FOR CONTRACT NO.: 10-481004

ADDITIONAL INFORMATION HANDOUT

MATERIALS INFORMATION

SITE INVESTIGATION REPORT
ROUTE 99 BRIDGES (39-0130 AND 39-0139)
CITY OF MERCED
MERCED COUNTY, CALIFORNIA
(MER-99 PM 13.9/14.4)

ROUTE: 10-MER-99, 13.8/14.4 (PM)

ADDED PER ADDENDUM No. 1 DATED November 17, 2011

SITE INVESTIGATION REPORT

ROUTE 99 BRIDGES (39-0130 and 39-0139)
CITY OF MERCED
MERCED COUNTY, CALIFORNIA
(MER-99 PM 13.9–14.4)

GEOCON

GEOTECHNICAL
&
ENVIRONMENTAL
CONSULTANTS

PREPARED FOR

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 10

STOCTKON, CALIFORNIA

TASK ORDER NO. 10-481000-R5

GEOCON PROJECT NO. E8000-06-69

DECEMBER 2001

GEOCON
CONSULTANTS, INC.
ENVIRONMENTAL ■ GEOTECHNICAL ■ MATERIALS

Project No. E8000-06-69
December 31, 2001

Mr. Michael Robinson
District 10 Environmental Unit
California Department of Transportation
1976 East Charter Way
Stockton, California 95201

Subject: ASBESTOS, PAINT, AND SOIL SURVEY REPORT
ROUTE 99 BRIDGES (39-0130 and 39-0139)
CITY OF MERCED, MERCED COUNTY, CALIFORNIA
CONTRACT NO. 43A0012
TASK ORDER NO. 10-481000-R5

Dear Mr. Robinson:

In accordance with California Department of Transportation (Caltrans) Contract No. 43A0012 and Task Order (TO) No. 10-481000-R5, Geocon Consultants Inc. has performed an asbestos, paint, and soil survey of the subject site. The scope of services provided by Geocon included surveying two bridges for asbestos and lead-containing paint, and investigating for metals residue in the soil beneath Bridge 39-0130.

The accompanying report summarizes the services performed and the results of laboratory testing.

The contents of this report reflect the views of Geocon Consultants, Inc., who are 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.

David Watts, CAC
Project Scientist

Richard W. Day, CEG, CHG
Regional Manager

STATE OF CALIFORNIA
CERTIFIED HYDROGEOLOGIST
74
RICHARD DAY
REGISTERED GEOLOGIST

DAW:RWD:daw

(5) Addressee

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EXECUTIVE SUMMARY

This Site Investigation Report for two Route 99 Bridges was prepared under Caltrans Contract No. 43A0012 and Task Order (TO) No. 10-481000-R5.

The subject site consists of the East Merced (39-0130) and 15th Street (39-0139) bridges on Route 99 between Post Miles (PM) 13.9 and 14.4 in the City of Merced, Merced County, California. The approximate site location is depicted on the Vicinity Map, Figure 1.

It is understood that Caltrans is planning to demolish Bridge 39-0130 and widen Bridge 39-0139. The purpose of the work outlined in TO No. 10-481000-R5 was to determine the presence and quantity of asbestos and lead-containing paint on the bridges, and metals residue in the soil beneath Bridge 39-0130 in advance of the construction contract. The information obtained from this investigation will be used by Caltrans to estimate soil removal and disposal costs, and to coordinate asbestos and/or lead containing paint abatement, if necessary, within the proposed project work area.

Seven bulk asbestos samples were collected from potentially asbestos-containing bridge materials. Asbestos samples were analyzed following Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM). Chrysotile asbestos at 20% was detected in barrier railing shims used on Bridge 39-0130. No asbestos-containing materials were detected on Bridge 39-0139. Asbestos sample identification numbers, descriptions of the materials sampled, and analytical results are summarized in Table 1. Asbestos sample locations are presented in Figures 2A and 2B.

Three paint chip samples were collected from Bridge 39-0130. Paint chip samples were analyzed for total lead following EPA Test Method 7420. Lead at levels ranging from 100,000 to 170,000 milligrams per kilogram (mg/kg) was detected in green paint applied to steel members of Bridge 39-0130. No painted surfaces were observed on Bridge 39-0139 (Geocon collected no paint samples from Bridge 39-0139). Bridge 39-0130 paint chip sample identification numbers, descriptions of the paints sampled, and analytical results are summarized in Table 2. Paint sample locations are presented in Figure 2A.

Thirty-five soil samples were collected from depths ranging from surface to 0.6 meter below ground surface (bgs) from 30 locations below Bridge 39-0130 using hand auger methods. Of the 35 soil samples collected below Bridge 39-0130, 30 were collected from the surface. This modification to the planned scope of work was the result of a misunderstanding of the Underground Service Alert (USA) process, specific to railroads.

Soil samples were analyzed for Title 22 (CAM 17) metals following EPA Test Methods 6010B/7471A. Soil sample identification numbers, boring locations, depths, and analytical results are summarized in Tables 3A, 3B, and 3C. The approximate boring locations are presented in Figure 2A.

- Soil samples that exhibited total metals concentrations greater than ten times the Soluble Threshold Limit Concentration (STLC) and less than the Total Threshold Limit Concentration (TTLC) were analyzed for soluble metals concentrations via the Waste Extraction Test (WET).

- At the direction of the Caltrans Contract Manager, soil samples that exhibited soluble (WET) lead concentrations greater than the lead STLC of 5.0 milligrams per liter (mg/l) were re-analyzed for soluble lead via the modified waste extraction test using deionized water as the extractant (DI-WET).

- At the direction of the Caltrans Contract Manager, soil samples that exhibited a total lead concentration greater than the Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg) were analyzed for soluble lead concentrations using the Toxicity Characteristic Leaching Procedure (TCLP).

The laboratory report indicated the following:

- Total lead concentrations ranged from 13 mg/kg to 2,600 mg/kg.

- Soil samples analyzed for soluble lead via WET exhibited soluble lead concentrations ranging from less than (<) the laboratory reporting limit of 1.0 mg/l to 65 mg/l.

- Soil samples analyzed for soluble lead via DI-WET exhibited soluble lead concentrations ranging from <0.2 mg/l to 0.38 mg/l.

- One soil sample analyzed for soluble lead via TCLP exhibited a soluble lead concentration of 0.69 mg/l.

- One soil sample exhibited a total barium concentration of 1,000 mg/kg and a soluble (WET) barium concentration of 9.2 mg/l.

- Three soil samples exhibited total chromium concentrations of 50 mg/kg and soluble (WET) chromium concentrations of <1.0 mg/l.

Conclusions

No suspect asbestos-containing materials were detected on Bridge 39-0139 during the survey. Based on the analytical test results, Geocon recommends that all barrier railing shims used on Bridge 39-0130 be treated as Category II, non-friable ACM. The shims were observed to be in good condition.

Geocon recommends that barrier railing shim removal and disposal be performed by a licensed and certified asbestos abatement contractor prior to planned activities. The estimated quantity of ACM on the bridge is 5 square meters. However, a thorough inspection and quantification of shims used on the barrier railings was not possible due to safety concerns (i.e., traffic). For budgetary planning purposes, Geocon's opinion of probable abatement costs for this material is $5,000.

Activities that disturb materials containing any amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8 of the California Code of Regulations (CCR), Section 1529. Removal or disturbance of more than 9.29 square meters of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to San Joaquin Valley United Air Pollution Control District (SJVUAPCD) regulations (Rules 3050 and 4002). Regulated ACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM may remain in structures during demolition; however, there are waste disposal issues that may make it cost ineffective to do so.

Geocon recommends that all paints at the Site be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during any future maintenance, renovation, and demolition activities. This recommendation is based on LCP sample results and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some industrial paints. As-built drawings of the subject bridges were not available for review. However, Geocon assumes that the bridges were built prior to 1978.

Painted surfaces on Bridge 39-0130 were observed to be intact and in good condition. Typically, only paints that are peeling or flaking or have otherwise become separated from their substrate are of concern from a hazardous waste standpoint. The California Department of Toxic Substances Control (DTSC) "does not generally expect intact painted building materials to exhibit a characteristic of hazardous waste when disposed of." However, construction activities (including demolition) that disturb materials containing any amount of lead are subject to certain requirements of the California Division of Occupational Safety and Health (Cal/OSHA) lead standard contained in Title 8 CCR Section 1532.1. Intact lead-painted construction materials that are removed/demolished should not require disposal as hazardous waste; however, contractor(s) should characterize painted waste materials prior to disposal.

Total lead was detected in one soil sample at a concentration above the lead TTLC of 1,000 mg/kg. The calculated 90% and 95% Upper Confidence Limit (UCL) values for total lead in surface soil are 390 and 421 mg/kg, respectively. Twenty of the 28 soluble lead analysis results exceeded the lead STLC of 5.0 mg/l, with calculated 90% and 95% UCL values of 19.1 and 20.3 mg/l, respectively. Surface soil to be excavated to a depth of 0.15 meter (0.5 foot) would be classified as a hazardous waste based on soluble lead as the calculated 90% and 95% UCLs for soluble lead are greater than the lead STLC of 5.0 mg/l. Soluble analysis results for barium and chromium were below their respective STLC values of 100 and 5 mg/l.

Based on the total lead results and the calculated 90% and 95% UCL values, surface soils at the site appear to be adversely impacted by lead-based paint components. The reuse of soil excavated was not evaluated because the DTSC Variance is for aerial-deposited lead (ADL) and is not applicable to soil beneath bridges with lead-based paint components. Based on the lead results of this limited investigation, surface soil excavated from the site cannot be reused and should be disposed of as a hazardous waste. Assuming that the upper 0.15-meter (0.5-foot) of soil is to be excavated, the estimated volume of soil that would be classified as a hazardous waste based on soluble lead is approximately 230 cubic meters (300 cubic yards).

The highest UCL of 846 mg/kg is greater than the PRG of 750 mg/kg. Therefore, lead-impacted soil in the areas investigated may pose an unacceptable risk to the health of workers performing the construction activities. It is recommended that the contractor performing the construction activities prepare a site-specific health and safety plan and a lead compliance plan to address worker exposure to lead.

SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Site Investigation Report for the Route 99 Bridges Project was prepared under Caltrans Contract No. 43A0012 and TO No. 10-481000-R5.

1.1 Site Description and Proposed Improvements

The subject site consists of the East Merced (39-0130) and 15th Street (39-0139) bridges on Route 99 between Post Miles (PM) 13.9 and 14.4 in the City of Merced, Merced County, California. The approximate site location is depicted on the Vicinity Map, Figure 1.

It is understood that Caltrans is planning to perform improvements on the bridges.

1.2 Purpose

The purpose of the work outlined in TO No. 10-481000-R5 was to determine the presence and quantity of asbestos and lead-containing paint on the bridges and metals residue in the soil beneath Bridge 39-0130 in advance of the construction contract. The information obtained from this investigation will be used by Caltrans to estimate soil removal and disposal costs, and to coordinate asbestos and/or lead containing paint abatement, if necessary, within the proposed project work area.

2.0 BACKGROUND

2.1 Potential Asbestos and Lead Impacts

As-built plans of the subject bridges were not available for review by Geocon. Consequently, no asbestos-containing materials or lead-containing paints were identified prior to the survey. However, lead is known to have been a common ingredient of paints manufactured before 1978 and is still an ingredient of some industrial paints. As-built drawings of the subject bridges were not available for review. However, Geocon assumes that the bridges were built prior to 1978.

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 standard Waste Extraction Test (WET). A waste has the potential of exceeding the STLC when the waste's total metal content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at a concentration greater than or equal to ten times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal 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 chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability, corrosivity, and reactivity, however, for the purposes of this investigation, toxicity (i.e., concentration) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

Per Section 25157.8 of the California Health and Safety Code (HSC), on or after January 1, 1999, no person shall dispose waste that contains total lead in excess of 350 mg/kg to land other than a Class I hazardous waste disposal facility.

3.0 SCOPE OF SERVICES

The following scope of services was performed as requested by Caltrans in TO No. 10-481000-R5:

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 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 30, 2001, was prepared to summarize the scope of services to be performed by Geocon.
- Geocon retained the services of Advanced Technology Laboratories (ATL) and Scientific Laboratories of California (SCILAB), California-licensed laboratories, to provide the laboratory analyses.

3.2 Field Activities

The survey was performed on September 7, 2001, by Geocon's representatives Ross White and David Watts. Mr. Watts is a Cal/OSHA Certified Asbestos Consultant (CAC) and Department of Health Services (DHS)-certified Inspector/Assessor.

3.2.1 Asbestos

During the survey, a total of three materials suspected of containing asbestos were identified on the two bridges. Mr. Watts collected samples of each suspect material. Samples were transferred to plastic bags, labeled, and placed in a container for transport to the laboratory using standard chain-of-custody protocol. The identification numbers and descriptions of the materials sampled are summarized in Table 1. Photographs of the materials sampled are presented in Appendix A with Site Photos 1 through 6.

3.2.2 Lead Paint

During the survey, one type of paint suspected of containing lead was identified on Bridge 39-0130. Mr. Watts collected three samples of the suspect paint. Samples were transferred to plastic bags, labeled, and placed in a container for transport to the laboratory using standard chain-of-custody protocol. The identification numbers and a description of the paint are

summarized in Table 2. A photograph of the paint is presented in Appendix A as Site Photo 1. No suspect LCP were observed on Bridge 39-0139.

3.2.3 Soil

Thirty-five soil samples were collected from depths ranging from surface to 0.6 meter below ground surface (bgs) from 30 locations below Bridge 39-0130 using hand auger methods. Of the 35 soil samples collected below Bridge 39-0130, 30 were collected from the surface. This modification to the planned scope of work was the result of a misunderstanding of the Underground Service Alert (USA) process, specific to railroads.

Soil samples were analyzed for Title 22 (CAM 17) metals following EPA Test Methods 6010B/7471A. Soil sample identification numbers, boring locations, depths, and analytical results are summarized in Tables 3A, 3B, and 3C. The approximate boring locations are presented in Figure 2A.

INVESTIGATIVE METHODS

4.1 Asbestos Sampling Procedures

Geocon collected bulk asbestos samples after first wetting the material with a light mist of water. The samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).

Geocon relinquished the bulk samples to a laboratory accredited by the California DHS and the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis.

4.2 Paint Sampling Procedures

Geocon quantified, assessed the condition of, and collected representative bulk samples of suspect LCP using techniques presented in the United States Department of Housing and Urban Development (HUD) guidelines.

Geocon relinquished the bulk samples to a laboratory accredited by the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP), and the California DHS Environmental Laboratory Accreditation Program (ELAP).

4.3 Soil Sampling Procedures

The soil samples were transferred to re-sealable plastic bags. The bags were labeled and placed in containers. Completed borings were backfilled to surface grade with soil cuttings. The soil samples were transported to a laboratory accredited by the AIHA ELLAP, and the California DHS ELAP.

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.

4.4 Laboratory Analyses

Geocon instructed the analytical laboratories to perform laboratory analyses under a standard (2-week) turn-around-time. Copies of the laboratory reports and chain-of-custody documentation are presented as Appendix B. The laboratory analyses performed are summarized below:

- Seven bulk samples were analyzed for asbestos using Polarized Light Microscopy (PLM) following EPA Test Method 600/R-93/116;
- Three paint samples were analyzed for total lead following EPA Test Method 7420B;
- All soil samples were analyzed for Title 22 (CAM 17) metals following EPA Test Methods 6010B/7471A;
- Soil samples that exhibited total metal concentrations exceeding 10 times the Soluble Threshold Level Concentrations (STLC) were analyzed using the Waste Extraction Test (WET) procedure;
- Soil samples that exhibited total metals concentrations greater than ten times the Soluble Threshold Limit Concentration (STLC) and less than the Total Threshold Limit Concentration (TTLC) were analyzed for soluble metals concentrations via the Waste Extraction Test (WET).
- Soil samples that exhibited soluble (WET) lead concentrations greater than the lead STLC of 5.0 milligrams per liter (mg/l) were re-analyzed for soluble lead via the modified waste extraction test using deionized water as the extractant (DI-WET).
- Soil samples that exhibited a total lead concentration greater than the Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg) were analyzed for soluble lead concentrations using the Toxicity Characteristic Leaching Procedure (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 instrument operation to check the standard used in the calibration curve.

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

5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

5.1 Asbestos Analytical Results

A summary of the analytical laboratory test results for suspect asbestos-containing materials is presented as Table 1. The results are summarized below:

- Three samples of joint expansion material collected from Bridge 39-0130 were non-detect (ND);
- One sample of barrier railing shims used on Bridge 39-0130 contained 20% chrysotile asbestos; and
- Three samples of joint expansion material collected from Bridge 39-0139 were non-detect (ND).

5.2 Paint Chip Analytical Results

Lead at levels ranging from 100,000 to 170,000 mg/kg was detected in green paint applied to steel members of Bridge 39-0130. Painted surfaces were observed to be intact. A summary of the analytical laboratory test results for suspect lead-containing paints is presented as Table 2.

5.3 Soil Analytical Results

Summaries of the analytical laboratory test results for soil are presented as Tables 3A, 3B and 3C. The results are summarized below:

- Total lead concentrations ranged from 13 to 2,600 mg/kg.
- Soil samples analyzed for soluble lead via the WET exhibited soluble lead concentrations ranging from less than (<) the laboratory reporting limit of 1.0 mg/l to 65 mg/l.
- Soil samples analyzed for soluble lead via the DI-WET exhibited soluble lead concentrations ranging from <0.2 mg/l to 0.38 mg/l.
- One soil sample analyzed for soluble lead using via TCLP exhibited a soluble lead concentration of 0.69 mg/l.
- One soil sample exhibited a total barium concentration of 1,000 mg/kg and a soluble (WET) barium concentration of 9.2 mg/l.
- Three soil samples exhibited total chromium concentrations of 50 mg/kg and soluble (WET) chromium concentrations of <1.0 mg/l.

5.4 Statistical Evaluation for Lead Detected in Soil Samples

Statistical methods were applied to the total lead data to evaluate the upper confidence limits (UCLs) of the true means of the total and soluble (WET) lead concentrations. The statistical methods used are discussed in a book entitled *Statistical Methods for Environmental Pollution Monitoring,* by Richard Gilbert (1987); in an EPA Technology Support Center Issue document entitled, *The Lognormal Distribution in Environmental Applications,* by Ashok Singh *et. al.* (December 1997); and in a book entitled *An Introduction to the Bootstrap,* by Bradley Efron and Robert J. Tibshirani (1998).

The upper one-sided 90% and 95% confidence limits (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. 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.

Non-parametric bootstrap techniques used to calculate the UCLs are discussed in the previously referenced EPA document and in *An Introduction to the Bootstrap.* The bootstrap equations are included in Appendix B. For those samples in which lead was not detected, a value equal to one-half of the detection limit was used in the UCL calculations. The calculated UCLs are summarized in the tables below:

Total Lead - Entire Site

Depth	90% UCL	95% UCL
Surface to 0.15 meter	390 mg/kg	421 mg/kg

Total Lead - Borings 1 through 18

Depth	90% UCL	95% UCL
Surface	123 mg/kg	127 mg/kg

Total Lead - Borings 19 through 30

Depth	90% UCL	95% UCL
Surface	779 mg/kg	846 mg/kg

Soluble (WET) Lead - Entire Site

Depth	90% UCL	95% UCL
Surface to 0.15 meter	19.1 mg/l	20.3 mg/l

Soluble (WET) Lead - Borings 1 through 18

Depth	90% UCL	95% UCL
Surface	6.8 mg/l	7.1 mg/l

Soluble (WET) Lead - Borings 19 through 30

Depth	90% UCL	95% UCL
Surface	34.2 mg/l	36.0 mg/l

The UCL calculation results are summarized in Appendix C.

6.0 CONCLUSIONS

6.1 Asbestos

Based on the analytical test results, Geocon recommends that all barrier railing shims on Bridge 39-0130 be treated as Category II, non-friable ACM. The shims were observed to be in good condition.

Geocon recommends that barrier railing shim removal and disposal be performed by a licensed and certified asbestos abatement contractor prior to planned activities. The estimated quantity of ACM on the bridge is 5 square meters. However, a thorough inspection and quantification of shims used on the barrier railings was not possible due to safety concerns (i.e., traffic). For budgetary planning purposes, Geocon's opinion of probable abatement costs for this material is $5,000.

Activities that disturb materials containing any amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8 of the California Code of Regulations (CCR), Section 1529. Removal or disturbance of more than 9.29 square meters of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to San Joaquin Valley United Air Pollution Control District (SJVUAPCD) regulations (Rules 3050 and 4002). Regulated ACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM may remain in structures during demolition; however, there are waste disposal issues that may make it cost ineffective to do so.

6.2 Lead Paint

Geocon recommends that all paints at the Site be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during any future maintenance, renovation, and demolition activities. This recommendation is based on LCP sample results and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some industrial paints. As-built drawings of the subject bridges were not available for review. However, Geocon assumes that the bridges were built prior to 1978.

Painted surfaces on Bridge 39-0130 were observed to be intact and in good condition. Typically, only paints that are peeling or flaking or have otherwise become separated from their substrate are of concern from a hazardous waste standpoint. The California Department of Toxic Substances Control (DTSC) "does not generally expect intact painted building materials to exhibit a characteristic of hazardous waste when disposed of." However, construction activities (including demolition) that disturb materials containing any amount of lead are subject to certain requirements of the California Division of Occupational Safety and Health (Cal/OSHA) lead standard contained in Title 8 CCR Section 1532.1. Intact lead-painted construction materials that are removed/demolished should not require disposal as hazardous waste; however, contractor(s) should characterize painted waste materials prior to disposal.

6.3 Soil

Based on the analytical results and statistical analysis, excavated surface soil would be classified as a California-hazardous waste since the predicted soluble (WET) lead concentration is greater than the lead STLC of 5.0 mg/l. The reuse of soil excavated was not evaluated because the DTSC Variance is for aerial-deposited lead (ADL) and is not applicable to soil beneath bridges with lead-based paint components. Thus, the soil cannot be reused and should be disposed of as a hazardous waste. Assuming that the upper 0.15-meter (0.5-foot) of soil is to be excavated, the estimated volume of soil that would be classified as a hazardous waste is approximately 230 cubic meters (300 cubic yards).

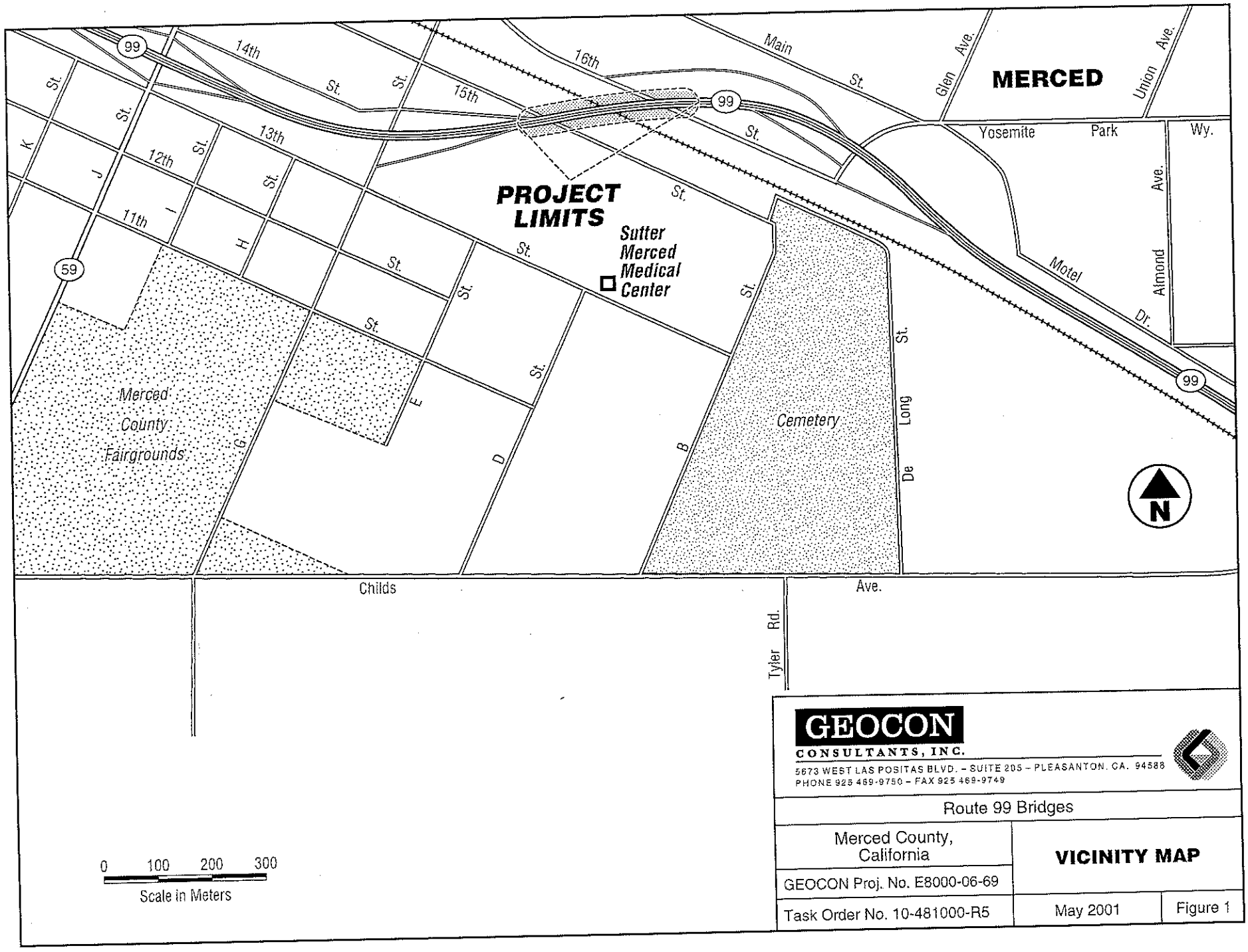
Based on current and proposed use of the subject site and adjacent properties, it is appropriate to compare the highest calculated UCL to EPA Region 9 Preliminary Remediation Goal (PRG) for lead in industrial soil. PRGs are used to estimate contaminant concentrations in environmental media (soil, air, 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 UCL of 846 mg/kg is greater than the PRG of 750 mg/kg. Therefore, lead-impacted soil in the areas investigated may pose an unacceptable risk to the health of workers performing the construction activities. It is recommended that the contractor performing the construction activities prepare a site-specific health and safety plan and a lead compliance plan to address worker exposure to lead.

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.



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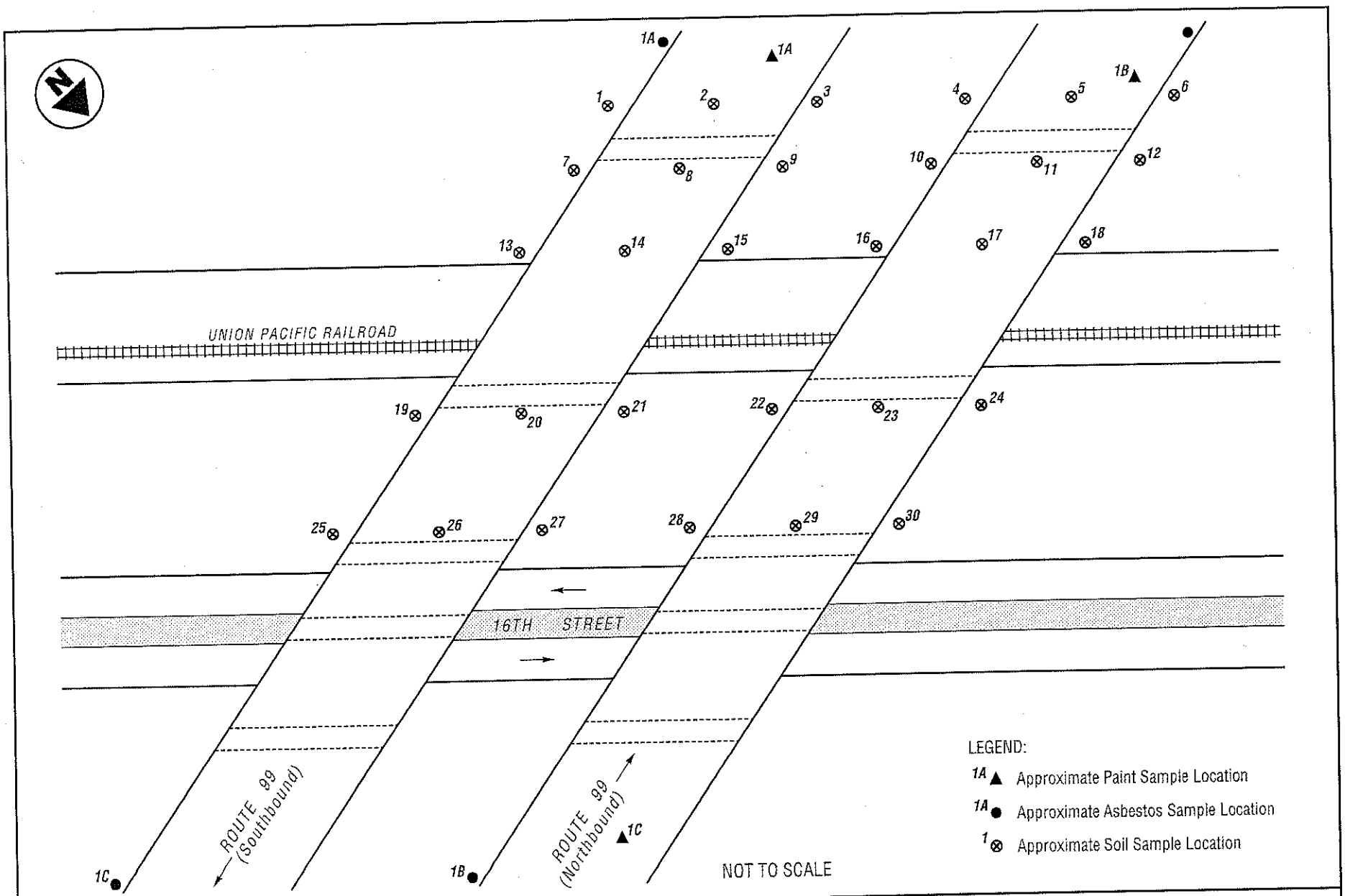
5673 WEST LAS POSITAS BLVD. – SUITE 205 – PLEASANTON, CA. 94588
PHONE 925 469-9750 – FAX 925 469-9749

Route 99 Bridges

Merced County, California	**VICINITY MAP**	
GEOCON Proj. No. E8000-06-69		
Task Order No. 10-481000-R5	May 2001	Figure 1

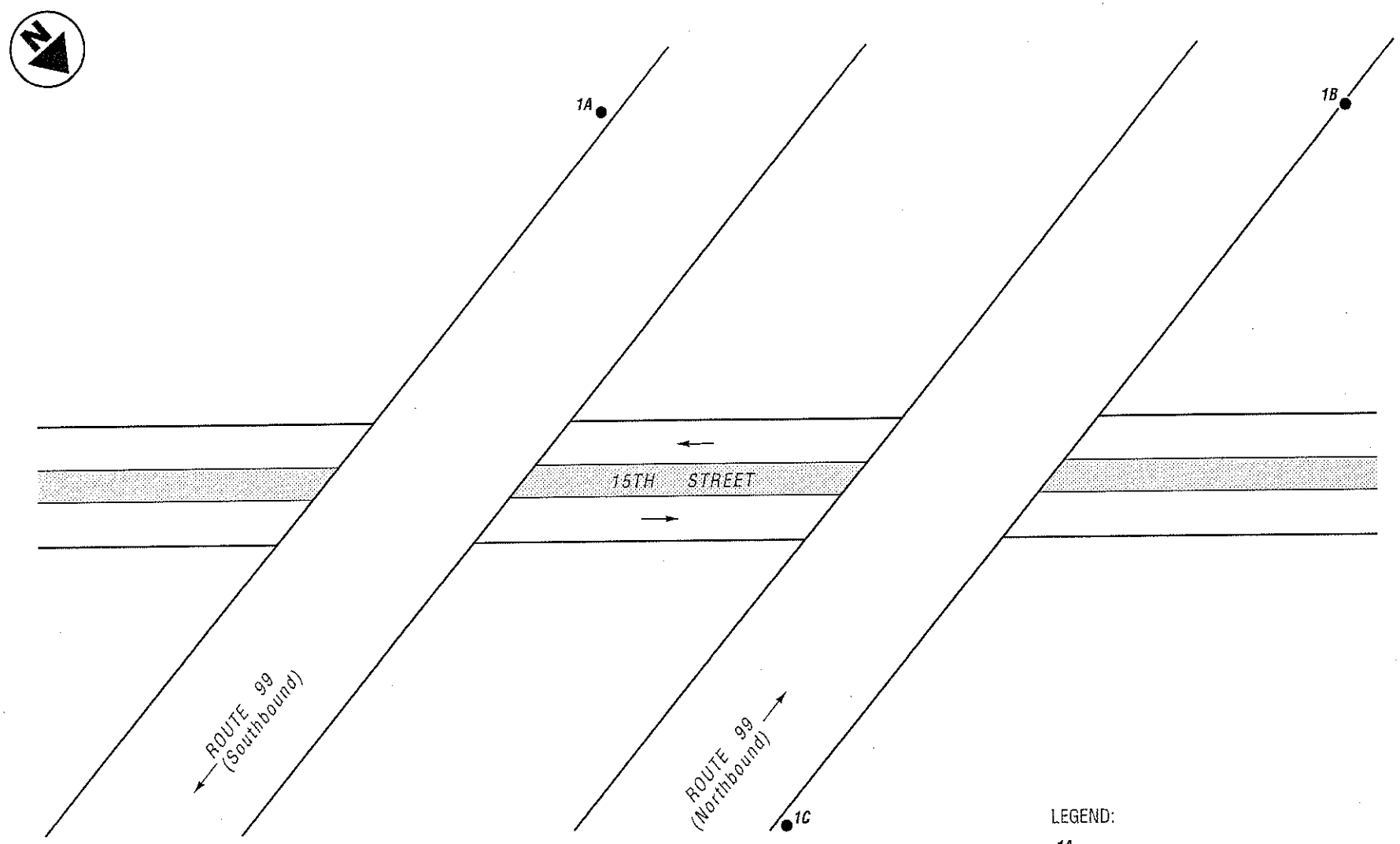


GEOCON
CONSULTANTS, INC.
2956 RESEARCH DRIVE – LIVERMORE, CA. 94550
PHONE 925 371-5900 – FAX 925 371-5915

EAST MERCED SAMPLE LOCATIONS

Route 99 Bridges

GEOCON Proj. No. E8000-06-69	Merced County, California	
Task Order No. 10-481000-R5	October 2001	Figure 2A



NOT TO SCALE

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PHONE 925 371-5900 – FAX 925 371-5915

15TH STREET SAMPLE LOCATIONS

Route 99 Bridges		
GEOCON Proj. No. E8000-06-69	Merced County, California	
Task Order No. 10-481000-R5	October 2001	Figure 2B

TABLE 1
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS - ASBESTOS
ROUTE 99 BRIDGES

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Sample ID.	Description of Material	Asbestos Results
EM-1A	Bridge 39-0130 Joint Expansion Material (Site Photo 2)	ND
EM-1B		ND
EM-1C		ND
EM-2A	Bridge 39-0130 Barrier Railing Shim (Site Photo 3)	20% Chrysotile*
15-1A	Bridge 39-0139 Joint Expansion Material (Site Photo 5)	ND
15-1B		ND
15-1C		ND

Notes:
ND = No asbestos fibers were observed
* = Approximately 5 square meters present on Bridge 39-0130 only

TABLE 2
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS - LEAD IN PAINT
ROUTE 99 BRIDGES

EPA Test Method 7420B

Sample ID.	Description of Material	Lead Content (mg/kg)
EM-LCP-1A	Green Paint (Steel Structural Members - Site Photo 1)*	170,000
EM-LCP-1B		100,000
EM-LCP-1C		120,000

Notes:
mg/kg = milligrams per kilogram
* = Paint observed on Bridge 39-0130 only
(Paint was observed to be in good condition.)

TABLE 3A
SUMMARY OF TOTAL METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Total Metals - Title 22 ICP Metals Scan

Sample ID.	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenu	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
B1-0	<0.25	11	110	<0.15	<0.15	24	6.0	20	61	0.29	16	<0.25	0.19	<0.25	33	280	<0.10
B2-0	0.50	12	180	<0.15	<0.15	41	10	24	160	0.31	24	<0.25	<0.15	0.39	62	50	<0.10
B3-0	0.48	15	200	<0.15	<0.15	50	11	30	270	0.47	31	<0.25	<0.15	0.50	69	75	<0.10
B4-0	0.46	18	190	<0.15	<0.15	45	10	24	25	0.50	26	<0.25	<0.15	0.50	66	52	<0.10
B5-0	0.50	15	190	<0.15	<0.15	46	10	28	78	1.0	27	<0.25	<0.15	<0.25	68	55	<0.10
B6-0	0.50	16	210	<0.15	<0.15	50	12	28	13	1.0	30	<0.25	<0.15	<0.25	72	65	<0.10
B7-0	0.50	15	180	<0.15	<0.15	50	12	44	120	0.46	33	<0.25	<0.15	0.28	67	73	<0.10
B8-0	0.47	11	190	<0.15	<0.15	34	12	32	110	0.50	24	<0.25	<0.15	<0.25	48	67	<0.10
B9-0	0.50	14	200	<0.15	<0.15	40	10	38	76	0.42	28	<0.25	<0.15	<0.25	57	75	<0.10
B10-0	0.50	14	190	<0.15	<0.15	42	12	42	130	0.39	27	<0.25	<0.15	<0.25	60	73	<0.10
B11-0	0.50	15	160	<0.15	<0.15	42	10	36	64	0.32	26	<0.25	0.24	<0.25	59	83	<0.10
B12-0	0.50	12	150	<0.15	<0.15	40	9.5	32	180	0.44	36	<0.25	<0.15	<0.25	50	68	<0.10

TABLE 3A
SUMMARY OF TOTAL METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Total Metals - Title 22 ICP Metals Scan

Sample ID.	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
B13-0	0.31	18	180	<0.15	<0.15	43	12	46	110	0.29	30	<0.25	<0.15	<0.25	60	84	<0.10
B14-0	0.50	18	180	<0.15	<0.15	46	12	44	91	0.49	30	<0.25	<0.15	<0.25	61	80	<0.10
B15-0	0.50	18	200	<0.15	<0.15	48	12	47	94	0.49	32	<0.25	<0.15	<0.25	66	82	<0.10
B16-0	0.50	16	180	<0.15	<0.15	49	12	45	130	0.35	32	<0.25	<0.15	<0.25	66	71	<0.10
B17-0	0.50	18	130	<0.15	<0.15	37	9.0	38	100	0.39	26	<0.25	<0.15	<0.25	48	74	<0.10
B18-0	0.40	14	150	<0.15	<0.15	37	10	39	80	0.49	24	<0.25	<0.15	<0.25	52	66	<0.10
B19-0	<0.25	14	120	<0.15	<0.15	19	5.5	28	240	0.37	14	<0.25	<0.15	<0.25	29	74	<0.10
B19-0.5	<0.25	12	120	<0.15	<0.15	29	9.0	26	20	<0.25	20	<0.25	<0.15	<0.25	44	59	<0.10
B19-1.5	<0.25	8.5	110	<0.15	<0.15	30	9.5	24	22	<0.25	19	<0.25	<0.15	<0.25	48	38	<0.10
B20-0	<0.25	8.5	71	<0.15	<0.15	16	5.5	18	97	<0.25	14	<0.25	<0.15	<0.25	26	44	<0.10
B20-0.5	<0.25	13	88	<0.15	<0.15	22	7.0	18	12	<0.25	16	<0.25	<0.15	<0.25	34	40	<0.10
B21-0	<0.25	13	110	<0.15	<0.15	22	6.0	44	490	0.50	16	<0.25	0.30	<0.25	28	92	<0.10

TABLE 3A
SUMMARY OF TOTAL METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Total Metals - Title 22 ICP Metals Scan

Sample ID.	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
B21-0.5	<0.25	15	150	<0.15	<0.15	36	12	34	29	<0.25	26	<0.25	<0.15	<0.25	52	59	<0.10
B21-1.5	<0.25	12	120	<0.15	<0.15	25	9.0	26	39	<0.25	19	<0.25	<0.15	<0.25	38	52	<0.10
B22-0	0.50	16	360	<0.15	<0.15	38	10	44	500	0.34	28	<0.25	<0.15	<0.25	52	100	<0.10
B23-0	0.50	19	150	<0.15	<0.15	33	9.5	38	170	0.50	24	<0.25	<0.15	<0.25	44	97	<0.10
B24-0	0.50	20	210	<0.15	<0.15	44	12	44	140	0.42	30	<0.25	<0.15	<0.25	59	96	<0.10
B25-0	0.50	8.5	92	<0.15	<0.15	34	6.5	22	190	0.50	18	<0.25	<0.15	<0.25	31	100	<0.10
B26-0	0.39	8.0	150	<0.15	<0.15	24	5.5	40	490	1.0	16	<0.25	<0.15	<0.25	28	140	<0.10
B27-0	0.45	12	1,000	<0.15	<0.15	28	5.5	52	780	1.0	20	<0.25	<0.15	<0.25	30	170	<0.10
B28-0	0.26	9.5	250	<0.15	<0.15	24	7.0	34	2,600	1.0	16	<0.25	<0.15	<0.25	29	430	<0.10
B29-0	0.29	9.0	410	<0.15	<0.15	32	4.5	32	500	0.50	15	<0.25	<0.15	<0.25	32	210	<0.10
B30-0	0.50	19	220	<0.15	<0.15	34	9.0	41	320	0.48	24	<0.25	<0.15	<0.25	44	110	<0.10

Notes:

< = Not detected above laboratory reporting limit

TABLE 3A
SUMMARY OF TOTAL METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Total Metals - Title 22 ICP Metals Scan

Sample ID.	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury

Concentrations shown in units of milligrams per kilogram (mg/kg)

TABLE 3B
SUMMARY OF SOLUBLE METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Soluble Metals

Sample ID.	Barium (WET)	Chromium (WET)	Lead (WET)	Lead (DI-WET)	Lead (TCLP)
B1-0	---	---	2.4	---	---
B2-0	---	---	<1.0	---	---
B3-0	---	<1.0	3.9	---	---
B5-0	---	---	4.0	---	---
B6-0	---	<1.0	---	---	---
B7-0	---	<1.0	8.0	0.22	---
B8-0	---	---	11	0.21	---
B9-0	---	---	4.8	---	---
B10-0	---	---	7.8	<0.2	---
B11-0	---	---	4.9	---	---
B12-0	---	---	13	0.38	---
B13-0	---	---	6.0	0.21	---

TABLE 3B
SUMMARY OF SOLUBLE METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Soluble Metals

Sample ID.	Barium (WET)	Chromium (WET)	Lead (WET)	Lead (DI-WET)	Lead (TCLP)
B14-0	---	---	5.1	0.27	---
B15-0	---	---	5.5	0.27	---
B16-0	---	---	4.3	---	---
B17-0	---	---	8.1	<0.2	---
B18-0	---	---	4.6	---	---
B19-0	---	---	15	<0.2	---
B20-0	---	---	9.4	<0.2	---
B21-0	---	---	38	0.27	---
B22-0	---	---	17	<0.2	---
B23-0	---	---	7.8	<0.2	---
B24-0	---	---	6.8	<0.2	---
B25-0	---	---	14	<0.2	---

TABLE 3B
SUMMARY OF SOLUBLE METALS RESIDUE IN SOIL - ANALYTICAL LABORATORY TEST RESULTS
BRIDGE 39-0130

Soluble Metals

Sample ID.	Barium (WET)	Chromium (WET)	Lead (WET)	Lead (DI-WET)	Lead (TCLP)
B26-0	---	---	45	<0.2	---
B27-0	9.2	---	65	<0.2	---
B28-0	---	---	47	<0.2	0.69
B29-0	---	---	38	0.28	---
B30-0	---	---	25	<0.2	---

Notes:

< = Not detected above laboratory reporting limit
Concentrations shown in units of milligrams per liter (mg/l)
WET = Waste Extraction Test (EPA 6010B)
DI-WET = Waste Extraction Test using deionized water as extractant
TCLP = Toxicity Characteristic Leaching Procedure (EPA 1311/7420)

TABLE 3C
SUMMARY OF LEAD
Bridge 39-0130

Boring ID	Sample Depth (ft)	Sample Depth (m)	Total Lead (mg/kg)	WET Lead (mg/l)	WET-DI Lead (mg/l)	TCLP Lead (mg/l)
B1-0	0.0	0.0	61	2.4	---	---
B2-0	0.0	0.0	160	<1.0	---	---
B3-0	0.0	0.0	270	3.9	---	---
B4-0	0.0	0.0	25	---	---	---
B5-0	0.0	0.0	78	4.0	---	---
B6-0	0.0	0.0	13	---	---	---
B7-0	0.0	0.0	120	8.0	0.22	---
B8-0	0.0	0.0	110	11	0.21	---
B9-0	0.0	0.0	76	4.8	---	---
B10-0	0.0	0.0	130	7.8	<0.2	---
B11-0	0.0	0.0	64	4.9	---	---
B12-0	0.0	0.0	180	13	0.38	---
B13-0	0.0	0.0	110	6.0	0.21	---
B14-0	0.0	0.0	91	5.1	0.27	---
B15-0	0.0	0.0	94	5.5	0.27	---
B16-0	0.0	0.0	130	4.3	---	---
B17-0	0.0	0.0	100	8.1	<0.2	---
B18-0	0.0	0.0	80	4.6	---	---
B19-0	0.0	0.0	240	15	<0.2	---
B20-0	0.0	0.0	97	9.4	<0.2	---
B21-0	0.0	0.0	490	38	0.27	---
B22-0	0.0	0.0	500	17	<0.2	---
B23-0	0.0	0.0	170	7.8	<0.2	---
B24-0	0.0	0.0	140	6.8	<0.2	---
B25-0	0.0	0.0	190	14	<0.2	---
B26-0	0.0	0.0	490	45	<0.2	---
B27-0	0.0	0.0	780	65	<0.2	---
B28-0	0.0	0.0	2,600	47	<0.2	0.69
B29-0	0.0	0.0	500	38	0.28	---
B30-0	0.0	0.0	320	25	<0.2	---
B19-0.5	0.5	0.15	20	---	---	---
B20-0.5	0.5	0.15	12	---	---	---
B21-0.5	0.5	0.15	29	---	---	---
B19-1.5	1.5	0.45	22	---	---	---
B21-1.5	1.5	0.45	39	---	---	---

Notes:

< = Not detected above laboratory reporting limit
--- = Not analyzed
WET = Waste Extraction Test (EPA 6010B)
WET-DI = Waste Extraction Test using Deionized water as extractant
TCLP = Toxicity Characteristic Leaching Procedure (EPA 1311/7420)

APPENDIX A

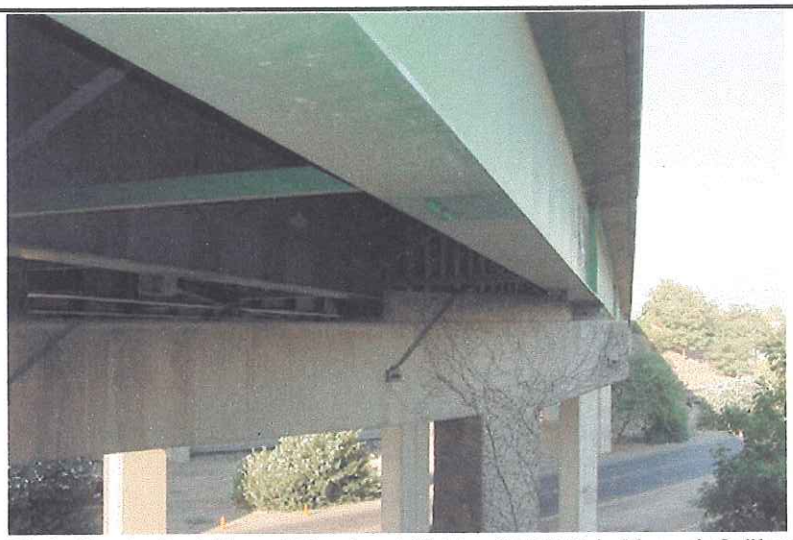

Photo No. 1 East Merced Overhead (Bridge 39-0130) in Merced, California (note green-painted steel members)

Photo No. 2 Joint expansion material used on Bridge 39-0130

Photo No. 3 Barrier railing shims used on Bridge 39-0130

SITE PHOTOS NO. 1, 2, & 3

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

Route 99 Bridges		
GEOCON Proj. No. E8000-06-69	Merced County, California	
Task Order No. 10-481000-R5	October 2001	

Photo No. 4 15th Street Undercrossing (Bridge 39-0139) in Merced, California

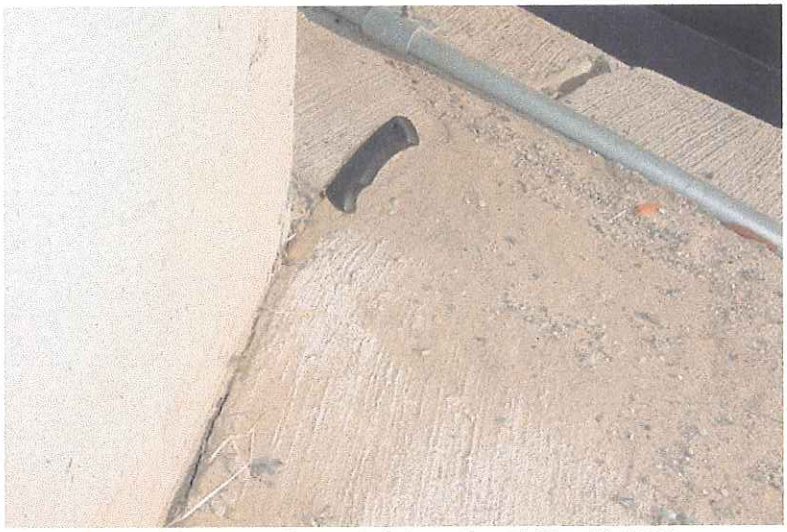

Photo No. 5 Joint expansion material used on Bridge 39-0139

Photo No. 6 Aluminum barrier railing shims used on Bridge 39-0139

SITE PHOTOS NO. 4, 5, & 6

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

Route 99 Bridges		
GEOCON Proj. No. E8000-06-69	Merced County, California	
Task Order No. 10-481000-R5	October 2001	

APPENDIX B

September 18, 2001

RECEIVED
SEP 2 8 2001

Dave Watts
Geocon Environmental
2356 Research Drive
Livermore, CA 94550
TEL: (925) 371-5900
FAX (925) 371-5915

ELAP No: 1838

RE: Route 99 Bridges - E8000-06-69

Work Order No.: 052938

Attention: Dave Watts

Enclosed are the results for sample(s) received on September 11, 2001 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,

Edgar Caballero
Laboratory Director

This cover letter and a case narrative are an integral part of this analytical report.

CLIENT: Geocon Environmental
Project: Route 99 Bridges - E8000-06-69
Lab Order: 052938

CASE NARRATIVE

Samples for Asbestos PLM were subcontracted to Scientific Laboratories of California, Inc.

The following is the list of corresponding Work Order/Client Sample ID's:

Work Order No.	Client Sample ID
052938-004A	EM-1A
052938-005A	EM-1B
052938-006A	EM-1C
052938-007A	EM-2A
052938-008A	15-1A
052938-009A	15-1B
052938-010A	15-1C

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *18-Sep-01*

CLIENT:	Geocon Environmental	**Test No:**	EPA 7420
Lab Order:	052938	**Units:**	mg/Kg
Project:	Route 99 Bridges - E8000-06-69	**Analyst:**	NS

Sample ID	Client Sample ID	Matrix	Collection Date	QC Batch	Lead	PQL	Qual	DF	Analysis Date
052938-001A	EM-LCP-1A	Paint	9/7/01	5747	170000	3200		321.3	9/17/01
052938-002A	EM-LCP-1B	Paint	9/7/01	5747	100000	1900		186.2	9/17/01
052938-003A	EM-LCP-1C	Paint	9/7/01	5747	120000	2500		250.3	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: (DP)

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052938
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5747** Batch ID: **5747** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MBLK SeqNo: **185471**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	10		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052938
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052938-001ADU** Batch ID: **5747** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

DUP SeqNo: **185475**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	190000	3500	0	0	0	0	0	170000	10	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: ____

All calculations are based on raw values.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052938
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052938-001AMS** Batch ID: **5747** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MS SeqNo: **185476**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	160000	3800	320.5	170000	-3013	50	150	0			S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: ____

All calculations are based on raw values.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052938
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-5747** Batch ID: **5747** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

LCS SeqNo: **185478**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	58	10	50	0	116	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: [signature]

All calculations are based on raw values.

SCILAB
FULL SERVICE ENVIRONMENTAL LABORATORIES

SCIENTIFIC LABORATORIES
OF CALIFORNIA, INC.

24416 SOUTH MAIN STREET • SUITE 308
CARSON, CA 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

September 17, 2001

Advanced Technology Laboratories
Attn: Rachel Arada
3275 Walnut Street
Signal Hill , CA 90807

RE: Advanced Technology Laboratories
Job Number 901091192
P.O. # 21500
PO# 21500

Dear Rachel Arada:

Enclosed are the results for PLM asbestos analysis of the following Advanced Technology Laboratories samples received at SCILAB on Wednesday, September 12, 2001, for a 5 day turnaround:

052938-004A / EM-1A, 052938-005A / EM-1B, 052938-006A / EM-1C, 052938-007A / EM-2A, 052938-008A / 15-1A, 052938-009A / 15-1B, 052938-010A / 15-1C

The 7 samples contained in ziplock bags were shipped to SciLab via hand delivery. These samples were prepared and analyzed according to the EPA Interim Method (40 CFR 763, subpt F, App. A). The required analytical information, analysis results, analyst signature and laboratory indentification is contained in the Analyst's Report.

This report relates ONLY to the sample analysis expressed as percent asbestos. SciLab assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by SciLab, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology Accreditation requirements, mandates that this report must not be reproduced, except in full, and with the approval of the laboratory.

SciLab appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Heidi Hanser

Heidi Hanser
Asbestos Laboratory Manager

SCILAB
FULL SERVICE ENVIRONMENTAL LABORATORIE

SCIENTIFIC LABORATORIES OF CALIFORNIA, INC.
24416 SOUTH MAIN STREET • SUITE 308
CARSON, CA 90745
TEL: (310) 834-4868 • FAX: (310) 834-477

PLM Bulk Asbestos Report

Advanced Technology Laboratories
Attn: Rachel Arada
3275 Walnut Street
Signal Hill , CA 90807

Date Received 09/12/2001 **SciLab Job No.** 901091192
Date Examined 09/17/2001 **P.O. #** 21500
Page 1 **of** 2

RE: PO# 21500

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
052938-004A / EM-1A	901091192-01	*No*	NAD
1 **Location:**			
Description: Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 35. %, Non-fibrous 65. %			
052938-005A / EM-1B	901091192-02	*No*	NAD
1 **Location:**			
Description: Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 35. %, Non-fibrous 65. %			
052938-006A / EM-1C	901091192-03	*No*	NAD
1 **Location:**			
Description: Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 40. %, Non-fibrous 60. %			
052938-007A / EM-2A	901091192-04	*Yes*	20 %
2 **Location:**			
Description: Grey, Heterogeneous, Bulk Material			
Asbestos Types: Chrysotile 20. %			
Other Material: Non-fibrous 80. %			
052938-008A / 15-1A	901091192-05	*No*	NAD
3 **Location:**			
Description: Brown, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 35. %, Non-fibrous 65. %			

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FULL SERVICE ENVIRONMENTAL LABORATORIE

SCIENTIFIC LABORATORIES OF CALIFORNIA, INC.

24416 SOUTH MAIN STREET • SUITE 308
CARSON, CA 90745
TEL: (310) 834-4868 • FAX: (310) 834-477

PLM Bulk Asbestos Report

Advanced Technology Laboratories
Attn: Rachel Arada
3275 Walnut Street
Signal Hill , CA 90807

Date Received 09/12/2001 **SciLab Job No.** 901091192
Date Examined 09/17/2001 **P.O. #** 21500
Page 2 **of** 2

RE: PO# 21500

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
052938-009A / 15-1B	901091192-06	*No*	NAD
3 **Location:**			
Description: Brown, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 40. %, Non-fibrous 60. %			
052938-010A / 15-1C	901091192-07	*No*	NAD
3 **Location:**			
Description: Brown, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 40. %, Non-fibrous 60. %			

Reporting Notes:

Analyzed by: Claire M. Coyne _____; Date Analyzed: 9/17/01

*NAD/NSD = no asbestos detected; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By: _____

Advanced Technology Laboratorie
3275 Walnut Street
Signal Hill, California 90807-
(562) 989-4045

SUB CHAIN-OF-CUSTODY RECORD

Subcontractor:

Scientific
24416 S. Main St.

Carson, CA 90308

TEL: (310) 834-4868
FAX: (310) 834-4772

Acct #:

QClevel: CT

11-Sep-01

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests					
				SM 100.1					
052938-004A \ EM-1A	Solid	9/7/01 8:20:00 AM	ZIPLOCK	1					
052938-005A \ EM-1B	Solid	9/7/01 8:20:00 AM	ZIPLOCK	1					
052938-006A \ EM-1C	Solid	9/7/01 8:20:00 AM	ZIPLOCK	1					
052938-007A \ EM-2A	Solid	9/7/01 8:40:00 AM	ZIPLOCK	1					
052938-008A \ 15-1A	Solid	9/7/01 8:50:00 AM	ZIPLOCK	1					
052938-009A \ 15-1B	Solid	9/7/01 8:50:00 AM	ZIPLOCK	1					
052938-010A \ 15-1C	Solid	9/7/01 8:50:00 AM	ZIPLOCK	1					

Comments: Please use PO#: 21500 Please fax results by: Pls. Analyze PLM set until > 1% (Normal TAT)

		Date/Time			Date/Time
Relinquished by:	[signature]	9/11/01 5:10pm	**Received by:**	[signature]	9/12/01 1240
Relinquished by:			**Received by:**		

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: GEOCON (CALTRANS)
Attn: D. WATTS
Address: 2356 RESEARCH DR.
City LIVERMORE State CA Zip Code 94550
TEL: (925) 371-5900
FAX: (") " 5915

Project Name: Route 99 Bridges Project #: E8000-06-69 Sampler: (Printed Name) D. WATTS (Signature)

Relinquished by: (Signature and Printed Name) D. WATTS	Date: 9/10/2001	Time: 1700	Received by: (Signature and Printed Name) GSO	Date: 9/10/2001	Time: 1700
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date: 9/11/01	Time: 930
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:
D. WATTS 9/7/2001
Print Name Date
Signature

Send Report To:
Attn: D. WATTS
Co: SEE "CLIENT"
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:
DO NOT Composite Sample Sets
Analyze PLM sets until >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) · PAINT (TOTAL Pb - 7420) · PLM

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	TAT	Container(s): #	Type	PRESERVATION	REMARKS
	52938-001/003	EM-LCP-1A, 1B, 1C	9/7/01	0800	E	3	P	NA	PAINT
	004/006	EM-1A, 1B, 1C	"	0820	"	3	"	"	EJ
	007	EM-2A	"	0840	"	1	"	"	S
	008/010	15-1A, 1B, 1C	9/7/01	0850	"	3	"	"	ET

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 Type: T= V= L= P= J=Ji =Tec G=G P=I : M al

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C (AC) :NaC T=Na

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

Laboratory Analyses

- Asbestos samples will be analyzed for asbestos type and content per Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM). At the discretion of Caltrans, select bulk samples at concentrations less than 1 percent may be re-analyzed for asbestos using PLM point counting techniques. Asbestos sample groups will be analyzed to the first positive (>1%) result.

- Paint samples will be analyzed for total lead following EPA Test Method 7000.

- Soil samples will be analyzed for Title 22 (CAM 17) metals following EPA Test Methods 6010B/7471A.

  Soil samples that exhibit total metal concentrations exceeding 10 times the STLC will be analyzed using the WET procedure. If lead is the only metal showing these concentrations, the DI WET test will be conducted on all lead samples exceeding 5.0 mg/L. Any sample with a high WET value will be tested by TCLP at the written direction of the Caltrans Contract Manager.

All samples will be analyzed under a 48-hour turn-around-time (following sample submittal to the laboratory).

September 18, 2001

Dave Watts
Geocon Environmental
2356 Research Drive
Livermore, CA 94550
TEL: (925) 371-5900
FAX (925) 371-5915

ELAP No: 1838

RE: Route 99 Bridges, E8000-06-69

Work Order No.: 052935

Attention: Dave Watts

Enclosed are the results for sample(s) received on September 11, 2001 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,

Edgar Caballero
Laboratory Director

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

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B19-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 8:50:00 AM
Lab ID:	052935-001A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	14	0.25		mg/Kg	1.0	9/17/01
Barium	120	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	19	0.15		mg/Kg	1.0	9/17/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/17/01
Copper	28	0.15		mg/Kg	1.0	9/17/01
Lead	240	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.37	0.25		mg/Kg	1.0	9/17/01
Nickel	14	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	29	0.15		mg/Kg	1.0	9/17/01
Zinc	74	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B19-0.5
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 8:50:00 AM
Lab ID:	052935-002A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	12	0.25		mg/Kg	1.0	9/17/01
Barium	120	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	29	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.0	0.15		mg/Kg	1.0	9/17/01
Copper	26	0.15		mg/Kg	1.0	9/17/01
Lead	20	0.25		mg/Kg	1.0	9/17/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/17/01
Nickel	20	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	44	0.15		mg/Kg	1.0	9/17/01
Zinc	59	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT: Geocon Environmental
Lab Order: 052935
Project: Route 99 Bridges, E8000-06-69
Lab ID: 052935-003A

Client Sample ID: B19-1.5
Collection Date: 9/7/01 8:50:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	8.5	0.25		mg/Kg	1.0	9/17/01
Barium	110	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	30	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.5	0.15		mg/Kg	1.0	9/17/01
Copper	24	0.15		mg/Kg	1.0	9/17/01
Lead	22	0.25		mg/Kg	1.0	9/17/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/17/01
Nickel	19	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	48	0.15		mg/Kg	1.0	9/17/01
Zinc	38	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: RQ

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B20-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:00:00 AM
Lab ID:	052935-004A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**EPA 6010B**		
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	8.5	0.25		mg/Kg	1.0	9/17/01
Barium	71	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	16	0.15		mg/Kg	1.0	9/17/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/17/01
Copper	18	0.15		mg/Kg	1.0	9/17/01
Lead	97	0.25		mg/Kg	1.0	9/17/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/17/01
Nickel	14	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	26	0.15		mg/Kg	1.0	9/17/01
Zinc	44	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE				**EPA 7471A**		
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- DO - Surrogate Diluted Out
- S - Spike/Surrogate outside of limits due to matrix interference.
- H - Samples exceeding analytical holding time
- E - Value above quantitation range
- M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B20-0.5
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:00:00 AM
Lab ID:	052935-005A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	13	0.25		mg/Kg	1.0	9/17/01
Barium	88	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	22	0.15		mg/Kg	1.0	9/17/01
Cobalt	7.0	0.15		mg/Kg	1.0	9/17/01
Copper	18	0.15		mg/Kg	1.0	9/17/01
Lead	12	0.25		mg/Kg	1.0	9/17/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/17/01
Nickel	16	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	34	0.15		mg/Kg	1.0	9/17/01
Zinc	40	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B21-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:10:00 AM
Lab ID:	052935-006A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	13	0.25		mg/Kg	1.0	9/17/01
Barium	110	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	22	0.15		mg/Kg	1.0	9/17/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/17/01
Copper	44	0.15		mg/Kg	1.0	9/17/01
Lead	490	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/17/01
Nickel	16	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	0.30	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	28	0.15		mg/Kg	1.0	9/17/01
Zinc	92	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B21-0.5
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:10:00 AM
Lab ID:	052935-007A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	15	0.25		mg/Kg	1.0	9/17/01
Barium	150	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	36	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	34	0.15		mg/Kg	1.0	9/17/01
Lead	29	0.25		mg/Kg	1.0	9/17/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/17/01
Nickel	26	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	52	0.15		mg/Kg	1.0	9/17/01
Zinc	59	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: (W)

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B21-1.5
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:10:00 AM
Lab ID:	052935-008A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	12	0.25		mg/Kg	1.0	9/17/01
Barium	120	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	25	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.0	0.15		mg/Kg	1.0	9/17/01
Copper	26	0.15		mg/Kg	1.0	9/17/01
Lead	39	0.25		mg/Kg	1.0	9/17/01
Molybdenum	ND	0.25		mg/Kg	1.0	9/17/01
Nickel	19	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	38	0.15		mg/Kg	1.0	9/17/01
Zinc	52	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored, Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B13-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:20:00 AM
Lab ID:	052935-009A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.31	0.25		mg/Kg	1.0	9/17/01
Arsenic	18	0.25		mg/Kg	1.0	9/17/01
Barium	180	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	43	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	46	0.15		mg/Kg	1.0	9/17/01
Lead	110	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.29	0.25		mg/Kg	1.0	9/17/01
Nickel	30	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	60	0.15		mg/Kg	1.0	9/17/01
Zinc	84	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B1-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:25:00 AM
Lab ID:	052935-010A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917B** BatchID: **5752**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	ND	0.25		mg/Kg	1.0	9/17/01
Arsenic	11	0.25		mg/Kg	1.0	9/17/01
Barium	110	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	24	0.15		mg/Kg	1.0	9/17/01
Cobalt	6.0	0.15		mg/Kg	1.0	9/17/01
Copper	20	0.15		mg/Kg	1.0	9/17/01
Lead	61	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.29	0.25		mg/Kg	1.0	9/17/01
Nickel	16	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	0.19	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	33	0.15		mg/Kg	1.0	9/17/01
Zinc	280	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010914B** BatchID: **5737**				PrepDate: **9/13/01**		Analyst: **RQ**
Mercury	ND	0.10		mg/Kg	1.0	9/14/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B2-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:30:00 AM
Lab ID:	052935-011A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**EPA 6010B**		
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	12	0.25		mg/Kg	1.0	9/17/01
Barium	180	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	41	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	24	0.15		mg/Kg	1.0	9/17/01
Lead	160	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.31	0.25		mg/Kg	1.0	9/17/01
Nickel	24	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	0.39	0.25		mg/Kg	1.0	9/17/01
Vanadium	62	0.15		mg/Kg	1.0	9/17/01
Zinc	50	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE				**EPA 7471A**		
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- DO - Surrogate Diluted Out
- S - Spike/Surrogate outside of limits due to matrix interference.
- H - Samples exceeding analytical holding time
- E - Value above quantitation range
- M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B3-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:35:00 AM
Lab ID:	052935-012A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.48	0.25		mg/Kg	1.0	9/17/01
Arsenic	15	0.25		mg/Kg	1.0	9/17/01
Barium	200	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	50	0.15		mg/Kg	1.0	9/17/01
Cobalt	11	0.15		mg/Kg	1.0	9/17/01
Copper	30	0.15		mg/Kg	1.0	9/17/01
Lead	270	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.47	0.25		mg/Kg	1.0	9/17/01
Nickel	31	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	0.50	0.25		mg/Kg	1.0	9/17/01
Vanadium	69	0.15		mg/Kg	1.0	9/17/01
Zinc	75	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B4-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:37:00 AM
Lab ID:	052935-013A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**EPA 6010B**		
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.46	0.25		mg/Kg	1.0	9/17/01
Arsenic	18	0.25		mg/Kg	1.0	9/17/01
Barium	190	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	45	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	24	0.15		mg/Kg	1.0	9/17/01
Lead	25	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/17/01
Nickel	26	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	0.50	0.25		mg/Kg	1.0	9/17/01
Vanadium	66	0.15		mg/Kg	1.0	9/17/01
Zinc	52	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE				**EPA 7471A**		
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B5-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:40:00 AM
Lab ID:	052935-014A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	15	0.25		mg/Kg	1.0	9/17/01
Barium	190	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	46	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	28	0.15		mg/Kg	1.0	9/17/01
Lead	78	0.25		mg/Kg	1.0	9/17/01
Molybdenum	1.0	0.25		mg/Kg	1.0	9/17/01
Nickel	27	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	68	0.15		mg/Kg	1.0	9/17/01
Zinc	55	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B6-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:45:00 AM
Lab ID:	052935-015A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**EPA 6010B**		
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	16	0.25		mg/Kg	1.0	9/17/01
Barium	210	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	50	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	28	0.15		mg/Kg	1.0	9/17/01
Lead	13	0.25		mg/Kg	1.0	9/17/01
Molybdenum	1.0	0.25		mg/Kg	1.0	9/17/01
Nickel	30	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	72	0.15		mg/Kg	1.0	9/17/01
Zinc	65	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE				**EPA 7471A**		
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B7-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:48:00 AM
Lab ID:	052935-016A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	15	0.25		mg/Kg	1.0	9/17/01
Barium	180	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	50	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	44	0.15		mg/Kg	1.0	9/17/01
Lead	120	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.46	0.25		mg/Kg	1.0	9/17/01
Nickel	33	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	0.28	0.25		mg/Kg	1.0	9/17/01
Vanadium	67	0.15		mg/Kg	1.0	9/17/01
Zinc	73	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
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Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B8-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:50:00 AM
Lab ID:	052935-017A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.47	0.25		mg/Kg	1.0	9/17/01
Arsenic	11	0.25		mg/Kg	1.0	9/17/01
Barium	190	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	34	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	32	0.15		mg/Kg	1.0	9/17/01
Lead	110	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/17/01
Nickel	24	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	48	0.15		mg/Kg	1.0	9/17/01
Zinc	67	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B9-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:52:00 AM
Lab ID:	052935-018A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	14	0.25		mg/Kg	1.0	9/17/01
Barium	200	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	40	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	38	0.15		mg/Kg	1.0	9/17/01
Lead	76	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.42	0.25		mg/Kg	1.0	9/17/01
Nickel	28	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	57	0.15		mg/Kg	1.0	9/17/01
Zinc	75	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B10-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 9:56:00 AM
Lab ID:	052935-019A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	14	0.25		mg/Kg	1.0	9/17/01
Barium	190	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	42	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	42	0.15		mg/Kg	1.0	9/17/01
Lead	130	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.39	0.25		mg/Kg	1.0	9/17/01
Nickel	27	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	60	0.15		mg/Kg	1.0	9/17/01
Zinc	73	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B11-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:00:00 AM
Lab ID:	052935-020A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917C** BatchID: **5753**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	15	0.25		mg/Kg	1.0	9/17/01
Barium	160	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	42	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	36	0.15		mg/Kg	1.0	9/17/01
Lead	64	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.32	0.25		mg/Kg	1.0	9/17/01
Nickel	26	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	0.24	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	59	0.15		mg/Kg	1.0	9/17/01
Zinc	83	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917B** BatchID: **5738**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B12-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:04:00 AM
Lab ID:	052935-021A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	12	0.25		mg/Kg	1.0	9/17/01
Barium	150	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	40	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.5	0.15		mg/Kg	1.0	9/17/01
Copper	32	0.15		mg/Kg	1.0	9/17/01
Lead	180	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.44	0.25		mg/Kg	1.0	9/17/01
Nickel	36	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	50	0.15		mg/Kg	1.0	9/17/01
Zinc	68	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT: Geocon Environmental
Lab Order: 052935
Project: Route 99 Bridges, E8000-06-69
Lab ID: 052935-022A

Client Sample ID: B14-0
Collection Date: 9/7/01 10:10:00 AM
Matrix: Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS		**EPA 6010B**		PrepDate: **9/14/01**		Analyst: **RQ**
RunID: **ICP2_010917D** BatchID: **5754**						
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	18	0.25		mg/Kg	1.0	9/17/01
Barium	180	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	46	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	44	0.15		mg/Kg	1.0	9/17/01
Lead	91	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.49	0.25		mg/Kg	1.0	9/17/01
Nickel	30	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	61	0.15		mg/Kg	1.0	9/17/01
Zinc	80	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE		**EPA 7471A**		PrepDate: **9/13/01**		Analyst: **NS**
RunID: **AA1_010917C** BatchID: **5739**						
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B15-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:15:00 AM
Lab ID:	052935-023A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	18	0.25		mg/Kg	1.0	9/17/01
Barium	200	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	48	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	47	0.15		mg/Kg	1.0	9/17/01
Lead	94	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.49	0.25		mg/Kg	1.0	9/17/01
Nickel	32	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	66	0.15		mg/Kg	1.0	9/17/01
Zinc	82	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B16-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:20:00 AM
Lab ID:	052935-024A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	16	0.25		mg/Kg	1.0	9/17/01
Barium	180	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	49	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	45	0.15		mg/Kg	1.0	9/17/01
Lead	130	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.35	0.25		mg/Kg	1.0	9/17/01
Nickel	32	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	66	0.15		mg/Kg	1.0	9/17/01
Zinc	71	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored, Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B17-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:25:00 AM
Lab ID:	052935-025A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**EPA 6010B**		
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	18	0.25		mg/Kg	1.0	9/17/01
Barium	130	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	37	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.0	0.15		mg/Kg	1.0	9/17/01
Copper	38	0.15		mg/Kg	1.0	9/17/01
Lead	100	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.39	0.25		mg/Kg	1.0	9/17/01
Nickel	26	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	48	0.15		mg/Kg	1.0	9/17/01
Zinc	74	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE				**EPA 7471A**		
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- DO - Surrogate Diluted Out
- S - Spike/Surrogate outside of limits due to matrix interference.
- H - Samples exceeding analytical holding time
- E - Value above quantitation range
- M - Not Monitored. Highly Reactive

Initials:

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B18-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:30:00 AM
Lab ID:	052935-026A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.40	0.25		mg/Kg	1.0	9/17/01
Arsenic	14	0.25		mg/Kg	1.0	9/17/01
Barium	150	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	37	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	39	0.15		mg/Kg	1.0	9/17/01
Lead	80	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.49	0.25		mg/Kg	1.0	9/17/01
Nickel	24	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	52	0.15		mg/Kg	1.0	9/17/01
Zinc	66	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B22-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:35:00 AM
Lab ID:	052935-027A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	16	0.25		mg/Kg	1.0	9/17/01
Barium	360	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	38	0.15		mg/Kg	1.0	9/17/01
Cobalt	10	0.15		mg/Kg	1.0	9/17/01
Copper	44	0.15		mg/Kg	1.0	9/17/01
Lead	500	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.34	0.25		mg/Kg	1.0	9/17/01
Nickel	28	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	52	0.15		mg/Kg	1.0	9/17/01
Zinc	100	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B23-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:37:00 AM
Lab ID:	052935-028A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	19	0.25		mg/Kg	1.0	9/17/01
Barium	150	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	33	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.5	0.15		mg/Kg	1.0	9/17/01
Copper	38	0.15		mg/Kg	1.0	9/17/01
Lead	170	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/17/01
Nickel	24	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	44	0.15		mg/Kg	1.0	9/17/01
Zinc	97	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B24-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:39:00 AM
Lab ID:	052935-029A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	20	0.25		mg/Kg	1.0	9/17/01
Barium	210	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	44	0.15		mg/Kg	1.0	9/17/01
Cobalt	12	0.15		mg/Kg	1.0	9/17/01
Copper	44	0.15		mg/Kg	1.0	9/17/01
Lead	140	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.42	0.25		mg/Kg	1.0	9/17/01
Nickel	30	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	59	0.15		mg/Kg	1.0	9/17/01
Zinc	96	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B25-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:45:00 AM
Lab ID:	052935-030A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917D** BatchID: **5754**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	8.5	0.25		mg/Kg	1.0	9/17/01
Barium	92	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	34	0.15		mg/Kg	1.0	9/17/01
Cobalt	6.5	0.15		mg/Kg	1.0	9/17/01
Copper	22	0.15		mg/Kg	1.0	9/17/01
Lead	190	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/17/01
Nickel	18	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	31	0.15		mg/Kg	1.0	9/17/01
Zinc	100	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917C** BatchID: **5739**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- DO - Surrogate Diluted Out
- S - Spike/Surrogate outside of limits due to matrix interference.
- H - Samples exceeding analytical holding time
- E - Value above quantitation range
- M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B26-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:50:00 AM
Lab ID:	052935-031A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917E** BatchID: **5755**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.39	0.25		mg/Kg	1.0	9/17/01
Arsenic	8.0	0.25		mg/Kg	1.0	9/17/01
Barium	150	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	24	0.15		mg/Kg	1.0	9/17/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/17/01
Copper	40	0.15		mg/Kg	1.0	9/17/01
Lead	490	0.25		mg/Kg	1.0	9/17/01
Molybdenum	1.0	0.25		mg/Kg	1.0	9/17/01
Nickel	16	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	28	0.15		mg/Kg	1.0	9/17/01
Zinc	140	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917D** BatchID: **5740**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B27-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:52:00 AM
Lab ID:	052935-032A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917E** BatchID: **5755**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.45	0.25		mg/Kg	1.0	9/17/01
Arsenic	12	0.25		mg/Kg	1.0	9/17/01
Barium	1000	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	28	0.15		mg/Kg	1.0	9/17/01
Cobalt	5.5	0.15		mg/Kg	1.0	9/17/01
Copper	52	0.15		mg/Kg	1.0	9/17/01
Lead	780	0.25		mg/Kg	1.0	9/17/01
Molybdenum	1.0	0.25		mg/Kg	1.0	9/17/01
Nickel	20	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	30	0.15		mg/Kg	1.0	9/17/01
Zinc	170	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917D** BatchID: **5740**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B28-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:55:00 AM
Lab ID:	052935-033A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917E** BatchID: **5755**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.26	0.25		mg/Kg	1.0	9/17/01
Arsenic	9.5	0.25		mg/Kg	1.0	9/17/01
Barium	250	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	24	0.15		mg/Kg	1.0	9/17/01
Cobalt	7.0	0.15		mg/Kg	1.0	9/17/01
Copper	34	0.15		mg/Kg	1.0	9/17/01
Lead	2600	0.25		mg/Kg	1.0	9/17/01
Molybdenum	1.0	0.25		mg/Kg	1.0	9/17/01
Nickel	16	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	29	0.15		mg/Kg	1.0	9/17/01
Zinc	430	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917D** BatchID: **5740**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B29-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 10:57:00 AM
Lab ID:	052935-034A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917E** BatchID: **5755**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.29	0.25		mg/Kg	1.0	9/17/01
Arsenic	9.0	0.25		mg/Kg	1.0	9/17/01
Barium	410	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	32	0.15		mg/Kg	1.0	9/17/01
Cobalt	4.5	0.15		mg/Kg	1.0	9/17/01
Copper	32	0.15		mg/Kg	1.0	9/17/01
Lead	500	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.50	0.25		mg/Kg	1.0	9/17/01
Nickel	15	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	32	0.15		mg/Kg	1.0	9/17/01
Zinc	210	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917D** BatchID: **5740**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: (W)

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Print Date: *9/18/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B30-0
Lab Order:	052935		
Project:	Route 99 Bridges, E8000-06-69	**Collection Date:**	9/7/01 11:00:00 AM
Lab ID:	052935-035A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**EPA 6010B**			
RunID: **ICP2_010917E** BatchID: **5755**				PrepDate: **9/14/01**		Analyst: **RQ**
Antimony	0.50	0.25		mg/Kg	1.0	9/17/01
Arsenic	19	0.25		mg/Kg	1.0	9/17/01
Barium	220	0.15		mg/Kg	1.0	9/17/01
Beryllium	ND	0.15		mg/Kg	1.0	9/17/01
Cadmium	ND	0.15		mg/Kg	1.0	9/17/01
Chromium	34	0.15		mg/Kg	1.0	9/17/01
Cobalt	9.0	0.15		mg/Kg	1.0	9/17/01
Copper	41	0.15		mg/Kg	1.0	9/17/01
Lead	320	0.25		mg/Kg	1.0	9/17/01
Molybdenum	0.48	0.25		mg/Kg	1.0	9/17/01
Nickel	24	0.15		mg/Kg	1.0	9/17/01
Selenium	ND	0.25		mg/Kg	1.0	9/17/01
Silver	ND	0.15		mg/Kg	1.0	9/17/01
Thallium	ND	0.25		mg/Kg	1.0	9/17/01
Vanadium	44	0.15		mg/Kg	1.0	9/17/01
Zinc	110	0.50		mg/Kg	1.0	9/17/01
MERCURY BY COLD VAPOR TECHNIQUE			**EPA 7471A**			
RunID: **AA1_010917D** BatchID: **5740**				PrepDate: **9/13/01**		Analyst: **NS**
Mercury	ND	0.10		mg/Kg	1.0	9/17/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5752** Batch ID: **5752** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MBLK SeqNo: **185230**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.25		0				0			
Arsenic	ND	0.25		0				0			
Barium	ND	0.15		0				0			
Beryllium	ND	0.15		0				0			
Cadmium	ND	0.15		0				0			
Chromium	ND	0.15		0				0			
Cobalt	ND	0.15		0				0			
Copper	ND	0.15		0				0			
Lead	ND	0.25		0				0			
Molybdenum	ND	0.25		0				0			
Nickel	ND	0.15		0				0			
Selenium	ND	0.25		0				0			
Silver	ND	0.15		0				0			
Thallium	ND	0.25		0				0			
Vanadium	ND	0.15		0				0			
Zinc	ND	0.50		0				0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5753** Batch ID: **5753** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MBLK SeqNo: **185399**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.25		0				0			
Arsenic	ND	0.25		0				0			
Barium	ND	0.15		0				0			
Beryllium	ND	0.15		0				0			
Cadmium	ND	0.15		0				0			
Chromium	ND	0.15		0				0			
Cobalt	ND	0.15		0				0			
Copper	ND	0.15		0				0			
Lead	ND	0.25		0				0			
Molybdenum	ND	0.25		0				0			
Nickel	ND	0.15		0				0			
Selenium	ND	0.25		0				0			
Silver	ND	0.15		0				0			
Thallium	ND	0.25		0				0			
Vanadium	ND	0.15		0				0			
Zinc	ND	0.50		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5754** Batch ID: **5754** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MBLK SeqNo: **185407**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.25		0				0			
Arsenic	ND	0.25		0				0			
Barium	ND	0.15		0				0			
Beryllium	ND	0.15		0				0			
Cadmium	ND	0.15		0				0			
Chromium	ND	0.15		0				0			
Cobalt	ND	0.15		0				0			
Copper	ND	0.15		0				0			
Lead	ND	0.25		0				0			
Molybdenum	ND	0.25		0				0			
Nickel	ND	0.15		0				0			
Selenium	ND	0.25		0				0			
Silver	ND	0.15		0				0			
Thallium	ND	0.25		0				0			
Vanadium	ND	0.15		0				0			
Zinc	ND	0.50		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5755** Batch ID: **5755** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**
MBLK SeqNo: **185521**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.25		0				0			
Arsenic	ND	0.25		0				0			
Barium	ND	0.15		0				0			
Beryllium	ND	0.15		0				0			
Cadmium	ND	0.15		0				0			
Chromium	ND	0.15		0				0			
Cobalt	ND	0.15		0				0			
Copper	ND	0.15		0				0			
Lead	ND	0.25		0				0			
Molybdenum	ND	0.25		0				0			
Nickel	ND	0.15		0				0			
Selenium	ND	0.25		0				0			
Silver	ND	0.15		0				0			
Thallium	ND	0.25		0				0			
Vanadium	ND	0.15		0				0			
Zinc	ND	0.50		0				0			

Sample ID **MB-5737** Batch ID: **5737** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/14/01** Prep Date: **9/13/01**
MBLK SeqNo: **184897**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: ____

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5738** Batch ID: **5738** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
MBLK SeqNo: **185436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10		0				0			

Sample ID **MB-5739** Batch ID: **5739** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
MBLK SeqNo: **185451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10		0				0			

Sample ID **MB-5740** Batch ID: **5740** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
MBLK SeqNo: **185461**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-010ADU** Batch ID: **5752** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

DUP SeqNo: **185242**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.25	0	0	0	0	0	0.21	0	30	
Arsenic	9	0.25	0	0	0	0	0	11	20	30	
Barium	96	0.15	0	0	0	0	0	110	13	30	
Beryllium	ND	0.15	0	0	0	0	0	0	0	30	
Cadmium	ND	0.15	0	0	0	0	0	0	0	30	
Chromium	20	0.15	0	0	0	0	0	24	16	30	
Cobalt	5	0.15	0	0	0	0	0	6	18	30	
Copper	17	0.15	0	0	0	0	0	20	16	30	
Lead	160	0.25	0	0	0	0	0	61	90	30	R
Molybdenum	0.2	0.25	0	0	0	0	0	0.29	43	30	JR
Nickel	13	0.15	0	0	0	0	0	16	18	30	
Selenium	ND	0.25	0	0	0	0	0	0	0	30	
Silver	0.03	0.15	0	0	0	0	0	0.19	139	30	JR
Thallium	ND	0.25	0	0	0	0	0	0.1	0	30	
Vanadium	28	0.15	0	0	0	0	0	33	16	30	
Zinc	280	0.50	0	0	0	0	0	280	1	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-020ADU** Batch ID: **5753** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

DUP SeqNo: **185404**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5	0.25	0	0	0	0	0	0.5	0	30	
Arsenic	16	0.25	0	0	0	0	0	15	6	30	
Barium	210	0.15	0	0	0	0	0	160	29	30	
Beryllium	ND	0.15	0	0	0	0	0	0	0	30	
Cadmium	ND	0.15	0	0	0	0	0	0	0	30	
Chromium	48	0.15	0	0	0	0	0	42	12	30	
Cobalt	12	0.15	0	0	0	0	0	10	13	30	
Copper	40	0.15	0	0	0	0	0	36	9	30	
Lead	74	0.25	0	0	0	0	0	64	14	30	
Molybdenum	0.45	0.25	0	0	0	0	0	0.32	34	30	R
Nickel	33	0.15	0	0	0	0	0	26	22	30	
Selenium	ND	0.25	0	0	0	0	0	0	0	30	
Silver	ND	0.15	0	0	0	0	0	0.24	0	30	
Thallium	ND	0.25	0	0	0	0	0	0	0	30	
Vanadium	64	0.15	0	0	0	0	0	59	8	30	
Zinc	95	0.50	0	0	0	0	0	83	13	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-030ADU** Batch ID: **5754** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

DUP SeqNo: **185419**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.2	0.25	0	0	0	0	0	0.5	90	30	JR
Arsenic	4.5	0.25	0	0	0	0	0	8.5	62	30	R
Barium	56	0.15	0	0	0	0	0	92	48	30	R
Beryllium	ND	0.15	0	0	0	0	0	0	0	30	
Cadmium	ND	0.15	0	0	0	0	0	0	0	30	
Chromium	20	0.15	0	0	0	0	0	34	52	30	R
Cobalt	4	0.15	0	0	0	0	0	6.5	48	30	R
Copper	14	0.15	0	0	0	0	0	22	44	30	R
Lead	120	0.25	0	0	0	0	0	190	46	30	R
Molybdenum	0.31	0.25	0	0	0	0	0	0.5	47	30	R
Nickel	16	0.15	0	0	0	0	0	18	9	30	
Selenium	ND	0.25	0	0	0	0	0	0	0	30	
Silver	ND	0.15	0	0	0	0	0	0	0	30	
Thallium	ND	0.25	0	0	0	0	0	0	0	30	
Vanadium	20	0.15	0	0	0	0	0	31	43	30	R
Zinc	50	0.50	0	0	0	0	0	100	68	30	R

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-035ADU** Batch ID: **5755** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**
DUP SeqNo: **185518**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5	0.25	0	0	0	0	0	0.5	0	30	
Arsenic	22	0.25	0	0	0	0	0	19	15	30	
Barium	230	0.15	0	0	0	0	0	220	6	30	
Beryllium	0.1	0.15	0	0	0	0	0	0	200	30	JR
Cadmium	ND	0.15	0	0	0	0	0	0	0	30	
Chromium	35	0.15	0	0	0	0	0	34	3	30	
Cobalt	10	0.15	0	0	0	0	0	9	11	30	
Copper	44	0.15	0	0	0	0	0	41	7	30	
Lead	460	0.25	0	0	0	0	0	320	36	30	R
Molybdenum	1	0.25	0	0	0	0	0	0.48	71	30	R
Nickel	25	0.15	0	0	0	0	0	24	2	30	
Selenium	ND	0.25	0	0	0	0	0	0	0	30	
Silver	0.49	0.15	0	0	0	0	0	0	200	30	R
Thallium	ND	0.25	0	0	0	0	0	0	0	30	
Vanadium	47	0.15	0	0	0	0	0	44	8	30	
Zinc	110	0.50	0	0	0	0	0	110	3	30	

Sample ID **052935-010ADU** Batch ID: **5737** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/14/01** Prep Date: **9/13/01**
DUP SeqNo: **184909**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10	0	0	0	0	0	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-020ADU** Batch ID: **5738** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
DUP SeqNo: **185432**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10	0	0	0	0	0	0	0	30	

Sample ID **052935-030ADU** Batch ID: **5739** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
DUP SeqNo: **185447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10	0	0	0	0	0	0	0	30	

Sample ID **052935-035ADU** Batch ID: **5740** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
DUP SeqNo: **185457**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10	0	0	0	0	0	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-010AMS** Batch ID: **5752** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MS SeqNo: **185243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48	0.25	125	0.21	39	32	115	0			
Arsenic	82	0.25	125	11	56	59	111	0			S
Barium	140	0.15	125	110	26	34	151	0			S
Beryllium	71	0.15	125	0	57	56	112	0			
Cadmium	82	0.15	125	0	65	52	120	0			
Chromium	84	0.15	125	24	48	56	118	0			S
Cobalt	74	0.15	125	6	54	58	117	0			S
Copper	91	0.15	125	20	57	58	134	0			S
Lead	230	0.25	125	61	136	47	128	0			S
Molybdenum	72	0.25	125	0.29	57	56	115	0			
Nickel	80	0.15	125	16	51	52	120	0			S
Selenium	74	0.25	125	0	60	46	108	0			
Silver	98	0.15	125	0.19	78	74	117	0			
Thallium	91	0.25	125	0.1	73	62	117	0			
Vanadium	96	0.15	125	33	51	55	122	0			S
Zinc	300	0.50	125	280	17	43	134	0			S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: ____

All calculations are based on raw values.

Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B8-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:50:00 AM
Lab ID:	052935-017A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	11	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

11

Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B9-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:52:00 AM
Lab ID:	052935-018A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	4.8	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B10-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:56:00 AM
Lab ID:	052935-019A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	7.8	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B11-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:00:00 AM
Lab ID:	052935-020A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	4.9	1.0		mg/L	10	9/24/01

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- DO - Surrogate Diluted Out
- S - Spike/Surrogate outside of limits due to matrix interference.
- H - Samples exceeding analytical holding time
- E - Value above quantitation range
- M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B12-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:04:00 AM
Lab ID:	052935-021A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	13	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B14-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:10:00 AM
Lab ID:	052935-022A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	5.1	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B15-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:15:00 AM
Lab ID:	052935-023A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	5.5	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B16-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:20:00 AM
Lab ID:	052935-024A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	4.3	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B17-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:25:00 AM
Lab ID:	052935-025A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	8.1	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials:

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B18-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:30:00 AM
Lab ID:	052935-026A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**WET/ EPA 6010B**			
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	4.6	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B22-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:35:00 AM
Lab ID:	052935-027A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C** BatchID: **5808**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	17	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B23-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:37:00 AM
Lab ID:	052935-028A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**WET/ EPA 6010B**			
RunID: **ICP2_010924C** BatchID: **5808**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	7.8	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials:

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B24-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:39:00 AM
Lab ID:	052935-029A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C**	BatchID: **5808**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	6.8	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B25-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:45:00 AM
Lab ID:	052935-030A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C** BatchID: **5808**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	14	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B26-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:50:00 AM
Lab ID:	052935-031A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C**	BatchID: **5808**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	45	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B27-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:52:00 AM
Lab ID:	052935-032A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C** BatchID: **5808**				PrepDate: **9/19/01**		Analyst: **RQ**
Barium	9.2	1.0		mg/L	10	9/24/01
Lead	65	1.0		mg/L	10	9/24/01

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- DO - Surrogate Diluted Out
- S - Spike/Surrogate outside of limits due to matrix interference.
- H - Samples exceeding analytical holding time
- E - Value above quantitation range
- M - Not Monitored. Highly Reactive

Initials: _____

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Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B28-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:55:00 AM
Lab ID:	052935-033A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C**	BatchID: **5808**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	47	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B29-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 10:57:00 AM
Lab ID:	052935-034A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C** BatchID: **5808**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	38	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B30-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 11:00:00 AM
Lab ID:	052935-035A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924C** BatchID: **5808**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	25	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

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Advanced Technology Laboratories

Date: *24-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5807** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MBLK SeqNo: **187384**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.10		0				0			
Lead	ND	0.10		0				0			

Sample ID **MB-5807A** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MBLK SeqNo: **187385**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.10	0	0	0	0	0	0			
Lead	ND	0.10	0	0	0	0	0	0			

Sample ID **MB-5807B** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MBLK SeqNo: **187400**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.10	0	0	0	0	0	0			
Lead	ND	0.10	0	0	0	0	0	0			

Sample ID **MB-5808** Batch ID: **5808** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MBLK SeqNo: **187504**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	0.10		0				0			
Lead	ND	0.10		0				0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5808STLC** Batch ID: **5808** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**

MBLK SeqNo: **187505**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	0.10	0	0	0	0	0	0			
Lead	ND	0.10	0	0	0	0	0	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: (R)

All calculations are based on raw values.

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Advanced Technology Laboratories

Date: *24-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-016ADU** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
DUP SeqNo: **187399**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.1	1.0	0	0.1	0	0	0	0.1	0	30	J
Lead	7.8	1.0	0	8	0	0	0	8	3	30	

Sample ID **052935-026ADU** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
DUP SeqNo: **187411**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.1	1.0	0	0	0	0	0	0.098	2	30	J
Lead	6	1.0	0	0	0	0	0	4.6	26	30	

Sample ID **052935-035ADU** Batch ID: **5808** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
DUP SeqNo: **187516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	9.4	1.0	0	0	0	0	0	8.7	8	30	
Lead	31	1.0	0	0	0	0	0	25	21	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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Date: *24-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-016AMS** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MS SeqNo: **187398**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	24	1.0	25	0.1	97	68	118	0			
Lead	37	1.0	25	8	115	66	118	0			

Sample ID **052935-026AMS** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MS SeqNo: **187412**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	24	1.0	25	0.098	95	68	118	0			
Lead	31	1.0	25	4.6	105	66	118	0			

Sample ID **052935-035AMS** Batch ID: **5808** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MS SeqNo: **187517**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	34	1.0	25	8.7	100	63	125	0			
Lead	52	1.0	25	25	106	66	118	0			

Sample ID **052935-035AMS** Batch ID: **5808** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
MSD SeqNo: **187518**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	34	1.0	25	8.7	100	63	125	34	1	20	
Lead	52	1.0	25	25	106	66	118	52	1	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5807** Batch ID: **5807** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
LCS SeqNo: **187386**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.91	0.10	1	0	91	80	120	0			
Lead	0.92	0.10	1	0	92	80	120	0			

Sample ID **LCS-5808** Batch ID: **5808** Test Name **ICP METALS** Units **mg/L** Analysis Date: **9/24/01** Prep Date: **9/19/01**
LCS SeqNo: **187506**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.95	0.10	1	0	95	80	120	0			
Lead	0.92	0.10	1	0	92	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

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Print Date: *02-Oct-01*

CLIENT:	Geocon Environmental	**Test No:**	WET DI/ EPA 7
Lab Order:	052935	**Units:**	mg/L
Project:	Route 99 Bridges - E8000-06-69	**Analyst:**	NS

Sample ID	Client Sample ID	Matrix	Collection Date	QC Batch	Lead	PQL	Qual	DF	Analysis Date
052935-001A	B19-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-004A	B20-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-006A	B21-0	Solid/ STLC DI Extract	9/7/01	5852	0.27	0.2		1	9/28/01
052935-009A	B13-0	Solid/ STLC DI Extract	9/7/01	5852	0.21	0.2		1	9/28/01
052935-016A	B7-0	Solid/ STLC DI Extract	9/7/01	5852	0.22	0.2		1	9/28/01
052935-017A	B8-0	Solid/ STLC DI Extract	9/7/01	5852	0.21	0.2		1	9/28/01
052935-019A	B10-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-021A	B12-0	Solid/ STLC DI Extract	9/7/01	5852	0.38	0.2		1	9/28/01
052935-022A	B14-0	Solid/ STLC DI Extract	9/7/01	5852	0.27	0.2		1	9/28/01
052935-023A	B15-0	Solid/ STLC DI Extract	9/7/01	5852	0.27	0.2		1	9/28/01
052935-025A	B17-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-027A	B22-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

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Advanced Technology Laboratories

Print Date: *02-Oct-01*

CLIENT:	Geocon Environmental	**Test No:**	WET DI/ EPA 7
Lab Order:	052935	**Units:**	mg/L
Project:	Route 99 Bridges - E8000-06-69	**Analyst:**	NS

Sample ID	Client Sample ID	Matrix	Collection Date	QC Batch	Lead	PQL	Qual	DF	Analysis Date
052935-028A	B23-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-029A	B24-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-030A	B25-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-031A	B26-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-032A	B27-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-033A	B28-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01
052935-034A	B29-0	Solid/ STLC DI Extract	9/7/01	5852	0.28	0.2		1	9/28/01
052935-035A	B30-0	Solid/ STLC DI Extract	9/7/01	5852	ND	0.2		1	9/28/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

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Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5852** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
MBLK SeqNo: **188928**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.20		0				0			

Sample ID **MB-5852A** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
MBLK SeqNo: **188929**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.20	0	0	0	0	0	0			

Sample ID **MB-5852B** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
MBLK SeqNo: **188942**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.20	0	0	0	0	0	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

Advanced Technology Laboratories

Print Date: *02-Oct-01*

CLIENT:	Geocon Environmental	**Test No:**	EPA 1311/ 7420
Lab Order:	052935	**Units:**	mg/L
Project:	Route 99 Bridges - E8000-06-69	**Analyst:**	NS

Sample ID	Client Sample ID	Matrix	Collection Date	QC Batch	Lead	PQL	Qual	DF	Analysis Date
052935-033A	B28-0	Solid/ TCLP Extract	9/7/01	5893	0.69	0.2		1	10/2/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

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Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5893** Batch ID: **5893** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **10/2/01** Prep Date: **10/2/01**
MBLK SeqNo: **189681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.20		0				0			

Sample ID **MB-5889TCLP** Batch ID: **5893** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **10/2/01** Prep Date: **10/2/01**
MBLK SeqNo: **189682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.20	0	0	0	0	0	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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Advanced Technology Laboratories

Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-033ADU** Batch ID: **5893** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **10/2/01** Prep Date: **10/2/01**

DUP SeqNo: **189684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.5	0.20	0	0	0	0	0	0.69	73	30	R

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: AW

All calculations are based on raw values.

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Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-033AMS** Batch ID: **5893** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **10/2/01** Prep Date: **10/2/01**

MS SeqNo: **189685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	3.7	0.20	2.5	0.69	120	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: JD

All calculations are based on raw values.

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Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5893** Batch ID: **5893** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **10/2/01** Prep Date: **10/2/01**

LCS SeqNo: **189687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.1	0.20	1	0.09	106	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: (a)

All calculations are based on raw values.

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Advanced Technology Laboratories

Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Duplicate

Sample ID **052935-023ADU** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
DUP SeqNo: **188940**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.26	0.20	0	0	0	0	0	0.27	2	30	

Sample ID **052935-035ADU** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
DUP SeqNo: **188953**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.2	0.20	0	0	0	0	0	0.061	90	30	JR

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: ____

All calculations are based on raw values.

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Advanced Technology Laboratories

Date: *02-Oct-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-023AMS** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
MS SeqNo: **188941**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.2	0.20	5	0.27	99	80	120	0			

Sample ID **052935-035AMS** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**
MS SeqNo: **188954**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.6	0.20	5	0.061	111	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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Date: *02-Oct-01*

CLIENT: Geocon Environmental
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QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-5852** Batch ID: **5852** Test Name **LEAD BY ATOMIC ABSORPTION** Units **mg/L** Analysis Date: **9/28/01** Prep Date: **9/25/01**

LCS SeqNo: **188956**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	8.1	0.20	7.5	0.051	107	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-020AMS** Batch ID: **5753** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MS SeqNo: **185405**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	56	0.25	125	0.5	44	32	115	0			
Arsenic	120	0.25	125	15	88	59	111	0			
Barium	320	0.15	125	160	124	34	151	0			
Beryllium	110	0.15	125	0	87	56	112	0			
Cadmium	100	0.15	125	0	80	52	120	0			
Chromium	160	0.15	125	42	96	56	118	0			
Cobalt	120	0.15	125	10	90	58	117	0			
Copper	180	0.15	125	36	113	58	134	0			
Lead	190	0.25	125	64	104	47	128	0			
Molybdenum	100	0.25	125	0.32	83	56	115	0			
Nickel	140	0.15	125	26	90	52	120	0			
Selenium	100	0.25	125	0	80	46	108	0			
Silver	86	0.15	125	0.24	69	74	117	0			S
Thallium	110	0.25	125	0	90	62	117	0			
Vanadium	190	0.15	125	59	102	55	122	0			
Zinc	190	0.50	125	83	85	43	134	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-030AMS** Batch ID: **5754** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

MS SeqNo: **185420**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	84	0.25	125	0.5	66	32	115	0			
Arsenic	120	0.25	125	8.5	87	59	111	0			
Barium	230	0.15	125	92	110	34	151	0			
Beryllium	110	0.15	125	0	88	56	112	0			
Cadmium	100	0.15	125	0	82	52	120	0			
Chromium	140	0.15	125	34	83	56	118	0			
Cobalt	120	0.15	125	6.5	89	58	117	0			
Copper	150	0.15	125	22	104	58	134	0			
Lead	280	0.25	125	190	71	47	128	0			
Molybdenum	110	0.25	125	0.5	87	56	115	0			
Nickel	130	0.15	125	18	86	52	120	0			
Selenium	100	0.25	125	0	80	46	108	0			
Silver	120	0.15	125	0	92	74	117	0			
Thallium	110	0.25	125	0	90	62	117	0			
Vanadium	150	0.15	125	31	94	55	122	0			
Zinc	180	0.50	125	100	66	43	134	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID **052935-035AMS** Batch ID: **5755** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**
MS SeqNo: **185519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	65	0.25	125	0.5	52	32	115	0			
Arsenic	120	0.25	125	19	81	59	111	0			
Barium	330	0.15	125	220	88	34	151	0			
Beryllium	100	0.15	125	0	82	56	112	0			
Cadmium	96	0.15	125	0	77	52	120	0			
Chromium	140	0.15	125	34	84	56	118	0			
Cobalt	110	0.15	125	9	83	58	117	0			
Copper	160	0.15	125	41	98	58	134	0			
Lead	370	0.25	125	320	38	47	128	0			S
Molybdenum	100	0.25	125	0.48	80	56	115	0			
Nickel	130	0.15	125	24	82	52	120	0			
Selenium	96	0.25	125	0	76	46	108	0			
Silver	110	0.15	125	0	88	74	117	0			
Thallium	110	0.25	125	0	86	62	117	0			
Vanadium	150	0.15	125	44	86	55	122	0			
Zinc	240	0.50	125	110	101	43	134	0			

Sample ID **052935-010AMS** Batch ID: **5737** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/14/01** Prep Date: **9/13/01**
MS SeqNo: **184910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.10	0.83	0	183	62	146	0			S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: ____

All calculations are based on raw values.

Advanced Technology Laboratories
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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Sample Matrix Spike Duplicate

Sample ID **052935-010AMS** Batch ID: **5737** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/14/01** Prep Date: **9/13/01**
MSD SeqNo: **184911**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.10	0.83	0	163	62	146	1.5	8	33	S

Sample ID **052935-020AMS** Batch ID: **5738** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
MS SeqNo: **185433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.8	0.10	0.83	0	96	62	146	0			

Sample ID **052935-030AMS** Batch ID: **5739** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
MS SeqNo: **185448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.88	0.10	0.83	0	106	62	146	0			

Sample ID **052935-035AMS** Batch ID: **5740** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
MS SeqNo: **185458**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.85	0.10	0.83	0	103	62	146	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

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Advanced Technology Laboratories

Date: *18-Sep-01*

CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5752** Batch ID: **5752** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

LCS SeqNo: **185231**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47	0.25	50	0	94	80	120	0			
Arsenic	47	0.25	50	0	94	80	120	0			
Barium	46	0.15	50	0	93	80	120	0			
Beryllium	46	0.15	50	0	93	80	120	0			
Cadmium	45	0.15	50	0	90	80	120	0			
Chromium	46	0.15	50	0.005	92	80	120	0			
Cobalt	46	0.15	50	0	93	80	120	0			
Copper	48	0.15	50	0	97	80	120	0			
Lead	46	0.25	50	0	92	80	120	0			
Molybdenum	47	0.25	50	0.14	94	80	120	0			
Nickel	46	0.15	50	0.015	93	80	120	0			
Selenium	46	0.25	50	0	91	80	120	0			
Silver	47	0.15	50	0	94	80	120	0			
Thallium	48	0.25	50	0	96	80	120	0			
Vanadium	46	0.15	50	0	93	80	120	0			
Zinc	46	0.50	50	0	92	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5753** Batch ID: **5753** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

LCS SeqNo: **185392**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46	0.25	50	0	92	80	120	0			
Arsenic	46	0.25	50	0	92	80	120	0			
Barium	48	0.15	50	0	95	80	120	0			
Beryllium	46	0.15	50	0	93	80	120	0			
Cadmium	45	0.15	50	0	90	80	120	0			
Chromium	46	0.15	50	0.044	93	80	120	0			
Cobalt	46	0.15	50	0	93	80	120	0			
Copper	50	0.15	50	0.003	99	80	120	0			
Lead	46	0.25	50	0	93	80	120	0			
Molybdenum	47	0.25	50	0.13	94	80	120	0			
Nickel	46	0.15	50	0.087	93	80	120	0			
Selenium	44	0.25	50	0	87	80	120	0			
Silver	46	0.15	50	0	93	80	120	0			
Thallium	48	0.25	50	0.084	96	80	120	0			
Vanadium	47	0.15	50	0	94	80	120	0			
Zinc	46	0.50	50	0	92	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials:

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5754** Batch ID: **5754** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

LCS SeqNo: **185408**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46	0.25	50	0	93	80	120	0			
Arsenic	46	0.25	50	0	93	80	120	0			
Barium	48	0.15	50	0	96	80	120	0			
Beryllium	47	0.15	50	0	94	80	120	0			
Cadmium	46	0.15	50	0	91	80	120	0			
Chromium	47	0.15	50	0.025	94	80	120	0			
Cobalt	47	0.15	50	0	94	80	120	0			
Copper	50	0.15	50	0	100	80	120	0			
Lead	47	0.25	50	0	94	80	120	0			
Molybdenum	48	0.25	50	0	95	80	120	0			
Nickel	46	0.15	50	0.1	93	80	120	0			
Selenium	44	0.25	50	0	88	80	120	0			
Silver	47	0.15	50	0	94	80	120	0			
Thallium	48	0.25	50	0.035	97	80	120	0			
Vanadium	48	0.15	50	0	95	80	120	0			
Zinc	46	0.50	50	0	92	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: PL

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5755** Batch ID: **5755** Test Name **ICP METALS** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/14/01**

LCS SeqNo: **185522**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47	0.25	50	0	94	80	120	0			
Arsenic	46	0.25	50	0.053	93	80	120	0			
Barium	48	0.15	50	0.019	96	80	120	0			
Beryllium	47	0.15	50	0	94	80	120	0			
Cadmium	46	0.15	50	0	91	80	120	0			
Chromium	47	0.15	50	0.032	94	80	120	0			
Cobalt	48	0.15	50	0	95	80	120	0			
Copper	50	0.15	50	0.053	100	80	120	0			
Lead	48	0.25	50	0	96	80	120	0			
Molybdenum	48	0.25	50	0.17	96	80	120	0			
Nickel	47	0.15	50	0.066	94	80	120	0			
Selenium	44	0.25	50	0	88	80	120	0			
Silver	48	0.15	50	0	95	80	120	0			
Thallium	48	0.25	50	0	97	80	120	0			
Vanadium	48	0.15	50	0	95	80	120	0			
Zinc	46	0.50	50	0	92	80	120	0			

Sample ID **LCS-5737** Batch ID: **5737** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/14/01** Prep Date: **9/13/01**

LCS SeqNo: **184898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.1	0.10	2.08	0	103	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: _____

All calculations are based on raw values.

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CLIENT: Geocon Environmental
Work Order: 052935
Project: Route 99 Bridges - E8000-06-69

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5738** Batch ID: **5738** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
LCS SeqNo: **185435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.1	0.10	2.08	0	103	80	120	0			

Sample ID **LCS-5739** Batch ID: **5739** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
LCS SeqNo: **185450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.3	0.10	2.08	0	112	80	120	0			

Sample ID **LCS-5740** Batch ID: **5740** Test Name **MERCURY BY COLD VAPOR TECHNIQUE** Units **mg/Kg** Analysis Date: **9/17/01** Prep Date: **9/13/01**
LCS SeqNo: **185460**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.1	0.10	2.08	0	103	80	120	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank
M - Not Monitored. Highly Reactive
S - Spike/Surrogate outside of limits due to matrix interference
DO - Surrogate Diluted Out

Initials: MR

All calculations are based on raw values.

Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B19-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 8:50:00 AM
Lab ID:	052935-001A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	15	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B20-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:00:00 AM
Lab ID:	052935-004A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	9.4	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B21-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:10:00 AM
Lab ID:	052935-006A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	38	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B13-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:20:00 AM
Lab ID:	052935-009A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	6.0	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B1-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:25:00 AM
Lab ID:	052935-010A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**WET/ EPA 6010B**			
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	2.4	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B2-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:30:00 AM
Lab ID:	052935-011A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**WET/ EPA 6010B**			
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Lead	ND	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories

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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B3-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:35:00 AM
Lab ID:	052935-012A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B**	BatchID: **5807**			PrepDate: **9/19/01**		Analyst: **RQ**
Chromium	ND	1.0		mg/L	10	9/24/01
Lead	3.9	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories
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Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B5-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:40:00 AM
Lab ID:	052935-014A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Lead	4.0	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B6-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:45:00 AM
Lab ID:	052935-015A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS			**WET/ EPA 6010B**			
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Chromium	ND	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Print Date: *9/24/01*

CLIENT:	Geocon Environmental	**Client Sample ID:**	B7-0
Lab Order:	052935		
Project:	Route 99 Bridges - E8000-06-69	**Collection Date:**	9/7/01 9:48:00 AM
Lab ID:	052935-016A	**Matrix:**	Soil

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS				**WET/ EPA 6010B**		
RunID: **ICP2_010924B** BatchID: **5807**				PrepDate: **9/19/01**		Analyst: **RQ**
Chromium	ND	1.0		mg/L	10	9/24/01
Lead	8.0	1.0		mg/L	10	9/24/01

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interference.
H - Samples exceeding analytical holding time
E - Value above quantitation range
M - Not Monitored. Highly Reactive

Initials: _____

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

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: GEOCON (CALTRANS)
Attn: D. WATTS
Address: 2356 RESEARCH DR.
City LIVERMORE State CA Zip Code 94550
TEL: (925) 371-5900
FAX: (925) 371-5915

Project Name: ROUTE 99 BRIDGES Project #: E8000-06-69 Sampler: (Printed Name) D. WATTS (Signature) D Watts

Relinquished by: (Signature and Printed Name) D Watts Date: 9/10/2001 Time: 1700 Received by: (Signature and Printed Name) GSO Date: 9/10/2001 Time: 1700
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) [signature] Date: 9/11/01 Time: 930
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: D. WATTS 9/7/2001
Print Name Date
D Watts
Signature

Send Report To:
Attn: D. WATTS
Co: SEE "CLIENT"
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:
SEE ATTACHED INSTRUCTIONS
DO NOT COMPOSITE SAMPLE SETS

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)

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
	52935-001/003	B19-0, B19-0.5, B19-1.5	9/7	850	✓							E	3	Brig	NA	
	-004/005	B20-0, B20-0.5		900									2			
	-006/008	B21-0, B21-0.5, B21-1.5		910									3			
	-009	B13-0		0920									1			
	-010	B1-0		0925												
	-011	B2-0		0930												
	-012	B3-0		0935												
	-013	B4-0		0937												
	-014	B5-0		0940												
	-015	B6-0		0945												

• 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

C ner T T= V= L= P= J=Ja =Ted G=G 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

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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: GEOCON (CALTRANS) Address: 2356 RESEARCH DR. TEL: (925) 371-5900
Attn: D. WATTS City LIVERMORE State CA Zip Code 94550 FAX: (925) 371-5915

Project Name: ROUTE 99 BRIDGES Project #: E8000-06-69 Sampler: (Printed Name) D. WATTS (Signature)

Relinquished by: (Signature and Printed Name)	Date: 9/10/2001	Time: 1700	Received by: (Signature and Printed Name)	Date: 9/10/2001	Time: 1700
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date: 9/11/01	Time: 930
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: D. WATTS 9/7/2001 (Print Name / Date)
Signature

Send Report To: Attn: D. WATTS Co: SEE "CLIENT" Address _____ City _____ State _____ Zip _____

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

Special Instructions/Comments: SEE PAGE 1

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

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

PRESERVATION

QA/QC: 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
	016	B7-0	9/7/01	0948	E	1	BAG	N/A	
	017	B8-0		0950					
	018	B9-0		0952					
	019	B10-0		0956					
	020	B11-0		1000					
	021	B12-0		1004					
	022	B14-0		1010					
	023	B15-0		1015					
	024	B16-0		1020					
	025	B17-0		1025					

• 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=$Na_2S_2O_3$

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Client: GEOCON (CALTRANS)
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City LIVERMORE State CA Zip Code 94550
TEL: (925) 371-5900
FAX: (925) 371-5915

Project Name: Route 99 BRIDGES Project #: E8000-06-69 Sampler: (Printed Name) D. WATTS (Signature)

Relinquished by: (Signature and Printed Name) D. WATTS Date: 9/10/2001 Time: 1700 Received by: (Signature and Printed Name) G50 Date: 9/10/2001 Time: 1200
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: 9/11/01 Time: 930
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:
D. WATTS 9/7/2001
Print Name Date
Signature

Send Report To:
Attn: D. WATTS
Co: SEE "CLIENT"
Address
City State Zip

Bill To:
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SEE PAGE 1

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

PRESERVATION

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

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	TAT	Container(s): #	Type	PRESERVATION	REMARKS
	026	B18-0	9/7/01	1030	E	1	BAG	NA	
	027	B22-0		1035					
	028	B23-0		1037					
	029	B24-0		1039					
	030	B25-0		1045					
	031	B26-0		1050					
	032	B27-0		1052					
	033	B28-0		1055					
	034	B29-0		1057					
	035	B30-0		1100					

• 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

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

Container T T= V= L= P= J= T= G=Glass P=Plastic M=Metal

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

Laboratory Analyses

- Asbestos samples will be analyzed for asbestos type and content per Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM). At the discretion of Caltrans, select bulk samples at concentrations less than 1 percent may be re-analyzed for asbestos using PLM point counting techniques. Asbestos sample groups will be analyzed to the first positive (>1%) result.

- Paint samples will be analyzed for total lead following EPA Test Method 7000.

- Soil samples will be analyzed for Title 22 (CAM 17) metals following EPA Test Methods 6010B/7471A.

  Soil samples that exhibit total metal concentrations exceeding 10 times the STLC will be analyzed using the WET procedure. If lead is the only metal showing these concentrations, the DI WET test will be conducted on all lead samples exceeding 5.0 mg/L. Any sample with a high WET value will be tested by TCLP at the written direction of the Caltrans Contract Manager.

All samples will be analyzed under a 48-hour turn-around-time (following sample submittal to the laboratory).

APPENDIX C

APPENDIX C

DESCRIPTION OF DATA SET

Rt 99 Bridges - Surface Samples - Entire Site

DATA SET STATISTICS

Number of Samples	30
Arithemetic Mean	280.3
Standard Deviation (x)	473.5
Bootstrap Estimate of Population Mean	280.1
Bootstrap Estimate of Standard Error	85.8

	90%UCL	95%UCL
Standard Bootstrap	390.1	421.2

DESCRIPTION OF DATA SET

Rt 99 Bridges - Surface Samples - Borings 1 to 18

DATA SET STATISTICS

Number of Samples	18
Arithemetic Mean	105.1
Standard Deviation (x)	58.6
Bootstrap Estimate of Population Mean	105.1
Bootstrap Estimate of Standard Error	13.5

	90%UCL	95%UCL
Standard Bootstrap	122.5	127.4

DESCRIPTION OF DATA SET

Rt 99 Bridges - Surface Samples - Borings 19 to 30

DATA SET STATISTICS

Number of Samples	12
Arithemetic Mean	543.1
Standard Deviation (x)	678.5
Bootstrap Estimate of Population Mean	540.8
Bootstrap Estimate of Standard Error	185.6

	90%UCL	95%UCL
Standard Bootstrap	778.6	846.0

DESCRIPTION OF DATA SET

Rt 99 Bridges - Surface Samples - WET Lead

DATA SET STATISTICS

Number of Samples	28
Arithemetic Mean	15.1
Standard Deviation (x)	16.3
Bootstrap Estimate of Population Mean	15.1
Bootstrap Estimate of Standard Error	3.2

	90%UCL	95%UCL
Standard Bootstrap	19.1	20.3

DESCRIPTION OF DATA SET

Rt 99 Bridges - Surface Samples - WET Lead - Borings 1 to 18

DATA SET STATISTICS

Number of Samples	16
Arithemetic Mean	5.9
Standard Deviation (x)	3.1
Bootstrap Estimate of Population Mean	5.8
Bootstrap Estimate of Standard Error	0.7

	90%UCL	95%UCL
Standard Bootstrap	6.8	7.1

DESCRIPTION OF DATA SET

Rt 99 Bridges - Surface Samples - WET Lead - Borings 19 to 30

DATA SET STATISTICS

Number of Samples	12
Arithemetic Mean	27.3
Standard Deviation (x)	18.9
Bootstrap Estimate of Population Mean	27.7
Bootstrap Estimate of Standard Error	5.1

	90%UCL	95%UCL
Standard Bootstrap	34.2	36.0