1-6-2		1027						X														
	84	NS1-6-3		1028																				
	85	NS1-3-0		1030																				
	86	NS1-3-1		1031																				
	87	NS1-3-2		1032																				
	88	NS1-3-3		1033																				
	89	NS2-12-0		1040																				
	90	NS2-12-1		1041																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II Project #: E8000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31/10
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:
See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH 9045	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	91	NS2-12-2	8/31	1042							X		X							E	1	Bag		
	92	NS2-12-3		1043								X												
	93	NS2-6-0		1045																				
	94	NS2-6-1		1046																				
	95	NS2-6-2		1047																				
	96	NS2-6-3		1048																				
	97	NS2-3-0		1050																				
	98	NS2-3-1		1051																				
	99	NS2-3-2		1052																				
	100	NS2-3-3		1053																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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: Address: TEL: ( )
Attn: City State Zip Code FAX: ( )

Project Name: Casitas II Project #: E8000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) [signature] Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31/00
Print Name Date
Signature

Send Report To: Attn: Co: Address City State Zip

Bill To: Attn: Co: Address City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC) | 8260 (Volatiles-GC/MS) | 625 / 8270 (BNA-GC/MS) | Metals-Total (CAC-6010 / 7000) | 8015M TPHG/BTEX (COMBINATION) | 8015M TPH/D (Diesel-GC) | Total Pb (6010) pH (9045)

CIRCLE APPROPRIATE MATRIX: SOLID (SOIL) • SLUDGE | OIL • SOLVENT • LIQUID | WATER • WASTEWATER | DRINKING WATER | AIR | WIPE • FILTER | OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	Total Pb (6010)	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	101	NS3-18-0	8/31	1101	X	X							E	1	bag		
	102	1		1102													
	103	2		1103													
	104	3		1104													
	105	NS3-12-0		1105													
	106	1		1106													
	107	2		1107													
	108	3		1108													
	109	NS3-6-0															
	110	NS3-6-1															

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: [illegible]-00-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) [illegible] Date: 8/31 Time: 15 00
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPHD (Diesel-GC); Total Pb (6010); Pb (6045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPHD (Diesel-GC)	Total Pb (6010)	Pb (6045)	SOLID • SOIL	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	111	NS3-6-2		1111									X							E	1	bag		
	112	NS3-6-3		1112							X													
	113	NS3-3-0		1115																				
	114	1		1116																				
	115	2		1117																				
	116	3		1118																				
	117	NS4-18-0		1140																				
	118	1		1141																				
	119	2		1142																				
	120	3		1143																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II Project #: 88000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER ☐

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010) pH (9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	121	NS4-12-0		1145							X	X							E	1	bag		
	122	1		1146																			
	123	2		1147																			
	124	3		1148																			
	125	NS4-6-0		1155																			
	126	1		1156																			
	127	2		1157																			
	128	3		1158																			
	129	NS4-3-0		1200																			
	130	NS4-3-1		1201																			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II Project #: E8000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) [signature] Date: 8-31 Time: 1500

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

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

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC) | 8260 (Volatiles-GC/MS) | 625 / 8270 (BNA-GC/MS) | Metals-Total (CAC-6010 / 7000) | 8015M TPHG/BTEX (COMBINATION) | 8015M TPH/D (Diesel-GC) | Total Pb (6010) & pH 4045

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE | OIL • SOLVENT • LIQUID | WATER • WASTEWATER | DRINKING WATER | AIR | WIPE • FILTER | OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082	8260	625 / 8270	Metals-Total	8015M TPHG/BTEX	8015M TPH/D	Total Pb (6010) & pH 4045	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	131	NS4-3-2	8/31	1202								X							E	1	bag		
	132	NS4-3-3	8/31	1203								X							E	1	bag		

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-001	S3-32-0	EPA 6010 (Lead)	09/11/00	22	Soil, mg/kg	0.25	0.25	DJ
46367-002	S3-32-1	EPA 6010 (Lead)	09/11/00	6.3	Soil, mg/kg	0.25	0.25	DJ
46367-003	S3-32-2	EPA 6010 (Lead)	09/11/00	4.6	Soil, mg/kg	0.25	0.25	DJ
46367-004	S3-32-3	EPA 6010 (Lead)	09/11/00	4.8	Soil, mg/kg	0.25	0.25	DJ
46367-005	S3-27-0	EPA 6010 (Lead)	09/11/00	40	Soil, mg/kg	0.25	0.25	DJ
46367-006	S3-27-1	EPA 6010 (Lead)	09/11/00	5.7	Soil, mg/kg	0.25	0.25	DJ
46367-007	S3-27-2	EPA 6010 (Lead)	09/11/00	4.6	Soil, mg/kg	0.25	0.25	DJ
46367-008	S3-27-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-009	S3-27-4	EPA 6010 (Lead)	09/11/00	3.8	Soil, mg/kg	0.25	0.25	DJ
46367-010	S3-27-5	EPA 6010 (Lead)	09/11/00	4.5	Soil, mg/kg	0.25	0.25	DJ
46367-010Dup	S3-27-5	EPA 6010 (Lead)	09/11/00	4.7	Soil, mg/kg	0.25	0.25	DJ
46367-011	S3-22-0	EPA 6010 (Lead)	09/11/00	29	Soil, mg/kg	0.25	0.25	DJ
46367-012	S3-22-1	EPA 6010 (Lead)	09/11/00	7.6	Soil, mg/kg	0.25	0.25	DJ
46367-013	S3-22-2	EPA 6010 (Lead)	09/11/00	4.3	Soil, mg/kg	0.25	0.25	DJ
46367-014	S3-22-3	EPA 6010 (Lead)	09/11/00	4.7	Soil, mg/kg	0.25	0.25	DJ
46367-015	S3-17-0	EPA 6010 (Lead)	09/11/00	43	Soil, mg/kg	0.25	0.25	DJ
46367-016	S3-17-1	EPA 6010 (Lead)	09/11/00	5.2	Soil, mg/kg	0.25	0.25	DJ
46367-017	S3-17-2	EPA 6010 (Lead)	09/11/00	4.8	Soil, mg/kg	0.25	0.25	DJ
46367-018	S3-17-3	EPA 6010 (Lead)	09/11/00	4.9	Soil, mg/kg	0.25	0.25	DJ
46367-019	S3-17-4	EPA 6010 (Lead)	09/11/00	5.0	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-020	S3-17-5	EPA 6010 (Lead)	09/11/00	6.7	Soil, mg/kg	0.25	0.25	DJ
46367-020Dup	S3-17-5	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ
46367-021	S3-12-0	EPA 6010 (Lead)	09/11/00	60	Soil, mg/kg	0.25	0.25	DJ
46367-022	S3-12-1	EPA 6010 (Lead)	09/11/00	9.0	Soil, mg/kg	0.25	0.25	DJ
46367-023	S3-12-2	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-024	S3-12-3	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-025	S5-32-0	EPA 6010 (Lead)	09/11/00	32	Soil, mg/kg	0.25	0.25	DJ
46367-026	S5-32-1	EPA 6010 (Lead)	09/11/00	7.8	Soil, mg/kg	0.25	0.25	DJ
46367-027	S5-32-2	EPA 6010 (Lead)	09/11/00	4.3	Soil, mg/kg	0.25	0.25	DJ
46367-028	S5-32-3	EPA 6010 (Lead)	09/11/00	3.1	Soil, mg/kg	0.25	0.25	DJ
46367-029	S5-27-0	EPA 6010 (Lead)	09/11/00	26	Soil, mg/kg	0.25	0.25	DJ
46367-030	S5-27-1	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-030Dup	S5-27-1	EPA 6010 (Lead)	09/11/00	4.5	Soil, mg/kg	0.25	0.25	DJ
46367-031	S5-27-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ
46367-032	S5-27-3	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-033	S5-27-4	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-034	S5-27-5	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-035	S5-22-0	EPA 6010 (Lead)	09/11/00	26	Soil, mg/kg	0.25	0.25	DJ
46367-036	S5-22-1	EPA 6010 (Lead)	09/11/00	2.5	Soil, mg/kg	0.25	0.25	DJ
46367-037	S5-22-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
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Inorganics Supervisor

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Date Received: 08/31/00
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Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-038	S5-22-3	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-039	S5-17-0	EPA 6010 (Lead)	09/11/00	35	Soil, mg/kg	0.25	0.25	DJ
46367-040	S5-17-1	EPA 6010 (Lead)	09/11/00	6.7	Soil, mg/kg	0.25	0.25	DJ
46367-040Dup	S5-17-1	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-041	S5-17-2	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ
46367-042	S5-17-3	EPA 6010 (Lead)	09/11/00	2.1	Soil, mg/kg	0.25	0.25	DJ
46367-043	S5-17-4	EPA 6010 (Lead)	09/11/00	2.7	Soil, mg/kg	0.25	0.25	DJ
46367-044	S5-17-5	EPA 6010 (Lead)	09/11/00	2.4	Soil, mg/kg	0.25	0.25	DJ
46367-045	S5-12-0	EPA 6010 (Lead)	09/11/00	9.3	Soil, mg/kg	0.25	0.25	DJ
46367-046	S5-12-1	EPA 6010 (Lead)	09/11/00	68	Soil, mg/kg	0.25	0.25	DJ
46367-047	S5-12-2	EPA 6010 (Lead)	09/11/00	6.3	Soil, mg/kg	0.25	0.25	DJ
46367-048	S5-12-3	EPA 6010 (Lead)	09/11/00	13	Soil, mg/kg	0.25	0.25	DJ
46367-049	S6-32-0	EPA 6010 (Lead)	09/11/00	27	Soil, mg/kg	0.25	0.25	DJ
46367-050	S6-32-1	EPA 6010 (Lead)	09/11/00	11	Soil, mg/kg	0.25	0.25	DJ
46367-050Dup	S6-32-1	EPA 6010 (Lead)	09/11/00	10	Soil, mg/kg	0.25	0.25	DJ
46367-051	S6-32-2	EPA 6010 (Lead)	09/11/00	3.3	Soil, mg/kg	0.25	0.25	DJ
46367-052	S6-32-3	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-053	S6-27-0	EPA 6010 (Lead)	09/11/00	44	Soil, mg/kg	0.25	0.25	DJ
46367-054	S6-27-1	EPA 6010 (Lead)	09/11/00	10	Soil, mg/kg	0.25	0.25	DJ
46367-055	S6-27-2	EPA 6010 (Lead)	09/11/00	6.3	Soil, mg/kg	0.25	0.25	DJ

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Client: Geocon Environmental
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Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-056	S6-27-3	EPA 6010 (Lead)	09/11/00	4.5	Soil, mg/kg	0.25	0.25	DJ
46367-057	S6-27-4	EPA 6010 (Lead)	09/11/00	5.9	Soil, mg/kg	0.25	0.25	DJ
46367-058	S6-27-5	EPA 6010 (Lead)	09/11/00	4.0	Soil, mg/kg	0.25	0.25	DJ
46367-059	S6-22-0	EPA 6010 (Lead)	09/11/00	39	Soil, mg/kg	0.25	0.25	DJ
46367-060	S6-22-1	EPA 6010 (Lead)	09/11/00	7.0	Soil, mg/kg	0.25	0.25	DJ
46367-060Dup	S6-22-1	EPA 6010 (Lead)	09/11/00	7.2	Soil, mg/kg	0.25	0.25	DJ
46367-061	S6-22-2	EPA 6010 (Lead)	09/11/00	4.1	Soil, mg/kg	0.25	0.25	DJ
46367-062	S6-22-3	EPA 6010 (Lead)	09/11/00	3.6	Soil, mg/kg	0.25	0.25	DJ
46367-063	S6-17-0	EPA 6010 (Lead)	09/11/00	50	Soil, mg/kg	0.25	0.25	DJ
46367-064	S6-17-1	EPA 6010 (Lead)	09/11/00	4.3	Soil, mg/kg	0.25	0.25	DJ
46367-065	S6-17-2	EPA 6010 (Lead)	09/11/00	2.4	Soil, mg/kg	0.25	0.25	DJ
46367-066	S6-17-3	EPA 6010 (Lead)	09/11/00	2.3	Soil, mg/kg	0.25	0.25	DJ
46367-067	S6-17-4	EPA 6010 (Lead)	09/11/00	3.8	Soil, mg/kg	0.25	0.25	DJ
46367-068	S6-17-5	EPA 6010 (Lead)	09/11/00	2.3	Soil, mg/kg	0.25	0.25	DJ
46367-069	S6-12-0	EPA 6010 (Lead)	09/11/00	50	Soil, mg/kg	0.25	0.25	DJ
46367-070	S6-12-1	EPA 6010 (Lead)	09/11/00	22	Soil, mg/kg	0.25	0.25	DJ
46367-070Dup	S6-12-1	EPA 6010 (Lead)	09/11/00	24	Soil, mg/kg	0.25	0.25	DJ
46367-071	S6-12-2	EPA 6010 (Lead)	09/11/00	23	Soil, mg/kg	0.25	0.25	DJ
46367-072	S6-12-3	EPA 6010 (Lead)	09/11/00	8.1	Soil, mg/kg	0.25	0.25	DJ
46367-073	NS1-18-0	EPA 6010 (Lead)	09/11/00	77	Soil, mg/kg	0.25	0.25	DJ

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Inorganics Supervisor

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Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-074	NS1-18-1	EPA 6010 (Lead)	09/11/00	14	Soil, mg/kg	0.25	0.25	DJ
46367-075	NS1-18-2	EPA 6010 (Lead)	09/11/00	3.0	Soil, mg/kg	0.25	0.25	DJ
46367-076	NS1-18-3	EPA 6010 (Lead)	09/11/00	7.1	Soil, mg/kg	0.25	0.25	DJ
46367-077	NS1-12-0	EPA 6010 (Lead)	09/11/00	205	Soil, mg/kg	0.25	0.25	DJ
46367-078	NS1-12-1	EPA 6010 (Lead)	09/11/00	6.5	Soil, mg/kg	0.25	0.25	DJ
46367-079	NS1-12-2	EPA 6010 (Lead)	09/11/00	17	Soil, mg/kg	0.25	0.25	DJ
46367-080	NS1-12-3	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-080Dup	NS1-12-3	EPA 6010 (Lead)	09/11/00	5.7	Soil, mg/kg	0.25	0.25	DJ
46367-081	NS1-6-0	EPA 6010 (Lead)	09/11/00	463	Soil, mg/kg	0.25	0.25	DJ
46367-082	NS1-6-1	EPA 6010 (Lead)	09/11/00	167	Soil, mg/kg	0.25	0.25	DJ
46367-083	NS1-6-2	EPA 6010 (Lead)	09/11/00	5.2	Soil, mg/kg	0.25	0.25	DJ
46367-084	NS1-6-3	EPA 6010 (Lead)	09/11/00	8.1	Soil, mg/kg	0.25	0.25	DJ
46367-085	NS1-3-0	EPA 6010 (Lead)	09/11/00	339	Soil, mg/kg	0.25	0.25	DJ
46367-086	NS1-3-1	EPA 6010 (Lead)	09/11/00	7.3	Soil, mg/kg	0.25	0.25	DJ
46367-087	NS1-3-2	EPA 6010 (Lead)	09/11/00	158	Soil, mg/kg	0.25	0.25	DJ
46367-088	NS1-3-3	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-089	NS2-12-0	EPA 6010 (Lead)	09/11/00	59	Soil, mg/kg	0.25	0.25	DJ
46367-090	NS2-12-1	EPA 6010 (Lead)	09/11/00	45	Soil, mg/kg	0.25	0.25	DJ
46367-090Dup	NS2-12-1	EPA 6010 (Lead)	09/11/00	23	Soil, mg/kg	0.25	0.25	DJ
46367-091	NS2-12-2	EPA 6010 (Lead)	09/11/00	5.3	Soil, mg/kg	0.25	0.25	DJ

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Reviewed/Approved By: _____ Date: 9/1/2000
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Inorganics Supervisor

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Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-092	NS2-12-3	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-093	NS2-6-0	EPA 6010 (Lead)	09/11/00	291	Soil, mg/kg	0.25	0.25	DJ
46367-094	NS2-6-1	EPA 6010 (Lead)	09/11/00	20	Soil, mg/kg	0.25	0.25	DJ
46367-095	NS2-6-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ
46367-096	NS2-6-3	EPA 6010 (Lead)	09/11/00	8.4	Soil, mg/kg	0.25	0.25	DJ
46367-097	NS2-3-0	EPA 6010 (Lead)	09/11/00	407	Soil, mg/kg	0.25	0.25	DJ
46367-098	NS2-3-1	EPA 6010 (Lead)	09/11/00	43	Soil, mg/kg	0.25	0.25	DJ
46367-099	NS2-3-2	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ
46367-100	NS2-3-3	EPA 6010 (Lead)	09/11/00	4.9	Soil, mg/kg	0.25	0.25	DJ
46367-100Dup	NS2-3-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-101	NS3-18-0	EPA 6010 (Lead)	09/11/00	110	Soil, mg/kg	0.25	0.25	DJ
46367-102	NS3-18-1	EPA 6010 (Lead)	09/11/00	5.9	Soil, mg/kg	0.25	0.25	DJ
46367-103	NS3-18-2	EPA 6010 (Lead)	09/11/00	2.3	Soil, mg/kg	0.25	0.25	DJ
46367-104	NS3-18-3	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-105	NS3-12-0	EPA 6010 (Lead)	09/11/00	118	Soil, mg/kg	0.25	0.25	DJ
46367-106	NS3-12-1	EPA 6010 (Lead)	09/11/00	12	Soil, mg/kg	0.25	0.25	DJ
46367-107	NS3-12-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ
46367-108	NS3-12-3	EPA 6010 (Lead)	09/11/00	4.9	Soil, mg/kg	0.25	0.25	DJ
46367-109	NS3-6-0	EPA 6010 (Lead)	09/11/00	243	Soil, mg/kg	0.25	0.25	DJ
46367-110	NS3-6-1	EPA 6010 (Lead)	09/11/00	16	Soil, mg/kg	0.25	0.25	DJ

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1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
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Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-110Dup	NS3-6-1	EPA 6010 (Lead)	09/11/00	20	Soil, mg/kg	0.25	0.25	DJ
46367-111	NS3-6-2	EPA 6010 (Lead)	09/11/00	2.7	Soil, mg/kg	0.25	0.25	DJ
46367-112	NS3-6-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-113	NS3-3-0	EPA 6010 (Lead)	09/11/00	308	Soil, mg/kg	0.25	0.25	DJ
46367-114	NS3-3-1	EPA 6010 (Lead)	09/11/00	69	Soil, mg/kg	0.25	0.25	DJ
46367-115	NS3-3-2	EPA 6010 (Lead)	09/11/00	8.6	Soil, mg/kg	0.25	0.25	DJ
46367-116	NS3-3-3	EPA 6010 (Lead)	09/11/00	13	Soil, mg/kg	0.25	0.25	DJ
46367-117	NS4-18-0	EPA 6010 (Lead)	09/11/00	117	Soil, mg/kg	0.25	0.25	DJ
46367-118	NS4-18-1	EPA 6010 (Lead)	09/11/00	3.7	Soil, mg/kg	0.25	0.25	DJ
46367-119	NS4-18-2	EPA 6010 (Lead)	09/11/00	22	Soil, mg/kg	0.25	0.25	DJ
46367-120	NS4-18-3	EPA 6010 (Lead)	09/11/00	4.8	Soil, mg/kg	0.25	0.25	DJ
46367-120Dup	NS4-18-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-121	NS4-12-0	EPA 6010 (Lead)	09/11/00	160	Soil, mg/kg	0.25	0.25	DJ
46367-122	NS4-12-1	EPA 6010 (Lead)	09/11/00	8.9	Soil, mg/kg	0.25	0.25	DJ
46367-123	NS4-12-2	EPA 6010 (Lead)	09/11/00	7.2	Soil, mg/kg	0.25	0.25	DJ
46367-124	NS4-12-3	EPA 6010 (Lead)	09/11/00	6.8	Soil, mg/kg	0.25	0.25	DJ
46367-125	NS4-6-0	EPA 6010 (Lead)	09/11/00	275	Soil, mg/kg	0.25	0.25	DJ
46367-126	NS4-6-1	EPA 6010 (Lead)	09/11/00	8.7	Soil, mg/kg	0.25	0.25	DJ
46367-127	NS4-6-2	EPA 6010 (Lead)	09/11/00	6.7	Soil, mg/kg	0.25	0.25	DJ
46367-128	NS4-6-3	EPA 6010 (Lead)	09/11/00	6.5	Soil, mg/kg	0.25	0.25	DJ

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Date Received: 08/31/00
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Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-129	NS4-3-0	EPA 6010 (Lead)	09/11/00	1050	Soil, mg/kg	0.25	0.25	DJ
46367-130	NS4-3-1	EPA 6010 (Lead)	09/11/00	155	Soil, mg/kg	0.25	0.25	DJ
46367-130Dup	NS4-3-1	EPA 6010 (Lead)	09/11/00	135	Soil, mg/kg	0.25	0.25	DJ
46367-131	NS4-3-2	EPA 6010 (Lead)	09/11/00	12	Soil, mg/kg	0.25	0.25	DJ
46367-132	NS4-3-3	EPA 6010 (Lead)	09/11/00	6.4	Soil, mg/kg	0.25	0.25	DJ
46367-132Dup	NS4-3-3	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ

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Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-004	S3-32-3	EPA 9045 (pH)	09/07/00	8.7	Soil, pH units	---	---	HP
46367-013	S3-22-2	EPA 9045 (pH)	09/07/00	8.5	Soil, pH units	---	---	HP
46367-024	S3-12-3	EPA 9045 (pH)	09/07/00	8.8	Soil, pH units	---	---	HP
46367-034	S5-27-5	EPA 9045 (pH)	09/07/00	8.5	Soil, pH units	---	---	HP
46367-044	S5-17-5	EPA 9045 (pH)	09/07/00	8.8	Soil, pH units	---	---	HP
46367-057	S6-27-4	EPA 9045 (pH)	09/07/00	8.7	Soil, pH units	---	---	HP
46367-062	S6-22-3	EPA 9045 (pH)	09/07/00	8.6	Soil, pH units	---	---	HP
46367-073	NS1-18-0	EPA 9045 (pH)	09/07/00	8.3	Soil, pH units	---	---	HP
46367-083	NS1-6-2	EPA 9045 (pH)	09/07/00	8.9	Soil, pH units	---	---	HP
46367-092	NS2-12-3	EPA 9045 (pH)	09/07/00	8.4	Soil, pH units	---	---	HP
46367-112	NS3-6-3	EPA 9045 (pH)	09/07/00	8.8	Soil, pH units	---	---	HP

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1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Spike Recovery and RPD Summary Report

Method: EPA 6010 (Lead)

Analyst: DJ/SER

Data File: ICP000911-9

QA File: 0252-9

Date Analyzed: 9/11/00

Date Digested: 9/8/00

Sample ID: See below

Matrix: Soil

QC Batch No: ICAP 000911S-9

Sample ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
046357-010	mg/kg	1.0	0.94	94	ND	4.5	4.7	4	250	183	168	71	65	67-119	9	9	0.25
046357-020	mg/kg	1.0	0.95	95	ND	6.7	6.6	2	250	171	165	66	63	67-119	4	9	0.25
046357-030*	mg/kg	1.0	0.95	95	ND	3.4	4.5	28	250	188	160	74	63	67-119	16	9	0.25
046357-040*	mg/kg	1.0	0.92	92	ND	6.7	5.4	21	250	203	233	79	91	67-119	14	9	0.25
046357-050*	mg/kg	1.0	0.94	94	ND	10	11	10	250	262	210	101	80	67-119	23	9	0.25
046357-060*	mg/kg	1.0	0.93	93	ND	7.0	7.2	3	250	261	182	102	70	67-119	37	9	0.25
046357-070	mg/kg	1.0	0.95	95	ND	22	24	9	250	270	286	99	106	67-119	6	9	0.25
046357-080	mg/kg	1.0	0.95	95	ND	5.4	5.7	5	250	187	181	73	70	67-119	3	9	0.25
046357-090*	mg/kg	1.0	0.97	97	ND	45	23	65	250	224	200	72	62	67-119	14	9	0.25
046357-100*	mg/kg	1.0	0.99	99	ND	4.9	4.4	11	250	237	201	93	78	67-119	17	9	0.25
046357-110	mg/kg	1.0	0.97	97	ND	16	20	22	250	262	248	98	93	67-119	6	9	0.25
046357-120*	mg/kg	1.0	0.97	97	ND	4.8	4.4	9	250	282	214	111	84	67-119	28	9	0.25
046357-130*	mg/kg	1.0	1.0	100	ND	155	135	14	250	306	271	60	46	67-119	26	9	0.25
046357-132	mg/kg	1.0	1.0	100	ND	6.4	6.6	3	250	168	177	65	68	67-119	5	9	0.25

Approved by: _____
Eddie F. Rodriguez
Inorganic Supervisor

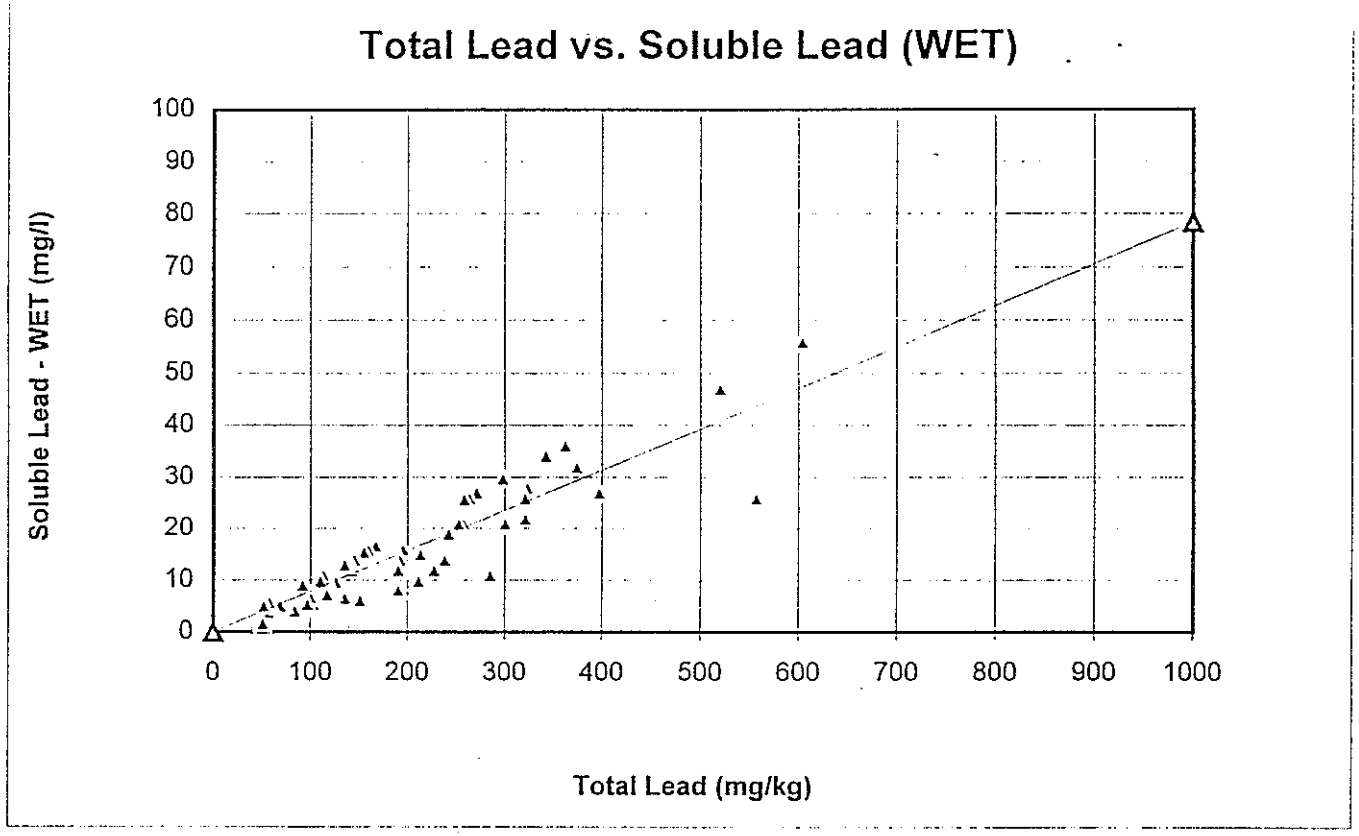
Date: 9/12/00

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040
Advanced Technology Laboratories

APPENDIX B

Total and Soluble Lead Data Used for the Regression Analysis

Sample ID.	Total Lead (mg/kg)	Soluble Lead (WET) (mg/l)	Is the WET Concentration Greater than 1/10(Total Lead) ?	Altered Soluble Lead (WET) Concentration
M17B-2	51	1.7	---	---
M9B-1	57	3.4	---	---
CP2-0	57	3.9	---	---
S8B-1	84	4.2	---	---
M8A-0	103	4.8	---	---
M13A-0	69	5.2	---	---
S5-0	106	5.3	---	---
M8B-0	72	5.4	---	---
M13B-1	97	5.5	---	---
R3-0	103	5.5	---	---
M13B-2	72	5.6	---	---
S6A-0	151	6.2	---	---
S4B-0	52	6.4	YES	5.2
M4A-0	135	6.7	---	---
M17A-1	58	6.7	YES	5.8
S8A-1	100	6.8	---	---
M8A-1	121	7.0	---	---
L1-1	117	7.3	---	---
M3B-1	123	7.9	---	---
S4A-0	190	8.2	---	---
M14A-0	126	9.7	---	---
S9-1	211	9.9	---	---
M5B-0	110	10	---	---
M14B-0	92	11	YES	9.2
S9-0	285	11	---	---
L2-0	142	12	---	---
M10B-1	144	12	---	---
S1-0	190	12	---	---
S2B-0	194	12	---	---
S3-0	227	12	---	---
L3-0	136	13	---	---
M6B-0	135	13	---	---
M13B-0	113	13	YES	11.3
M4B-0	192	14	---	---
M10B-0	238	14	---	---
M15B-0	145	14	---	---
M16B-0	213	15	---	---
CP3-0	195	16	---	---
M5A-0	145	16	YES	14.5
M6A-0	155	19	YES	15.5
M12B-1	242	19	---	---
CP4-0	159	20	YES	15.9
L1-0	257	21	---	---
M7B-0	252	21	---	---
M16A-0	167	21	YES	16.7
S8A-0	300	21	---	---
S2A-0	321	22	---	---
CP1-0	263	26	---	---
M17B-0	321	26	---	---
S8B-0	557	26	---	---
M9B-0	397	27	---	---
M11A-0	323	28	---	---
M7A-0	258	29	YES	25.8
M12B-0	271	29	YES	27.1
M12A-0	374	32	---	---
M11B-0	298	34	YES	29.8
M10A-0	342	35	YES	34.2
M15A-0	362	41	YES	36.2
M9A-0	520	47	---	---
M17A-0	604	56	---	---



101 - Casitas to Linden Regression Analysis

Constant (b)	=	0
Slope (m)	=	0.0784
Correlation (r)	=	0.912
Number of (x, y) Observations	=	60

Casitas - Ramps (all at 6 ft feop)

Sample ID.	x = Total Lead (mg/kg)
R1-0	18
R2-0	17
R3-0	103

0

MEAN (x)	46
VARIANCE (Sx^2)	2437
STDEV (Sx)	49.366
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.919987
90% UCL	**100**
95% UCL	**129**

R1-1	7.8
R2-1	3.5
R3-1	3.9

1

MEAN (x)	5
VARIANCE (Sx^2)	6
STDEV (Sx)	2.376
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.919987
90% UCL	**7.7**
95% UCL	**9.1**

R1-2	5.4
R2-2	3
R3-2	3.1

2

MEAN (x)	4
VARIANCE (Sx^2)	2
STDEV (Sx)	1.358
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.919987
90% UCL	**5.3**
95% UCL	**6.1**

Casitas/Linden - Ramps

t90%	t95%
100	**129**
7.7	**9.1**
5.3	**6.1**
100	129
6.5	7.6
54	69
5.3	6.1
38	48

Casitas - Linden Abutments
Lead Statistics

Soil Samples Collected at 0 feet

Untransformed Total Lead Variance	6,524
Untransformed Total Lead Mean	157
Transformed Total Lead Variance	819
Transformed Total Lead Mean	42.4
t-critical	4.7054
t80%	0.8960
t90%	1.4149
t95%	1.8946
80% UCL	**206**
90% UCL	**220**
95% UCL	**231**

Soil Samples Collected at 1 foot

Untransformed Total Lead Variance	1,418
Untransformed Total Lead Mean	26
Transformed Total Lead Variance	890
Transformed Total Lead Mean	16.8
t-critical	6.94068
t80%	0.89603
t90%	1.41492
t95%	1.89458
80% UCL	**52**
90% UCL	**61**
95% UCL	**70**

Soil Samples Collected at 2 feet

Untransformed Total Lead Variance	20
Untransformed Total Lead Mean	9
Transformed Total Lead Variance	708
Transformed Total Lead Mean	40.9
t-critical	5.22563
t80%	0.89603
t90%	1.41492
t95%	1.89458
80% UCL	**12**
90% UCL	**13**
95% UCL	**14**

Soil Samples Collected at 3 feet

Untransformed Total Lead Variance	25
Untransformed Total Lead Mean	8
Transformed Total Lead Variance	722
Transformed Total Lead Mean	33.9
t-critical	5.90906
t80%	0.89603
t90%	1.41492
t95%	1.89458
80% UCL	**11**
90% UCL	**12**
95% UCL	**13**

Route 101 - Casitas Pass/Linden Avenue Interchanges
Southbound Shoulders

90% UCLs
(concentrations are in units of mg/kg)

								Depth (feet)
308	236	408	69	51	39	47	32	1
70	115	58	67	6.7	8.7	10	11	2
25	19	11	22	6.9	4.3	6.3	4.8	3
25	19	11	13	4.8	5.3	4.8	5.5	4
25	19	11	13	5.1	5.3	6.2	5.5	5
25	19	11	13	6.5	5.3	4.6	5.5	6
0	3	6	9	12	17	22	27	32 34

Distances From Edge of Pavement (feet)

95% UCLs
(concentrations are in units of mg/kg)

								Depth (feet)
338	263	495	85	55	43	53	35	1
86	139	72	85	7.4	10	12	12	2
30	22	12	28	8.2	4.4	7.0	5.2	3
30	22	12	15	5.7	5.8	5.1	6.2	4
30	22	12	15	5.8	5.8	6.9	6.2	5
30	22	12	15	8.0	5.8	4.9	6.2	6
0	3	6	9	12	17	22	27	32 34

Distances From Edge of Pavement (feet)

= Shaded cells contain total lead concentrations that are expected to exhibit soluble lead concentrations greater than the lead STLC of 5.0 mg/l according to the regression line y = 0.0784(x).

Soil Unit Designation and Weight Factors

								Depth (feet)
A1 (6)	A2 (3)	A3 (3)	A4 (5)	A5 (5)	A6 (5)	A7 (5)	A8 (2)	1
B1 (6)	B2 (3)	B3 (3)	B4 (5)	B5 (5)	B6 (5)	B7 (5)	B8 (2)	2
C1 (6)	C2 (3)	C3 (3)	C4 (5)	C5 (5)	C6 (5)	C7 (5)	C8 (2)	3
D1 (6)	D2 (3)	D3 (3)	D4 (5)	D5 (5)	D6 (5)	D7 (5)	D8 (2)	4
E1 (6)	E2 (3)	E3 (3)	E4 (5)	E5 (5)	E6 (5)	E7 (5)	E8 (2)	5
F1 (6)	F2 (3)	F3 (3)	F4 (5)	F5 (5)	F6 (5)	F7 (5)	F8 (2)	6
0	3	6	9	12	17	22	27	32 34

Distances From Edge of Pavement (feet)

SOIL MIXING SCENARIOS
Casitas to Linden - SB Shoulder

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	6	204	0.029	308	9.059	338	9.941
A2	3	204	0.015	236	3.471	263	3.868
A3	3	204	0.015	408	6.000	495	7.279
A4	5	204	0.025	69	1.691	85	2.083
A5	5	204	0.025	51	1.250	55	1.348
A6	5	204	0.025	39	0.956	43	1.054
A7	5	204	0.025	47	1.152	53	1.299
A8	2	204	0.010	32	0.314	35	0.343
B1	6	204	0.029	70	2.059	86	2.529
B2	3	204	0.015	115	1.691	139	2.044
B3	3	204	0.015	58	0.853	72	1.059
B4	5	204	0.025	67	1.642	85	2.083
B5	5	204	0.025	6.7	0.164	7.4	0.181
B6	5	204	0.025	8.7	0.213	10	0.245
B7	5	204	0.025	10	0.245	12	0.294
B8	2	204	0.010	11	0.108	12	0.118
C1	6	204	0.029	25	0.735	30	0.882
C2	3	204	0.015	19	0.279	22	0.324
C3	3	204	0.015	11	0.162	12	0.176
C4	5	204	0.025	22	0.539	28	0.686
C5	5	204	0.025	6.9	0.169	8.2	0.201
C6	5	204	0.025	4.3	0.105	4.4	0.108
C7	5	204	0.025	6.3	0.154	7	0.172
C8	2	204	0.010	4.8	0.047	5.2	0.051
D1	6	204	0.029	25	0.735	30	0.882
D2	3	204	0.015	19	0.279	22	0.324
D3	3	204	0.015	11	0.162	12	0.176
D4	5	204	0.025	13	0.319	15	0.368
D5	5	204	0.025	4.8	0.118	5.7	0.140
D6	5	204	0.025	5.3	0.130	5.8	0.142
D7	5	204	0.025	4.8	0.118	5.1	0.125
D8	2	204	0.010	5.5	0.054	6.2	0.061
E1	6	204	0.029	25	0.735	30	0.882
E2	3	204	0.015	19	0.279	22	0.324
E3	3	204	0.015	11	0.162	12	0.176
E4	5	204	0.025	13	0.319	15	0.368
E5	5	204	0.025	5.1	0.125	5.8	0.142
E6	5	204	0.025	5.3	0.130	5.8	0.142
E7	5	204	0.025	6.2	0.152	6.9	0.169
E8	2	204	0.010	5.5	0.054	6.2	0.061
F1	6	204	0.029	25	0.735	30	0.882
F2	3	204	0.015	19	0.279	22	0.324
F3	3	204	0.015	11	0.162	12	0.176
F4	5	204	0.025	13	0.319	15	0.368
F5	5	204	0.025	6.5	0.159	8	0.196
F6	5	204	0.025	5.3	0.130	5.8	0.142
F7	5	204	0.025	4.6	0.113	4.9	0.120
F8	2	204	0.010	5.5	0.054	6.2	0.061
Sum	204		1.000		39		45

Predicted Soluble (WET) Lead 3.0 Predicted Soluble (WET) Lead 3.5

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	6	34	0.176	308	54.353	338	59.647
A2	3	34	0.088	236	20.824	263	23.206
A3	3	34	0.088	408	36.000	495	43.676
A4	5	34	0.147	69	10.147	85	12.500
B1	6	34	0.176	70	12.353	86	15.176
B2	3	34	0.088	115	10.147	139	12.265
B3	3	34	0.088	58	5.118	72	6.353
B4	5	34	0.147	67	9.853	85	12.500
Sum	34		1.000		159		185

Predicted Soluble (WET) Lead 12.4 Predicted Soluble (WET) Lead 14.5

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A5	5	170	0.029	51	1.500	55	1.618
A6	5	170	0.029	39	1.147	43	1.265
A7	5	170	0.029	47	1.382	53	1.559
A8	2	170	0.012	32	0.376	35	0.412
B5	5	170	0.029	6.7	0.197	7.4	0.218
B6	5	170	0.029	8.7	0.256	10	0.294
B7	5	170	0.029	10	0.294	12	0.353
B8	2	170	0.012	11	0.129	12	0.141
C1	6	170	0.035	25	0.882	30	1.059
C2	3	170	0.018	19	0.335	22	0.388
C3	3	170	0.018	11	0.194	12	0.212
C4	5	170	0.029	22	0.647	28	0.824
C5	5	170	0.029	6.9	0.203	8.2	0.241
C6	5	170	0.029	4.3	0.126	4.4	0.129
C7	5	170	0.029	6.3	0.185	7	0.206
C8	2	170	0.012	4.8	0.056	5.2	0.061
D1	6	170	0.035	25	0.882	30	1.059
D2	3	170	0.018	19	0.335	22	0.388
D3	3	170	0.018	11	0.194	12	0.212
D4	5	170	0.029	13	0.382	15	0.441
D5	5	170	0.029	4.8	0.141	5.7	0.168
D6	5	170	0.029	5.3	0.156	5.8	0.171
D7	5	170	0.029	4.8	0.141	5.1	0.150
D8	2	170	0.012	5.5	0.065	6.2	0.073
E1	6	170	0.035	25	0.882	30	1.059
E2	3	170	0.018	19	0.335	22	0.388
E3	3	170	0.018	11	0.194	12	0.212
E4	5	170	0.029	13	0.382	15	0.441
E5	5	170	0.029	5.1	0.150	5.8	0.171
E6	5	170	0.029	5.3	0.156	5.8	0.171
E7	5	170	0.029	6.2	0.182	6.9	0.203
E8	2	170	0.012	5.5	0.065	6.2	0.073
F1	6	170	0.035	25	0.882	30	1.059
F2	3	170	0.018	19	0.335	22	0.388
F3	3	170	0.018	11	0.194	12	0.212
F4	5	170	0.029	13	0.382	15	0.441
F5	5	170	0.029	6.5	0.191	8	0.235
F6	5	170	0.029	5.3	0.156	5.8	0.171
F7	5	170	0.029	4.6	0.135	4.9	0.144
F8	2	170	0.012	5.5	0.065	6.2	0.073
Sum	170		1.000		15		17

Predicted Soluble (WET) Lead 1.2 Predicted Soluble (WET) Lead 1.3

Southbound Shoulder
Explanation on How to Use the Soil Unit Designation and Weight Factors

The cross-section for this area has been divided into cells. The total lead concentration assigned to each cell is the UCL for the soil sample collected from the upper left hand corner of that cell. Since total lead concentrations should decrease with depth and lateral distance from the edge of pavement, the UCL assigned to each cell is conservative.

The cells can be combined to evaluate the expected total lead concentration for different waste streams depending on the excavation scenario in question. For example, let's assume that the excavation scenario in question is the top 2 feet of soil from the edge of pavement to appproximate 17 feet from the edge of pavement. The applicable cells for this scenario would be A1 through A4 and B1 through B4. The following table shows how to use the weight factors to evaluate the expected total lead concentration.

Area	Weight Factor (wf)	Cells % of Total Mass	80%UCL (mg/kg)	(UCL x %) (mg/kg)	
A1	6	17.6%	281	49.6	
A2	3	8.8%	210	18.5	
A3	3	8.8%	329	29.0	
A4	5	14.7%	56	8.2	
B1	6	17.6%	55	9.7	
B2	3	8.8%	92	8.1	
B3	3	8.8%	45	4.0	
B4	5	14.7%	52	7.6	
Sum	34	100.0%		**135**	<------- Expected Total Lead Concentration

The result is simply a weighted average of the 80% UCLs for the eight cells in question. The expected total lead concentration should then be placed into the regression line to predict the soluble (WET) lead concentration.

y = 0.0784(x) ----------> y = 0.0784(135) = 11 mg/l

We can now say that we are 80% confident that the soil waste stream would be classified as a California-hazardous waste since our predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

The expected total lead concentration for the 95% UCLs would be calculated by replacing the 80% UCL values in the table above with the 95% UCLs.

Southbound Shoulder - 3 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S2A-0	321
S4A-0	190
S6A-0	151
S8A-0	300

MEAN (x)	241
VARIANCE (Sx^2)	6860
STDEV (Sx)	82.827
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**308**
95% UCL	**338**

S2A-1	5.3
S4A-1	7.9
S6A-1	21
S8A-1	100

MEAN (x)	34
VARIANCE (Sx^2)	2010
STDEV (Sx)	44.830
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**70**
95% UCL	**86**

S2A-2	8
S4A-2	5.6
S6A-2	6
S8A-2	35

MEAN (x)	14
VARIANCE (Sx^2)	204
STDEV (Sx)	14.272
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**25**
95% UCL	**30**

Southbound Shoulder - 6 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S1-0	190
S3-0	227
S5-0	106
S7-0	37
S9-0	285

MEAN (x)	169
VARIANCE (Sx^2)	9664
STDEV (Sx)	98.303
OBSERVATIONS (n)	5
t90%	1.5332057
t95%	2.1318465
90% UCL	**236**
95% UCL	**263**

S1-1	15
S3-1	35
S5-1	6.8
S7-1	5.1
S9-1	211

MEAN (x)	55
VARIANCE (Sx^2)	7787
STDEV (Sx)	88.245
OBSERVATIONS (n)	5
t90%	1.5332057
t95%	2.1318465
90% UCL	**115**
95% UCL	**139**

S1-2	8.1
S3-2	7.9
S5-2	5.3
S7-2	7.4
S9-2	31

MEAN (x)	12
VARIANCE (Sx^2)	115
STDEV (Sx)	10.713
OBSERVATIONS (n)	5
t90%	1.5332057
t95%	2.1318465
90% UCL	**19**
95% UCL	**22**

Southbound Shoulder - 9 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S2B-0	194
S4B-0	52
S6B-0	42
S8B-0	557

MEAN (x)	211
VARIANCE (Sx^2)	57949
STDEV (Sx)	240.726
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**408**
95% UCL	**495**

S2B-1	11
S4B-1	5.8
S6B-1	6.1
S8B-1	84

MEAN (x)	27
VARIANCE (Sx^2)	1464
STDEV (Sx)	38.258
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**58**
95% UCL	**72**

S2B-2	7.3
S4B-2	4.5
S6B-2	5.5
S8B-2	13

MEAN (x)	8
VARIANCE (Sx^2)	14
STDEV (Sx)	3.798
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**11**
95% UCL	**12**

Southbound Shoulder - 12 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S3-12-0	60
S5-12-0	9.3
S6-12-0	50

MEAN (x)	40
VARIANCE (Sx^2)	721
STDEV (Sx)	26.854
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	**69**
95% UCL	**85**

S3-12-1	9
S5-12-1	68
S6-12-1	22

MEAN (x)	33
VARIANCE (Sx^2)	961
STDEV (Sx)	31.000
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	**67**
95% UCL	**85**

S3-12-2	5.1
S5-12-2	6.3
S6-12-2	23

MEAN (x)	11
VARIANCE (Sx^2)	100
STDEV (Sx)	10.006
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	**22**
95% UCL	**28**

S3-12-3	5.4
S5-12-3	13
S6-12-3	8.1

MEAN (x)	9
VARIANCE (Sx^2)	15
STDEV (Sx)	3.853
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	**13**
95% UCL	**15**

Southbound Shoulder - 17 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S3-17-0	43
S5-17-0	35
S6-17-0	50

MEAN (x)	43
VARIANCE (Sx^2)	56
STDEV (Sx)	7.506
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	51
95% UCL	55

S3-17-1	5.2
S5-17-1	6.7
S6-17-1	4.3

MEAN (x)	5.4
VARIANCE (Sx^2)	1.5
STDEV (Sx)	1.212
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	6.7
95% UCL	7.4

S3-17-2	4.8
S5-17-2	6.6
S6-17-2	2.4

MEAN (x)	4.6
VARIANCE (Sx^2)	4.4
STDEV (Sx)	2.107
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	6.9
95% UCL	8.2

S3-17-3	4.9
S5-17-3	2.1
S6-17-3	2.3

MEAN (x)	3.1
VARIANCE (Sx^2)	2.4
STDEV (Sx)	1.562
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	4.8
95% UCL	5.7

S3-17-4	5.0
S5-17-4	2.7
S6-17-4	3.8

MEAN (x)	3.8
VARIANCE (Sx^2)	1.3
STDEV (Sx)	1.150
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	5.1
95% UCL	5.8

S3-17-5	6.7
S5-17-5	2.4
S6-17-5	2.3

MEAN (x)	4
VARIANCE (Sx^2)	6
STDEV (Sx)	2.512
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	6.5
95% UCL	8.0

Southbound Shoulder - 22 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S3-22-0	29
S5-22-0	26
S6-22-0	39

MEAN (x)	31
VARIANCE (Sx^2)	46
STDEV (Sx)	6.807
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	39
95% UCL	43

S3-22-1	7.6
S5-22-1	2.5
S6-22-1	7.0

MEAN (x)	6
VARIANCE (Sx^2)	7.77
STDEV (Sx)	2.787
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	8.7
95% UCL	10.4

S3-22-2	4.3
S5-22-2	3.9
S6-22-2	4.1

MEAN (x)	4
VARIANCE (Sx^2)	0.04
STDEV (Sx)	0.200
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	4.3
95% UCL	4.4

S3-22-3	4.7
S5-22-3	5.1
S6-22-3	3.6

MEAN (x)	4
VARIANCE (Sx^2)	0.60
STDEV (Sx)	0.777
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	5.3
95% UCL	5.8

Southbound Shoulder - 27 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S3-27-0	40
S5-27-0	26
S6-27-0	44

MEAN (x)	37
VARIANCE (Sx^2)	89
STDEV (Sx)	9.452
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	47
95% UCL	53

S3-27-1	5.7
S5-27-1	3.4
S6-27-1	10

MEAN (x)	6
VARIANCE (Sx^2)	11
STDEV (Sx)	3.350
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	10
95% UCL	12

S3-27-2	4.6
S5-27-2	3.9
S6-27-2	6.3

MEAN (x)	5
VARIANCE (Sx^2)	1.52
STDEV (Sx)	1.234
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	6.3
95% UCL	7.0

S3-27-3	4.4
S5-27-3	3.4
S6-27-3	4.5

MEAN (x)	4
VARIANCE (Sx^2)	0.37
STDEV (Sx)	0.608
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	4.8
95% UCL	5.1

S3-27-4	3.8
S5-27-4	5.4
S6-27-4	5.9

MEAN (x)	5
VARIANCE (Sx^2)	1.20
STDEV (Sx)	1.097
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	6.2
95% UCL	6.9

S3-27-5	4.5
S5-27-5	3.4
S6-27-5	4

MEAN (x)	4
VARIANCE (Sx^2)	0.303
STDEV (Sx)	0.551
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	4.6
95% UCL	4.9

Southbound Shoulder - 32 feet from eop

Sample ID.	x = Total Lead (mg/kg)
S3-32-0	22
S5-32-0	32
S6-32-0	27

MEAN (x)	27
VARIANCE (Sx^2)	25
STDEV (Sx)	5.000
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	32
95% UCL	35

S3-32-1	6.3
S5-32-1	7.8
S3-32-1	11

MEAN (x)	8
VARIANCE (Sx^2)	5.76
STDEV (Sx)	2.401
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	11
95% UCL	12

S3-32-2	4.6
S5-32-2	4.3
S3-32-2	3.3

MEAN (x)	4
VARIANCE (Sx^2)	0.463
STDEV (Sx)	0.681
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	4.8
95% UCL	5.2

S3-32-3	4.8
S5-32-3	3.1
S3-32-3	5.1

MEAN (x)	4
VARIANCE (Sx^2)	1.2
STDEV (Sx)	1.079
OBSERVATIONS (n)	3
t90%	1.885619
t95%	2.9199873
90% UCL	5.5
95% UCL	6.2

Route 101 - Casitas Pass/Linden Avenue Interchanges
Northbound Shoulders

90% UCLs
(concentrations are in units of mg/kg)

814	399	186	125	1
120	115	33	14	2
107	6.0	13	21	3
10	8.4	6.0	7.1	4

0 3 6 12 18 20

Distances From Edge of Pavement (feet)

Depth (feet

95% UCLs
(concentrations are in units of mg/kg)

940	434	209	137	1
143	143	39	17	2
134	6.6	15	28	3
12	9.0	6.8	7.8	4

0 3 6 12 18 20

Distances From Edge of Pavement (feet)

Depth (feet

= Shaded cells contain total lead concentrations that are expected to exhibit soluble lead concentrations greater than the lead STLC of 5.0 mg/l according to the regression line y = 0.0784(x).

Soil Unit Designation and Weight Factors

A1 (6)	A2 (6)	A3 (6)	A4 (2)	1
B1 (6)	B2 (6)	B3 (6)	B4 (2)	2
C1 (6)	C2 (6)	C3 (6)	C4 (2)	3
D1 (6)	D2 (6)	D3 (6)	D4 (2)	4

0 3 6 12 18 20

Distances From Edge of Pavement (feet)

Depth (feet

SOIL MIXING SCENARIOS
Casitas to Linden - NB Shoulder

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	6	80	0.075	814	61.050	940	70.500
A2	6	80	0.075	399	29.925	434	32.550
A3	6	80	0.075	186	13.950	209	15.675
A4	2	80	0.025	125	3.125	137	3.425
B1	6	80	0.075	120	9.000	143	10.725
B2	6	80	0.075	115	8.625	143	10.725
B3	6	80	0.075	33	2.475	39	2.925
B4	2	80	0.025	14	0.350	17	0.425
C1	6	80	0.075	107	8.025	134	10.050
C2	6	80	0.075	6.0	0.450	6.6	0.495
C3	6	80	0.075	13	0.975	15	1.125
C4	2	80	0.025	21	0.525	28	0.700
D1	6	80	0.075	10	0.750	12	0.900
D2	6	80	0.075	8.4	0.630	9.0	0.675
D3	6	80	0.075	6.0	0.450	6.8	0.510
D4	2	80	0.025	7.1	0.178	7.8	0.195
Sum	80		1.000		140		162

Predicted Soluble (WET) Lead 11.0 Predicted Soluble (WET) Lead 12.7

Re-use Segregation

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	6	32	0.188	814	152.625	940	176.250
A2	6	32	0.188	399	74.813	434	81.375
A3	6	32	0.188	186	34.875	209	39.188
A4	2	32	0.063	125	7.813	137	8.563
B1	6	32	0.188	120	22.500	143	26.813
B2	6	32	0.188	115	21.563	143	26.813
Sum	32		1.000		314		359

Predicted Soluble (WET) Lead 24.6 Predicted Soluble (WET) Lead 28.1

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
B3	6	48	0.125	33	4.125	39	4.875
B4	2	48	0.042	14	0.583	17	0.708
C1	6	48	0.125	107	13.375	134	16.750
C2	6	48	0.125	6.0	0.750	6.6	0.825
C3	6	48	0.125	13	1.625	15	1.875
C4	2	48	0.042	21	0.875	28	1.167
D1	6	48	0.125	10	1.250	12	1.500
D2	6	48	0.125	8.4	1.050	9.0	1.125
D3	6	48	0.125	6.0	0.750	6.8	0.850
D4	2	48	0.042	7.1	0.296	7.8	0.325
Sum	48		1.000		25		30

Predicted Soluble (WET) Lead 1.9 Predicted Soluble (WET) Lead 2.4

Disposal Segregation

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	6	18	0.333	814	271.333	940	313.333
A2	6	18	0.333	399	133.000	434	144.667
A3	6	18	0.333	186	62.000	209	69.667
Sum	18		1.000		466		528

Predicted Soluble (WET) Lead 36.6 Predicted Soluble (WET) Lead 41.4

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A4	2	62	0.032	125	4.032	137	4.419
B1	6	62	0.097	120	11.613	143	13.839
B2	6	62	0.097	115	11.129	143	13.839
B3	6	62	0.097	33	3.194	39	3.774
B4	2	62	0.032	14	0.452	17	0.548
C1	6	62	0.097	107	10.355	134	12.968
C2	6	62	0.097	6.0	0.581	6.6	0.639
C3	6	62	0.097	13	1.258	15	1.452
C4	2	62	0.032	21	0.677	28	0.903
D1	6	62	0.097	10	0.968	12	1.161
D2	6	62	0.097	8.4	0.813	9.0	0.871
D3	6	62	0.097	6.0	0.581	6.8	0.658
D4	2	62	0.032	7.1	0.229	7.8	0.252
Sum	62		1.000		46		55

Predicted Soluble (WET) Lead 3.6 Predicted Soluble (WET) Lead 4.3

Northbound Shoulder
Explanation on How to Use the Soil Unit Designation and Weight Factors

The cross-section for this area has been divided into cells. The total lead concentration assigned to each cell is the UCL for the soil sample collected from the upper left hand corner of that cell. Since total lead concentrations should decrease with depth and lateral distance from the edge of pavement, the UCL assigned to each cell is conservative.

The cells can be combined to evaluate the expected total lead concentration for different waste streams depending on the excavation scenario in question. For example, let's assume that the excavation scenario in question is the top 2 feet of soil from the edge of pavement to appproximate 20 feet from the edge of pavement. The applicable cells for this scenario would be A1 through A4 and B1 through B4. The following table shows how to use the weight factors to evaluate the expected total lead concentration.

Area	Weight Factor (wf)	Cells % of Total Mass	95%UCL (mg/kg)	(UCL x %) (mg/kg)	
A1	6	15.0%	940	141.0	
A2	6	15.0%	434	65.1	
A3	6	15.0%	209	31.4	
A4	2	5.0%	137	6.9	
B1	6	15.0%	143	21.5	
B2	6	15.0%	143	21.5	
B3	6	15.0%	39	5.9	
B4	2	5.0%	17	0.9	
Sum	40	100.0%		**294**	<------- Expected Total Lead Concentration

The result is simply a weighted average of the 95% UCLs for the eight cells in question. The expected total lead concentration should then be placed into the regression line to predict the soluble (WET) lead concentration.

y = 0.0784(x) ----------> y = 0.0784(294) = 23 mg/l

We can now say that we are 95% confident that the soil waste stream would be classified as a California-hazardous waste since our predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

The expected total lead concentration for the 90% UCLs would be calculated by replacing the 95% UCL values in the table above with the 90% UCLs.

Casitas - NB Shoulders (3 feet from eop)

Sample ID.	x = Total Lead (mg/kg)
NS1-3-0	339
NS2-3-0	407
NS3-3-0	308
NS4-3-0	1050

Suface

MEAN (x)	526
VARIANCE (Sx^2)	123743
STDEV (Sx)	351.772
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**814**
95% UCL	**940**

NS1-3-1	7.3
NS2-3-1	43
NS3-3-1	69
NS4-3-1	155

1

MEAN (x)	69
VARIANCE (Sx^2)	3959
STDEV (Sx)	62.924
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**120**
95% UCL	**143**

NS1-3-2	158
NS2-3-2	6.6
NS3-3-2	8.6
NS4-3-2	12

2

MEAN (x)	46
VARIANCE (Sx^2)	5550
STDEV (Sx)	74.500
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**107**
95% UCL	**134**

NS1-3-3	5.1
NS2-3-3	4.9
NS3-3-3	13
NS4-3-3	6.4

3

MEAN (x)	7
VARIANCE (Sx^2)	15
STDEV (Sx)	3.825
OBSERVATIONS (n)	4
t90%	1.6377453
t95%	2.353363
90% UCL	**10**
95% UCL	**12**

Casitas - NB Shoulders (6 feet from eop)

Sample ID.	x = Total Lead (mg/kg)
NS1-6-0	463
NS2-6-0	291
NS3-6-0	243
NS4-6-0	275

MEAN (x)	318
VARIANCE (Sx^2)	9743
STDEV (Sx)	98.705
OBSERVATIONS (n)	4
t90%	1.637745
t95%	2.353363
90% UCL	**399**
95% UCL	**434**

NS1-6-1	167
NS2-6-1	20
NS3-6-1	16
NS4-6-1	8.7

MEAN (x)	53
VARIANCE (Sx^2)	5805
STDEV (Sx)	76.194
OBSERVATIONS (n)	4
t90%	1.637745
t95%	2.353363
90% UCL	**115**
95% UCL	**143**

NS1-6-2	5.2
NS2-6-2	3.9
NS3-6-2	2.7
NS4-6-2	6.7

MEAN (x)	5
VARIANCE (Sx^2)	3
STDEV (Sx)	1.719
OBSERVATIONS (n)	4
t90%	1.637745
t95%	2.353363
90% UCL	**6.0**
95% UCL	**6.6**

NS1-6-3	8.1
NS2-6-3	8.4
NS3-6-3	4.4
NS4-6-3	6.5

3

MEAN (x)	7
VARIANCE (Sx^2)	3
STDEV (Sx)	1.834
OBSERVATIONS (n)	4
t90%	1.637745
t95%	2.353363
90% UCL	**8.4**
95% UCL	**9.0**

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II Project #: E8000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments: See pg 1

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total Pb (6020); PH (9045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6020)	PH (9045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	91	NS2-12-2	8/31	1042					X				X							E	1	DAG		
	92	NS2-12-3		1043																				
	93	NS2-6-0		1045																				
	94	NS2-6-1		1046																				
	95	NS2-6-2		1047																				
	96	NS2-6-3		1048																				
	97	NS2-3-0		1050																				
	98	NS2-3-1		1051																				
	99	NS2-3-2		1052																				
	100	NS2-3-3		1053																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Cubitus II
Project #: E8000-06-53
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time:
Received by: (Signature and Printed Name) AM Date: 8/31 Time: 1500

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

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

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (6010)	pH (4045)	SOLID (SOIL) • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	101	NS3-18-0	8/31	1101							X		X							E	1	bag		
	102	1		1102																				
	103	2		1103																				
	104	3		1104																				
	105	NS3-12-0		1105																				
	106	1		1106																				
	107	2		1107																				
	108	3		1108																				
	109	NS3-6-0																						
	110	NS3-6-1																						

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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

Client:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II
Project #: E80000-06-33
Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time:
Received by: (Signature and Printed Name) [signature] Date: 8/31 Time: 15 00
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White 8/31/00
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other
☐ Return To:

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total / PPL (6010); pH (6045)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	Total / PPL (6010)	pH (6045)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	111	NS3-6-2		1111			X							E	1	bag		
	112	NS3-6-3		1112		X												
	113	NS3-3-0		1115														
	114	1		1116														
	115	2		1117														
	116	3		1118														
	117	NS4-18-0		1140														
	118	1		1141														
	119	2		1142														
	120	3		1143														

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Castles II Project #: E000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 8/31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPHG/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); Total Pb (Lead); pH (CAS)

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Pb (Lead)	pH (CAS)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	121	NS4-12-0		1145							X		X							E	1	bag		
	122	1		1146																				
	123	2		1147																				
	124	3		1148																				
	125	NS4-6-0		1155																				
	126	1		1156																				
	127	2		1157																				
	128	3		1158																				
	129	NS4-3-0		1200																				
	130	NS4-3-1		1201																				

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

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:
Attn:
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Casitas II Project #: E8000-06-33 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White Date: Time: Received by: (Signature and Printed Name) [signature] Date: 8-31 Time: 1500
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Ross White 8/31
Print Name Date
Signature

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC) | 8260 (Volatiles-GC/MS) | 625 / 8270 (BNA-GC/MS) | Metals-Total (CAC-6010 / 7000) | 8015M TPHG/BTEX (COMBINATION) | 8015M TPH/D (Diesel-GC) | Total Pb (6010) & pH 9045

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL SLUDGE | OIL • SOLVENT • LIQUID | WATER • WASTEWATER | DRINKING WATER | AIR | WIPE • FILTER | OTHER

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	SOLID • SOIL SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	131	NS4-3-2	8/31	1202	X							E	1	bag		
	132	NS4-3-3	8/31	1203	X							E	1	bag		

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-001	S3-32-0	EPA 6010 (Lead)	09/11/00	22	Soil, mg/kg	0.25	0.25	DJ
46367-002	S3-32-1	EPA 6010 (Lead)	09/11/00	6.3	Soil, mg/kg	0.25	0.25	DJ
46367-003	S3-32-2	EPA 6010 (Lead)	09/11/00	4.6	Soil, mg/kg	0.25	0.25	DJ
46367-004	S3-32-3	EPA 6010 (Lead)	09/11/00	4.8	Soil, mg/kg	0.25	0.25	DJ
46367-005	S3-27-0	EPA 6010 (Lead)	09/11/00	40	Soil, mg/kg	0.25	0.25	DJ
46367-006	S3-27-1	EPA 6010 (Lead)	09/11/00	5.7	Soil, mg/kg	0.25	0.25	DJ
46367-007	S3-27-2	EPA 6010 (Lead)	09/11/00	4.6	Soil, mg/kg	0.25	0.25	DJ
46367-008	S3-27-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-009	S3-27-4	EPA 6010 (Lead)	09/11/00	3.8	Soil, mg/kg	0.25	0.25	DJ
46367-010	S3-27-5	EPA 6010 (Lead)	09/11/00	4.5	Soil, mg/kg	0.25	0.25	DJ
46367-010Dup	S3-27-5	EPA 6010 (Lead)	09/11/00	4.7	Soil, mg/kg	0.25	0.25	DJ
46367-011	S3-22-0	EPA 6010 (Lead)	09/11/00	29	Soil, mg/kg	0.25	0.25	DJ
46367-012	S3-22-1	EPA 6010 (Lead)	09/11/00	7.6	Soil, mg/kg	0.25	0.25	DJ
46367-013	S3-22-2	EPA 6010 (Lead)	09/11/00	4.3	Soil, mg/kg	0.25	0.25	DJ
46367-014	S3-22-3	EPA 6010 (Lead)	09/11/00	4.7	Soil, mg/kg	0.25	0.25	DJ
46367-015	S3-17-0	EPA 6010 (Lead)	09/11/00	43	Soil, mg/kg	0.25	0.25	DJ
46367-016	S3-17-1	EPA 6010 (Lead)	09/11/00	5.2	Soil, mg/kg	0.25	0.25	DJ
46367-017	S3-17-2	EPA 6010 (Lead)	09/11/00	4.8	Soil, mg/kg	0.25	0.25	DJ
46367-018	S3-17-3	EPA 6010 (Lead)	09/11/00	4.9	Soil, mg/kg	0.25	0.25	DJ
46367-019	S3-17-4	EPA 6010 (Lead)	09/11/00	5.0	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-020	S3-17-5	EPA 6010 (Lead)	09/11/00	6.7	Soil, mg/kg	0.25	0.25	DJ
46367-020Dup	S3-17-5	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ
46367-021	S3-12-0	EPA 6010 (Lead)	09/11/00	60	Soil, mg/kg	0.25	0.25	DJ
46367-022	S3-12-1	EPA 6010 (Lead)	09/11/00	9.0	Soil, mg/kg	0.25	0.25	DJ
46367-023	S3-12-2	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-024	S3-12-3	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-025	S5-32-0	EPA 6010 (Lead)	09/11/00	32	Soil, mg/kg	0.25	0.25	DJ
46367-026	S5-32-1	EPA 6010 (Lead)	09/11/00	7.8	Soil, mg/kg	0.25	0.25	DJ
46367-027	S5-32-2	EPA 6010 (Lead)	09/11/00	4.3	Soil, mg/kg	0.25	0.25	DJ
46367-028	S5-32-3	EPA 6010 (Lead)	09/11/00	3.1	Soil, mg/kg	0.25	0.25	DJ
46367-029	S5-27-0	EPA 6010 (Lead)	09/11/00	26	Soil, mg/kg	0.25	0.25	DJ
46367-030	S5-27-1	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-030Dup	S5-27-1	EPA 6010 (Lead)	09/11/00	4.5	Soil, mg/kg	0.25	0.25	DJ
46367-031	S5-27-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ
46367-032	S5-27-3	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-033	S5-27-4	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-034	S5-27-5	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-035	S5-22-0	EPA 6010 (Lead)	09/11/00	26	Soil, mg/kg	0.25	0.25	DJ
46367-036	S5-22-1	EPA 6010 (Lead)	09/11/00	2.5	Soil, mg/kg	0.25	0.25	DJ
46367-037	S5-22-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-038	S5-22-3	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-039	S5-17-0	EPA 6010 (Lead)	09/11/00	35	Soil, mg/kg	0.25	0.25	DJ
46367-040	S5-17-1	EPA 6010 (Lead)	09/11/00	6.7	Soil, mg/kg	0.25	0.25	DJ
46367-040Dup	S5-17-1	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-041	S5-17-2	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ
46367-042	S5-17-3	EPA 6010 (Lead)	09/11/00	2.1	Soil, mg/kg	0.25	0.25	DJ
46367-043	S5-17-4	EPA 6010 (Lead)	09/11/00	2.7	Soil, mg/kg	0.25	0.25	DJ
46367-044	S5-17-5	EPA 6010 (Lead)	09/11/00	2.4	Soil, mg/kg	0.25	0.25	DJ
46367-045	S5-12-0	EPA 6010 (Lead)	09/11/00	9.3	Soil, mg/kg	0.25	0.25	DJ
46367-046	S5-12-1	EPA 6010 (Lead)	09/11/00	68	Soil, mg/kg	0.25	0.25	DJ
46367-047	S5-12-2	EPA 6010 (Lead)	09/11/00	6.3	Soil, mg/kg	0.25	0.25	DJ
46367-048	S5-12-3	EPA 6010 (Lead)	09/11/00	13	Soil, mg/kg	0.25	0.25	DJ
46367-049	S6-32-0	EPA 6010 (Lead)	09/11/00	27	Soil, mg/kg	0.25	0.25	DJ
46367-050	S6-32-1	EPA 6010 (Lead)	09/11/00	11	Soil, mg/kg	0.25	0.25	DJ
46367-050Dup	S6-32-1	EPA 6010 (Lead)	09/11/00	10	Soil, mg/kg	0.25	0.25	DJ
46367-051	S6-32-2	EPA 6010 (Lead)	09/11/00	3.3	Soil, mg/kg	0.25	0.25	DJ
46367-052	S6-32-3	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-053	S6-27-0	EPA 6010 (Lead)	09/11/00	44	Soil, mg/kg	0.25	0.25	DJ
46367-054	S6-27-1	EPA 6010 (Lead)	09/11/00	10	Soil, mg/kg	0.25	0.25	DJ
46367-055	S6-27-2	EPA 6010 (Lead)	09/11/00	6.3	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-056	S6-27-3	EPA 6010 (Lead)	09/11/00	4.5	Soil, mg/kg	0.25	0.25	DJ
46367-057	S6-27-4	EPA 6010 (Lead)	09/11/00	5.9	Soil, mg/kg	0.25	0.25	DJ
46367-058	S6-27-5	EPA 6010 (Lead)	09/11/00	4.0	Soil, mg/kg	0.25	0.25	DJ
46367-059	S6-22-0	EPA 6010 (Lead)	09/11/00	39	Soil, mg/kg	0.25	0.25	DJ
46367-060	S6-22-1	EPA 6010 (Lead)	09/11/00	7.0	Soil, mg/kg	0.25	0.25	DJ
46367-060Dup	S6-22-1	EPA 6010 (Lead)	09/11/00	7.2	Soil, mg/kg	0.25	0.25	DJ
46367-061	S6-22-2	EPA 6010 (Lead)	09/11/00	4.1	Soil, mg/kg	0.25	0.25	DJ
46367-062	S6-22-3	EPA 6010 (Lead)	09/11/00	3.6	Soil, mg/kg	0.25	0.25	DJ
46367-063	S6-17-0	EPA 6010 (Lead)	09/11/00	50	Soil, mg/kg	0.25	0.25	DJ
46367-064	S6-17-1	EPA 6010 (Lead)	09/11/00	4.3	Soil, mg/kg	0.25	0.25	DJ
46367-065	S6-17-2	EPA 6010 (Lead)	09/11/00	2.4	Soil, mg/kg	0.25	0.25	DJ
46367-066	S6-17-3	EPA 6010 (Lead)	09/11/00	2.3	Soil, mg/kg	0.25	0.25	DJ
46367-067	S6-17-4	EPA 6010 (Lead)	09/11/00	3.8	Soil, mg/kg	0.25	0.25	DJ
46367-068	S6-17-5	EPA 6010 (Lead)	09/11/00	2.3	Soil, mg/kg	0.25	0.25	DJ
46367-069	S6-12-0	EPA 6010 (Lead)	09/11/00	50	Soil, mg/kg	0.25	0.25	DJ
46367-070	S6-12-1	EPA 6010 (Lead)	09/11/00	22	Soil, mg/kg	0.25	0.25	DJ
46367-070Dup	S6-12-1	EPA 6010 (Lead)	09/11/00	24	Soil, mg/kg	0.25	0.25	DJ
46367-071	S6-12-2	EPA 6010 (Lead)	09/11/00	23	Soil, mg/kg	0.25	0.25	DJ
46367-072	S6-12-3	EPA 6010 (Lead)	09/11/00	8.1	Soil, mg/kg	0.25	0.25	DJ
46367-073	NS1-18-0	EPA 6010 (Lead)	09/11/00	77	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-074	NS1-18-1	EPA 6010 (Lead)	09/11/00	14	Soil, mg/kg	0.25	0.25	DJ
46367-075	NS1-18-2	EPA 6010 (Lead)	09/11/00	3.0	Soil, mg/kg	0.25	0.25	DJ
46367-076	NS1-18-3	EPA 6010 (Lead)	09/11/00	7.1	Soil, mg/kg	0.25	0.25	DJ
46367-077	NS1-12-0	EPA 6010 (Lead)	09/11/00	205	Soil, mg/kg	0.25	0.25	DJ
46367-078	NS1-12-1	EPA 6010 (Lead)	09/11/00	6.5	Soil, mg/kg	0.25	0.25	DJ
46367-079	NS1-12-2	EPA 6010 (Lead)	09/11/00	17	Soil, mg/kg	0.25	0.25	DJ
46367-080	NS1-12-3	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-080Dup	NS1-12-3	EPA 6010 (Lead)	09/11/00	5.7	Soil, mg/kg	0.25	0.25	DJ
46367-081	NS1-6-0	EPA 6010 (Lead)	09/11/00	463	Soil, mg/kg	0.25	0.25	DJ
46367-082	NS1-6-1	EPA 6010 (Lead)	09/11/00	167	Soil, mg/kg	0.25	0.25	DJ
46367-083	NS1-6-2	EPA 6010 (Lead)	09/11/00	5.2	Soil, mg/kg	0.25	0.25	DJ
46367-084	NS1-6-3	EPA 6010 (Lead)	09/11/00	8.1	Soil, mg/kg	0.25	0.25	DJ
46367-085	NS1-3-0	EPA 6010 (Lead)	09/11/00	339	Soil, mg/kg	0.25	0.25	DJ
46367-086	NS1-3-1	EPA 6010 (Lead)	09/11/00	7.3	Soil, mg/kg	0.25	0.25	DJ
46367-087	NS1-3-2	EPA 6010 (Lead)	09/11/00	158	Soil, mg/kg	0.25	0.25	DJ
46367-088	NS1-3-3	EPA 6010 (Lead)	09/11/00	5.1	Soil, mg/kg	0.25	0.25	DJ
46367-089	NS2-12-0	EPA 6010 (Lead)	09/11/00	59	Soil, mg/kg	0.25	0.25	DJ
46367-090	NS2-12-1	EPA 6010 (Lead)	09/11/00	45	Soil, mg/kg	0.25	0.25	DJ
46367-090Dup	NS2-12-1	EPA 6010 (Lead)	09/11/00	23	Soil, mg/kg	0.25	0.25	DJ
46367-091	NS2-12-2	EPA 6010 (Lead)	09/11/00	5.3	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/1/2000
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-092	NS2-12-3	EPA 6010 (Lead)	09/11/00	3.4	Soil, mg/kg	0.25	0.25	DJ
46367-093	NS2-6-0	EPA 6010 (Lead)	09/11/00	291	Soil, mg/kg	0.25	0.25	DJ
46367-094	NS2-6-1	EPA 6010 (Lead)	09/11/00	20	Soil, mg/kg	0.25	0.25	DJ
46367-095	NS2-6-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ
46367-096	NS2-6-3	EPA 6010 (Lead)	09/11/00	8.4	Soil, mg/kg	0.25	0.25	DJ
46367-097	NS2-3-0	EPA 6010 (Lead)	09/11/00	407	Soil, mg/kg	0.25	0.25	DJ
46367-098	NS2-3-1	EPA 6010 (Lead)	09/11/00	43	Soil, mg/kg	0.25	0.25	DJ
46367-099	NS2-3-2	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ
46367-100	NS2-3-3	EPA 6010 (Lead)	09/11/00	4.9	Soil, mg/kg	0.25	0.25	DJ
46367-100Dup	NS2-3-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-101	NS3-18-0	EPA 6010 (Lead)	09/11/00	110	Soil, mg/kg	0.25	0.25	DJ
46367-102	NS3-18-1	EPA 6010 (Lead)	09/11/00	5.9	Soil, mg/kg	0.25	0.25	DJ
46367-103	NS3-18-2	EPA 6010 (Lead)	09/11/00	2.3	Soil, mg/kg	0.25	0.25	DJ
46367-104	NS3-18-3	EPA 6010 (Lead)	09/11/00	5.4	Soil, mg/kg	0.25	0.25	DJ
46367-105	NS3-12-0	EPA 6010 (Lead)	09/11/00	118	Soil, mg/kg	0.25	0.25	DJ
46367-106	NS3-12-1	EPA 6010 (Lead)	09/11/00	12	Soil, mg/kg	0.25	0.25	DJ
46367-107	NS3-12-2	EPA 6010 (Lead)	09/11/00	3.9	Soil, mg/kg	0.25	0.25	DJ
46367-108	NS3-12-3	EPA 6010 (Lead)	09/11/00	4.9	Soil, mg/kg	0.25	0.25	DJ
46367-109	NS3-6-0	EPA 6010 (Lead)	09/11/00	243	Soil, mg/kg	0.25	0.25	DJ
46367-110	NS3-6-1	EPA 6010 (Lead)	09/11/00	16	Soil, mg/kg	0.25	0.25	DJ

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Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-110Dup	NS3-6-1	EPA 6010 (Lead)	09/11/00	20	Soil, mg/kg	0.25	0.25	DJ
46367-111	NS3-6-2	EPA 6010 (Lead)	09/11/00	2.7	Soil, mg/kg	0.25	0.25	DJ
46367-112	NS3-6-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-113	NS3-3-0	EPA 6010 (Lead)	09/11/00	308	Soil, mg/kg	0.25	0.25	DJ
46367-114	NS3-3-1	EPA 6010 (Lead)	09/11/00	69	Soil, mg/kg	0.25	0.25	DJ
46367-115	NS3-3-2	EPA 6010 (Lead)	09/11/00	8.6	Soil, mg/kg	0.25	0.25	DJ
46367-116	NS3-3-3	EPA 6010 (Lead)	09/11/00	13	Soil, mg/kg	0.25	0.25	DJ
46367-117	NS4-18-0	EPA 6010 (Lead)	09/11/00	117	Soil, mg/kg	0.25	0.25	DJ
46367-118	NS4-18-1	EPA 6010 (Lead)	09/11/00	3.7	Soil, mg/kg	0.25	0.25	DJ
46367-119	NS4-18-2	EPA 6010 (Lead)	09/11/00	22	Soil, mg/kg	0.25	0.25	DJ
46367-120	NS4-18-3	EPA 6010 (Lead)	09/11/00	4.8	Soil, mg/kg	0.25	0.25	DJ
46367-120Dup	NS4-18-3	EPA 6010 (Lead)	09/11/00	4.4	Soil, mg/kg	0.25	0.25	DJ
46367-121	NS4-12-0	EPA 6010 (Lead)	09/11/00	160	Soil, mg/kg	0.25	0.25	DJ
46367-122	NS4-12-1	EPA 6010 (Lead)	09/11/00	8.9	Soil, mg/kg	0.25	0.25	DJ
46367-123	NS4-12-2	EPA 6010 (Lead)	09/11/00	7.2	Soil, mg/kg	0.25	0.25	DJ
46367-124	NS4-12-3	EPA 6010 (Lead)	09/11/00	6.8	Soil, mg/kg	0.25	0.25	DJ
46367-125	NS4-6-0	EPA 6010 (Lead)	09/11/00	275	Soil, mg/kg	0.25	0.25	DJ
46367-126	NS4-6-1	EPA 6010 (Lead)	09/11/00	8.7	Soil, mg/kg	0.25	0.25	DJ
46367-127	NS4-6-2	EPA 6010 (Lead)	09/11/00	6.7	Soil, mg/kg	0.25	0.25	DJ
46367-128	NS4-6-3	EPA 6010 (Lead)	09/11/00	6.5	Soil, mg/kg	0.25	0.25	DJ

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DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00
Date Digested: 0/08/00
Digestion Method: EPA 3050

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-129	NS4-3-0	EPA 6010 (Lead)	09/11/00	1050	Soil, mg/kg	0.25	0.25	DJ
46367-130	NS4-3-1	EPA 6010 (Lead)	09/11/00	155	Soil, mg/kg	0.25	0.25	DJ
46367-130Dup	NS4-3-1	EPA 6010 (Lead)	09/11/00	135	Soil, mg/kg	0.25	0.25	DJ
46367-131	NS4-3-2	EPA 6010 (Lead)	09/11/00	12	Soil, mg/kg	0.25	0.25	DJ
46367-132	NS4-3-3	EPA 6010 (Lead)	09/11/00	6.4	Soil, mg/kg	0.25	0.25	DJ
46367-132Dup	NS4-3-3	EPA 6010 (Lead)	09/11/00	6.6	Soil, mg/kg	0.25	0.25	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Client: Geocon Environmental
Attn: Ross White

Client's Project: Casitas II, #E8000-06-33

Date Received: 08/31/00
Date Sampled: 08/31/00

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results	Matrix, Units	MDL	DLR	Analyst
46367-004	S3-32-3	EPA 9045 (pH)	09/07/00	8.7	Soil, pH units	---	---	HP
46367-013	S3-22-2	EPA 9045 (pH)	09/07/00	8.5	Soil, pH units	---	---	HP
46367-024	S3-12-3	EPA 9045 (pH)	09/07/00	8.8	Soil, pH units	---	---	HP
46367-034	S5-27-5	EPA 9045 (pH)	09/07/00	8.5	Soil, pH units	---	---	HP
46367-044	S5-17-5	EPA 9045 (pH)	09/07/00	8.8	Soil, pH units	---	---	HP
46367-057	S6-27-4	EPA 9045 (pH)	09/07/00	8.7	Soil, pH units	---	---	HP
46367-062	S6-22-3	EPA 9045 (pH)	09/07/00	8.6	Soil, pH units	---	---	HP
46367-073	NS1-18-0	EPA 9045 (pH)	09/07/00	8.3	Soil, pH units	---	---	HP
46367-083	NS1-6-2	EPA 9045 (pH)	09/07/00	8.9	Soil, pH units	---	---	HP
46367-092	NS2-12-3	EPA 9045 (pH)	09/07/00	8.4	Soil, pH units	---	---	HP
46367-112	NS3-6-3	EPA 9045 (pH)	09/07/00	8.8	Soil, pH units	---	---	HP

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 9/12/00
Eddie Rodriguez
Inorganics Supervisor

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report

Method: EPA 6010 (Lead)

Analyst: DJ/SER

Data File: ICP000911-9

QA File: 0252-9

Date Analyzed: 9/11/00

Date Digested: 9/8/00

Sample ID: See below

Matrix: Soil

QC Batch No: ICAP 000911S-9

Sample ID	UNITS	LCS Conc	LCS Res	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
046357-010	mg/kg	1.0	0.94	94	ND	4.5	4.7	4	250	183	168	71	65	67-119	9	9	0.25
046357-020	mg/kg	1.0	0.95	95	ND	6.7	6.6	2	250	171	165	66	63	67-119	4	9	0.25
046357-030*	mg/kg	1.0	0.95	95	ND	3.4	4.5	28	250	188	160	74	63	67-119	16	9	0.25
046357-040*	mg/kg	1.0	0.92	92	ND	6.7	5.4	21	250	203	233	79	91	67-119	14	9	0.25
046357-050*	mg/kg	1.0	0.94	94	ND	10	11	10	250	262	210	101	80	67-119	23	9	0.25
046357-060*	mg/kg	1.0	0.93	93	ND	7.0	7.2	3	250	261	182	102	70	67-119	37	9	0.25
046357-070	mg/kg	1.0	0.95	95	ND	22	24	9	250	270	286	99	106	67-119	6	9	0.25
046357-080	mg/kg	1.0	0.95	95	ND	5.4	5.7	5	250	187	181	73	70	67-119	3	9	0.25
046357-090*	mg/kg	1.0	0.97	97	ND	45	23	65	250	224	200	72	62	67-119	14	9	0.25
046357-100*	mg/kg	1.0	0.99	99	ND	4.9	4.4	11	250	237	201	93	78	67-119	17	9	0.25
046357-110	mg/kg	1.0	0.97	97	ND	16	20	22	250	262	248	98	93	67-119	6	9	0.25
046357-120*	mg/kg	1.0	0.97	97	ND	4.8	4.4	9	250	282	214	111	84	67-119	28	9	0.25
046357-130*	mg/kg	1.0	1.0	100	ND	155	135	14	250	306	271	60	46	67-119	26	9	0.25
046357-132	mg/kg	1.0	1.0	100	ND	6.4	6.6	3	250	168	177	65	68	67-119	5	9	0.25

Approved by: _____
Eddie F. Rodriguez
Inorganic Supervisor

Date: 9/12/00

1510 E. 33rd Street Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040
Advanced Technology Laboratories

Casitas/Linden Abutments		
	90%	**95%**
	220	**231**
	61	**70**
	13	**14**
	12	**13**
surface to 1	220	231
under	29	32
surface to 2	141	151
under	13	14
surface to 3	98	105
under	12	13
surface to 4	77	82

Casitas - Ogan Road

Sample ID.	x = Total Lead (mg/kg)
O1-0	36
O2-0	28

surface

MEAN (x)	32
VARIANCE (Sx^2)	32
STDEV (Sx)	5.657
OBSERVATIONS (n)	2
t90%	3.077685
t95%	6.313749
90% UCL	**44**
95% UCL	**57**

O1-1	6.7
O2-1	5.6

1

MEAN (x)	6
VARIANCE (Sx^2)	1
STDEV (Sx)	0.778
OBSERVATIONS (n)	2
t90%	3.077685
t95%	6.313749
90% UCL	**7.8**
95% UCL	**10**

O1-2	5.5
O2-2	5.2

2

MEAN (x)	5
VARIANCE (Sx^2)	0
STDEV (Sx)	0.212
OBSERVATIONS (n)	2
t90%	3.077685
t95%	6.313749
90% UCL	**5.8**
95% UCL	**6.3**

O1-3	6.4
O2-3	5

3

MEAN (x)	6
VARIANCE (Sx^2)	1
STDEV (Sx)	0.990
OBSERVATIONS (n)	2
t90%	3.077685
t95%	6.313749
90% UCL	**7.9**
95% UCL	**10**

Casitas/Linden - Ogan Road

90%	95%
44	**57**
7.8	**10**
5.8	**6.3**
7.9	**10**
44	57
7.2	8.8
26	34
6.8	8.2
19	24
7.9	10
16	21

Route 101 - Casitas Pass/Linden Avenue Interchanges
Southbound Median

90% UCLs
(concentrations are in units of mg/kg)

416	252	219	1
31	59	137	2
9.4	26	7.2	3

Depth (feet)

0 1 4 8 10

Distances From Edge of Pavement (feet)

95% UCLs
(concentrations are in units of mg/kg)

450	265	231	1
34	64	155	2
10	28	7.5	3

Depth (feet)

1 4 8 10

Distances From Edge of Pavement (feet)

= Shaded cells contain total lead concentrations that are expected to exhibit soluble lead concentrations greater than the lead STLC of 5.0 mg/l according to the regression line y = 0.0784(x).

Soil Unit Designation and Weight Factors

A1 (4)	A2 (4)	A3 (2)	1
B1 (4)	B2 (4)	B3 (2)	2
C1 (4)	C2 (4)	C3 (2)	3

Depth (feet)

1 4 8 10

Distances From Edge of Pavement (feet)

SOIL MIXING SCENARIOS
Casitas to Linden - Median

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	4	30	0.133	416	55.467	450	60.000
A2	4	30	0.133	252	33.600	265	35.333
A3	2	30	0.067	219	14.600	231	15.400
B1	4	30	0.133	31	4.133	34	4.533
B2	4	30	0.133	59	7.867	64	8.533
B3	2	30	0.067	137	9.133	155	10.333
C1	4	30	0.133	9.4	1.253	10	1.333
C2	4	30	0.133	26	3.467	28	3.733
C3	2	30	0.067	7.2	0.480	7.5	0.500
Sum	30		1.000		**130**		**140**
				Predicted Soluble	10.2	Predicted Soluble	11.0

Excavate top 2 feet (0 to 8 ft EOP)

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A1	4	8	0.500	416	208.000	450	225.000
A2	4	8	0.500	252	126.000	265	132.500
Sum	8		1.000		**334**		**358**
				Predicted Soluble	26.2	Predicted Soluble	28.0

Remaining Soil

Area	Weight Factor (wf)	Sum (wf)	%	90%UCL (mg/kg)	(UCL x %) (mg/kg)	95%UCL (mg/kg)	(UCL x %) (mg/kg)
A3	2	22	0.091	219	19.909	231	21.000
B1	4	22	0.182	31	5.636	34	6.182
B2	4	22	0.182	59	10.727	64	11.636
B3	2	22	0.091	137	12.455	155	14.091
C1	4	22	0.182	9.4	1.709	10	1.818
C2	4	22	0.182	26	4.727	28	5.091
C3	2	22	0.091	7.2	0.655	7.5	0.682
Sum	22		1.000		**56**		**61**
				Predicted Soluble	4.4	Predicted Soluble	4.7

Southbound Median
Explanation on How to Use the Soil Unit Designation and Weight Factors

The cross-section for this area has been divided into cells. The total lead concentration assigned to each cell is the UCL for the soil sample collected from the upper left hand corner of that cell. Since total lead concentrations should decrease with depth and lateral distance from the edge of pavement, the UCL assigned to each cell is conservative.

The cells can be combined to evaluate the expected total lead concentration for different waste streams depending on the excavation scenario in question. For example, let's assume that the excavation scenario in question is the top 2 feet of soil from the edge of pavement to appproximate 10 feet from the edge of pavement. The applicable cells for this scenario would be A1, A2, A3 B1, B2, and B3. The following table shows how to use the weight factors to evaluate the expected total lead concentration.

Area	Weight Factor (wf)	Cells % of Total Mass	80%UCL (mg/kg)	(UCL x %) (mg/kg)	
A1	4	20.0%	323	64.6	
A2	4	20.0%	211	42.2	
A3	2	10.0%	184	18.4	
B1	4	20.0%	25	5.0	
B2	4	20.0%	42	8.4	
B3	2	10.0%	268	26.8	
Sum	20	100.0%		**165**	<------- Expected Total Lead Concentration

The result is simply a weighted average of the 80% UCLs for the six cells in question. The expected total lead concentration should then be placed into the regression line to predict the soluble (WET) lead concentration.

$y = 0.0784(x)$ ----------> $y = 0.0784(165) = 13$ mg/l

We can now say that we are 80% confident that the soil waste stream would be classified as a California-hazardous waste since our predicted soluble lead concentration is greater than the lead STLC of 5.0 mg/l.

The expected total lead concentration for the 95% UCLs would be calculated by replacing the 80% UCL values in the table above with the 95% UCLs.

Casitas - Linden Median at 1 ft EOP
Lead Statistics

Soil Samples Collected at 0 feet

Untransformed Total Lead Variance	44,536
Untransformed Total Lead Mean	260
Transformed Total Lead Variance	854
Transformed Total Lead Mean	30.0
t-critical	6.1621
t80%	0.8889
t90%	1.3968
t95%	1.8595
80% UCL	**377**
90% UCL	**416**
95% UCL	**450**

Soil Samples Collected at 1 foot

Untransformed Total Lead Variance	278
Untransformed Total Lead Mean	16
Transformed Total Lead Variance	732
Transformed Total Lead Mean	19.1
t-critical	7.85388
t80%	0.88889
t90%	1.39682
t95%	1.85955
80% UCL	**26**
90% UCL	**31**
95% UCL	**34**

Soil Samples Collected at 2 feet

Untransformed Total Lead Variance	6.8
Untransformed Total Lead Mean	8.2
Transformed Total Lead Variance	474
Transformed Total Lead Mean	46.9
t-critical	5.94392
t80%	0.88889
t90%	1.39682
t95%	1.85955
80% UCL	**8.9**
90% UCL	**9.4**
95% UCL	**10**

Since the variance and the mean are approximately equal, the data was not transformed.

Casitas - Linden Median at 4 ft EOP
Lead Statistics

Soil Samples Collected at 0 feet

Untransformed Total Lead Variance	14,609
Untransformed Total Lead Mean	185
Transformed Total Lead Variance	619
Transformed Total Lead Mean	31.4
t-critical	9.7204
t80%	0.8647
t90%	1.3368
t95%	1.7459
80% UCL	**237**
90% UCL	**252**
95% UCL	**265**

Soil Samples Collected at 1 foot

Untransformed Total Lead Variance	1,716
Untransformed Total Lead Mean	33
Transformed Total Lead Variance	777
Transformed Total Lead Mean	19.4
t-critical	10.441
t80%	0.86467
t90%	1.33676
t95%	1.74588
80% UCL	**52**
90% UCL	**59**
95% UCL	**64**

Soil Samples Collected at 2 feet

Untransformed Total Lead Variance	339
Untransformed Total Lead Mean	15
Transformed Total Lead Variance	480
Transformed Total Lead Mean	14.0
t-critical	14.3012
t80%	0.86467
t90%	1.33676
t95%	1.74588
80% UCL	**23**
90% UCL	**26**
95% UCL	**28**

Casitas - Linden Median at 8 ft EOP
Lead Statistics

Soil Samples Collected at 0 feet

Untransformed Total Lead Variance	6,850
Untransformed Total Lead Mean	158
Transformed Total Lead Variance	734
Transformed Total Lead Mean	40.4
t-critical	5.1749
t80%	0.8960
t90%	1.4149
t95%	1.8946
80% UCL	**205**
90% UCL	**219**
95% UCL	**231**

Soil Samples Collected at 1 foot

Untransformed Total Lead Variance	7,343
Untransformed Total Lead Mean	62
Transformed Total Lead Variance	955
Transformed Total Lead Mean	19.0
t-critical	6.49638
t80%	0.89603
t90%	1.41492
t95%	1.89458
80% UCL	**117**
90% UCL	**137**
95% UCL	**155**

Soil Samples Collected at 2 feet

Untransformed Total Lead Variance	2.7
Untransformed Total Lead Mean	6.4
Transformed Total Lead Variance	409
Transformed Total Lead Mean	47.3
t-critical	5.96236
t80%	0.89603
t90%	1.41492
t95%	1.89458
80% UCL	**6.9**
90% UCL	**7.2**
95% UCL	**7.5**

Since the variance and mean are approximately equal, the data was not transformed