

# Appendix F

EKI - Results of Phase II Soil &  
Grab Groundwater Sampling,  
April 2010



---

# Results of Phase II Soil and Grab Groundwater Sampling

1010 to 1024 Morse Avenue  
Sunnyvale, California  
(EKI B00015.00)

April 2010

Prepared for:  
The City of Sunnyvale



---

Consulting Engineers and Scientists  
1870 Ogden Drive  
Burlingame, California 94010  
(650) 292-9100  
Fax: (650) 552-9012

9 April 2010

Mr. Manoochehr Kadkhodayan  
City of Sunnyvale  
650 West Olive Avenue  
Sunnyvale, California 94086

Subject: Results Phase II Soil and Grab Groundwater Sampling  
Fair Oaks Industrial Complex, 1010 to 1024 Morse Avenue,  
Sunnyvale, California  
(EKI B00015.00)

Dear Mr. Kadkhodayan:

Erler & Kalinowski, Inc. ("EKI") is pleased to present to the City of Sunnyvale the enclosed report entitled *Results of Phase II Soil and Grab Groundwater Sampling, Fair Oaks Industrial Complex, 1010 to 1024 Morse Avenue in Sunnyvale, California*, dated April 2010. EKI's services were performed in accordance with our Agreement with the City of Sunnyvale, dated 25 February 2010.

The enclosed report was prepared pursuant to the Agreement between EKI and the City of Sunnyvale, and, as such, is for the sole use and reliance of the City of Sunnyvale. Unless specifically authorized in writing in an agreement acceptable to EKI, the reliance on this report by any other entity is not permitted or authorized.

We are pleased to have the opportunity to work with you on this project. Please call if you have any questions or need further assistance.

Very truly yours,

ERLER & KALINOWSKI, INC.



Paul B. Hoeffy, REA II  
Project Manager



Michelle K. King, Ph.D.  
Vice President

Enclosure

cc: Kathryn Berry (City of Sunnyvale)  
Mark Rogge (City of Sunnyvale)

**REPORT OF PHASE II  
SOIL AND GRAB GROUNDWATER SAMPLING**

1010 to 1024 Morse Avenue, Sunnyvale, California

**TABLE OF CONTENTS**

1. EXECUTIVE SUMMARY .....	1
1.1. Summary of Findings and Recommendations .....	1
2. INTRODUCTION .....	3
2.1. Limitations and Exceptions of Phase II Investigation .....	3
2.2. Report Reliance.....	3
3. SITE SETTING AND LAND USE HISTORY.....	4
3.1. Site Setting.....	4
3.2. Current Site Uses .....	4
3.3. Former Site Uses and Tenants .....	5
4. PHASE II INVESTIGATIONS AND FINDINGS.....	7
4.1. Preparation for Subsurface Investigations .....	7
4.2. Investigation Methods.....	7
4.3. Analytical Results for Soil and Groundwater Samples .....	9
5. DISCUSSION OF RESULTS AND RECOMMENDATIONS .....	12
6. REFERENCES .....	14

List of Tables

Table 1:	Soil Sample Analytical Results for Organochlorine Pesticides, Lead, and Arsenic
Table 2:	Groundwater Samples Analytical Results for Petroleum Hydrocarbons
Table 3:	Groundwater Sample Analytical Results for VOCs

List of Figures

Figure 1:	Site Location Map
Figure 2:	Approximate Soil and Grab Groundwater Sample Locations

List of Attachments

Attachment A:	Copies of Soil Borehole Logs
Attachment B:	Copies of Sample Analytical Data Reports Provided by K-Prime Lab



## 1. EXECUTIVE SUMMARY

Erler & Kalinowski, Inc. ("EKI") is pleased to present to the City of Sunnyvale ("the City") this report of results of soil and grab groundwater sampling at the Fair Oaks Industrial Complex ("FOIC") located at 1010 to 1024 Morse Avenue in Sunnyvale, California (herein referred to as the "Site"; see Figure 1). EKI's services were performed in accordance with our Agreement with the City, dated 25 February 2010 ("Agreement").

The Site comprises approximately 5.3 acres and has been owned by the City since approximately 1991. The Site is leased to a number of tenants for private industrial and commercial uses, and includes four wooden-framed, single-story, multi-tenant buildings (1010 to 1016 Morse Avenue), and one concrete tilt-up building (1020 and 1024 Morse Avenue) (see Figure 2). Current and past uses have included machine shops and metal fabrication. The Site was developed initially in the mid- to late-1970s, and was part of a larger orchard prior to its current development. The City intends to demolish the existing structures and redevelop the Site into a public park.

The objectives of the Phase II investigations by EKI are to screen for the presence of chemicals of concern in soil and shallow groundwater at the Site that could potentially impact planned demolition and re-use of the Site as a public park.

EKI's Phase II investigations consisted of the following activities:

- Review of available file information at the City Building Department and City Fire Department, Hazardous Materials Division, and walk-through observations of selected current and former machine shop and fabrication tenant spaces;
- Sampling of shallow soils across the Site to screen for the presence of agricultural chemicals, e.g., pesticides, lead, arsenic, that may have been applied to the Site during its use as an orchard;
- Sampling of soils near two pad-mounted transformers on the Site to screen for the presence of polychlorinated biphenyls ("PCBs"); and
- Sampling of shallow groundwater on the Site to screen for the presence of chemicals of concern that may have been released by current and/or past industrial operations on the Site, e.g., machine shops, metal fabrication.

### 1.1. Summary of Findings and Recommendations

A summary of the findings of the Phase II investigations by EKI and recommendations is presented below:

- Based on available historical land use information reviewed by EKI, past uses of the Site have included machine shops, metal fabrication facilities, print shops, and plastics extrusion. Typical chemical use at such facilities includes petroleum hydrocarbons, e.g., hydraulic and cutting fluids, and degreasing or cleaning solvents. If released during operations, such chemicals may be present in soil beneath these former use areas, e.g., beneath concrete floor slabs, and/or along sanitary sewer or storm drain lines on the Site. During Site demolition and preparation for re-use, impacted soils encountered should be



managed in accordance with applicable laws and regulations. It is recommended that a Soil Management Plan ("SMP") be prepared in advance of Site demolition activities that would prescribe protocols for worker protection and appropriate characterization and handling of impacted soils if encountered during demolition, future grading, or other Site redevelopment activities.

- Shallow soil on the Site at the locations sampled by EKI contains certain organochlorine pesticides, e.g., DDE and DDD, at detectable concentrations. The reported concentrations, however, do not exceed potentially relevant environmental regulatory screening levels for unrestricted land use.
- Shallow soil on the Site contains lead and arsenic at concentrations above potentially relevant environmental regulatory screening criteria for unrestricted land use, and above typical background concentrations for South Bay soils. The presence of elevated lead and arsenic in soil on the Site may be due to the previous orchard use of the Site, e.g., possible application of lead-arsenate as a pesticide. Given intended future use of the Site as a public park, further assessment of the presence of lead and arsenic in soil on the Site, and/or evaluation of possible remedial alternatives appears warranted.
- Shallow soil samples collected at the base of the two pad-mounted transformers on the Site did not contain detectable levels of PCBs.
- Tetrachloroethylene ("PCE"), a common degreasing solvent, was detected in two of the five grab groundwater samples collected on the Site, at locations SU1 and SU3 (see Figure 2). The concentration of PCE in the grab groundwater sample collected from borehole SU3 exceeds its California Regional Water Quality Control Board ("RWQCB") drinking water Environmental Screening Level ("ESL") of 5 micrograms per liter ("ug/l"), but is below its non-drinking water ESL of 120 ug/l. Grab groundwater sample locations SU1 and SU3 are situated in the general downgradient direction from Site buildings 1014 and 1012 Morse Avenue (see Figure 2). Machine shops currently exist in the 1012 Morse Avenue building, and machine shops formerly existed in the 1014 Morse Avenue building. These current or past machine shops may be the source for the PCE in groundwater on the Site. It is also possible that the source for the PCE in groundwater is from an off-Site, upgradient property, e.g., south of the Site. The presence of relatively low concentrations of PCE in groundwater on the Site should not impact future redevelopment or use of the Site as a public park. During Site demolition and preparation for re-use, if soils containing PCE or other contaminants are encountered, the soils should be managed in accordance with applicable laws and regulations.



## 2. INTRODUCTION

Erler & Kalinowski, Inc. ("EKI") is pleased to present to the City of Sunnyvale ("the City") this report of results of soil and grab groundwater sampling at the Fair Oaks Industrial Complex ("FOIC") located at 1010 to 1024 Morse Avenue in Sunnyvale, California (the "Site"; see Figure 1). EKI's services were performed in accordance with our Agreement with the City, dated 25 February 2010 ("Agreement").

The Site comprises approximately 5.3 acres and has been owned by the City since approximately 1991. The Site is leased to a number of tenants for private industrial and commercial uses, and includes four wooden-framed, single-story, multi-tenant buildings (1010 to 1016 Morse Avenue), and one concrete tilt-up building (1020 and 1024 Morse Avenue) (see Figure 2). Current and past uses have included machine shops and metal fabrication. The Site was developed initially in the mid- to late-1970s, and was part of a larger orchard prior to its current development. The City intends to demolish the existing structures and redevelop the Site into a public park.

EKI collected shallow soil samples and grab samples of shallow groundwater to screen for the presence of chemicals of concern that could potentially impact planned demolition and re-use of the Site as a public park.

This Phase II investigation report is organized as follows:

- Section 1 – Executive Summary
- Section 2 – Introduction
- Section 3 – Site Setting and Land Use History
- Section 4 – Phase II Investigations and Results
- Section 5 – Discussion of Results and Recommendations

### 2.1. Limitations and Exceptions of Phase II Investigation

The conclusions and recommendations presented herein are our professional opinion and are not a warranty or guaranty as to the presence, absence, or extent of contamination at the Site or of releases from or near the Site. The facts presented herein are based on available information obtained by EKI and represent existing conditions at the Site at the time the information was collected.

### 2.2. Report Reliance

This report was prepared pursuant to EKI's Agreement with the City, dated 25 February 2010, and as such, is for the sole use and reliance of the City. Unless specifically authorized in writing in an agreement acceptable to EKI, the reliance on this report by any other entity or third party is not permitted or authorized. Reliance on the information contained in this report by any other entity or third party without written authorization by EKI does not make the third party a beneficiary to EKI's Agreement with the City. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at such third party's sole risk.



### 3. SITE SETTING AND LAND USE HISTORY

This section presents the Site setting and land use history of the Site based on information obtained by EKI.

#### 3.1. Site Setting

The Site at 1010 to 1024 Morse Avenue is located on the east side of Morse Avenue, just north of East Weddell Drive and the Hetch-Hetchy aqueduct (see Figures 1 and 2). The Site is approximately 5.3 acres in size and is identified by the following Santa Clara County Assessor's Parcel Number: APN 110-14-202. The Site is bordered to the north and east by recently-constructed residential townhome units; to the northeast by Global Crossing, a communication technology company; to the south by the Hetch-Hetchy aqueduct; and to the west by Morse Avenue and multi-family residential across Morse Avenue.

The Site is relatively flat and lies at an elevation of approximately 24 feet above mean sea level (USGS Mountain View quadrangle, 1997). The regional ground surface in the vicinity of the Site slopes gently downward to the northeast.

Based on observations made by EKI during drilling and sampling on the Site in March 2010, as part of the Phase II investigations, discussed in Section 4 below, the depth to first encountered groundwater on the Site ranges from approximately 9 to 12 feet below ground surface. Based on a review of available information for the Site and nearby properties, the direction of shallow groundwater flow is generally to the northeast.

#### 3.2. Current Site Uses

The Site is currently occupied by five commercial/industrial buildings and surrounding paved parking areas and landscaping. Four of the buildings are wooden-framed, single story, multi-tenant structures each measuring approximately 17,000 square feet in size (1010, 1012, 1014, and 1016 Morse Avenue; see Figure 2). These buildings are divided into tenant suites ranging in size from approximately 400 to 2,000 square feet. The fifth Site building at 2020 and 2024 Morse Avenue is a concrete tilt-up office/manufacturing building, measuring approximately 17,000 square feet in size, and is currently occupied by two tenants.

The majority of the current tenants on the Site are commercial tenants, e.g., offices with light storage warehousing, with limited or no chemical use or storage. Several machine shop and metal fabrication tenants that use and store chemicals currently exist on the Site (as of March 2010). These tenants are listed below; their locations shown on Figure 2:

- James Machining – 1012 Morse Avenue, Suites 10 and 11.
- Numerical Advance Machining (“NAM”) – 1012 Morse Avenue, Suite 16
- ExcelFab – 1020 Morse Avenue

According to the current property manager, Ms. Kathy Conner with GS Management Company, several machine shop tenants recently vacated the Site. These former tenants are listed below; their locations are also shown on Figure 2:



- Hoffman Machining – 1010 Morse Avenue, Suite 6
- R&R Machining – 1016 Morse Avenue, Suite 19

As part of the Phase II investigations, EKI observed the above tenant spaces. The Site buildings are constructed with slab-on-grade concrete floors. None of the tenant spaces contained floor drains or utility sinks, with the exception of the ExcelFab facility, which contained one utility sink and employee restrooms. The concrete floors of the James Machining and NAM spaces were moderately oil-stained at the base of various metal working machines. The concrete floor surfaces of the ExcelFab, Hoffman Machining, and R&R Machining spaces were relatively free of oil staining.

### 3.3. Former Site Uses and Tenants

As part of this Phase II investigation, EKI reviewed available information regarding former uses of the Site. Information sources reviewed by EKI included the following:

- Historical land use information contained in a Phase I ESA report for the Site prepared by URS, dated June 2009 (URS, 2009); and
- Publicly-available information for the Site reviewed by EKI at the City of Sunnyvale Building Department and City of Sunnyvale Fire Department, Hazardous Materials Division.

Prior to development of the Site in the mid- to late-1970s, the Site was part of a larger orchard. As presented in Section 4 below, EKI collected samples of shallow soil on the Site to screen for the presence of agricultural chemicals that may have been applied to the Site, e.g., pesticides, lead, and arsenic.

Since development of the Site, former Site tenants that may have or are reported to have stored chemicals on the Site are listed below. The approximate dates of operation, if known or reported, are also indicated below.

#### 1010 Morse Avenue

International Machine Products (1986)  
Hoffman Machining – Suite 6 (1986 through 2009)  
Econoscope – Suite 5 (1987-1992)  
Powerpoint Colorways/Fabric Banners – Suites 2 and 24 (2001-2008)

#### 1012 Morse Avenue

Services Transmachining (2001)  
Johnson & Cecil Machining – Suite 6 (1991)  
Holmes Machine (1982-1986)  
Better Plastics (1986)  
Swiss Screw Products (1986)  
Transtext Manufacturing (1982)



1012 Morse Avenue (continued)

Graph Print – Suite 4 (1989-1992)

1014 Morse Avenue

Tony's Machine Shop – Suite 3 (1986-1991)

Hybrid Machine Products (1982-1986)

AJ Machinery (1982)

Aztec Printing

Inko Industrial Corporation – Suite 22 (1989)

Xerox – Suite 13 (1986)

Technical Machining – Suite 4 (1998)

1016 Morse Avenue

Machine Service Consultants – Suite 19 (1991)

Expanding World (plastics extrusion) – Suite 21 (1988)

As presented in Section 4 below, EKI collected grab samples of shallow groundwater from boreholes placed in the inferred downgradient (i.e., northeast) direction from current and reported former industrial users of the Site to screen for the presence of chemicals of concern that may have been released from such operations.



## 4. PHASE II INVESTIGATIONS AND FINDINGS

On 10 and 15 March 2010, EKI conducted Phase II sampling investigations at the Site which consisted of the following:

- Collection of shallow soil samples at 10 locations on the Site to screen for the presence of agricultural chemicals in soil, e.g., pesticides, lead, arsenic, that may have been applied to the Site during orchard use of the Site;
- Collection of shallow soil samples at the base of two pad-mounted transformers on the Site to screen for the presence of PCBs and petroleum hydrocarbons in soil; and
- Collection of grab samples of shallow groundwater at 5 locations on the Site to screen for the presence of chemicals of concern in groundwater, e.g., petroleum and volatile organic compounds (“VOCs”), which may have originated from on-Site or off-Site areas.

A discussion of the investigation methods, analytical results of samples, and findings is presented in the following sections.

### 4.1. Preparation for Subsurface Investigations

In preparation for drilling and subsurface sampling, EKI contracted with Subdynamic Locating Services (“SLS”), a private underground utility locating service, to investigate for buried utilities at the proposed drilling locations. EKI also notified Underground Services Alert (“USA”) at least 48 hours prior to drilling, as required by law. EKI coordinated with the drilling subcontractor and analytical laboratory, and prepared a Site Health and Safety Plan (“HSP”) for EKI field personnel. No drilling permit from the Santa Clara Valley Water District (“SCVWD”) was required, given that the maximum drilling depth was not anticipated to be greater than 45 feet below ground surface.

### 4.2. Investigation Methods

The subsurface investigation methods utilized by EKI are presented below.

#### 4.2.1. Collection of Soil Samples

EKI retained WDC Exploration and Wells (“WDC”), a California-licensed driller subcontractor, to advance a total of ten (10) boreholes on the Site (labeled SU1 through SU10; see Figure 2) for purposes of collection of soil and groundwater samples. Five (5) of the boreholes intended for the collection of grab samples of shallow groundwater (labeled SU1, SU3, SU4, SU5, and SU6) were advanced to approximately 15 feet below ground surface (“bgs”) (borehole SU1 was the initial borehole, and was advanced to 20 feet bgs). The other five (5) boreholes intended for the collection of shallow soil samples only for agricultural chemicals (labeled SU2, and SU7 through SU10), were advanced to approximately 3 feet bgs by WDC personnel using a hand auger. The approximate locations of the 10 boreholes advanced on the Site are shown on Figure 2.

The collection of shallow soils on the Site for analysis for agricultural chemicals was performed in general accordance with *Interim Guidance for Sampling Agricultural Properties*



(Third Revision), prepared by the California EPA Department of Toxic Substances Control (“DTSC”), dated 7 August 2008 (“DTSC Guidance Document”). While this guidance does not apply to former agricultural sites that have been graded for development such as the Site, it provides, in EKI’s opinion, general guidance on a sampling approach for a property intended for unrestricted land use (i.e., a public park) when historical uses of agricultural chemicals and pesticides post-1950 are suspected.

The five deeper boreholes were advanced by WDC using dual-tube direct-push technology. Two discrete soil samples were collected from each of these boreholes at the approximate 6-inch to 1-foot depth interval bgs, and at the approximate 2-foot to 2.5-foot depth interval bgs. At each of the five hand-auger borehole locations, two discrete soil samples were also collected at similar depth intervals.

At each of the two pad-mounted transformers on the Site (see Figure 2), four discrete soil samples were collected at the base of each side of the concrete pad at the approximate 4-inch depth. The soil samples were collected using a pre-cleaned stainless steel trowel. As discussed further below, the discrete soil samples from each of the two transformer locations were combined by EKI personnel in the field to form two 4-point composite soil sample for laboratory analysis (soil samples labeled NTRANS and ETRANS; see Figure 2).

Following collection of the soil samples, a sample label was attached to each soil sample container. The label included a unique sample identification number, the time, and the date of when the sample was collected. The soil samples were placed in a cooler for temporary storage and transport by courier to the laboratory for chemical analysis. Chain-of-custody records were initiated to document sample handling and delivery to the analytical laboratory. Copies of the chain-of-custody records are included with the laboratory analytical reports in Attachment B of this report.

#### 4.2.2. Collection of Grab Groundwater Samples

These samples are described as “grab” groundwater samples because they were collected from temporary, open boreholes and not from completed monitoring wells, which generally provide lower turbidity water samples and more repeatable results. Grab groundwater samples are commonly obtained for screening level assessments of groundwater quality as part of Phase II site investigations, such as EKI’s investigation described herein. As such, grab groundwater sampling results are typically interpreted as an indication of occurrences of chemicals of concern, if found above screening levels at the sampled locations, and the need for further investigations, if necessary, is then evaluated.

At each of the grab groundwater sample locations, the drilling rod was advanced to approximately 3 to 6 feet below the top of first-encountered groundwater, e.g., approximately 15 feet bgs at each of the 5 sampling locations (with the exception of location SU1, where the borehole was advanced to 20 feet bgs). Upon reaching total depth in each borehole, the rod was retracted to allow groundwater to enter the borehole. Grab groundwater samples were collected from the boreholes using low-flow sampling protocols with a peristaltic pump and new PTFE (Teflon®) tubing. The groundwater samples were dispensed into laboratory-supplied sampling containers specific to the analysis requested from the laboratory.



A sample label was attached to each groundwater sample container. The label included a unique sample identification number, the time, and the date of when the sample was collected. The water samples were then placed in a cooler for temporary storage and transport by courier to the laboratory for chemical analysis. Chain-of-custody records were initiated to document sample handling and delivery to the analytical laboratory. Copies of the chain-of-custody records are included with the laboratory analytical reports in Attachment B of this report.

#### 4.2.3. Soil Lithology and Field Observations

The soil lithology at the borehole locations was logged by an EKI geologist under the supervision of a California professional geologist. An organic vapor meter (“OVM”) was used in the field to measure vapors in the headspace above the soil samples retrieved from the boreholes. Soil borehole logs are provided in Attachment A of this report.

The upper approximate 3 to 5 feet of soils on the Site consist of a dark to pale grayish-brown silty clay. Between approximately 5 feet bgs and the total depth explored by EKI, e.g., 15 to 20 feet bgs, the soils consist of silty sands and silty clays, with narrow sand lenses encountered at the approximate 6 to 8-foot depths in several of the boreholes.

During drilling, at all five deeper borehole locations, no organic vapors were detected in the headspace above soil retrieved from the boreholes using the OVM (see OVM readings on borehole logs included in Attachment A).

#### 4.2.4. Backfill of Soil Boreholes and Investigation-Derived Wastes

All soil boreholes advanced on the Site were backfilled with cement grout to the total depth of the boreholes.

All drill cuttings and decontamination water were placed in 55-gallons metal drums which were labeled, sealed, and left on the Site at a location designated by the City for temporary storage and subsequent off-site disposal. The City, as generator of the wastes, will be responsible for disposal of the investigation-derived wastes in accordance with applicable laws and regulations.

### 4.3. Analytical Results for Soil and Groundwater Samples

The soil and grab groundwater samples collected by EKI were analyzed by K-Prime, Inc., (“K-Prime”), a State of California-certified analytical laboratory. The analytical results for soil samples for agricultural chemicals, i.e., pesticides, lead, and arsenic, are summarized in Table 1. The soil sample results are reported on a dry weight basis for direct comparison to potentially relevant regulatory screening criteria. The analytical results for the grab groundwater samples for petroleum hydrocarbons and VOCs are summarized in Tables 2 and 3, respectively. Copies of the analytical laboratory reports for the soil and grab groundwater samples provided by K-Prime are included in Attachment B. The analytical results are discussed below.

As shown at the bottom of Table 1, the soil sample analytical results are compared to potentially relevant, current environmental regulatory screening levels, i.e., California Regional Water Quality Control Board (“RWQCB”), San Francisco Bay Region, Environmental Screening Levels (“ESLs”) for residential land use (RWQCB, 2008), and California Human Health Screening Levels (“CHHSLs”) for residential land use (Cal-EPA, 2005; 2009). The residential land use ESLs and CHHSLs are considered appropriate for evaluation of soil for use as a public park. The soil results for lead and arsenic in Table 1 are also compared to typical lead and arsenic concentrations in background soils in the South Bay Area (Scott, 1995).

As shown at the bottom of Tables 2 and 3, the groundwater sample analytical data are compared to RWQCB ESLs for groundwater assuming two scenarios: (1) where groundwater is considered a drinking water resource, and (2) where groundwater is considered a non-drinking water resource.

The analytical results for the soil and groundwater samples, and a discussion of the comparison of the analytical results to potentially relevant environmental regulatory screening criteria is presented below.

#### 4.3.1. Analytical Results for Soil Samples

##### 4.3.1.1. *Results of Soil Samples for Agricultural Chemicals*

Each of the discrete soil samples collected at the approximately 1-foot to 1.5-foot depth interval from each of the ten boreholes was composited at the laboratory to form five (5) two-point composite “shallow” soil samples for laboratory analysis. Each of the discrete soil samples collected at the approximate 2-foot to 2.5-foot depth interval from each of the ten boreholes was composited at the laboratory to form five (5) composite “deeper” soil samples for laboratory analysis. Thus, a total of 10 two-point composite soil samples were analyzed by K-Prime for the following constituents:

- Organochlorine pesticides using U.S. EPA Method 8081A;
- Arsenic and total lead using U.S. EPA Method 6010; and
- Percent moisture for direct comparison of the soil sample analytical results to potentially applicable regulatory screening levels.

As shown in Table 1, the pesticides 4,4'-DDE and 4,4'-DDD were detected in one half of the composite soil samples submitted for analysis. The reported concentrations of 4,4'-DDE and 4,4'-DDD, however, are well below their respective RWQCB residential ESLs and Cal EPA residential CHHSLs. No other organochlorine pesticides were detected in the soil samples above their respective laboratory reporting limits.

Total lead and arsenic were detected in all 10 composite soil samples submitted for analysis at concentrations ranging up to 166 milligrams per kilogram (“mg/kg”) for lead and up to 44.9 mg/kg for arsenic (see Table 1). The lead concentration in two of the 10 soil samples (soil samples AComp14 and AComp910) exceeds its CHHSL of 80 mg/kg. The lead concentration in three of the 10 soil samples exceeds the maximum lead concentration for typical



background South Bay Area soils of 54 mg/kg (Scott, 1995). With regard to arsenic concentrations, two soil samples (AComp 14 and AComp910) are reported to contain arsenic above the maximum arsenic concentration for typical background South Bay Area soils of 20 mg/kg.

The elevated lead and arsenic concentrations appear to be correlated, with generally higher concentrations of each constituent reported in the shallower soil samples, e.g., collected from the 1 to 1.5-foot depth interval in each borehole. The presence of elevated lead and arsenic in soil on the Site may be due to the previous agricultural (orchard) activity at the Site, e.g., application of arsenical pesticides (lead-arsenate).

#### *4.3.1.2. Results of Transformer Pad Soil Samples*

Each of the two 4-point composite soil samples collected from the base of on-Site transformers (labeled NTRAN and ETRAN) was analyzed for the following chemical constituents:

- Total extractable petroleum hydrocarbons (heavy range organics) using U.S. EPA Method 8015m (with silica gel cleanup);
- Polychlorinated biphenyls ("PCBs") using U.S. EPA Method 8082; and
- Percent moisture.

According to the analytical results, PCBs were not detected in either soil sample collected from the base of the transformer pads above the laboratory method reporting limits. Composite soil sample NTRAN was reported to contain TPH in the heavy oil range at a concentration of 17.1 mg/kg. This concentration is below its respective RWQCB residential ESL, and is not considered significant.

#### *4.3.1.3. Results of Grab Groundwater Samples*

Each of the five grab groundwater samples collected by EKI was analyzed for the following chemical constituents:

- Total petroleum hydrocarbons as gasoline using U.S. EPA Method 8015m,
- Total petroleum hydrocarbons as diesel fuel and motor oil using U.S. EPA Method 8015m (with silica gel cleanup); and
- VOCs using U.S. EPA Method 8260B, including chlorinated solvents, benzene, toluene, ethylbenzene, and xylenes ("BTEX"), and methyl-tert butyl ether ("MTBE").

As shown in Table 2, total petroleum hydrocarbons were not detected in any of the five grab groundwater samples collected from the Site above their respective laboratory method reporting limits.

With regard to VOCs, tetrachloroethylene ("PCE") was detected in two of the 5 grab groundwater samples collected by EKI. PCE was detected in grab groundwater sample SU3 at a concentration of 7.6 micrograms per liter ("ug/l") and in grab groundwater sample SU1 at a concentration of 1.02 ug/l (see sampling locations on Figure 2). The concentration of PCE



reported in grab groundwater sample SU3 exceeds its RWQCB drinking water ESL of 5 ug/l, but is below its RWQCB non-drinking water ESL of 120 ug/l.

No VOCs, including PCE, were detected in any of the other grab groundwater samples collected by EKI (see Table 3).

## 5. DISCUSSION OF RESULTS AND RECOMMENDATIONS

The following is a summary of the results of the Phase II investigations and recommendations by EKI.

- Based on available historical land use information reviewed by EKI, past uses of the Site have included machine shops, metal fabrication facilities, print shops, and plastics extrusion. Typical chemical use at such facilities includes petroleum hydrocarbons, e.g., hydraulic and cutting fluids, and degreasing or cleaning solvents. If released during operations, such chemicals may be present in soil beneath these former use areas, e.g., beneath concrete floor slabs, and/or along sanitary sewer or storm drain lines on the Site. During Site demolition and preparation for re-use, impacted soils encountered should be managed in accordance with applicable laws and regulations. It is recommended that a Soil Management Plan (“SMP”) be prepared in advance of Site demolition activities that would prescribe protocols for worker protection and appropriate characterization and handling of impacted soils if encountered during demolition, future grading, or other Site redevelopment activities.
- Shallow soil on the Site at the locations sampled by EKI contains certain organochlorine pesticides, e.g., DDE and DDD, at detectable concentrations. The reported concentrations, however, do not exceed potentially relevant environmental regulatory screening levels for unrestricted land use.
- Shallow soil on the Site contains lead and arsenic at concentrations above potentially relevant environmental regulatory screening criteria for unrestricted land use, and above typical background concentrations for South Bay soils. The presence of elevated lead and arsenic in soil on the Site may be due to the previous orchard use of the Site, e.g., possible application of lead-arsenate as a pesticide. Given intended future use of the Site as a public park, further assessment of the presence of lead and arsenic in soil on the Site, and/or evaluation of possible remedial alternatives appears warranted.
- Shallow soil samples collected at the base of the two pad-mounted transformers on the Site did not contain detectable levels of PCBs.
- PCE was detected in two of the five grab groundwater samples collected on the Site, at locations SU1 and SU3 (see Figure 2). The concentration of PCE in the grab groundwater sample collected from borehole SU3 exceeds its RWQCB drinking water ESL of 5 ug/l, but is below its non-drinking water ESL of 120 ug/l. Grab groundwater sample locations SU1 and SU3 are situated in the general downgradient direction from Site buildings 1014 and 1012 Morse Avenue (see Figure 2). Machine shops currently exist in the 1012 Morse



Avenue building, and machine shops formerly existed in the 1014 Morse Avenue building. These current or past machine shops may be the source for the PCE in groundwater on the Site. It is also possible that the source for the PCE in groundwater is from an off-Site, upgradient property, e.g., south of the Site. The presence of relatively low concentrations of PCE in groundwater on the Site should not impact future redevelopment or use of the Site as a public park. During Site demolition and preparation for re-use, if soils containing PCE or other contaminants are encountered, the soils should be managed in accordance with applicable laws and regulations.



## 6. REFERENCES

Cal EPA, 2005. *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, Table 2*, California Environmental Protection Agency ("Cal EPA"), January 2005.

Cal EPA, 2008. *Interim Guidance for Sampling Agricultural Properties (Third Revision)*, California EPA Department of Toxic Substances Control ("DTSC"), 7 August 2008.

Cal EPA, 2009. *Revised California Human Health Screening Levels for Lead*, Cal EPA, September 2009.

RWQCB, 2008. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, California Regional Water Quality Control Board ("RWQCB"), Interim Final – November 2007, Revised May 2008.

Scott, C.M. 1995. *Background Metal Concentrations in Soils in Northern Santa Clara County, California in: Recent Geological Studies in the San Francisco Bay Area*, Pacific Section of the Society of Economic Paleontologists and Mineralogists, Volume 76.

URS, 2009. *Phase I Environmental Site Assessment, Fair Oaks Industrial Complex, 1010 Morse Avenue, Sunnyvale, California*, URS Corporation, 17 June 2009.

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS FOR**  
**ORGANOCHLORINE PESTICIDES, LEAD, AND ARSENIC**

Fair Oaks Industrial Complex, 1020 to 1024 Morse Avenue, Sunnyvale, CA

Discrete Soil Sample ID	Depth Interval (in ft bgs)	Date Collected	Composite Sample ID	Analytical Results in mg/kg (dry weight)				
				4,4'-DDE	4,4'-DDD	Other Pesticides	Total Lead	Arsenic
SU1-1-1.5	1-1.5	3/15/2010	AComp14	0.336	<0.013	nd	138	44.9
SU4-0.75-1.25	0.75-1.25	3/15/2010						
SU1-2-2.5	2-2.5	3/15/2010	BComp14	0.407	<0.0128	nd	51.6	16.6
SU4-2.5-3	2.5-3	3/15/2010						
SU2-1-1.5	1-1.5	3/15/2010	AComp23	<0.0115	<0.0115	nd	13.1	3.75
SU3-1-1.5	1-1.5	3/15/2010						
SU2-2.5-3	2.5-3	3/15/2010	BComp23	<0.0116	<0.0116	nd	6.13	5.6
SU3-2.5-3	2.5-3	3/15/2010						
SU6-1-1.5	1-1.5	3/15/2010	AComp67	0.325	0.0225	nd	63.1	16.3
SU7-1-1.5	1-1.5	3/15/2010						
SU6-2.5-3	2.5-3	3/15/2010	BComp67	<0.0128	<0.0128	nd	9.56	7.42
SU7-2.5-3	2.5-3	3/15/2010						
SU5-1-1.5	1-1.5	3/15/2010	AComp58	0.0163	<0.0127	nd	14.4	10.4
SU8-1-1.5	1-1.5	3/15/2010						
SU5-2.5-3	2.5-3	3/15/2010	BComp58	<0.0125	<0.0125	nd	8.52	6.19
SU8-2.5-3	2.5-3	3/15/2010						
SU9-1-1.5	1-1.5	3/15/2010	AComp910	0.657	0.0159	nd	166	31
SU10-1-1.5	1-1.5	3/15/2010						
SU9-2.5-3	2.5-3	3/15/2010	BComp910	<0.0125	<0.0125	nd	8.82	8.54
SU10-2.5-3	2.5-3	3/15/2010						
<i>RWQCB Residential ESLs</i>				<i>1.7</i>	<i>2.4</i>	<i>na</i>	<i>200</i>	<i>0.39</i>
<i>DTSC Residential CHHSLs</i>				<i>1.6</i>	<i>2.3</i>	<i>na</i>	<i>80</i>	<i>0.07</i>
<i>Background Metals Concentrations (a)</i>				<i>na</i>	<i>na</i>	<i>na</i>	<i>54</i>	<i>20</i>

**Notes:**

RWQCB ESL = California Regional Water Quality Control Board, Region 2, Environmental Screening Level ("ESL"), Interim Final, November 2007 (Updated May 2008), Table K-1, Direct Exposure Scenario for Residential Land Use.

DTSC CHHSLs = California EPA, Department of Toxic Substances Control, California Human Health Screening Levels ("CHHSLs"), *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, January 2005 (Table 1, Residential Land Use). Lead CHHSL updated in October 2009.

(a) Background concentrations shown are the maximum detections reported by Scott (1995).

**Bold** value indicates detected concentration exceeds respective ESL, CHHSL, and/or maximum background concentration.

mg/kg = milligrams per kilogram

na = not applicable

nd = not detected above laboratory reporting limits

Organochlorine pesticides analyzed using US EPA Method 3550/8081.

Total lead and arsenic analyzed using US EPA Method 3050B/6020A.

Samples analyzed by K Prime, Inc., Santa Rosa, California.

Scott, C.M. 1995. Background Metal Concentrations in Soils in Northern Santa Clara County, California in: *Recent Geological Studies in the San Francisco Bay Area*, Pacific Section of the Society of Economic Paleontologists and Mineralogists, Volume 76.

**TABLE 2**  
**GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR**  
**PETROLEUM HYDROCARBONS**

Fair Oaks Industrial Complex, 1010 to 1024 Morse Avenue, Sunnyvale, CA

Soil Borehole ID	Grab Groundwater Sample ID	Sample Date	Analytical Results in mg/l		
			TPH as Gasoline	TPH as Diesel Fuel	TPH as Motor Oil
SU1	SU1W	3/15/2010	<0.05	<0.063	<0.063
SU3	SU3W	3/15/2010	<0.05	<0.063	<0.063
SU4	SU4W	3/15/2010	<0.05	<0.063	<0.063
SU5	SU5W	3/15/2010	<0.05	<0.063	<0.063
SU6	SU6W	3/15/2010	<0.05	<0.063	<0.063
<i>RWQCB ESLs - Non Drinking Water Resource (a)</i>			210	210	210
<i>RWQCB ESLs - Drinking Water Resource (b)</i>			100	100	100

**Abbreviations:**

<0.05 - Compound not detected at or above indicated laboratory detection limit  
 ESL - Environmental Screening Level  
 RWQCB - California Regional Water Quality Control Board  
 TPH - Total petroleum hydrocarbons  
 mg/L - Milligrams per liter

**Notes:**

TPH as Gasoline (gasoline range organics (GRO)) by U.S. EPA Method 8015B  
 TPH as Diesel Fuel (diesel range organics (DRO)) by U.S. EPA Method 8015B (with silica gel cleanup)  
 TPH as Motor Oil (heavy range organics (HRO)) by U.S. EPA Method 8015B (with silica gel cleanup)

(a) RWQCB ESL - Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board ("RWQCB"), Table F-1b, Final ESLs, Groundwater is not a current or potential drinking water resource, Interim Final - November 2007, Revised May 2008.

(b) RWQCB ESL - Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board ("RWQCB"), Table F-1a, Final ESLs, Groundwater is a current or potential drinking water resource, Interim Final - November 2007, Revised May 2008.

Grab groundwater samples analyzed by K-Prime, Inc. analytical laboratory in Santa Rosa, California.

**TABLE 3**  
**GROUNDWATER SAMPLE ANALYTICAL RESULTS FOR VOCs**  
**Fair Oaks Industrial Complex, 1010 to 1024 Morse Avenue, Sunnyvale, CA**

Soil Borehole ID	Grab Groundwater Sample ID	Sample Date	Analytical Results in Micrograms per Liter (ug/l) (a)	
			Tetrachloroethylene (PCE)	Other VOCs
SU1	SU1W	3/15/2010	1.02	nd
SU3	SU3W	3/15/2010	7.6	nd
SU4	SU4W	3/15/2010	<0.5	nd
SU5	SU5W	3/15/2010	<0.5	nd
SU6	SU6W	3/15/2010	<0.5	nd
<i>RWQCB ESLs - Non Drinking Water Resource (b)</i>			120	na
<i>RWQCB ESLs - Drinking Water Resource (c)</i>			5	na

**Abbreviations:**

<0.5 - Compound not detected at or above indicated laboratory detection limit  
 ESL - Environmental Screening Level  
 na - not applicable  
 nv - no ESL value exists for stated compound  
 RWQCB - California Regional Water Quality Control Board  
 µg/L - Micrograms per liter  
 VOCs - Volatile Organic Compounds using U.S. EPA Method 5030/8260B.

**Notes:**

- (a) No other VOCs were detected in grab groundwater samples above their respective laboratory reporting limits (see analytical laboratory data reports in Attachments).
- (b) RWQCB ESL - Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, Groundwater Screening Levels, Table F-1b, Groundwater is not a current or potential drinking water resource, Interim Final – November 2007, Revised May 2008.
- (c) RWQCB ESL - Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board, Groundwater Screening Levels, Table F-1a, Groundwater is a current or potential drinking water resource, Interim Final – November 2007, Revised May 2008.

Grab groundwater samples analyzed by K-Prime, Inc. analytical laboratory in Santa Rosa, California.



Reference: Google Earth Pro; Imagery date June 30, 2007.

**Notes:**

1. All locations are approximate.

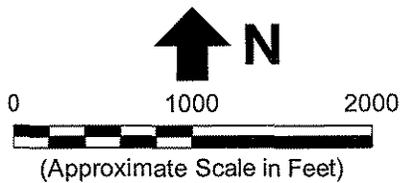
**Erler &  
Kalinowski, Inc.**

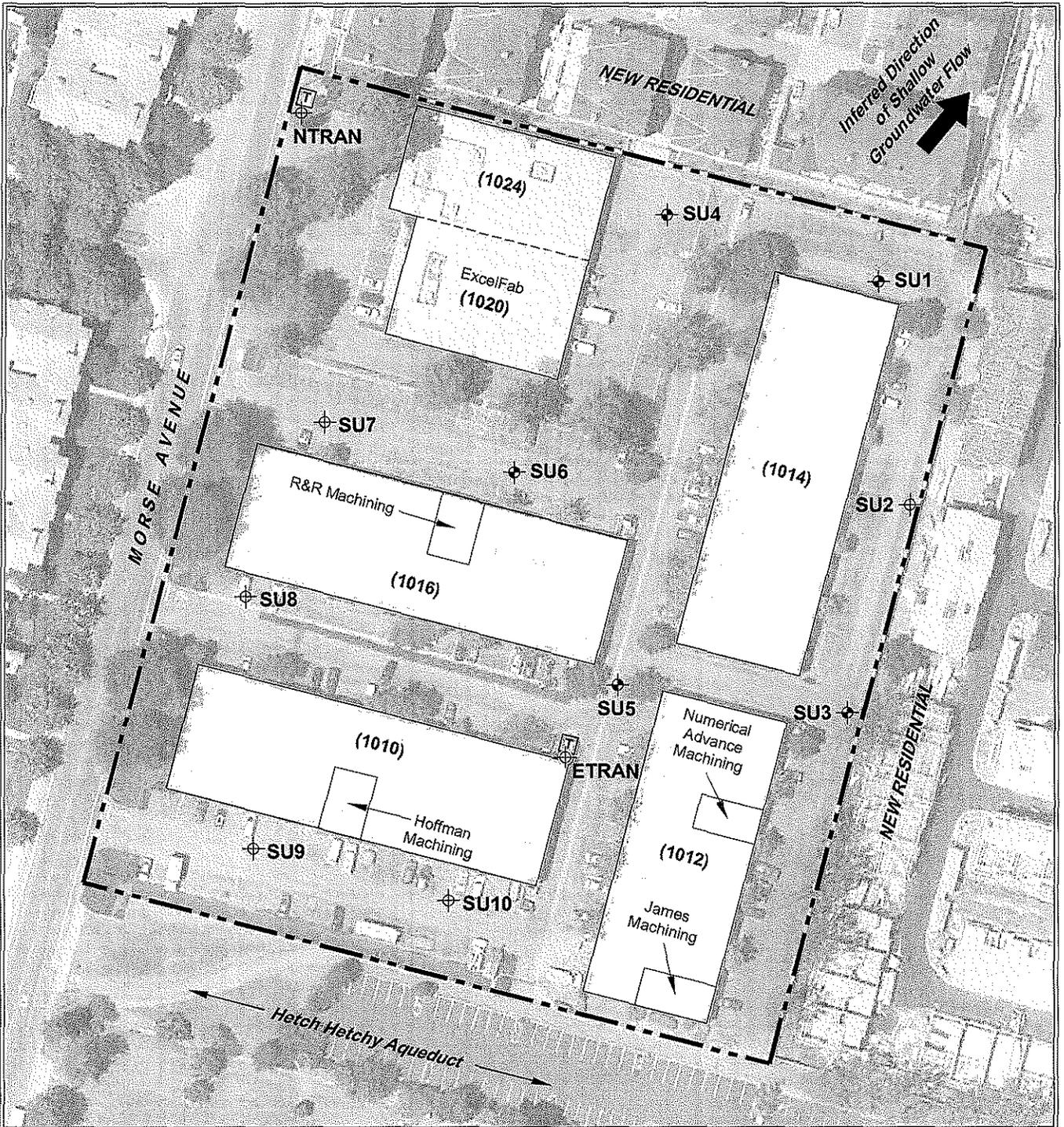
Site Location Map

1010 - 1024 Morse Avenue  
Sunnyvale, CA

April 2010  
EKI B00015.00

Figure 1





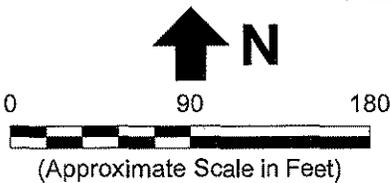
Reference: Google Earth Pro; Imagery date June 30, 2007.

**Legend:**

- Approximate Site Boundary
- Soil and Grab Groundwater Sample Borehole
- Soil Sample Borehole
- Pad-Mounted Transformer
- (1010)** Building Street Address

**Notes:**

1. All locations are approximate.



**Erler & Kalinowski, Inc.**

Approximate Soil and Grab Groundwater Sample Locations

1010 - 1024 Morse Avenue  
Sunnyvale, CA

April 2010  
EKI B00015.00

**Figure 2**

G:\B00015\_00\_03\_2010\Figures 2.dwg 3/17/10



**Attachment A:  
Copies of Soil Borehole Logs**

**Borehole & Well Construction Log**

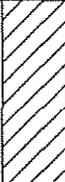
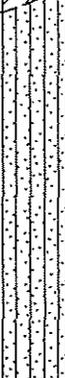
BOREHOLE LOCATION 1010-1024 Morse Avenue			BOREHOLE / WELL NAME SU1		
DRILLING COMPANY Water Development Corporation, C-57 Lic. # 283326			PROJECT NAME Sunnyvale		
DRILLING METHOD Hand Auger/Geoprobe			PROJECT NUMBER B00015.00		
CONDUCTOR CASING	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	DATE COMPLETED
BLANK CASING	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)	TOTAL DEPTH (feet)
PERFORATED CASING	DIAMETER (inches)	FROM (feet)	TO	DATUM mean sea level NGVD 1929	
GROUT		FROM (feet)	TO	TOP OF CASING	GROUND SURFACE
SEAL		FROM (feet)	TO	LOGGED BY Jessica Fadde	
FILTER PACK		FROM (feet)	TO	CHECKED BY Bruce Castle, PG #6082	

REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
							ASPHALT/BASEROCK; 6" asphalt/concrete, 6" baserock			
09:25	SU1-1-1.5	∩			0	1	SILTY CLAY; black(2.5Y 2.5/1); high plasticity; soft	CL/ML		
09:32	SU1-2-2.5	∩			0	2				
						3				
						4	very dark grayish brown (2.5Y 3/2); soft; moist			
						5	very dark grayish brown (10YR 3/2); soft			
						6				
						7	pale brown (10YR 6/3); low plasticity; soft; more silt than clay; fizzes with HCl			
			4.5			8	SILTY SAND; light olive brown (2.5Y 5/4); 60-70% fine grained sand; 30-40% silt; firm; moist to wet	SM		
						9	CLAY; light yellowish brown (2.5Y 6/4) mottled with yellowish brown (10YR 5/6); 10% fine to medium gravel; gravel up to 1"; low plasticity; hard; dry; rootholes	CL		

1-EKI STD - BH AND MW LOG, SUNNYVALE-B00015.GPJ, EKI, V5, SGT, 3/28/10

# Borehole & Well Construction Log

PROJECT NAME		PROJECT NUMBER		BOREHOLE / WELL NAME						
Sunnyvale		B00015.00		SU1						
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)					DEPTH (feet)
			4			11 0	firm; moist to wet	CL		
						12 0	<u>SANDY SILT</u> ; light olive brown (2.5Y 5/4); 20-30% fine to coarse grained sand; 70-80% silt; soft	ML		
						13 0				
						14 0	<u>CLAY</u> ; grayish brown (2.5Y 5/2); hard; dry	CL		
						15 0	<u>SILTY SAND</u> ; light olive brown (2.5Y 5/4); 60-70% fine to coarse grained sand; 30-40% silt; firm	SM		
						16 0	moist to wet			
						17 0	soft			
			4.5			18 0				
						19 0	<u>CLAY</u> ; yellowish brown (10YR 5/4); dry to moist hard	CL		
						20	Total Depth of Borehole = 20 feet.			
						21				
						22				
						23				
						24				
						25				

1-EKI STD - BH AND MW LOG - SUNNYVALE-B00015.GPJ EKIIF\_V5.GDT 3/26/10

### Borehole & Well Construction Log

BOREHOLE LOCATION 1010-1024 Morse Avenue			BOREHOLE / WELL NAME SU3			
DRILLING COMPANY Water Development Corporation, C-57 Lic. # 283326			PROJECT NAME Sunnyvale			
DRILLING METHOD Hand Auger/Geoprobe			PROJECT NUMBER B00015.00			
CONDUCTOR CASING	DIAMETER (inches)	FROM (feet) TO	DATE STARTED	3/15/10	DATE COMPLETED	3/15/10
BLANK CASING	DIAMETER (inches)	FROM (feet) TO	BOREHOLE DIAM (inches)	2.0	TOTAL DEPTH (feet)	15
PERFORATED CASING	DIAMETER (inches)	FROM (feet) TO	DATUM mean sea level NGVD 1929			
GROUT		FROM (feet) TO	TOP OF CASING	GROUND SURFACE		
SEAL		FROM (feet) TO	LOGGED BY Jessica Fadde			
FILTER PACK		FROM (feet) TO	CHECKED BY Bruce Castle, PG #6082			

REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
11:00	SU3-1-1.5	∩			0	1	ASPHALT/BASEROCK: 6" asphalt/concrete, 6" baserock			
						2	SAND WITH SILT AND GRAVEL: dark brown (10YR 3/3); loose	SW-SM		
11:10	SU3-2-5.3	∩			0	3	SILTY CLAY: black(2.5Y 2.5/1)	CL/ML		
						4				
						5	CLAY WITH SAND: light olive brown (2.5Y 5/4); 10-15% fine to medium gravel; 10-15% fine to medium grained sand; 70-80% clay; hard; dry; rootlets; dessicated clay unit; stacked coin look, 3cm thick each; fizzes in HCL.	CL		
						6	SAND WITH GRAVEL: 20-30% fine to coarse gravel; 70-80% fine to coarse grained sand; loose; dry	SW		
			4		0	7				
						8	SILTY CLAY: yellowish brown (10YR 5/4); 5% fine gravel; firm; dry; rootlets	CL/ML		
						9	no gravel; some gleying at 9 feet; no odor			

1-EKI STD - BH AND MW LOG SUNNYVALE-B00015.GPJ EKI V5.GDT 3/26/10

**Borehole & Well Construction Log**

PROJECT NAME		PROJECT NUMBER		BOREHOLE / WELL NAME					
Sunnyvale		B00015.00		SU3					
SAMPLES						USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)				DEPTH (feet)
			3.75			11	SILTY SAND; 75-85% fine to medium grained sand; 15-25% silt; soft; wet; no gleying	CL/ML	
						12	SILTY CLAY; firm; moist; more silt than clay; some gleying to 13 feet; no odor	SM	
						13	hard; dry; more clay than silt	CL/ML	
						14			
						15	Total Depth of Borehole = 15 feet.		
						16			
						17			
						18			
						19			
						20			
						21			
						22			
						23			
						24			
						25			

1-EKI STD - BH AND MW LOG SUNNYVALE-B00015.GPJ EKI\_V5.GDT 3/26/00

**Borehole & Well Construction Log**

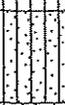
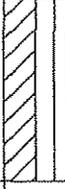
BOREHOLE LOCATION 1010-1024 Morse Avenue			BOREHOLE / WELL NAME SU4		
DRILLING COMPANY Water Development Corporation, C-57 Lic. # 283326			PROJECT NAME Sunnyvale		
DRILLING METHOD Hand Auger/Geoprobe			PROJECT NUMBER B00015.00		
CONDUCTOR CASING	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	DATE COMPLETED
BLANK CASING	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)	TOTAL DEPTH (feet)
PERFORATED CASING	DIAMETER (inches)	FROM (feet)	TO	DATUM mean sea level NGVD 1929	
GROUT		FROM (feet)	TO	TOP OF CASING	GROUND SURFACE
SEAL		FROM (feet)	TO	LOGGED BY Jessica Fadde	
FILTER PACK		FROM (feet)	TO	CHECKED BY Bruce Castle, PG #6082	

REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
							ASPHALT/BASEROCK; 3" asphalt/concrete, 6" baserock			
11:48	SU4-0.75-1.25	∩			0	1	SILTY CLAY; black(2.5Y 2.5/1)	CL/ML		
11:53	SU4-2.5-3	∩			0	3				
						4				
						5	SILTY SAND; light olive brown (2.5Y 5/4); 5-10% fine to coarse gravel; 70-80% fine to coarse grained sand; 15-20% silt; medium dense; dry to moist; fizzes in HCl to 11 feet bgs	SM		
						6				
						7	70-80% fine to coarse grained sand; 20-30% silt; loose			
			4.5			0	SAND; 95% fine to medium grained sand; 5% silt	SP		
						0	SILTY SAND; 70-80% fine to coarse grained sand; 20-30% silt	SM		
						0				
						0	SANDY SILT; 5-10% fine gravel; 25-30% fine to coarse grained sand; 60-70% silt; firm; moist	ML		
						0	hard			

1-EKJ STD - BH AND MW LOG SUNNYVALE-B00015.GPJ EKJF V5.GDT 3/26/10

# Borehole & Well Construction Log

PROJECT NAME		PROJECT NUMBER		BOREHOLE / WELL NAME					
Sunnyvale		B00015.00		SU4					
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)				
			5			11 0	mottled with dark yellowish brown (10YR 3/4); some gleying to 13.5 feet bgs; no odor; firm; roots	ML	
						12 0	<u>SILTY SAND</u> ; 85-90% fine to medium grained sand; 10-15% silt; loose; wet	SM	
						13 0	<u>SILTY CLAY</u> mottled with olive (5Y 5/3); hard; dry to moist	CL/ML	
						14 0			
						15	Total Depth of Borehole = 15 feet.		
						16			
						17			
						18			
						19			
						20			
						21			
						22			
						23			
						24			
						25			

1-EKI STD - BH AND MW LOG SUNNYVALE-B00015.GPJ EKIF\_V5.GDT 3/26/10

### Borehole & Well Construction Log

BOREHOLE LOCATION 1010-1024 Morse Avenue			BOREHOLE/ WELL NAME SU5		
DRILLING COMPANY Water Development Corporation, C-57 Lic. # 283326			PROJECT NAME Sunnyvale		
DRILLING METHOD Hand Auger/Geoprobe			PROJECT NUMBER B00015.00		
CONDUCTOR CASING	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	DATE COMPLETED
BLANK CASING	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)	TOTAL DEPTH (feet)
PERFORATED CASING	DIAMETER (inches)	FROM (feet)	TO	DATUM mean sea level NGVD 1929	
GROUT		FROM (feet)	TO	TOP OF CASING	GROUND SURFACE
SEAL		FROM (feet)	TO	LOGGED BY Jessica Fadde	
FILTER PACK		FROM (feet)	TO	CHECKED BY Bruce Castle, PG #6082	

REMARKS

SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)				
13:15	SU5-1-1.5	∩			0	1	ASPHALT/BASEROCK; 3" asphalt/concrete, 6" baserock			
						2	CLAY; black(2.5Y 2.5/1)	CL		
13:20	SU5-2.5-3	∩			0	3				
						4				
						5	SILT WITH SAND; light olive brown (2.5Y 5/4); 5% fine to medium gravel; 15-20% fine to coarse grained sand; 75-80% silt; firm; dry to moist	ML		
						6	25-30% fine to medium grained sand; 70-75% silt; soft; moist			
			4.5			7	SAND; 95% fine to coarse grained sand; 5% silt; loose; moist; sand from 6.75 to 7 feet bgs SILT WITH SAND; 20-25% fine to coarse grained sand; 75-80% silt	SW ML		
						8	firm			
						9	hard; looks dessicated, like stacked coins from approximately 9-10 feet			

1-EKI STD.-BH AND MW LOG SUNNYVALE-B00015.GPJ EKI V5.GDT 3/26/10

# Borehole & Well Construction Log

PROJECT NAME		PROJECT NUMBER		BOREHOLE / WELL NAME					
Sunnyvale		B00015.00		SU5					
SAMPLES						MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)				
			5			11	5-10% fine gravel; 15-20% fine to coarse grained sand; 70-80% silt; firm; moist	ML	
						12	light olive brown (2.5Y 5/4); mottled with very dark gray (2.5Y 3/1) and olive gray (5Y 5/2)		
						13	SILTY SAND; 80-90% fine to medium grained sand; 10-20% silt; loose; soft; wet; roots	SM	
						14	5-10% fine to coarse gravel; 60-70% fine to coarse grained sand; 20-30% silt; loose to medium dense; soft; moist to wet		
						15	Total Depth of Borehole = 15 feet.		
						16			
						17			
						18			
						19			
						20			
						21			
						22			
						23			
						24			
						25			

1-EKI-STD - BH AND MW LOG - SUNNYVALE-B00015.GPJ - EKIF - V5.GDT - 3/26/10

**Borehole & Well Construction Log**

BOREHOLE LOCATION 1010-1024 Morse Avenue			BOREHOLE / WELL NAME SU6		
DRILLING COMPANY Water Development Corporation, C-57 Lic. # 283326			PROJECT NAME Sunnyvale		
DRILLING METHOD Hand Auger/Geoprobe			PROJECT NUMBER B00015.00		
CONDUCTOR CASING	DIAMETER (inches)	FROM (feet)	TO	DATE STARTED	DATE COMPLETED
BLANK CASING	DIAMETER (inches)	FROM (feet)	TO	BOREHOLE DIAM (inches)	TOTAL DEPTH (feet)
PERFORATED CASING	DIAMETER (inches)	FROM (feet)	TO	DATUM mean sea level NGVD 1929	
GROUT		FROM (feet)	TO	TOP OF CASING	GROUND SURFACE
SEAL		FROM (feet)	TO	LOGGED BY Jessica Fadde	
FILTER PACK		FROM (feet)	TO	CHECKED BY Bruce Castle, PG #6082	

REMARKS

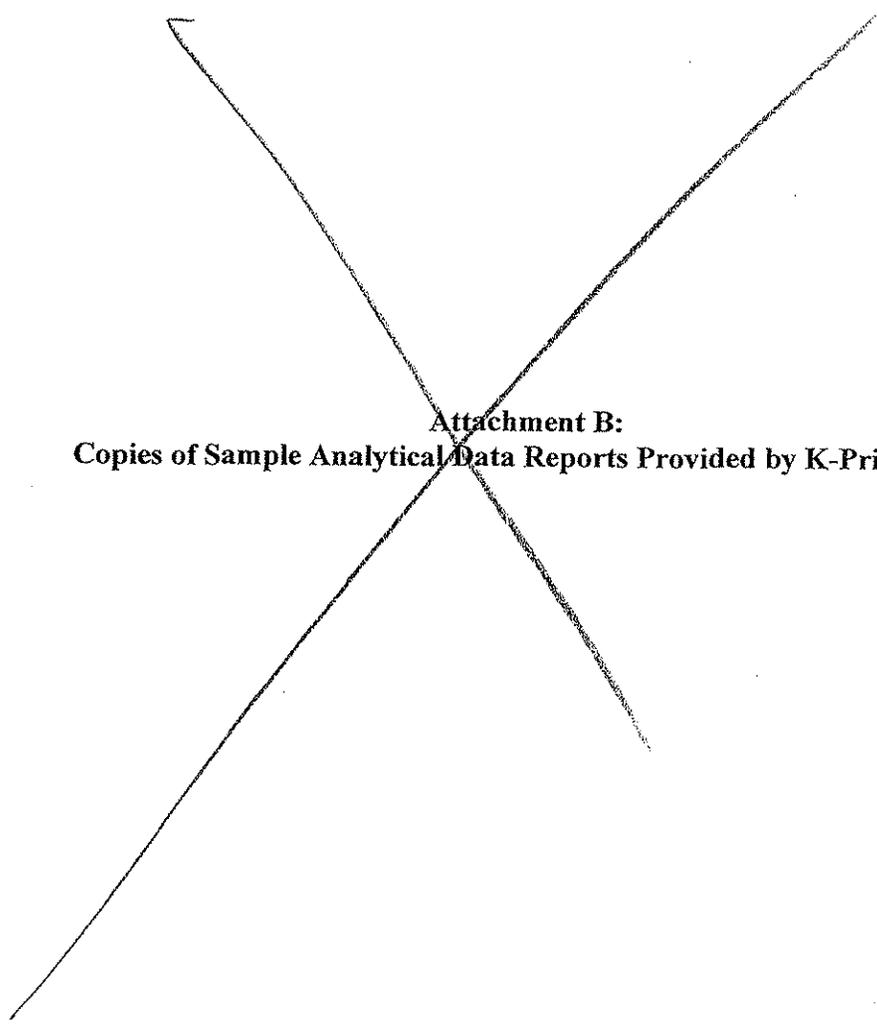
SAMPLES							MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION
TIME COLLECTED	SAMPLE NAME	SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OMV (ppmv)	DEPTH (feet)				
14:00	SU6-1-1.5	∅			0	1	ASPHALT/BASEROCK; 3" Asphalt/Concrete, 6" Baserock			
						2	CLAY; black(2.5Y 2.5/1)	CL		
14:10	SU6-2.5-3	∅			0	3				
						4				
						5	SILTY CLAY; very dark grayish brown (2.5Y 3/2) mottled with light yellowish brown (2.5Y 6/4); hard; dry	CL/ML		
			5			6				
						7	light yellowish brown (2.5Y 6/4); more silt than clay; firm; dry to moist; trace fine to medium gravel			
						8				
						9	light olive brown (2.5Y 5/4); 5-10% ; soft; moist			
							no gravel			

1-EKI STD - BH AND MW LOG - SUNNYVALE-B00015.GPJ\_EKIF\_V5.GDT\_3/28/10

# Borehole & Well Construction Log

PROJECT NAME		Sunnyvale		PROJECT NUMBER		B00015.00		BOREHOLE / WELL NAME		SU6	
TIME COLLECTED	SAMPLE NAME	SAMPLES					MATERIAL DESCRIPTION AND DRILLING NOTES	USCS CODE	GRAPHIC LOG	WELL CONSTRUCTION	
		SAMPLE TYPE	RECOVERY (feet)	BLOW COUNT	OVM (ppmv)	DEPTH (feet)					
			5			11	low plasticity; firm; moist	CL/ML			
						0	<u>SILTY SAND</u> ; 60-70% fine grained sand; 30-40% silt; low plasticity; soft; wet	SM			
						0	<u>SILTY CLAY</u> ; light olive brown (2.5Y 5/4) mottled with olive gray(5Y 5/2); medium plasticity; firm; wet; roots	CL/ML			
						0	<u>SILTY SAND</u> ; 80-90% fine grained sand; 10-20% silt; low plasticity; soft; wet	SM			
						0					
						15	Total Depth of Borehole = 15 feet.				
						16					
						17					
						18					
						19					
						20					
						21					
						22					
						23					
						24					
						25					

1-EKJ STD - BH AND MW LOG SUNNYVALE-B00015.GPJ EKJF\_V5.GDT 3/26/10



**Attachment B:  
Copies of Sample Analytical Data Reports Provided by K-Prime Lab**



**Attachment B:  
Copies of Sample Analytical Data Reports Provided by K-Prime Lab**

# K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.  
Santa Rosa CA 95403  
Phone: 707 527 7574  
FAX: 707 527 7879

## TRANSMITTAL

**DATE:** 3/29/2010

**TO:** MR. PAUL HOFFEY  
MS. CINDY CHENG  
MR. LOGAN HANSEN  
MS. JESSICA FADDE  
ERLER & KALINOWSKI, INC.  
1870 OGDEN DRIVE  
BURLINGAME, CA 94010

**ACCT:** 9115  
**PROJ:** B00015.00

Phone: 650-292-9100 303-796-0556  
Fax: 650-552-9012 303-796-0546  
Email: phoffey@ekiconsult.com  
ccheng@ekiconsult.com  
lohansen@ekiconsult.com  
jfadde@ekiconsult.com

**FROM:** Richard A. Kagel, Ph.D.  
Laboratory Director

*RAK mar  
3/29/2010*

**SUBJECT:** LABORATORY RESULTS FOR YOUR PROJECT B00015.00

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
NTRAN	SOIL	03/10/10	14:30	82168
ETRAN	SOIL	03/10/10	14:45	82169

The above listed sample group was received on 03/15/10 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.  
Thank you for this opportunity to be of service.



**K PRIME, INC.**  
LABORATORY REPORT

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE ID: ETRAN  
LAB NO: 82169  
DATE SAMPLED: 03/10/10  
TIME SAMPLED: 14:45  
BATCH #: 032410S01  
DATE EXTRACTED: 3/24/2010  
DATE ANALYZED: 3/25/2010

METHOD: POLYCHLORINATED BIPHENYLS  
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL  
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	127	ND
AROCLOR 1221	11104-28-2	127	ND
AROCLOR 1232	11141-16-5	127	ND
AROCLOR 1242	53469-21-9	127	ND
AROCLOR 1248	12672-29-6	127	ND
AROCLOR 1254	11097-69-1	127	ND
AROCLOR 1260	11096-82-5	127	ND

SURROGATE RECOVERY	%
TCMX	102
DCBP	91

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:                       
DATE:                     

*CA*  
3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**METHOD: DRO - DRY WEIGHT**  
**REFERENCE: EPA 8015B**

**SAMPLE TYPE: SOIL**  
**UNITS: mg/Kg**

SAMPLE ID	LAB NO.	DATE SAMPLED	BATCH ID	EXTRACT DATE	DATE ANALYZED	MRL	SAMPLE CONC	DRO PATTERN
NTRAN	82168	03/10/10	032210S1	03/24/10	03/25/10	12.4	ND	
ETRAN	82169	03/10/10	032210S1	03/24/10	03/25/10	12.7	ND	

**NOTES:**

DRO Diesel Range Organics (C12-C23) with Silica Gel Cleanup  
ND Not Detected at or above the stated MRL  
NA Not Applicable or Available  
MRL Method Reporting Limit  
AD Typical Pattern for Diesel  
AM Hydrocarbon response is in the C12-C22 range  
AC Heavier hydrocarbons contributing to diesel range quantitation  
AJ Heavier hydrocarbon than diesel  
AK Lighter hydrocarbon than diesel  
AE Unknown hydrocarbon with a single peak  
AN Unknown hydrocarbon with several peaks

APPROVED BY:           *ch*            
DATE:           3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**METHOD: HRO - DRY WEIGHT**  
**REFERENCE: EPA 8015B**

**SAMPLE TYPE: SOIL**  
**UNITS: mg/Kg**

SAMPLE ID	LAB NO.	DATE SAMPLED	BATCH ID	EXTRACT DATE	DATE ANALYZED	MRL	SAMPLE CONC	HRO PATTERN
NTRAN	82168	03/10/10	032210S1	03/24/10	03/25/10	12.4	17.1	
ETRAN	82169	03/10/10	032210S1	03/24/10	03/25/10	12.7	ND	

**NOTES:**

HRO Heavy Range Organics (C24-C34) with Silica Gel Cleanup  
ND Not Detected at or above the stated MRL  
NA Not Applicable or Available  
MRL Method Reporting Limit  
AE Unknown hydrocarbon with a single peak  
AN Unknown hydrocarbon with several peaks

APPROVED BY:                       
DATE:           3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

**METHOD: PERCENT MOISTURE**  
**REFERENCE: ASTM D 2216-05**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**SAMPLE TYPE: SOIL**  
**UNITS: %**

SAMPLE ID	LAB ID #	DATE SAMPLED	TIME SAMPLED	BATCH ID	DATE ANALYZED	MRL	SAMPLE CONC
NTRAN	82168	3/10/2010	14:30	032510S1	3/25/2010	0.10	19.3
ETRAN	82169	3/10/2010	14:45	032510S1	3/25/2010	0.10	21.3

**NOTES:**

**ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT**  
**NA - NOT AVAILABLE OR APPLICABLE**  
**MRL - METHOD REPORTING LIMIT**

**APPROVED BY:** ch  
**DATE:** 3/29/2010

K PRIME, INC.  
LABORATORY QC REPORT

METHOD BLANK ID: B03241001  
BATCH #: 032410S01  
DATE EXTRACTED: 3/24/2010  
DATE ANALYZED: 3/25/2010

METHOD: POLYCHLORINATED BIPHENYLS  
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL  
UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
AROCLOR 1016	12674-11-2	100	ND
AROCLOR 1221	11104-28-2	100	ND
AROCLOR 1232	11141-16-5	100	ND
AROCLOR 1242	53469-21-9	100	ND
AROCLOR 1248	12672-29-6	100	ND
AROCLOR 1254	11097-69-1	100	ND
AROCLOR 1260	11096-82-5	100	ND

SURROGATE RECOVERY	%
TCMX	100
DCBP	92

NOTES:

ND - NOT DETECTED ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

**K PRIME, INC.**  
LABORATORY QC REPORT

SAMPLE ID: L03241001  
DUPLICATE ID: D03241001  
BATCH #: 032410S01  
DATE EXTRACTED: 3/24/2009  
DATE ANALYZED: 3/25/2010

METHOD: POLYCHLORINATED BIPHENYLS  
REFERENCE: EPA 3550/8082

SAMPLE TYPE: SOIL  
UNITS: ug/Kg

**ACCURACY (MATRIX SPIKE)**

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
AROCLOR 1260	2500	ND	2190	88	60-140

**PRECISION (SPIKE DUPLICATE)**

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
AROCLOR 1260	100	2190	2110	3.7	±20

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

**K PRIME, INC.**  
**LABORATORY QUALITY CONTROL REPORT**

BATCH ID: 032210S1  
 DATE EXTRACTED: 3/22/2010  
 DATE ANALYZED: 3/23/2010

METHOD: DRO  
 REFERENCE: EPA 8015B

SAMPLE TYPE: SOIL  
 UNITS: mg/Kg

METHOD BLANK ID: B032210S1

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
DRO	10.0	ND

SAMPLE ID: L032210S1  
 DUPLICATE ID: D032210S1

**ACCURACY (MATRIX SPIKE)**

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
DRO	500	ND	426	85	60-140

**PRECISION (SPIKE DUPLICATE)**

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
DRO	10.0	426	480	12	±20

**NOTES:**

DRO - DIESEL RANGE ORGANICS (C12-C34)  
 ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
 NA - NOT APPLICABLE OR AVAILABLE

**K PRIME, INC.**  
**LABORATORY BATCH QC REPORT**

**METHOD:** PERCENT MOISTURE  
**REFERENCE:** ASTM D 2216-05  
**BATCH ID:** 032510S1  
**SAMPLE TYPE:** SOIL  
**UNITS:** %

**PRECISION (DUPLICATE)**                      **SAMPLE ID:** 82169  
**DUPLICATE ID:** 82169DUP

<b>ANALYTE</b>	<b>REPORTING LIMIT</b>	<b>PRIMARY RESULT</b>	<b>DUPLICATE RESULT</b>	<b>RPD (%)</b>
% MOISTURE	0.10	21.3	21.5	0.9

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT APPLICABLE  
RPD - RELATIVE PERCENT DIFFERENCE

# CHAIN OF CUSTODY RECORD

CONSULTING ENGINEERS AND SCIENTISTS

1870 Ogden Drive, Burlingame CA 94010

PHONE: 650-292-9100

FAX: 650-552-9012

<b>Project Name</b> Sunnyvale-Morse Ave			<b>Project No.</b> B00015.00			<b>ANALYSES REQUESTED</b>				<b>EKI COC No.:</b> (YYYYMMDD-W) S 20100315-2		
<b>Location:</b> 1010 - 1024 Morse Ave, Sunnyvale, CA			<b>Sampled By:</b> L. Hansen, J. Fadde			<b>Method No.</b> EPA 8082 EPA 8015M EPA 8630	<b>Analyte Group</b> PCBs TPH-Heavy Range Organics w/ silica gel cleanup Percent Moisture	PLACE ON HOLD	Revision: _____ (A, B, C, D, etc.)		Date: _____ By: _____	
<b>Reporting:</b> Electronic Format: None      Hard Copy Format: PDF EPA Data Report Level: II Please report results to the following: (1) Paul Hoeffy: phoeffy@ekiconsult.com (2) Cindy Cheng: ccheng@ekiconsult.com (3) Logan Hansen: lohansen@ekiconsult.com (4) Jessica Fadde: jfadde@ekiconsult.com			<b>Laboratory:</b> K Prime, Inc. 3621 Westwind Blvd San Rafael, CA 95403 (707) 527-7574						<b>EXPECTED TURNAROUND TIME</b>		<b>REMARKS</b>	
Field Sample Identification	Lab Sample No.	Date	Time	Matrix	Number / Type of Container (Preservative)							
NTran	82168	3-10-10	1430	Soil	1 Jar	X	X	X			STD	
ETran	82169	3-10-10	1445	Soil	1 Jar	X	X	X			STD	

**Special Instructions:** Please report all results on a dry weight basis. Temperature Blank included.

<b>Relinquished by:</b> 	<b>(Signature/Affiliation)</b> ERI	<b>Date</b> 3-10-10	<b>Time</b> 1700	<b>Received by:</b> ERI Sample Refrigerator	<b>(Signature/Affiliation or Carrier/Air Bill No.)</b>
<b>Relinquished by:</b> 	<b>(Signature/Affiliation)</b> ERI	<b>Date</b> 3-15-10	<b>Time</b> 1700	<b>Received by:</b> Ghol (VTC) 3/15/10 5:10	<b>(Signature/Affiliation)</b>
<b>Relinquished by:</b> 	<b>(Signature/Affiliation)</b> ERI	<b>Date</b>	<b>Time</b>	<b>Received by:</b> Sam Herravet 3/15/10 20:06	<b>(Signature/Affiliation)</b>

# K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.  
Santa Rosa CA 95403  
Phone: 707 527 7574  
FAX: 707 527 7879

## TRANSMITTAL

**DATE:** 3/29/2010

**TO:** MR. PAUL HOFFEY  
MS. CINDY CHENG  
MR. LOGAN HANSEN  
MS. JESSICA FADDE  
ERLER & KALINOWSKI, INC.  
1870 OGDEN DRIVE  
BURLINGAME, CA 94010

**ACCT:** 9115  
**PROJ:** B00015.00

Phone: 650-292-9100 303-796-0556  
Fax: 650-552-9012 303-796-0546  
Email: phoffey@ekiconsult.com  
ccheng@ekiconsult.com  
lohansen@ekiconsult.com  
jfadde@ekiconsult.com

**FROM:** Richard A. Kagel, Ph.D.  
Laboratory Director

*RAKman  
3/29/2010*

**SUBJECT:** LABORATORY RESULTS FOR YOUR PROJECT B00015.00

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
SU1W	WATER	03/15/10	12:30	82170
SU3W	WATER	03/15/10	15:50	82171
SU4W	WATER	03/15/10	15:15	82172
SU5W	WATER	03/15/10	15:35	82173
SU6W	WATER	03/15/10	16:30	82174

The above listed sample group was received on 03/15/10 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.  
Thank you for this opportunity to be of service.

**K PRIME, INC.**  
**LABORATORY REPORT**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**METHOD: GRO-GASOLINE RANGE ORGANICS**  
**REFERENCE: EPA 8015B**

**SAMPLE TYPE: WATER**  
**UNITS: mg/L**

SAMPLE ID	LAB NO.	DATE	TIME	BATCH ID	DATE	MRL	SAMPLE CONC	GRO PATTERN
		SAMPLED	SAMPLED		ANALYZED			
SU1W	82170	3/15/2010	12:30	031610W1	3/16/2010	0.050	ND	
SU3W	82171	3/15/2010	15:50	031610W1	3/16/2010	0.050	ND	
SU4W	82172	3/15/2010	15:15	031610W1	3/16/2010	0.050	ND	
SU5W	82173	3/15/2010	15:35	031610W1	3/16/2010	0.050	ND	
SU6W	82174	3/15/2010	16:30	031610W1	3/16/2010	0.050	ND	

**NOTES:**

- ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT
- NA - NOT APPLICABLE OR AVAILABLE
- MRL - METHOD REPORTING LIMIT
- AE - UNKNOWN HYDROCARBON WITH A SINGLE PEAK
- AN - UNKNOWN HYDROCARBON WITH SEVERAL PEAKS
- AS - HEAVIER HYDROCARBON THAN GASOLINE CONTRIBUTING TO GRO VALUE
- CO - HYDROCARBON RESPONSE IN GASOLINE RANGE BUT DOES NOT RESEMBLE GASOLINE

APPROVED BY:                     *CD*                      
DATE:                     3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

K PRIME PROJECT: 9115  
 CLIENT PROJECT: B00015.00

SAMPLE ID: SU1W  
 LAB NO: 82170  
 DATE SAMPLED: 3/15/2010  
 TIME SAMPLED: 12:30  
 BATCH #: 031510W2  
 DATE ANALYZED: 3/18/2010

METHOD: VOLATILE ORGANIC COMPOUNDS  
 REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER  
 UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	1.02
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND



**K PRIME, INC.**  
**LABORATORY REPORT**

K PRIME PROJECT: 9115  
 CLIENT PROJECT: B00015.00

SAMPLE ID: SU3W  
 LAB NO: 82171  
 DATE SAMPLED: 3/15/2010  
 TIME SAMPLED: 15:50  
 BATCH #: 031510W2  
 DATE ANALYZED: 3/18/2010

METHOD: VOLATILE ORGANIC COMPOUNDS  
 REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER  
 UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	7.60
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND



**K PRIME, INC.**  
**LABORATORY REPORT**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**SAMPLE ID: SU4W**  
**LAB NO: 82172**  
**DATE SAMPLED: 3/15/2010**  
**TIME SAMPLED: 15:15**  
**BATCH #: 031510W2**  
**DATE ANALYZED: 3/18/2010**

**METHOD: VOLATILE ORGANIC COMPOUNDS**  
**REFERENCE: EPA 8030/8260**

**SAMPLE TYPE: WATER**  
**UNITS: ug/L**

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	58-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND

**K PRIME, INC.**  
LABORATORY REPORT

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE ID: SU4W  
LAB NO: 82172  
DATE SAMPLED: 3/15/2010  
TIME SAMPLED: 15:15  
BATCH #: 031510W2  
DATE ANALYZED: 3/18/2010

METHOD: VOLATILE ORGANIC COMPOUNDS  
REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER  
UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	103
TOLUENE-D8	100
4-BROMOFLUOROBENZENE	99

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: \_\_\_\_\_  
DATE: 3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

K PRIME PROJECT: 9115  
 CLIENT PROJECT: B00015.00

SAMPLE ID: SU5W  
 LAB NO: 82173  
 DATE SAMPLED: 3/15/2010  
 TIME SAMPLED: 15:35  
 BATCH #: 031510W2  
 DATE ANALYZED: 3/18/2010

METHOD: VOLATILE ORGANIC COMPOUNDS  
 REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER  
 UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND



**K PRIME, INC.**  
**LABORATORY REPORT**

K PRIME PROJECT: 9115  
 CLIENT PROJECT: B00015.00

SAMPLE ID: SU6W  
 LAB NO: 82174  
 DATE SAMPLED: 3/15/2010  
 TIME SAMPLED: 16:30  
 BATCH #: 031510W2  
 DATE ANALYZED: 3/18/2010

METHOD: VOLATILE ORGANIC COMPOUNDS  
 REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER  
 UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND

**K PRIME, INC.**  
LABORATORY REPORT

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE ID: SU6W  
LAB NO: 82174  
DATE SAMPLED: 3/15/2010  
TIME SAMPLED: 16:30  
BATCH #: 031510W2  
DATE ANALYZED: 3/18/2010

METHOD: VOLATILE ORGANIC COMPOUNDS  
REFERENCE: EPA 5030/8260

SAMPLE TYPE: WATER  
UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	98
TOLUENE-D8	98
4-BROMOFLUOROBENZENE	99

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY:                     *ch*                      
DATE:                     3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**METHOD: DRO**  
**REFERENCE: EPA 8015B**

**SAMPLE TYPE: WATER**  
**UNITS: mg/L**

SAMPLE ID	LAB NO.	DATE SAMPLED	BATCH ID	EXTRACT DATE	DATE ANALYZED	MRL	SAMPLE CONC	DRO PATTERN
SU1W	82170	03/15/10	031510W01	03/18/10	03/22/10	0.063	ND	
SU3W	82171	03/15/10	031510W01	03/18/10	03/22/10	0.083	ND	
SU4W	82172	03/15/10	031510W01	03/18/10	03/22/10	0.063	ND	
SU5W	82173	03/15/10	031510W01	03/18/10	03/22/10	0.063	ND	
SU6W	82174	03/15/10	031510W01	03/18/10	03/23/10	0.063	ND	

**NOTES:**

DRO Diesel Range Organics (C12-C23) with Silica Gel Cleanup  
 ND Not Detected at or above the stated MRL  
 NA Not Applicable or Available  
 MRL Method Reporting Limit  
 AD Typical Pattern for Diesel  
 AM Hydrocarbon response is in the C12-C22 range  
 AC Heavier hydrocarbons contributing to diesel range quantitation  
 AJ Heavier hydrocarbon than diesel  
 AK Lighter hydrocarbon than diesel  
 AE Unknown hydrocarbon with a single peak  
 AN Unknown hydrocarbon with several peaks

APPROVED BY:           *ch*            
 DATE:           3/29/2010

**K PRIME, INC.**  
**LABORATORY REPORT**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**METHOD: HRO**  
**REFERENCE: EPA 8015B**

**SAMPLE TYPE: WATER**  
**UNITS: mg/L**

SAMPLE ID	LAB NO.	DATE SAMPLED	BATCH ID	EXTRACT DATE	DATE ANALYZED	MRL	SAMPLE CONC	HRO PATTERN
SU1W	82170	03/15/10	031510W01	03/18/10	03/22/10	0.063	ND	
SU3W	82171	03/15/10	031510W01	03/18/10	03/22/10	0.083	ND	
SU4W	82172	03/15/10	031510W01	03/18/10	03/22/10	0.063	ND	
SU5W	82173	03/15/10	031510W01	03/18/10	03/22/10	0.063	ND	
SU6W	82174	03/15/10	031510W01	03/18/10	03/23/10	0.063	ND	

**NOTES:**

HRO Heavy Range Organics (C24-C34) with Silica Gel Cleanup  
ND Not Detected at or above the stated MRL  
NA Not Applicable or Available  
MRL Method Reporting Limit  
AE Unknown hydrocarbon with a single peak  
AN Unknown hydrocarbon with several peaks

**APPROVED BY:**           *ch*            
**DATE:**           3/29/2010

**K PRIME, INC.**  
**LABORATORY QUALITY CONTROL REPORT**

METHOD BLANK ID: B031610W1  
 SAMPLE TYPE: WATER

METHOD: GRO-GASOLINE RANGE ORGANICS  
 REFERENCE: EPA 8015B

BATCH #: 031610W1  
 DATE EXTRACTED: 3/16/2010  
 DATE ANALYZED: 3/16/2010

UNITS: mg/L

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
TPH-G	0.050	ND

SAMPLE ID: L031610W1  
 DUPLICATE ID: D031610W1  
 BATCH #: 031610W1  
 SAMPLE TYPE: WATER  
 UNITS: mg/L

DATE EXTRACTED: 3/16/2010  
 DATE ANALYZED: 3/16/2010

**ACCURACY (MATRIX SPIKE)**

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
TPH-G	0.250	ND	0.210	84	60-140

**PRECISION (SPIKE DUPLICATE)**

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
TPH-G	0.050	0.210	0.210	0.0	±20

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
 NA - NOT APPLICABLE

**K PRIME, INC.**

LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B031510W2

BATCH #: 031510W2

DATE ANALYZED: 3/15/2010

METHOD: VOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: WATER

REFERENCE: EPA 5030/8260

UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND

**K PRIME, INC.**

LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B031510W2

BATCH #: 031510W2

DATE ANALYZED: 3/15/2010

METHOD: VOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: WATER

REFERENCE: EPA 5030/8260

UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

**SURROGATE RECOVERY**

%

DIBROMOFLUOROMETHANE	99
TOLUENE-D8	100
4-BROMOFLUOROBENZENE	95

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

**K PRIME, INC.**

LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B031510W2

BATCH #: 031510W2  
DATE ANALYZED: 3/15/2010METHOD: VOLATILE ORGANIC COMPOUNDS  
REFERENCE: EPA 5030/8260SAMPLE TYPE: WATER  
UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND

**K PRIME, INC.**

LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B031510W2

BATCH #: 031510W2

DATE ANALYZED: 3/15/2010

METHOD: VOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: WATER

REFERENCE: EPA 5030/8260

UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND
METHYL TERT-BUTYL ETHER (MTBE)	1634-04-4	0.500	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	99
TOLUENE-D8	100
4-BROMOFLUOROBENZENE	95

## NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

**K PRIME, INC.**  
LABORATORY QC REPORT

METHOD: VOLATILE ORGANIC COMPOUNDS  
REFERENCE: EPA 5030/8260

SAMPLE ID: B031510W2  
SPIKE ID: L031510W2  
DUPLICATE ID: D031510W2  
BATCH #: 031510W2  
SAMPLE TYPE: WATER  
UNITS: µg/L

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
1,1 DICHLOROETHENE	10.0	ND	8.89	89	60-140
BENZENE	10.0	ND	9.94	99	60-140
TRICHLOROETHENE	10.0	ND	8.48	85	60-140
TOLUENE	10.0	ND	9.17	92	60-140
CHLOROBENZENE	10.0	ND	8.58	86	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
1,1 DICHLOROETHENE	0.500	8.89	8.02	10	±20
BENZENE	0.500	9.94	9.12	8.6	±20
TRICHLOROETHENE	0.500	8.48	7.50	12	±20
TOLUENE	0.500	9.17	8.53	7.2	±20
CHLOROBENZENE	0.500	8.58	8.40	2.1	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

**K PRIME, INC.**  
**LABORATORY QUALITY CONTROL REPORT**

BATCH ID: 031510W01  
 DATE EXTRACTED: 3/15/2010  
 DATE ANALYZED: 3/16/2010

METHOD: DRO  
 REFERENCE: EPA 8015B

SAMPLE TYPE: WATER  
 UNITS: mg/L

METHOD BLANK ID: B031510W01

COMPOUND NAME	REPORTING LIMIT	SAMPLE CONC
DRO	0.050	ND

SAMPLE ID: L031510W01  
 DUPLICATE ID: D031510W01

**ACCURACY (MATRIX SPIKE)**

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
DRO	2.50	ND	2.29	92	60-140

**PRECISION (SPIKE DUPLICATE)**

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
DRO	0.050	2.29	2.40	4.7	±20

**NOTES:**

DRO - DIESEL RANGE ORGANICS (C12-C34)  
 ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
 NA - NOT APPLICABLE OR AVAILABLE

# CHAIN OF CUSTODY RECORD

CONSULTING ENGINEERS AND SCIENTISTS

1870 Ogden Drive, Burlingame CA 94010

PHONE: 650-292-9100

FAX: 650-552-9012

<b>Project Name</b> Sunnyvale-Morse Ave		<b>Project No.</b> B00015.00		<b>ANALYSES REQUESTED</b>				<b>EKI COC No.:</b> (YYYYMMDD-#) W20100315-1				
<b>Location:</b> 1010 - 1024 Morse Ave, Sunnyvale, CA		<b>Sampled By:</b> L. Hansen, J. Fadde		<b>Method No.</b>	<b>Analyte Group</b>	EPA 8260B VOCS + MTBE	EPA 8015M TPH Gas	EPA 3630 w/ silica gel cleanup	EPA 8015M TPH-Diesel	EPA 3630 TPH-Motor Oil w/ silica gel cleanup	<b>Revision:</b> _____ (A, B, C, D, etc.)	
<b>Reporting:</b> Electronic Format: None      Hard Copy Format: PDF EPA Data Report Level: II Please report results to the following: (1) Paul Hoeffy: phoeffy@ekiconsult.com (2) Cindy Cheng: ccheng@ekiconsult.com (3) Logan Hansen: lohansen@ekiconsult.com (4) Jessica Fadde: jfadde@ekiconsult.com		<b>Laboratory:</b> K Prime, Inc. 3621 Westwind Blvd San Rafael, CA 95403 (707) 527-7574									<b>Date:</b> _____ <b>By:</b> _____	
<b>Field Sample Identification</b>	<b>Lab Sample No.</b>	<b>Date</b>	<b>Time</b>	<b>Matrix</b>	<b>Number / Type of Container (Preservative)</b>		<b>PLACE ON HOLD</b>		<b>EXPECTED TURNAROUND TIME</b>	<b>Remarks</b>		
SU1W	82170	3-15-10	1230	Water	6	VOAs (HCl)			XX		STD	
SU3W	82171	↓	1550	↓	4	VOAs (HCl)	XX		STD			
SU4W	82172	↓	1515	↓	2	Amber Liter(s) (none)		XX	STD			
SU5W	82173	↓	1535	↓	6	VOAs (HCl)	XX		STD			
SU6W	82174	↓	1630	↓	2	Amber Liter(s) (none)		XX	STD			
<b>Special Instructions:</b> Please provide chromatograms with final report. Temperature Blank Included.												
<b>Relinquished by:</b> EKI		<b>Date:</b> 3-15-10	<b>Time:</b> 1700	<b>Received by:</b> (VFC)		<b>Date:</b> 3/15/10	<b>Time:</b> 3:10					
<b>Relinquished by:</b> (VFC)		<b>Date:</b>	<b>Time:</b>	<b>Received by:</b>		<b>Date:</b>	<b>Time:</b>					
<b>Relinquished by:</b> _____		<b>Date:</b>	<b>Time:</b>	<b>Received by:</b>		<b>Date:</b>	<b>Time:</b>					

# K PRIME, Inc.

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd.  
Santa Rosa CA 95403  
Phone: 707 527 7574  
FAX: 707 527 7879

## TRANSMITTAL

**DATE:** 3/29/2010

**TO:** MR. PAUL HOFFEY  
MS. CINDY CHENG  
MR. LOGAN HANSEN  
MS. JESSICA FADDE  
ERLER & KALINOWSKI, INC.  
1870 OGDEN DRIVE  
BURLINGAME, CA 94010

**ACCT:** 9115  
**PROJ:** 800015.00

Phone: 650-292-9100 303-796-0556  
Fax: 650-552-9012 303-796-0546  
Email: phoffey@ekiconsult.com  
ccheng@ekiconsult.com  
lohansen@ekiconsult.com  
jfadde@ekiconsult.com

**FROM:** Richard A. Kage1, Ph.D.  
Laboratory Director

*RAK/mc  
3/29/2010*

**SUBJECT:** LABORATORY RESULTS FOR YOUR PROJECT B00015.00

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
SU1-1-1.5	SOIL	03/15/10	09:25	82176
SU4-0.75-1.25	SOIL	03/15/10	11:48	82177
SU1-2-2.5	SOIL	03/15/10	09:32	82178
SU4-2.5-3	SOIL	03/15/10	11:53	82179
SU2-1-1.5	SOIL	03/15/10	10:25	82180
SU3-1-1.5	SOIL	03/15/10	11:00	82181
SU2-2.5-3	SOIL	03/15/10	10:35	82182
SU3-2.5-3	SOIL	03/15/10	11:10	82183
SU6-1-1.5	SOIL	03/15/10	14:00	82184
SU7-1-1.5	SOIL	03/15/10	15:25	82185
SU6-2.5-3	SOIL	03/15/10	14:10	82186
SU7-2.5-3	SOIL	03/15/10	15:30	82187
SU5-1-1.5	SOIL	03/15/10	13:15	82188
SU8-1-1.5	SOIL	03/15/10	15:40	82189
SU5-2.5-3	SOIL	03/15/10	13:20	82190
SU8-2.5-3	SOIL	03/15/10	15:45	82191
SU9-1-1.5	SOIL	03/15/10	16:05	82192
SU10-1-1.5	SOIL	03/15/10	16:20	82193
SU9-2.5-3	SOIL	03/15/10	16:10	82194
SU10-2.5-3	SOIL	03/15/10	16:25	82195

A COMP 14	SOIL	03/15/10	NA	82210
B COMP 14	SOIL	03/15/10	NA	82211
A COMP 23	SOIL	03/15/10	NA	82212
B COMP 23	SOIL	03/15/10	NA	82213
A COMP 67	SOIL	03/15/10	NA	82214
B COMP 67	SOIL	03/15/10	NA	82215
A COMP 58	SOIL	03/15/10	NA	82216
B COMP 58	SOIL	03/15/10	NA	82217
A COMP 910	SOIL	03/15/10	NA	82218
B COMP 910	SOIL	03/15/10	NA	82219

The above listed sample group was received on 03/15/10 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.  
Thank you for this opportunity to be of service.









**K PRIME, INC.**  
LABORATORY REPORT

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE ID: A COMP 67  
LAB NO: 82214  
DATE SAMPLED: 03/15/10  
TIME SAMPLED: NA  
BATCH #: 032310S01  
DATE EXTRACTED: 3/23/2010  
DATE ANALYZED: 3/24/2010

METHOD: ORGANOCHLORINE PESTICIDES  
REFERENCE: EPA 3550/8081

SAMPLE TYPE: SOIL  
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	5.97	ND
BETA-BHC	319-85-7	5.97	ND
GAMMA-BHC (LINDANE)	58-89-9	5.97	ND
HEPTACHLOR	76-44-8	5.97	ND
DELTA-BHC	319-86-8	5.97	ND
ALDRIN	309-00-2	5.97	ND
HEPTACHLOR EPOXIDE	1024-57-3	5.97	ND
ENDOSULFAN I	959-98-8	5.97	ND
4,4'-DDE	72-55-9	11.9	325
DIELDRIN	60-57-1	11.9	ND
ENDRIN	72-20-8	11.9	ND
4,4'-DDD	72-54-8	11.9	22.5
ENDOSULFAN II	33212-65-9	11.9	ND
4,4'-DDT	50-29-3	11.9	ND
ENDRIN ALDEHYDE	7421-93-4	11.9	ND
ENDOSULFAN SULFATE	1031-07-8	11.9	ND
METHOXYCHLOR	72-43-5	59.7	ND
CHLORDANE	57-74-9	59.7	ND
TOXAPHENE	8001-35-2	119	ND

SURROGATE RECOVERY	%
TCMX	77
DCBP	110

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:                     ch                      
DATE:                     3/29/2010







**K PRIME, INC.**  
LABORATORY REPORT

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE ID: A COMP 910  
LAB NO: 82218  
DATE SAMPLED: 03/15/10  
TIME SAMPLED: NA  
BATCH #: 032310S01  
DATE EXTRACTED: 3/23/2010  
DATE ANALYZED: 3/24/2010

METHOD: ORGANOCHLORINE PESTICIDES  
REFERENCE: EPA 3550/8081

SAMPLE TYPE: SOIL  
UNITS: ug/Kg (dry)

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	6.56	ND
BETA-BHC	319-85-7	6.56	ND
GAMMA-BHC (LINDANE)	58-89-9	6.56	ND
HEPTACHLOR	76-44-8	6.56	ND
DELTA-BHC	319-86-8	6.56	ND
ALDRIN	309-00-2	6.56	ND
HEPTACHLOR EPOXIDE	1024-57-3	6.56	ND
ENDOSULFAN I	959-98-8	6.56	ND
4,4'-DDE	72-55-9	13.1	657
DIELDRIN	60-57-1	13.1	ND
ENDRIN	72-20-8	13.1	ND
4,4'-DDD	72-54-8	13.1	15.9
ENDOSULFAN II	33212-65-9	13.1	ND
4,4'-DDT	50-29-3	13.1	ND
ENDRIN ALDEHYDE	7421-93-4	13.1	ND
ENDOSULFAN SULFATE	1031-07-8	13.1	ND
METHOXYCHLOR	72-43-5	65.6	ND
CHLORDANE	57-74-9	65.6	ND
TOXAPHENE	8001-35-2	131	ND

SURROGATE RECOVERY	%
TCMX	113
DCBP	99

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:                     *ch*                      
DATE:                     3/29/2010



**K PRIME, INC.**  
**LABORATORY REPORT**

**METHOD: TOTAL ARSENIC**  
**REFERENCE: EPA 3050B/6020A**

**K PRIME PROJECT: 9115**  
**CLIENT PROJECT: B00015.00**

**SAMPLE TYPE: SOLID**  
**UNITS: mg/Kg dry weight**

SAMPLE ID	LAB ID	BATCH #	DATE SAMPLED	DATE ANALYZED	REPORTING LIMIT	SAMPLE CONC
A COMP 14	82210	100323S01	03/15/10	03/26/10	3.24	44.9
B COMP 14	82211	100323S01	03/15/10	03/26/10	3.19	16.6
A COMP 23	82212	100323S01	03/15/10	03/26/10	2.86	3.75
B COMP 23	82213	100323S01	03/15/10	03/26/10	2.89	5.60
A COMP 67	82214	100323S01	03/15/10	03/26/10	2.99	16.3
B COMP 67	82215	100323S01	03/15/10	03/26/10	3.19	7.42
A COMP 58	82216	100323S01	03/15/10	03/26/10	3.18	10.4
B COMP 58	82217	100323S01	03/15/10	03/26/10	3.13	6.19
A COMP 910	82218	100323S01	03/15/10	03/26/10	3.28	31.0
B COMP 910	82219	100323S01	03/15/10	03/26/10	3.11	8.54

**NOTES:**

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:                     *ch*                    

DATE:                     3/29/2010

K PRIME, INC.  
LABORATORY REPORT

METHOD: TOTAL LEAD  
REFERENCE: EPA 3050B/6020A

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE TYPE: SOLID  
UNITS: mg/Kg dry weight

SAMPLE ID	LAB ID	BATCH #	DATE SAMPLED	DATE ANALYZED	REPORTING LIMIT	SAMPLE CONC
A COMP 14	82210	100323S01	03/15/10	03/26/10	3.24	138
B COMP 14	82211	100323S01	03/15/10	03/26/10	3.19	51.6
A COMP 23	82212	100323S01	03/15/10	03/26/10	2.86	13.1
B COMP 23	82213	100323S01	03/15/10	03/26/10	2.89	6.13
A COMP 67	82214	100323S01	03/15/10	03/26/10	2.99	63.1
B COMP 67	82215	100323S01	03/15/10	03/26/10	3.19	9.56
A COMP 58	82216	100323S01	03/15/10	03/26/10	3.18	14.4
B COMP 58	82217	100323S01	03/15/10	03/26/10	3.13	8.52
A COMP 910	82218	100323S01	03/15/10	03/26/10	3.28	166
B COMP 910	82219	100323S01	03/15/10	03/26/10	3.11	8.82

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:           ch          

DATE:           3/29/2010

**K PRIME, INC.**  
LABORATORY REPORT

METHOD: PERCENT MOISTURE  
REFERENCE: ASTM D 2216-05

K PRIME PROJECT: 9115  
CLIENT PROJECT: B00015.00

SAMPLE TYPE: SOIL  
UNITS: %

SAMPLE ID	LAB ID #	DATE SAMPLED	TIME SAMPLED	BATCH ID	DATE ANALYZED	MRL	SAMPLE CONC
A COMP 14	82210	3/15/2010	NA	032210S1	3/22/2010	0.10	22.9
B COMP 14	82211	3/15/2010	NA	032210S1	3/22/2010	0.10	21.6
A COMP 23	82212	3/15/2010	NA	032210S1	3/22/2010	0.10	12.7
B COMP 23	82213	3/15/2010	NA	032210S1	3/22/2010	0.10	13.5
A COMP 67	82214	3/15/2010	NA	032210S1	3/22/2010	0.10	16.3
B COMP 67	82215	3/15/2010	NA	032210S1	3/22/2010	0.10	21.6
A COMP 58	82216	3/15/2010	NA	032210S1	3/22/2010	0.10	21.5
B COMP 58	82217	3/15/2010	NA	032210S1	3/22/2010	0.10	20.2
A COMP 910	82218	3/15/2010	NA	032210S1	3/22/2010	0.10	23.8
B COMP 910	82219	3/15/2010	NA	032210S1	3/22/2010	0.10	19.7

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE  
MRL - METHOD REPORTING LIMIT

APPROVED BY:           *ch*            
DATE:           3/29/2010

K PRIME, INC.  
LABORATORY QC REPORT

METHOD BLANK ID: B03231001  
BATCH #: 032310S01  
DATE EXTRACTED: 3/23/2010  
DATE ANALYZED: 3/24/2010

METHOD: ORGANOCHLORINE PESTICIDES  
REFERENCE: EPA 3550/8081

SAMPLE TYPE: SOIL  
UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	5.00	ND
BETA-BHC	319-85-7	5.00	ND
GAMMA-BHC (LINDANE)	58-89-9	5.00	ND
HEPTACHLOR	76-44-8	5.00	ND
DELTA-BHC	319-86-8	5.00	ND
ALDRIN	309-00-2	5.00	ND
HEPTACHLOR EPOXIDE	1024-57-3	5.00	ND
ENDOSULFAN I	959-98-8	5.00	ND
4,4'-DDE	72-55-9	10.0	ND
DIELDRIN	60-57-1	10.0	ND
ENDRIN	72-20-8	10.0	ND
4,4'-DDD	72-54-8	10.0	ND
ENDOSULFAN II	33212-65-9	10.0	ND
4,4'-DDT	50-29-3	10.0	ND
ENDRIN ALDEHYDE	7421-93-4	10.0	ND
ENDOSULFAN SULFATE	1031-07-8	10.0	ND
METHOXYCHLOR	72-43-5	50.0	ND
CHLORDANE	57-74-9	50.0	ND
TOXAPHENE	8001-35-2	100	ND

SURROGATE RECOVERY	%
TCMX	67
DCBP	111

NOTES:  
ND - NOT DETECTED ABOVE THE STATED REPORTING LIMIT  
NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC.  
 LABORATORY QC REPORT

SAMPLE ID: L03231001  
 DUPLICATE ID: D03231001  
 BATCH #: 032310S01  
 DATE EXTRACTED: 3/23/2010  
 DATE ANALYZED: 3/24/2010

METHOD: ORGANOCHLORINE PESTICIDES  
 REFERENCE: EPA 3550/8081

SAMPLE TYPE: SOIL  
 UNITS: ug/Kg

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE ADDED	SAMPLE RESULT	SPIKE RESULT	RECOVERY (%)	LIMITS (%)
GAMMA-BHC (LINDANE)	100	ND	99	99	60-140
HEPTACHLOR	100	ND	121	121	60-140
ALDRIN	100	ND	112	112	60-140
DIELDIN	100	ND	130	130	60-140
ENDRIN	100	ND	112	112	60-140
4,4'-DDT	100	ND	84	84	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING LIMIT	SPIKE RESULT	DUPLICATE RESULT	RPD (%)	LIMITS (%)
GAMMA-BHC (LINDANE)	5.00	98.5	85.5	14	±20
HEPTACHLOR	5.00	121.0	107.0	12	±20
ALDRIN	5.00	112.0	101.0	10	±20
DIELDIN	10.0	130.0	137.0	5.2	±20
ENDRIN	10.0	112.0	107.0	4.6	±20
4,4'-DDT	10.0	83.9	73.3	13	±20

K PRIME, INC.  
LABORATORY BATCH QC REPORT

SAMPLE ID: L032310-S  
DUPLICATE ID: D032310-S  
METHOD BLANK ID: B032310-S  
BATCH #: 100323S01  
DATE ANALYZED: 03/26/10

METHOD: TOTAL METALS BY ICP/MS  
REFERENCE: EPA 3050B/6020A

SAMPLE TYPE: SOLID  
UNITS: mg/Kg

ELEMENT		MB mg/Kg	SA mg/Kg	SR mg/Kg	SP mg/Kg	SPD mg/Kg	SP %R	RPD %
ARSENIC	As	<2.50	100	0.0	96	92	96	4.75
LEAD	Pb	<2.50	100	0.0	101	99	101	2.25

NOTES:

ND: NOT DETECTED

MB: METHOD BLANK

SA: SPIKE ADDED

SR: SAMPLE RESULT

SP: SPIKE RESULT

SPD: SPIKE DUPLICATE RESULT

SP(%R): SPIKE % RECOVERY

RPD: RELATIVE PERCENT DIFFERENCE



Project Name Sunnyvale-Morse Ave		Project No. B00015.00				ANALYSES REQUESTED						EKI COC No.: (YYYYMMDD-#) S20100315-1		
Location: 1010 - 1024 Morse Ave, Sunnyvale, CA		Sampled By: L. Hansen, J. Fadde				Method No.	EPA 8081A	EPA 6020	Organochlorine Pesticides	Arsenic and Total Lead	Percent Moisture	PLACE ON HOLD	Revision: _____ (A, B, C, D, etc.)	
Reporting: Electronic Format: None      Hard Copy Format: PDF EPA Data Report Level: II Please report results to the following: (1) Paul Hoeffy: phoeffy@ekiconsult.com (2) Cindy Cheng: ccheng@ekiconsult.com (3) Logan Hansen: lohansen@ekiconsult.com (4) Jessica Fadde: jfadde@ekiconsult.com		Laboratory: K Prime, Inc. 3621 Westwind Blvd San Rafael, CA 95403 (707) 527-7574											Date:      By:	
Field Sample Identification	Lab Sample No.	Date	Time	Matrix	Number / Type of Container (Preservative)							EXPECTED TURNAROUND TIME	Remarks	
SU1-1-1.5	82176	3-15-10	925	Soil	1 Jar/Liner	XXX						STD	Composite as A Comp 14	
SU4-0.75-1.25	82177		1148			XXX						STD	Composite as B Comp 14	
SU1-2-2.5	82178		932			XXX						STD	Composite as A Comp 23	
SU4-2.5-3	82179		1153			XXX						STD	Composite as B Comp 23	
SU2-1-1.5	82180		1025			XXX						STD	Composite as A Comp 67	
SU3-1-1.5	82181		1100			XXX						STD	Composite as B Comp 67	
SU2-2.5-3	82182		1035			XXX						STD	Composite as A Comp 67	
SU3-2.5-3	82183		1110			XXX						STD	Composite as B Comp 67	
SU6-1-1.5	82184		1400			XXX						STD	Composite as A Comp 67	
SU7-1-1.5	82185		1525			XXX						STD	Composite as B Comp 67	
SU6-2.5-3	82186		1410			XXX						STD	Composite as A Comp 67	
SU7-2.5-3	82187		1530			XXX						STD	Composite as B Comp 67	
<p><b>Special Instructions:</b> Please report all results on a dry weight basis. Temperature Blank Included.</p>														
Relinquished by:		(Signature/Affiliation)		Date	Time	Received by:		(Signature/Affiliation or Carrier/Air Bill No.)						
Relinquished by:		(Signature/Affiliation)		Date	Time	Received by:		(Signature/Affiliation)						
Relinquished by:		(Signature/Affiliation)		Date	Time	Received by:		(Signature/Affiliation)						