

PACIFIC  
ENVIRONMENTAL  
GROUP, INC.

RECEIVED  
ENVIRONMENTAL  
HEALTH  
SECTION  
FEBRUARY 29 1996

February 29, 1996  
Project 360-014.1A

Mr. Barney Chan  
Alameda County Health Care Services Agency -  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502

Re: Site Assessment and Remedial Action Recommendations  
Former Dorr-Oliver Site  
2901 Glascock Street  
Oakland, California

Dear Mr. Chan:

This letter, prepared by Pacific Environmental Group, Inc. (PACIFIC) summarizes the results of recent site assessment activities and presents remedial action recommendations. The purposes of this investigation and remedial study were to: (1) assess the extent of previously identified contaminants in the soil and groundwater, (2) design a remedial system that will protect the Oakland Estuary (a sensitive receptor) adjacent to the site and allow the site to be sold and developed, and (3) position the site for regulatory closure.

## BACKGROUND

The subject site is located in an industrial area in Oakland, California. The site, approximately 2 acres in area, is almost completely occupied by a warehouse. The south edge of the warehouse is bounded by the Oakland Estuary (Figure 1). The north side of the warehouse is bounded by Glascock Street.

According to conversations with Mr. Dick Croop (one of a group of owners who are currently managing the property), the main portion of the warehouse was built in 1923. Between 1923 and 1963, the building was primarily used as a heavy steel machine shop. After 1968, the building was primarily used to manufacture school houses and for boat storage. The building has not been used since 1992.

In February 1993, two underground storage tanks (USTs) were removed from the northeastern portion of the building. Soil samples from beneath the tanks contained total petroleum hydrocarbons calculated as diesel (TPH-d) ranging from 1,200 to 3,800 parts

per million (ppm) and oil and grease between 390 and 1,900 ppm. Water collected from the excavation pit contained 16 ppm TPH-d and 26 ppm oil and grease.

## PREVIOUS INVESTIGATIONS

Hygienetics Environmental Services, Inc. prepared a Phase I report dated August 26, 1994. This report identified a number of industrial facilities within 1 mile of the site. The facilities include a metal plating shop, a photo-chemical machine shop, a metal can manufacturing shop, a wood treating chemical company, and a number of fuel cases (including a 6,300-gallon diesel spill within 0.15 miles of the site).

Several investigations have been performed at the site by W. A. Craig, Inc. The data from these investigations are summarized in Tables 1 through 5. During these investigations 7 groundwater monitoring wells, approximately 18 soil borings, and 2 test pits have been installed. The locations of the borings, monitoring wells, testpits, and former tanks are shown on Figure 2. Soils beneath the site are interlayered clays with silty and clayey sands and gravels. Groundwater was first encountered in borings at depths between 12 and 15 feet. Water levels stabilized in site wells at depths of 3 to 7 feet below ground surface (bgs). Groundwater flow was thought to be to the south towards the Oakland Estuary.

### Site Assessment Summary

Previous investigations have revealed the presence of the following compounds in the soil:

- hydrocarbons (diesel fuel and gasoline compounds)
- metals; primarily lead and zinc
- polychlorinated biphenyls (PCBs)

Hydrocarbons in the soils and groundwater appear to be well defined. In the near surface soils (above 5 feet) hydrocarbon concentrations exceeded 1,000 ppm in two areas. One area was in the vicinity of Boring EB-10 where oil and grease was quantified at 11,000 ppm at 1 foot (Figure 3, Table 1). The second area was in the vicinity of Well MW-5 where TPH-d was quantified at 1,200 ppm at 3 feet (Table 2). In the deeper soils (between 5 and 10 feet) hydrocarbons are concentrated along the east side of the building (Figure 4). TPH-d was detected between 540 and 1,100 ppm. TPH calculated as gasoline (TPH-g) ranged from 52 to 1,700 ppm and TPH calculated as motor oil (TPH-mo) ranged from 220 to 570 ppm.

The hydrocarbon plume in groundwater approximates the occurrence of hydrocarbons in soils below a depth of 5 feet. The plume is concentrated along the east side of the building. During May 1995, maximum TPH-d concentrations were found in Well MW-2 at 5,100 parts per billion (ppb) and in downgradient Well MW-6 at 1,100 ppb (Table 5).

LUFT metals (lead, zinc, nickel, cadmium, and chromium) were analyzed from selected sample locations during previous investigations (EP-1, EP-2, EB-2, EB-6, EB-7, EB-10, and the sand blast room [Table 3]). These samples are concentrated along the western portion of the building. Elevated metal concentrations (lead and zinc) were found in shallow samples from Borings EP-2 and EB-6.

PCBs were analyzed from five locations; EP-1, EP-2, EB-2, EB-7, and EB-10 (Table 3). The sampling was concentrated in the southwestern portion of the site. PCBs were detected at three of these locations, including EP-2 at 48,000 ppm at the surface. This location is outside of the building, opposite a vehicle access ramp. Concentrations at this location diminished rapidly with depth, to 2 ppm at 2 feet. PCBs were detected at 0.4 ppm at location EB-7 at approximately 5 feet, and at EB-10 at 4 ppm at 4 feet. Hygienetics reported that transformers (which may have contained PCBs) were located inside the southwestern corner of the building.

### **CURRENT SCOPE OF WORK**

The goals of PACIFIC's recent investigation were to further define the extent of contaminants previously identified in soil and shallow groundwater beneath the site. Soil samples were collected at 14 soil boring locations (designated B-2 through B-15) and from the boring for an additional groundwater monitoring well (Well MW-8). An additional off-site monitoring well was planned to be installed to the northeast of the site, however access could not be obtained. Groundwater samples were collected from the existing eight wells (MW-1 through MW-8). Field procedures for groundwater monitoring well installation, soil borings, monitoring well development, and sampling along with other procedures are presented as Attachment A. The location of the soil borings and monitoring wells are shown on Figure 2.

### **Hydrocarbons**

Near surface soil samples for hydrocarbon analysis were collected at eight locations (B-3, B-6 through B-9, and B-13 through B-15) adjacent to areas previously identified with elevated hydrocarbon concentrations (EB-10, MW-5, and SB-2) in soil above the watertable. A soil sample was also collected for analysis from beneath the sump located in the western portion of the building (Boring B-3). Well MW-8 was installed near the downgradient edge of the property in order to access the concentration of hydrocarbons in shallow groundwater adjacent to Oakland Estuary (boring log and well detailed are contained in Attachment A). A groundwater sample from Well MW-6 was analyzed for hydrocarbon fingerprinting by Modified EPA Method 8015. The primary contaminant was found to be diesel. Subsequently all eight site wells were analyzed for diesel fuel.

### **Metals**

Soil samples were collected for metals analysis from a total of ten locations. Seven sampling locations (B-2 through B-7 and MW-8) were near a previous sample showing elevated metals concentrations (EB-6). Three samples (B-10 through B-12) were collected from near the outdoor ramp on the western side of the building. High metal concentrations had previously been identified in test pit EP-2 located in this area. Groundwater samples from the wells located at the downgradient boundary of the site (MW-6 and MW-8) were initially analyzed for total metals. Groundwater samples were then collected from all site wells and analyzed for total dissolved metals.

### **PCBs**

Six soil samples from the area of previous Boring EB-6 were analyzed for PCBs. An additional three samples (B-10 through B-12) from near previous test pit EP-2 were also analyzed for PCBs. Groundwater from Wells MW-6 and MW-8 were analyzed for PCBs.

### **Volatile Organic Compounds**

Groundwater from Wells MW-1, MW-4, and MW-6 through MW-8 were analyzed for volatile organic compounds (VOCs) by EPA Method 8240. No analysis for these compounds had been performed in past.

### **Groundwater Elevation Survey**

An elevation survey was performed by a licensed surveyor to establish the elevation of the top of casing of each monitoring well. From this information the elevation of groundwater at each well was determined and a groundwater contour map generated.

## **RESULTS**

The following section summarizes the results of the recent site investigation and evaluates the data with previously generated information. Certified analytical reports and chain-of-custody documentation for the recent investigation are presented as Attachment B.

### **Hydrocarbons**

Shallow soils data (5 foot or less in depth) indicate several areas of elevated hydrocarbons within the soils lying above the watertable (Table 6). Four small areas (Figure 3) have been identified with either TPH-d or TPH-mo with concentrations above 1,000 ppb. Soils data indicate that these areas are small, less than 20 feet in radius and are thought to represent incidental surface spills. Deeper soils data in at least two of the areas (MW-5 and EP-2) indicate that hydrocarbons have not migrated vertically.

Soils data from below at depth of 5 feet is considered to primarily reflect hydrocarbon concentrations of groundwater within the soil. Depth to groundwater in site wells on January 18, 1996 ranged from 3.10 to 7.15 feet bgs. Deeper soils data define a hydrocarbon plume primarily of TPH-d and TPH-mo along the eastern portion of the property (Figure 4). TPH-mo was also identified in the soil sample (B-3) from beneath the western sump at 720 ppb. The fingerprinting scan indicated that the hydrocarbon constituent at the site is primarily diesel fuel.

Analysis of groundwater samples from site wells defines a hydrocarbon plume beneath the eastern portion of the site (Figure 5). A hydrocarbon scan by Modified EPA Method 8015 found the hydrocarbons in Well MW-6 to consist primarily of diesel with lesser amounts of motor oil (Table 7). In January 1996, TPH-d concentrations within the plume ranged from 210 to 59,000 ppb with the highest concentration in Well MW-6 (Table 8). Separate-phase hydrocarbon (SPH) was detected in Well MW-6 (0.01 foot). Hydrocarbon sheens have been reported in the past for samples from Wells MW-1, MW-2, and MW-6.

### **Metals**

Analysis of 1-foot depth soil samples from the southwestern portion of the building identified elevated concentrations of lead and zinc. These are the same two metals found originally at increased concentrations in Boring EB-6 in the same area. Lead concentrations in what appear to be non-impacted areas ranged from 16.9 to 39.7 ppm. In impacted samples, lead ranged from 87.8 to 803 ppb. Background concentration for zinc appears to be in the range of 16.8 to 164 ppm. In impacted samples, zinc ranges from 233 to 788 ppm. pH levels in soils from the southwestern portion of the building ranged from 8.3 to 9.4. Soils metal data is shown on Figure 6.

Analysis of non-filtered groundwater samples from Wells MW-6 and MW-8 detected high concentrations of chromium, lead, nickel, and zinc (Table 7). It was suspected that these concentrations primarily reflected the particulate matter suspended in the water (samples had been described as moderately turbid). All eight wells were sampled on January 18, 1996. Groundwater samples were filtered to remove particulate matter and analyzed for total dissolved metals. The only metal detected was zinc. Zinc was detected in samples from Wells MW-3, MW-4, MW-5, and MW-7 at concentrations ranging from 20.5 to 51.2 ppb (Table 9). The California Department of Health Services Maximum Contaminant Level for zinc in drinking water is 5,000 ppb.

### **PCBs**

PCBs were detected in 1 foot depth soil samples from the southwestern portion of the building (B-2, B-4, B-7, and MW-8) and near the outside ramp on the western side of the building (B-10, B-11, and B-12) (Table 6). PCB concentrations in samples from the

southwestern portion of the building ranged from 0.019 to 1.5 ppm. PCB concentrations in samples from the ramp area ranged from 0.044 to 130 ppm.

PCBs were not detected in analysis of groundwater from downgradient Wells MW-6 and MW-8 (Table 7).

### **Volatile Organic Compounds**

VOCs were detected by EPA Method 8010 at concentrations near the detection limit in Wells MW-4, MW-7, and MW-8 (Table 7). Well MW-7, located upgradient of site, contained 1,1-dichloroethane (0.79 ppb) and trans-1,2-dichloroethene (0.74 ppb). 1,1-Dichloroethane (0.61 ppb) was detected in site Well MW-4. Two other VOCs, vinyl chloride (0.53 ppb), and trichloroethene (1.3 ppb) were detected in downgradient Well MW-8. All VOCs detected, with the exception of vinyl chloride, are well below the State MCL for drinking water. The MCL for vinyl chloride is 0.5 ppb. No VOCs were detected in Wells MW-1 and MW-6.

### **Groundwater Elevation Survey**

Groundwater depth and elevation data is summarized in Table 10. A groundwater contour map is shown on Figure 7. The map shows that the shallow groundwater beneath the site has a southward gradient of 0.01 in the direction of Oakland Estuary.

### **SUMMARY OF RESULTS**

The primary findings from the current investigation are summarized below:

- Petroleum hydrocarbons, primarily TPH-d, were found in isolated small patches of near surface soils.
- Petroleum hydrocarbons, primarily TPH-d, occurs in the groundwater plume extending from the area of the former tanks, southward to the downgradient edge of the property.
- Metals, primarily lead and zinc in surficial soils were found in the southwestern corner of the building.
- PCBs were found in surficial soils in the southwestern corner of the building and in the former ramp area on the western side of the building.

### **REMEDIAL RECOMMENDATIONS**

In order to remove potential impacts to human health and safety and to position the site for sale and closure, the following remedial measures are recommended:

## Soils

- Excavation and disposal of near surface TPH-d contaminated soils above concentrations of 1,000 ppm hydrocarbons to a depth of 3 to 5 feet in the areas shown on Figure 3. Soils below 5 feet will be addressed in the groundwater remedial program. The exact dimensions of the area excavated can be determined in the field based on soil discoloration, odor, and screening equipment such as photo-ionization detector (PID). Removal of these soils eliminates any potential obstructions for site resale/redevelopment in the future.
- Excavation and disposal of the upper 18 inches of soil from the southwestern corner of the building. Prior to excavation, soil samples at 2 feet will be analyzed to confirm that they are near background levels. These are the soils containing metal shavings along with elevated levels of lead, zinc, and low levels of PCBs. Metals and PCBs have not impacted groundwater at the site. Removal of these soils will eliminate a future threat.
- Excavation and disposal of soils to a depth of approximately 18 inches in the area of the ramp outside the western portion of the building. These soils contain high levels of PCBs. Based on discussions with the Alameda County Water District (ACWD), removal of PCBs above 50 ppm is required (50 ppm is the Total Threshold Limit Concentration, Title 22, California Code of Regulations for PCBs). Exact dimensions of the excavation can be determined in the field using field tests for the presence of PCBs. However, previous investigations have shown that concentrations decrease to nearly non-detected within 2 feet of the ground surface.

## Groundwater

- Treatment of the TPH-d/SPH plume through a monthly bioslurping program (limited drawdown well point extraction) using existing groundwater monitoring wells. Additional excavation points on the downgradient perimeter of the site will be evaluated. The biosparging will be performed by connecting a vacuum source to a down pipe in each well. The vacuum and down pipe will be used to extract a mixture of groundwater, SPH, and soil vapor from very close to the static groundwater surface. This process will induce a large piezometric gradient for drawing water and hydrocarbon into the well while limiting the physical drawdown at the well. This results in increased water and product recovery rates while the reduced physical drawdown minimizes product smearing. Soil aeration is also

increased, which will concurrently enhance bioremediation of the hydrocarbon plume. This active level of remediation is recommended due to the presence of SPH and TPH-d, and the proximity of the Oakland Estuary, a potentially sensitive receptor.

- After operation of the vacuum system for several months, oxygen releasing compound units will be installed in each well to further enhance biodegradation of the plume.
- Continue quarterly groundwater sampling for diesel fuel in selected site wells and annual sampling for PCBs and metals.

Following completion of the soils portion of the above remedial activities, Glascock Street Properties will be seeking a letter from the ACWD and the RWQCB approving the site for development.

The proposed treatment of groundwater is considered to be among the best available technologies and most cost beneficial for this site. After TPH groundwater concentrations have decreased to 10,000 ppb (a current acceptable NPDES TPH concentration for oil and grease San Jose/Santa Clara Water Pollution Control Plant) or to asymptotic concentrations site closure will be evaluated. When this goal is achieved, the risk of remaining residual concentrations to the estuary will be evaluated using a form of risk based corrective action. If the residual concentrations are not judged to have an adverse impact to the estuary, closure will be pursued.

*Unlogged  
RA.?*

Please call if you have any questions regarding this letter.

Sincerely,

**Pacific Environmental Group, Inc.**



Susan Willhite  
Senior Geologist  
CEG 1272





- Attachments:
- Table 1 - Soil Analytical Data - Soil Borings  
Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX  
Compounds, TPH as Diesel, and TPH as Motor Oil)  
(March 29 through April 18, 1995)
  - Table 2 - Soil Analytical Data - Monitoring Wells  
Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX  
Compounds, TPH as Diesel, and TPH as Motor Oil)  
(September 23, 1994)
  - Table 3 - Soil Analytical Data - Metals and PCBs  
(April 17 and 18, 1995)
  - Table 4 - Groundwater Analytical Data - Open Boreholes  
Total Petroleum Hydrocarbons  
(TPH as Gasoline, BTEX Compounds, TPH as Diesel)  
(March 29 through April 17, 1995)
  - Table 5 - Groundwater Analytical Data -  
Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX  
Compounds, and TPH as Diesel)  
(May 15, 1995)
  - Table 6 - Soil Analytical Data - Total Petroleum Hydrocarbons  
(TPH as Diesel, TPH as Motor Oil, PCBs, Metals, and pH)  
(November 10 through 16, 1995)
  - Table 7 - Groundwater Analytical Data -  
Total Petroleum Hydrocarbons (TPH as Diesel, TPH as  
Motor Oil, PCBs, Metals, and VOCs)  
(November 29, 1995)
  - Table 8 - Groundwater Analytical Data -  
Total Petroleum Hydrocarbons (TPH as Diesel)  
(January 18, 1996)
  - Table 9 - Groundwater Analytical Data - Metals  
(January 18, 1996)
  - Table 10 - Groundwater Elevation Data (January 18, 1996)
  - Figure 1 - Site Location Map
  - Figure 2 - Soil Sampled and Monitoring Well Location Map
  - Figure 3 - Soil Concentration Map (0 - 5 Feet)
  - Figure 4 - Soil Concentration Map (>5 Feet)
  - Figure 5 - TPH-d Concentration in Groundwater Map
  - Figure 6 - Metals Concentration in Soil Map
  - Figure 7 - Groundwater Elevation Contour Map
  - Attachment A - Field and Laboratory Procedures
  - Attachment B - Certified Analytical Reports and Chain-of-Custody  
Documentation

cc: Mr. Dennis Buran, Glascock Street Properties  
Mr. Steven Morris, California Bay Area Regional Water Quality Control Board

Table 1 (continued)  
**Soil Analytical Data**  
**Soil Borings**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline, BTEX Compounds, TPH as Diesel, and TPH as Motor Oil)

Former Dorr-Oliver Site  
 2901 Glascock Street  
 Oakland, California

Sample Dates: March 29 through April 18, 1995

Boring Number	Sample Depth (feet)	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)	TPH as Motor Oil (ppm)
EB-9	5.5	ND	ND	ND	ND	ND	ND	NA
EB-10	1	31	ND	0.15	0.21	1.6	2,500	11,000 *
Sand Blast	Floor	NA	0.029	0.017	0.030	0.014	ND	NA
ppm		= Parts per million						
ND		= Not detected						
NA		= Not analyzed						
*		= Quantified as oil and grease						
Data obtained from W.A. Craig, Inc.								

Table 2  
**Soil Analytical Data**  
**Monitoring Wells**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline, BTEX Compounds, TPH as Diesel, and TPH as Motor Oil)

Former Dorr-Oliver Site  
 2901 Glascock Street  
 Oakland, California

Sample Date: September 23, 1994

Well Number	Sample Depth (feet)	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	TPH as Diesel (ppm)	TPH as Motor Oil (ppm)
MW-1	5	ND	ND	ND	ND	ND	ND	NA
	10	48	ND	0.005	ND	0.086	300	NA
	15	4.3	ND	ND	ND	ND	130	46
MW-2	4.5	26	ND	ND	0.017	0.021	250	NA
	9	52	ND	0.018	ND	0.19	830	NA
	14.5	50	0.039	0.022	0.61	0.84	7,900	3,900
MW-3	5	ND	ND	ND	ND	ND	ND	NA
	9.5	110	ND	ND	ND	0.30	780	NA
	15	ND	ND	ND	ND	ND	ND	ND
MW-4	5	ND	ND	ND	ND	ND	ND	NA
	9	ND	ND	ND	ND	ND	ND	NA
	14	1.9	ND	ND	ND	ND	ND	ND
MW-5	3	NA	NA	NA	NA	NA	1,200	1,900
	8	ND	ND	ND	ND	ND	ND	ND
	12	99	ND	0.017	0.023	0.20	1,800	730
MW-6	8	8.7	ND	ND	ND	ND	620	390
	12	4.7	ND	ND	ND	0.005	46	21
MW-7	10	ND	ND	ND	ND	ND	ND	ND
ppm		= Parts per million						
ND		= Not detected						
NA		= Not analyzed						
Data obtained from W.A. Craig, Inc.								

Table 3  
**Soil Analytical Data**  
 (Metals and PCBs)

Former Dorr-Oliver Site  
 2901 Glascock Street  
 Oakland, California

Sample Dates: April 17 and 18, 1995

Boring Number	Sample Depth (feet)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)	PCBs (mg/kg)
EB-2	Surface	NA	NA	NA	NA	NA	NA
	2	NA	NA	NA	NA	NA	NA
	4	ND	45	7.9	46	52	ND
EB-6	2	1.2	41	39	64	150	NA
EB-7	5.5	ND	41	7.3	73	37	0.4
EB-10	1	ND	40	13	60	51	4.0
EP-1	1	ND	22	8.1	39	25	ND
EP-2	Surface	4.5	82	940	80	1,100	48,000
	2	NA	NA	NA	NA	NA	2.0
Sand Blast	2	6.1	13	40	60	51	NA

mg/kg = Milligrams per kilogram  
 NA = Not analyzed  
 ND = Not detected  
 PCBs = Polychlorinated biphenyls (Aroclor 1260, all other PCBs were not detected)  
 Dated obtained from W.A. Craig, Inc.

*TLC = 250 ppm*

Table 4  
**Groundwater Analytical Data**  
**Open Boreholes**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Former Dorr-Oliver Site  
 2901 Glascock Street  
 Oakland, California

Sample Dates: March 29 through April 17, 1995

Boring Number	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TPH as Diesel (ppb)
SB-1	310	ND	0.78	ND	0.91	17,000
SB-2	5,200	3.9	4.9	2.6	14	190,000
SB-3	1,000	ND	2.6	0.77	4.8	110,000
SB-4	1,100	ND	0.6	0.69	0.71	9,900
SB-7	260	13	13	10	40	130
SB-8	120	ND	ND	ND	0.89	6,200
SB-9	820	16	1.8	ND	4.4	210,000
SB-10	ND	0.65	1.2	ND	1.3	250
EB1-W	ND	ND	ND	ND	ND	ND
EB2-W	ND	ND	ND	ND	1.1	ND
EB3-W	ND	ND	ND	ND	ND	ND
EB4-W	ND	ND	ND	ND	ND	ND
ppb = Parts per billion ND = Not detected Data obtained from W.A. Craig, Inc.						

Table 5  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Gasoline, BTEX Compounds, and TPH as Diesel)

Former Dorr-Oliver Site  
 2901 Glascock Street  
 Oakland, California

Sample Date: May 15, 1995

Well Number	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TPH as Diesel (ppb)
MW-1	290	7.9	ND	ND	1.4	3,400
MW-2	310	2.3	1.9	ND	1.4	5,100
MW-3	60	ND	ND	ND	ND	310
MW-4	ND	ND	ND	ND	ND	ND
MW-5	ND	ND	ND	ND	ND	490
MW-6	120	5.6	0.88	ND	2.1	1,100
MW-7	110	ND	ND	ND	ND	ND
ppb = Parts per billion						
ND = Not detected						
Data obtained from W.A. Craig, Inc.						

Table 6  
**Soil Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Diesel, TPH as Motor Oil, PCBs, Metals, and pH)

Former Dorr-Oliver Site  
 2901 Glascock Avenue  
 Oakland, California

Sample Dates: November 10 through 16, 1995

Sample ID	Sample Depth (feet)	TPH-Fingerprint			Metals (ppm)					pH
		TPH as Diesel (ppm)	Motor Oil (ppm)	PCBs (ppm)	Cd	Cr	Pb	Ni	Zn	
B-2	1	NA	NA	0.66	ND	60.0	520	113	233	8.4
B-3	6	ND	720	NA	0.95	40.5	331	52.5	202	NA
B-4	1	NA	NA	0.030	10.7	40.7	298	59.7	788	8.3
B-5	1 5	NA	NA	ND	ND	27.3	32.4	23.4	79.2	9.0
B-6	1 5	11 ND	22 ND	ND NA	ND NA	30.0 NA	26.5 NA	29.8 NA	86.4 NA	8.4 NA
B-7	1 5	32 ND	45 ND	0.019 NA	ND NA	52.4 NA	87.8 NA	64.1 NA	16.8 NA	8.5 NA
B-8	5	ND	ND	NA	NA	NA	NA	NA	NA	NA
B-9	5	12	ND	NA	NA	NA	NA	NA	NA	NA
B-10	1	NA	NA	0.044	ND	40.1	16.9	50.5	95.8	7.5
B-11	1	NA	NA	0.210	2.3	42.3	39.7	51.1	164	7.4
B-12	1	NA	NA	130	1.9	42.1	33	55.4	135	7.5
B-13	5	1,700	850	NA	NA	NA	NA	NA	NA	NA
B-14	5	ND	ND	NA	NA	NA	NA	NA	NA	NA
B-15	5	ND	ND	NA	NA	NA	NA	NA	NA	NA
MW-8	1	NA	NA	1.5	5.4	79.8	803	109	581	9.4

ppm = Parts per million  
 PCBs = Polychlorinated biphenyls (Aroclor 1260, all other PCBs were not detected)  
 Cd = Cadmium  
 Cr = Chromium  
 Pb = Lead  
 Ni = Nickel  
 Zn = Zinc  
 \* = Results are pending  
 NA = Not analyzed  
 ND = Not detected

Table 7  
**Groundwater Analytical Data**  
 Total Petroleum Hydrocarbons  
 (TPH as Diesel, TPH as Motor Oil, PCBs, Metals, and VOCs)

Former Dorr-Oliver Site  
 2901 Glascock Avenue  
 Oakland, California

Sample Date: November 29, 1995

Well Number	TPH-Fingerprint		PCB's (ppb)	Metals (ppb)					VOCs (ppb)
	TPH as Diesel (ppb)	Motor Oil (ppb)		Cd	Cr	Pb	Ni	Zn	
MW-1	ND	ND	NA	NA	NA	NA	NA	NA	ND
MW-4	NA	NA	NA	NA	NA	NA	NA	NA	ND (1)
MW-6	<u>35,000</u>	5,400	ND	ND	822	<u>107</u>	<u>1,190</u>	<u>851</u>	ND
MW-7	NA	NA	NA	NA	NA	NA	NA	NA	ND (2)
MW-8	NA	NA	ND	ND	319	42.0	381	309	ND (3)
ppb = Parts per billion				Ni = Nickel					
PCBs = Polychlorinated biphenyls				Zn = Zinc					
Cd = Cadmium				VOCs = Volatile organic compounds					
Cr = Chromium				ND = Not detected					
Pb = Lead				NA = Not analyzed					
1.	0.61 - 1,1-Dichloroethane			}					
2.	0.79 - 1,1-Dichloroethane								
	0.74 - <i>trans</i> -1,2-Dichloroethene								
3.	0.53 - Vinyl Chloride								
	1.3 - Trichloroethene								



Table 8  
**Groundwater Analytical Data**  
Total Petroleum Hydrocarbons  
(TPH as Diesel)

Former Dorr-Oliver Site  
2901 Glascock Avenue  
Oakland, California

Sample Date: January 18, 1996

Well Number	TPH as Diesel (ppb)
MW-1	23,000
MW-2	22,000
MW-3	210
MW-4	ND
MW-5	49
MW-6	59,000
MW-7	ND
MW-8	ND

ppb = Parts per billion  
ND = Not detected

Table 9  
Groundwater Analytical Data  
(Metals)

Former Dorr-Oliver Site  
2901 Glascock Avenue  
Oakland, California

Sample Date: January 18, 1996

Well Number	Cadmium (ppb)	Chromium (ppb)	Lead (ppb)	Nickel (ppb)	Zinc (ppb)
MW-1	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	51.2
MW-4	ND	ND	ND	ND	20.5
MW-5	ND	ND	ND	ND	22.6
MW-6	ND	ND	ND	ND	ND
MW-7	ND	ND	ND	ND	25.1
MW-8	ND	ND	ND	ND	ND

ppb = Parts per billion  
ND = Not detected

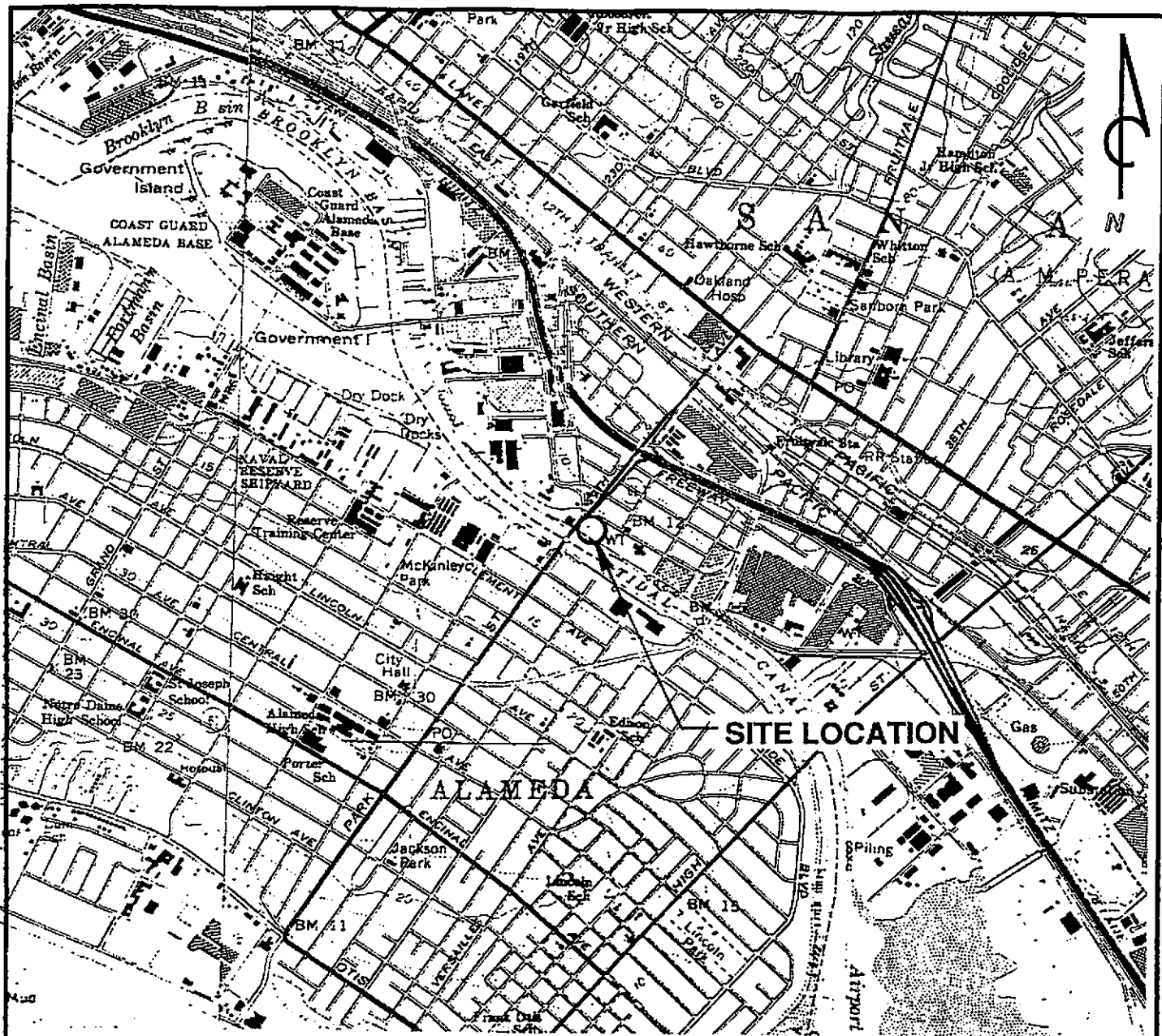
Table 10  
Groundwater Elevation Data

Former Dorr-Oliver Site  
2901 Glascock Avenue  
Oakland, California

Gauge Date: January 18, 1996

Well Number	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-1	10.76	6.35	4.41
MW-2	10.63	4.85	5.78
MW-3	9.87	4.15	5.72
MW-4	10.64	5.60	5.04
MW-5	10.61	7.15	3.46
MW-6	10.28	7.85	2.43
MW-7	9.86	3.10	6.76
MW-8	10.61	7.15	3.46

MSL = Mean sea level  
TOC = Top of casing

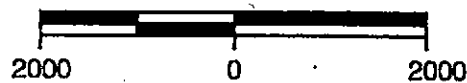


QUADRANGLE LOCATION

**REFERENCES:**

USGS 7.5 MIN. TOPOGRAPHIC MAP  
 TITLED: OAKLAND EAST, CALIFORNIA  
 DATED: 1959 REVISED: 1980  
 TITLED: OAKLAND WEST, CALIFORNIA  
 DATED: 1959 REVISED: 1980

**SCALE IN FEET**



PACIFIC ENVIRONMENTAL GROUP, INC.

FORMER DORR-OLIVER SITE  
 2901 Glascock Street  
 Oakland, California

SITE LOCATION MAP

FIGURE:  
 1  
 PROJECT:  
 360-014.1A



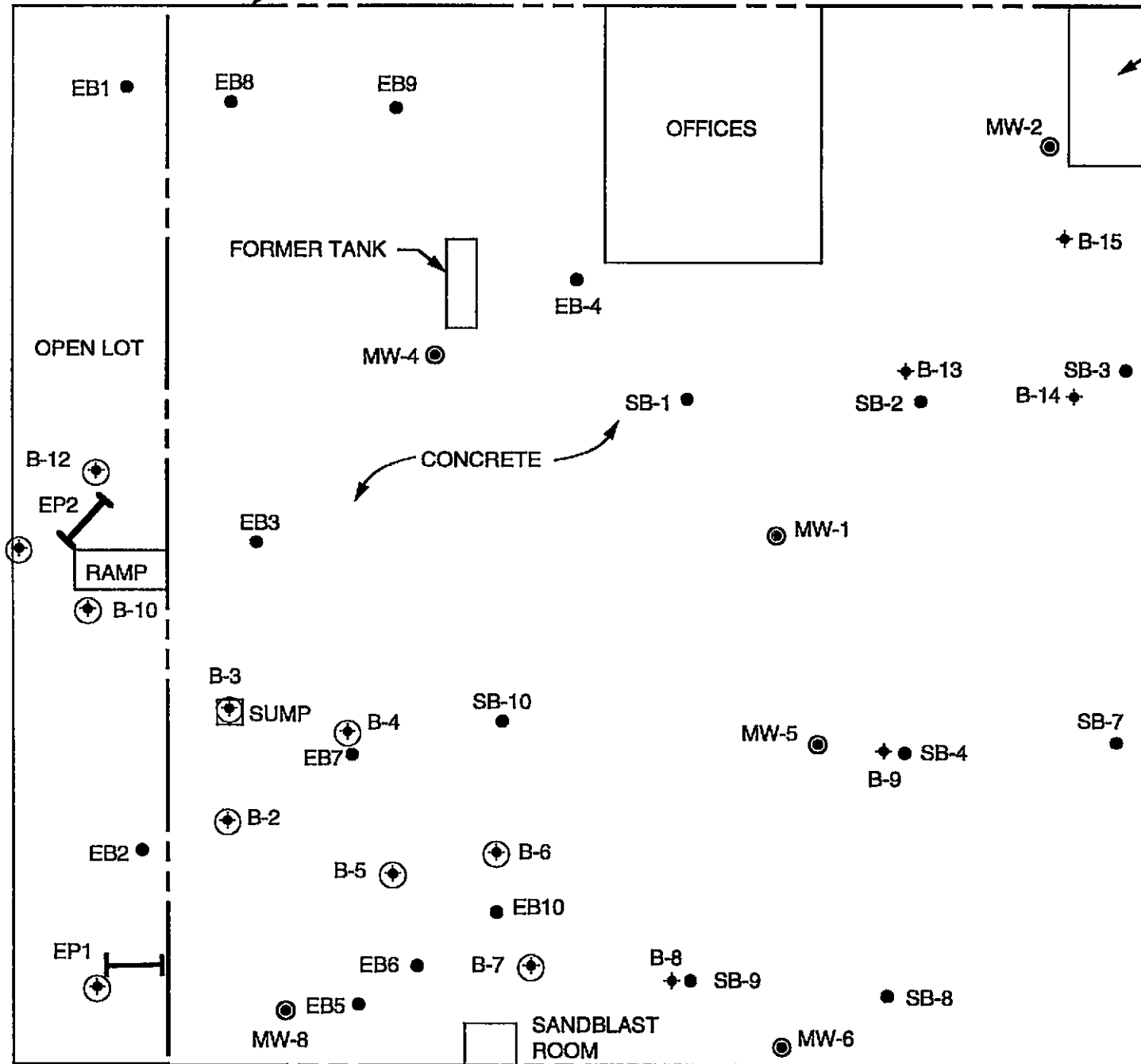
PETERSON STREET

GLASCOCK STREET

LIMITS OF BUILDING

MW-3

FORMER TANKS



**LEGEND**

- MW-1 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- EB1,SB-1 ● SOIL SAMPLE LOCATION AND DESIGNATION
- EP1 ↗ TEST PIT LOCATION AND DESIGNATION
- B-13 ◆ SOIL SAMPLE LOCATION FOR TPH
- B-7 ⊕ SOIL SAMPLE LOCATION FOR PCB's AND METALS

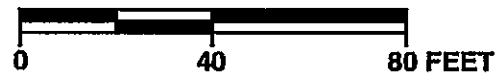
SOURCE: Map from W.A. Craig dated 6-95

OAKLAND ESTUARY



PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE



FORMER DORR-OLIVER SITE  
2901 Glascocock Street  
Oakland, California

SOIL SAMPLE AND MONITORING WELL LOCATION MAP

FIGURE:  
**2**  
PROJECT:  
360-014.1A



PETERSON STREET

GLASCOCK STREET

LIMITS OF BUILDING

MW-3  
ND/ND/NA

FORMER  
TANKS

EB1  
ND/ND/NA

OFFICES

MW-2  
26/250/NA

FORMER TANK

B-15  
NA/ND/ND

OPEN LOT

MW-4  
ND/ND/NA

B-13  
NA/1,700/850

B-14  
NA/ND/ND

CONCRETE

51/9,600/NA (S)  
ND/ND/NA (2')

RAMP

EB3  
ND/ND/NA

MW-1  
ND/ND/NA

B-3  
SUMP

MW-5  
NA/1,200/1,900

B-9  
NA/12/ND

EB2  
ND/ND/NA

B-6  
NA/11/22 (1')  
NA/ND/ND (5')

EB10  
31/2,500/11,000 \*

EP1  
ND/ND/NA

EB6  
ND/7.9/NA

EB5  
ND/ND/NA

B-7  
NA/32/45 (1')  
NA/ND/ND (5')

B-8  
NA/ND/ND

**LEGEND**

- MW-1 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- EB1,SB-1 ● SOIL SAMPLE LOCATION AND DESIGNATION
- EP1 ↗ TEST PIT LOCATION AND DESIGNATION
- B-13 ◆ SOIL SAMPLE LOCATION FOR TPH
- B-7 ⊕ SOIL SAMPLE LOCATION FOR PCB'S AND METALS

51/9,600/NA TPH-g/TPH-d/TPH AS MOTOR OIL CONCENTRATION IN SOIL AT 0-5 FEET, IN PARTS PER MILLION (ppb), 3-95 and 4-95 (BY W.A. CRAIG, INC.)

ND NOT DETECTED

NA NOT ANALYZED

— APPROXIMATE SURFICIAL SOIL AREA WITH HYDROCARBON CONCENTRATION ABOVE 1,000 ppm

\* QUANTIFIED AS OIL AND GREASE

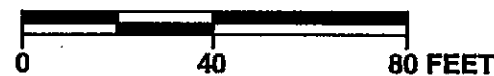
SOURCE: Map from W.A. Craig dated 6-95

OAKLAND ESTUARY



PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE

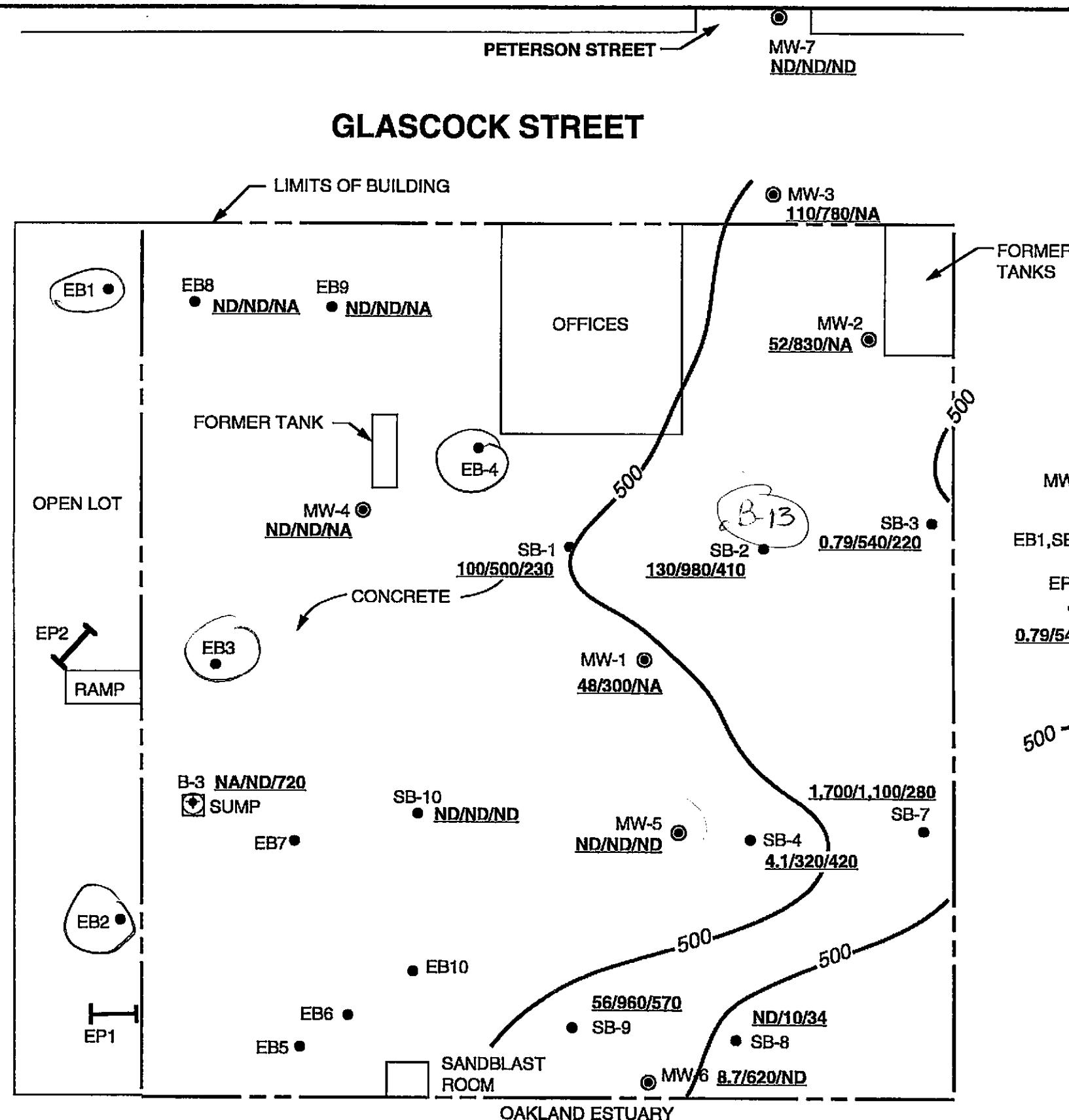


FORMER DORR-OLIVER SITE  
2901 Glascock Street  
Oakland, California

SOIL CONCENTRATION MAP (0 - 5 FEET)

FIGURE:  
3

PROJECT:  
360-014.1A

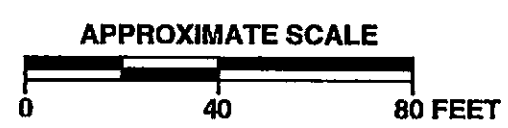


- LEGEND**
- MW-1 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
  - EB1, SB-1 ● SOIL SAMPLE LOCATION AND DESIGNATION
  - EP1 ▽ TEST PIT LOCATION AND DESIGNATION
  - 0.79/540/220 TPH-g/TPH-d/TPH-MOTOR OIL CONCENTRATION IN SOIL AT 5-10 FEET, IN PARTS PER MILLION (ppm), 3-95 and 4-95 (BY W.A. CRAIG, INC.)
  - 500 ——— TPH-d ISOCONCENTRATION CONTOUR IN SOIL, IN ppm
  - ND NOT DETECTED
  - NA NOT ANALYZED

SOURCE: Map from W.A. Craig dated 6-95



PACIFIC ENVIRONMENTAL GROUP, INC.



FORMER DORR-OLIVER SITE  
2901 Glascock Street  
Oakland, California

SOIL CONCENTRATION MAP (>5 FEET)

FIGURE: 4  
PROJECT: 360-014.1A



PETERSON STREET

GLASCOCK STREET

LIMITS OF BUILDING

MW-7  
ND

MW-3  
210

FORMER  
TANKS

OFFICES

MW-2  
22,000

FORMER TANK

OPEN LOT

MW-4  
ND

CONCRETE

RAMP

SUMP

MW-1  
23,000

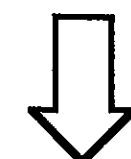
**LEGEND**

MW-1 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

22,000 TPH-d CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION (ppb), 1-18-96

1,000 APPROXIMATE LIMITS OF TPH-d GROUNDWATER PLUME, IN ppb

ND NOT DETECTED



APPROXIMATE DIRECTION OF GROUNDWATER FLOW

MW-5  
49

MW-8  
ND

SANDBLAST ROOM

MW-6  
59,000

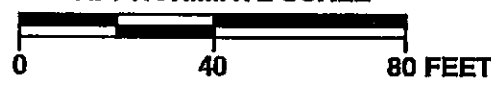
OAKLAND ESTUAR

SOURCE: Map from W.A. Craig dated 6-95



PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE

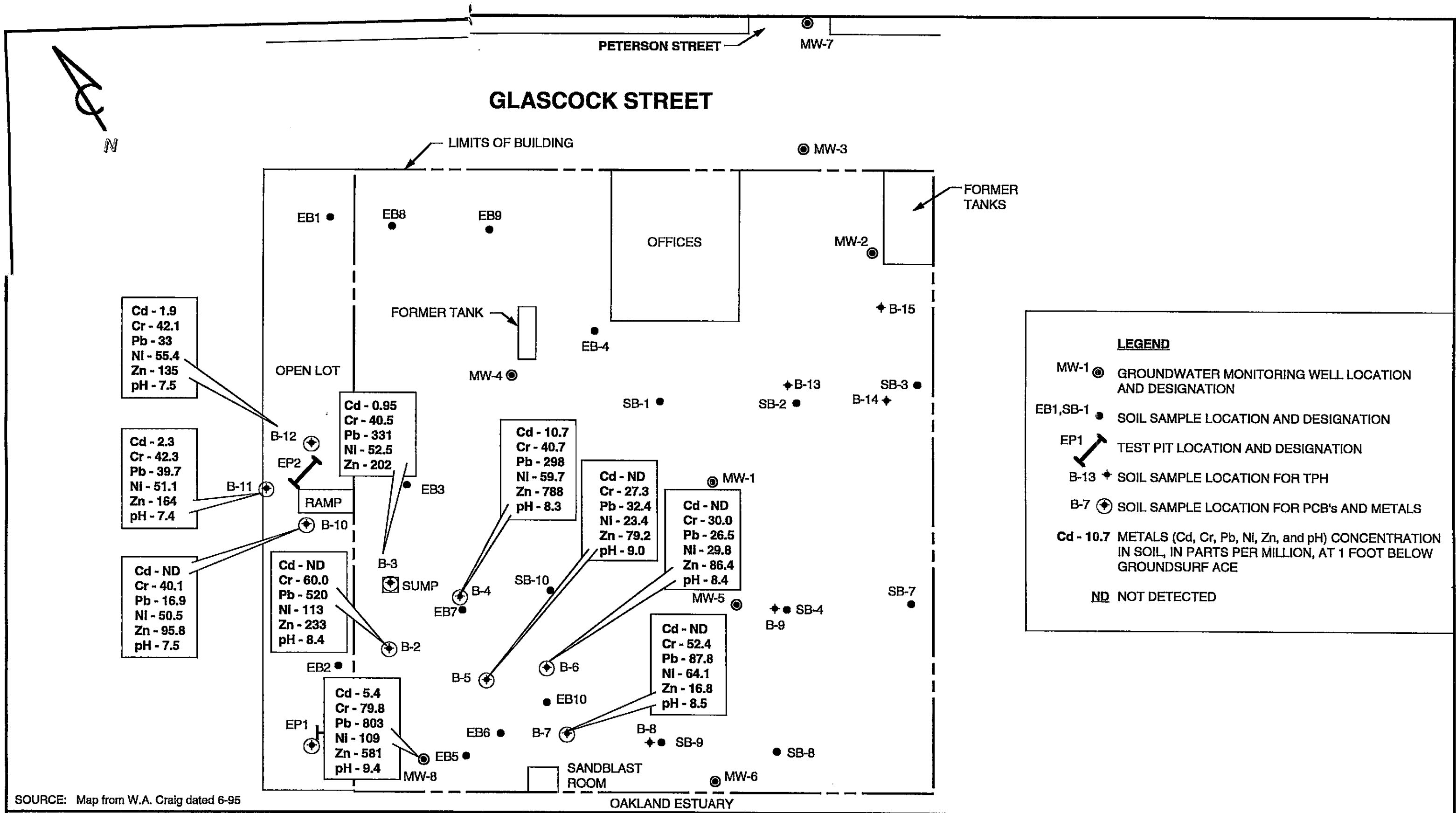


FORMER DORR-OLIVER SITE  
2901 Glascock Street  
Oakland, California

TPH-d CONCENTRATION IN GROUNDWATER MAP

FIGURE:  
**5**  
PROJECT:  
360-014.1A



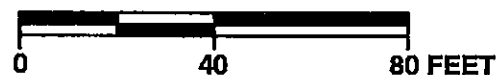


SOURCE: Map from W.A. Craig dated 6-95



PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE



FORMER DORR-OLIVER SITE  
2901 Glascock Street  
Oakland, California

METALS CONCENTRATION IN SOIL MAP

FIGURE: 6

PROJECT: 360-014.1A



PETERSON STREET

GLASCOCK STREET

LIMITS OF BUILDING

MW-7  
(6.76)

MW-3  
(5.72)

6.00

FORMER TANKS

OFFICES

MW-2  
(5.78)

FORMER TANK

MW-4  
(5.04)

CONCRETE

5.00

OPEN LOT

RAMP

MW-1  
(4.41)

- LEGEND**
- MW-1 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
  - (5.72) GROUNDWATER ELEVATION IN FEET - MSL, 1-18-96
  - 5.00 — GROUNDWATER ELEVATION CONTOUR IN FEET - MSL, 1-18-96

SUMP

4.00

MW-5  
(3.46)

3.00

MW-8  
(3.46)

SANDBLAST ROOM

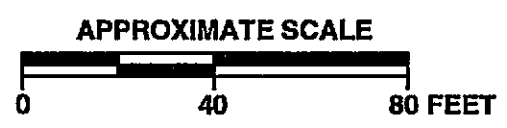
MW-6  
(2.43)

OAKLAND ESTUARY

SOURCE: Map from W.A. Craig dated 6-95



PACIFIC ENVIRONMENTAL GROUP, INC.



FORMER DORR-OLIVER SITE  
2901 Glascock Street  
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE:  
7  
PROJECT:  
360-014.1A

**ATTACHMENT A**  
**FIELD AND LABORATORY PROCEDURES**

## ATTACHMENT A

### FIELD AND LABORATORY PROCEDURES

---

#### **Soil Borings**

Soil borings were hand augered or collected using a hollow-stem auger drill rig. Soil samples from hand augered holes were collected at 1-foot depth intervals using a split-spoon sampler. Soil samples collected using the drilling rig were collected at 5-foot depth intervals using a California-modified split-spoon sampler. Soil samples for chemical analysis were retained in brass liners, capped with Teflon® squares and plastic end caps, and sealed in clean zip-lock bags. The samples were placed on ice for transport to the laboratory accompanied by chain-of-custody documentation. Down-hole drilling and sampling equipment was washed in a trisodium phosphate solution between samples.

#### **Groundwater Monitoring Well Installation**

The boring for the monitoring well was drilled using a hollow-stem auger rig. The boring was converted to groundwater monitoring wells by installing 2-inch diameter, flush-threaded, Schedule 40 PVC casing with 0.020-inch factory-slotted screen. Fifteen feet of screen was placed in the bottom of the boring. An RMC 2 x 12 sand pack will be placed in the annular space across the entire screened interval, and extends approximately 1 foot above the top of the screen for the well. A bentonite and Portland cement seal extends from the sand pack to the ground surface.

Following well completion, the vault box elevation and the elevation of the top of the PVC well casing of the monitoring wells was surveyed to the nearest 0.01 foot, relative to mean sea level, by a licensed surveyor. The boring log shows the well construction detail and the existing well head elevations.

#### **Organic Vapor Procedures**

Soil samples collected were analyzed in the field for ionizable organic compounds using the HNU Model PI-101 (or equivalent) photo-ionization detector (PID) with a 10.2 eV lamp. The test procedure involved measuring approximately 30 grams from an undisturbed soil

sample, placing this subsample in a clean plastic bag. The bag was warmed for approximately 20 minutes (in the sun), pierced, and the head-space within the bag tested for total organic vapor, measured in parts per million as benzene (ppm; volume/volume). The instrument was calibrated prior to drilling using a 100-ppm isobutylene standard (in air) and a sensitivity factor of 55 which relates the photo-ionization potential of benzene to that of isobutylene at 100 ppm. The results of the field testing were noted on the boring log. PID readings are useful for indicating relative levels of contamination, but cannot be used to evaluate hydrocarbon levels with the confidence of laboratory analyses.

### **Well Development and Groundwater Sampling**

The groundwater monitoring well was developed and sampled a minimum of 24 hours after completion of the wells. Well development procedure included swabbing and bailing and/or pumping. Water was removed from the well until relatively turbid free water is produced, or until a minimum of ten casing volumes were removed. The groundwater sampling procedure consisted of first measuring the water level in the well, and checking it for the presence of separate-phase hydrocarbons (SPH) using an MMC oil-water interface probe. If no SPH was present, the well was then be purged of a minimum of five casing volumes of water. During purging, temperature, pH, and electrical conductivity were monitored until stable to document that a representative sample is collected. After the water level recovers, a sample was collected from each well using a Teflon bailer and placed into appropriate EPA-approved containers. The samples were labeled, logged onto a chain-of-custody document, and transported on ice to the laboratory.

### **Rinsate, Purge, and Development Waters, and Soil Cuttings Storage and Disposal**

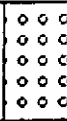
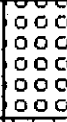



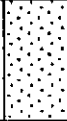


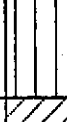
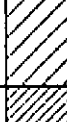





Waters produced during field activities were transported via a purge trailer and disposed of at a state-certified treatment and disposal facility. When necessary, waters were temporarily be stored on site in DOT-approved 55-gallon drums pending transport and disposal.

Soil cuttings generated during drilling were placed on visqueen and covered with plastic. Samples of the cuttings were collected and sent to a state-certified laboratory for analysis. Pending analytical results, the soil cuttings were hauled by a state-certified waste hauler to a state-certified treatment and disposal facility.

### **Laboratory Procedures**

Selected soil samples and groundwater samples were analyzed for the presence of total petroleum hydrocarbons calculated as gasoline, diesel, and motor oil using modified EPA Methods 8010/8240 along with EPA Methods 3550 and 3510, and metals using EPA

Methods 6010 (ICPI). Volatile organic compound analysis on groundwater was completed using EPA Method 8010. PCB analysis on soil and groundwater was completed using EPA Method 8080.

Primary Divisions		Group	Symbol/Graphic	Typical Names
<b>COARSE GRAINED SOILS</b>  more than half is larger than #200 sieve	<b>GRAVELS</b>  half of coarse fraction larger than #4 sieve	<b>CLEAN GRAVELS</b>  (less than 5% fines)	GW 	Well graded gravels, gravel-sand mixtures; little or no fines
		<b>GRAVEL WITH FINES</b>	GP 	Poorly graded gravels or gravel-sand mixtures; little or no fines
			GM 	Silty gravels, gravel-sand-silt mixtures
		GC 	Clayey gravels, gravel-sand-clay mixtures	
	<b>SANDS</b>  half of coarse fraction smaller than #4 sieve	<b>CLEAN SANDS</b>  (less than 5% fines)	SW 	Well graded sands, gravelly sands, little or no fines
		<b>SANDS WITH FINES</b>	SP 	Poorly graded sands or gravelly sands; little or no fines
			SM 	Silty sands, sand-silt mixtures
		SC 	Clayey sands, sand-clay mixtures, plastic fines	
<b>FINE GRAINED SOILS</b>  more than half is smaller than #200 sieve	<b>SILTS AND CLAYS</b>  liquid limit less than 50%		ML 	Inorganic silts and very fine sand, rock flour, silty or clayey fine sands or clayey silts, with slight plasticity
			CL 	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL 	Organic silts and organic silty clays of low plasticity
	<b>SILTS AND CLAYS</b>  liquid limit more than 50%		MH 	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH 	Inorganic clays of high plasticity, fat clays
			OH 	Organic clays of medium to high plasticity, organic silts
<b>HIGHLY ORGANIC SOILS</b>			Pt 	Peat and other highly organic soils

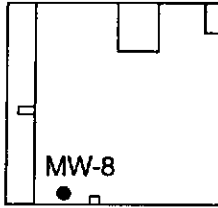


PACIFIC ENVIRONMENTAL GROUP, INC.

# Unified Soil Classification System

LOCATION MAP

Glascock Street



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-8

PAGE 1 OF 1

PROJECT NO. 360-014.1A  
 LOGGED BY: DA  
 DRILLER: MDE  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: SCH 40 PVC  
 CASING TYPE: SCH 40 PVC  
 SLOT SIZE: 0.020"  
 SAND PACK: 10 X 20 SAND

CLIENT: DORR-OLIVER  
 DATE DRILLED: 11-16-95  
 LOCATION: 2901 Glascock Street  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 20'  
 WELL DIAMETER: 2"  
 WELL DEPTH: 20'  
 CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				2				CONCRETE; BASEROCK
				4			CL	SILTY CLAY: dark brown; moderate plasticity; 85% clay; 15% silt; trace fine to medium sand; rootlets; subangular blocky fracturing; no product odor.
	Mst	0		6				
				8				
	Mst	0		10			ML	@9.5': as above; no product odor. SANDY SILT: light yellowish brown; low plasticity; 10% clay; 65% silt; 25% fine to very fine sand; blocky structure; no product odor.
				12				
				14			CL	SILTY CLAY: black; low plasticity; abundant organics; 75% clay; 20% silt; 5% fine sand; no product odor.
	Sat	0		16			SC	CLAYEY SAND: yellowish brown; iron oxide staining; 25% clay; 5% silt; 30% fine sand; trace medium to coarse sand; no product odor.
				18			SP	SAND: yellowish brown; 10% fines; 90% fine sand; heaving ; dense; no product odor.
	Sat	0		20				
				22				
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

BOTTOM OF BORING AT 19'



**ATTACHMENT B**

**CERTIFIED ANALYTICAL REPORTS AND  
CHAIN-OF-CUSTODY DOCUMENTATION**



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
 Suite E  
 San Jose, CA 95131  
 Tel: 408-432-8192  
 Fax: 408-432-8198

MS. MAREE DODEN  
 PACIFIC ENVIRONMENTAL GROUP  
 2025 GATEWAY PLACE, SUITE 440  
 SAN JOSE, CA 95110

Workorder # : 9511221  
 Date Received : 11/21/95  
 Project ID : 360-014.1A  
 Purchase Order: 30629

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9511221- 1	MW-8

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

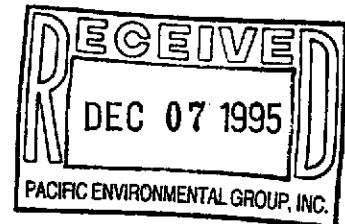
If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

*Susan Kraska Yeager*  
 Susan Kraska Yeager  
 Laboratory Director

*Scott Weidner*  
 Project Manager

12/6/95  
 Date

This report consists of 17 pages.





# Inchcape Testing Services

## Anamatrix Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8196

### GC/PESTICIDE REPORT DESCRIPTION

#### Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and within each method, organized sequentially in order of increasing Inchcape Testing Services ID Number.

#### Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "\*" and the total number of surrogates outside the limits will be listed in the column labeled "Total Out."

#### Matrix Spike Recovery, Laboratory Control Sample Forms

These forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes, laboratory control samples and their duplicates. This information is a statement of accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "\*".

#### Qualifiers

Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed, but not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an estimated value.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

#### REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report form. However, the report cover letter and report summary pages do display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511221  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : GC  
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511221- 1	MW-8	SOIL	11/16/95	8080 PCB

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511221  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : GC  
Sub-Department: PEST

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- Samples MW-8, MW-8MS and MW-8MSD were analyzed at a 10 fold dilution due to the complex nature of the sample extracts. Sample MW-8MSD had no recovery of Aroclor-1260 due to the high concentration of Aroclor-1260 present in the associated sample. The associated MS and LCS/LCSD had acceptable recovery for all spiked compounds.

Steve Amer 12/01/95  
Department Supervisor Date

John Yap 12/01/95  
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : MW-8  
 Matrix : SOIL  
 Date Sampled : 11/16/95  
 Date Extracted : 11/22/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : 9511221-01  
 Analyst : *SY*  
 Supervisor : *M*

Dilution Factor : 10.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	170.	ND	U
11104-28-2	Aroclor-1221	330.	ND	U
11141-16-5	Aroclor-1232	170.	ND	U
53469-21-9	Aroclor-1242	170.	ND	U
12672-29-6	Aroclor-1248	170.	ND	U
11097-69-1	Aroclor-1254	170.	ND	U
11096-82-5	Aroclor-1260	170.	1500.	

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : PBLKOV  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Extracted : 11/22/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : BN22H1PE  
 Analyst : *SY*  
 Supervisor : *M*

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8080 PCB  
ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
Matrix : SOIL

Anametrix ID : 9511221  
Analyst : *SY*  
Supervisor : *M*

	SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6
1	PBLKOV	96	99				
2	PLCSKY	96	99				
3	PLCSD4Y	95	98				
4	MW-8	99	84				
5	MW-8 MS	97	78				
6	MW-8 MSD	101	82				
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

QC LIMITS

SU1 = Decachlorobiphenyl (62-110)  
SU2 = Tetrachloro-m-xylene (69-129)

\* Values outside of Anametrix QC limits



MATRIX SPIKE RECOVERY FORM -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : MW-8  
 Matrix : SOIL  
 Date Sampled : 11/16/95  
 Date Extracted : 11/22/95  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : 9511221-01  
 Analyst : SY  
 Supervisor : M

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	%REC LIMITS
Aroclor-1016	166.67	.00	185.99	112	45-137
Aroclor-1260	166.67	1467.91	1601.37	80	45-137

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Aroclor-1016	166.67	188.40	113	1	25	45-137
Aroclor-1260	166.67	1296.40	0 *	1603 *	25	45-137

\* Value is outside of Anamatrix QC limits

RPD: 1 out of 2 outside limits  
 Spike Recovery: 1 out of 4 outside limits

LCS SPIKE RECOVERY FORM -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : LCS/LCSD  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Extracted : 11/22/95  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : M/NN22H1PE  
 Analyst : *SY*  
 Supervisor : *M*

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	%REC LIMITS
Aroclor-1016	166.67	.00	175.17	105	45-137
Aroclor-1260	166.67	.00	168.20	101	45-137

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Aroclor-1016	166.67	172.85	104	1	25	45-137
Aroclor-1260	166.67	166.04	100	1	25	45-137

\* Value is outside of Anamatrix QC limits

RPD: 0 out of 2 outside limits  
 Spike Recovery: 0 out of 4 outside limits

# ANAMETRIX REPORT DESCRIPTION

## INORGANICS

### Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

### Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anamatrix control limit for MSR is 75-125% with 25% for RPD limits, except for Method 6010A, which is 80-120% with 25% RPD limits.

### Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anamatrix control limit for LCSR is 80-120%.

### Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

### Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anamatrix control limit for PDSR is 75-125%.

### Qualifiers (Q)

Anamatrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

- I - Sample was analyzed at the stated dilution due to interferences.
- U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
- B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
- H - Spike percent recovery was outside of Anamatrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
- L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

### Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

- A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
- T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
- C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
- D - Reported results are dissolved, not total, metals.

### Reporting Conventions

Analytical values reported are gross values, i.e., not corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511221  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511221- 1	MW-8	SOIL	11/16/95	6010
9511221- 1	MW-8	SOIL	11/16/95	9045

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511221  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- Holding times have been met for the analyses reported in this section.

Mona Kamel For 12/04/95  
Department Supervisor Date

Stephen Carroll 12/3/95  
Chemist Date

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anametrix Sample ID: 9511221-01  
Client Sample ID: MW-8  
Client Project Number: 360-014.1A  
Matrix: SOIL

Date Sampled: 11/16/95  
Analyst: *SC*  
Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/24/95	11/28/95	10	mg/Kg	5.0	5.4	I
Chromium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	1.0	79.8	
Lead	3050A	6010A	ICP1	11/24/95	11/28/95	10	mg/Kg	3.0	803	I
Nickel	3050A	6010A	ICP1	11/24/95	11/28/95	5	mg/Kg	20.0	109	I
Zinc	3050A	6010A	ICP1	11/24/95	11/28/95	10	mg/Kg	20.0	581	I
pH	9045	9045	MET3	11/22/95	11/22/95	1	pH	+/-0.1	9.4	I

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
METHOD BLANK REPORT**

Anamatrix Sample ID: **BN245SD**  
Anamatrix WO #: **9511221**  
Client Project Number: **360-014.1A**  
Matrix: **SOIL**

Analyst: *SC*  
Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	1.0	ND	
Lead	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	4.0	ND	
Nickel	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	4.0	ND	
Zinc	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	2.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
LABORATORY CONTROL SAMPLE REPORT**

Lab. Control Sample ID: LN245SD  
Anamatrix WO #: 9511221  
Client Project Number: 360-014.1A  
Matrix: SOIL

Analyst: *SM*  
Supervisor: *MV*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Cadmium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	5.0	4.9	98.0	
Chromium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	20.0	18.8	94.0	
Lead	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	50.0	47.7	95.4	
Nickel	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	50.0	46.6	93.2	
Zinc	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	50.0	48.4	96.8	

COMMENTS:



### Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Former Dorr-Olden Site Facility Address: 2901 Glascock Ave, Oakland Billing Reference Number: 30629

CLIENT engineer: \_\_\_\_\_ PACIFIC Point of Contact: Maree Dodu Sampler: Doug Andrew Laboratory Name: Anametrix

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	BTEX			Total	VOC (EPA 824)	SVOC (EPA 827)	HVOC (EPA 801)	PCB's	* Lwt Metals	PH	Comments:
								VPHgas (8015/8020)	TPH (8015)	Oil and Grease (5520)								
<u>MW-8(1')</u>	<u>1</u>	<u>2" X 8"</u>	<u>NP</u>	<u>S</u>	<u>D</u>	<u>11/16/95</u>								<u>X</u>	<u>X</u>	<u>X</u>	<u>*Lwt metals are (Cd, Cr, Ni, Pb, Zn)</u>	

Condition of Sample:				Temperature Received:				Mail original Analytical Report to:				Turnaround Time:	
Relinquished by _____ Date <u>11-21-95</u> Time <u>1500</u>				Received by _____ Date _____ Time _____				Pacific Environmental Group				Priority Rush (1 day) <input type="checkbox"/>	
Relinquished by _____ Date _____ Time _____				Received by _____ Date _____ Time _____				2025 Gateway Place #440 San Jose, CA 95110 <input checked="" type="checkbox"/>				Rush (2 days) <input type="checkbox"/>	
Relinquished by _____ Date _____ Time _____				Received by _____ Date _____ Time _____				620 Contra Costa Blvd. #209 Pleasant Hill, CA 94523 <input type="checkbox"/>				Expedited (5 days) <input type="checkbox"/>	
Relinquished by _____ Date _____ Time _____				Received by _____ Date _____ Time _____				25725 Jeronimo Rd. #578C Mission Viejo, CA 92622 <input type="checkbox"/>				Standard (10 days) <input checked="" type="checkbox"/>	
Relinquished by _____ Date _____ Time _____				Received by laboratory _____ Date <u>11/21/95</u> Time <u>1500</u>				4020 148th Ave NE #B Redmond, WA 98052 <input type="checkbox"/>				As Contracted <input type="checkbox"/>	

### Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Former Dorr-Oliver Site Facility Address: 2901 Glascock Ave, Oakland Billing Reference Number: 30629

CLIENT engineer: PACIFIC Point of Contact: Marce Roden Sampler: Doug Andrews Laboratory Name: Anametrix

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix		Sampling Date	Sampling Time	Total			VOC (EPA 624/8240)	SVOC (EPA 627/8270)	HVOC (EPA 601/8010)	PCB's	* Luft Metals	PH	Comments:
				W=water	S=soll			A=air	G=grab	D=disc.							
① MW-8	1	2"x8"	NP	S	D	11/16/95								X	X	X	* Luft metals are (Cd, Cr, Ni, Pb, Zn)

Condition of Sample:			Temperature Received:			Mail original Analytical Report to: Pacific Environmental Group			Turnaround Time:		
Relinquished by	Date	Time	Received by	Date	Time	2025 Gateway Place #440	<input checked="" type="checkbox"/>	Priority Rush (1 day)	<input type="checkbox"/>		
<i>Doug Andrews</i>	11-21-95	1500				San Jose, CA 95110		Rush (2 days)	<input type="checkbox"/>		
Relinquished by	Date	Time	Received by	Date	Time	620 Contra Costa Blvd. #209	<input type="checkbox"/>	Expedited (5 days)	<input type="checkbox"/>		
						Pleasant Hill, CA 94523		Standard (10 days)	<input checked="" type="checkbox"/>		
Relinquished by	Date	Time	Received by	Date	Time	25725 Jeronlmo Rd. #576C	<input type="checkbox"/>	As Contracted	<input type="checkbox"/>		
						Mission Viejo, CA 92622					
Relinquished by	Date	Time	Received by laboratory	Date	Time	4020 148th Ave NE #B	<input type="checkbox"/>				
			<i>[Signature]</i>	11/21/95	1500	Redmond, WA 98052					



### SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 95120

CLIENT PROJECT ID: 360-014,1A

**COOLER**

Shipping slip (airbill, etc.) present?	YES	NO	<u>N/A</u>
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	<u>N/A</u>
Condition: INTACT _____ BROKEN _____			
Temperature of sample (s) within range?	<u>YES</u>	NO	N/A
List temperature of cooler (s): <u>20</u>			

**SAMPLES**

Chain of custody seal present for each container?	YES	NO	<u>N/A</u>
Condition: INTACT _____ BROKEN _____			
Samples arrived within holding time?	<u>YES</u>	NO	N/A
Samples in proper containers for methods requested?	<u>YES</u>	NO	
Condition of containers: INTACT <u>8</u> BROKEN _____			
If NO, were samples transferred to proper container? _____			
Were VOA containers received with zero headspace?	YES	NO	<u>N/A</u>
If NO, was it noted on the chain of custody? _____			
Were container labels complete? (ID, date, time preservative, etc.)	<u>YES</u>	NO	
Were samples preserved with the proper preservative?	YES	NO	<u>N/A</u>
If NO, was the proper preservative added at time of receipt? _____			
pH check of samples required at time of receipt?	YES	<u>NO</u>	
If YES, pH checked and recorded by: _____			
Sufficient amount of sample received for methods requested?	<u>YES</u>	NO	
If NO, has the client or lab project manager been notified? _____			
Field blanks received with sample batch? # of Sets: _____	YES	NO	<u>N/A</u>
Trip blanks received with sample batch? # of Sets: _____	YES	NO	<u>N/A</u>

**CHAIN OF CUSTODY**

Chain of custody received with samples?	<u>YES</u>	NO
Has it been filled out completely and in ink?	<u>YES</u>	NO
Sample ID's on chain of custody agree with container labels?	<u>YES</u>	NO
Number of containers indicated on chain of custody agree with number received?	<u>YES</u>	NO
Analysis methods clearly specified?	<u>YES</u>	NO
Sampling date and time indicated?	<u>YES</u>	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	<u>YES</u>	NO
Turnaround time? REGULAR <u>✓</u> RUSH _____		

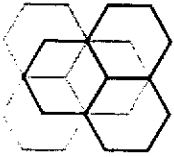
Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: [Signature]

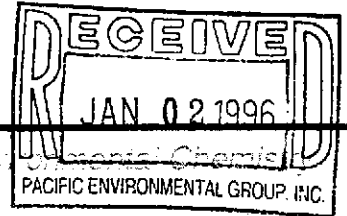
Date: 11/21/95

Project Manager: [Signature]

Date: 12/6/95



AN / EN Inc



Analytical & Environmental Chemis

PACIFIC ENVIRONMENTAL GROUP, INC.

12/29/95

A/E3720.1

MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP, INC.  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

---

Following are the results for AN/EN lab#-A/E3720.1 that were subcontracted to  
Inchape Testing Services-Anamatrix Laboratories

Client Project ID: **360-014.1A**  
Date Received by AN/EN: 12/14/95  
Number of Samples: 1  
Sample Matrix: **SOIL**

---

If you have any questions or need assistance, please feel free to call me at  
408/883-0123.

Sincerely,

  
Laurie Glantz-Murphy

---

455 RESERVATION ROAD, SUITE G • MARINA, CA 93933 • (408) 883-0123 • FAX (408) 883-0122



# Inchcape Testing Services

## Anamatrix Laboratories

1961 Concourse Drive  
 Suite E  
 San Jose, CA 95131  
 Tel: 408-432-8192  
 Fax: 408-432-8198

MS. LAURIE MURPHY  
 AN/EN INC.  
 455 RESERVATION ROAD  
 MARINA, CA 93933

Workorder # : 9512137  
 Date Received : 12/13/95  
 Project ID : 360-014.1A  
 Purchase Order: 3720

The following samples were received at Anamatrix for analysis :

ANAMATRIX ID	CLIENT SAMPLE ID
9512137- 1	B-3(6')

This report is organized in sections according to the specific Anamatrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anamatrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

*Susan Kraska Yeager*

Susan Kraska Yeager  
 Laboratory Director

*12-22-95*

Date

*James W. ...*  
 Project Manager

This report consists of 1 pages.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. LAURIE MURPHY  
AN/EN INC.  
455 RESERVATION ROAD  
MARINA, CA 93933

Workorder # : 9512137  
Date Received : 12/13/95  
Project ID : 360-014.1A  
Purchase Order: 3720  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9512137- 1	B-3 (6')	SOIL	11/10/95	6010

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. LAURIE MURPHY  
AN/EN INC.  
455 RESERVATION ROAD  
MARINA, CA 93933

Workorder # : 9512137  
Date Received : 12/13/95  
Project ID : 360-014.1A  
Purchase Order: 3720  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Mona Kame For 12/21/95  
Department Supervisor Date

[Signature] 12/21/95  
Chemist Date

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9512137-01  
 Client Sample ID: B-3(6')  
 Client Project Number: 360-014.1A  
 Matrix: SOIL

Date Sampled: 11/10/95  
 Analyst: SC  
 Supervisor: *MN*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	0.50	0.95	
Chromium	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	1.0	40.5	
Lead	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	4.0	331	
Nickel	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	4.0	52.5	
Zinc	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	2.0	202	

COMMENTS:



**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
METHOD BLANK REPORT**

Anamatrix Sample ID: **BD145SB**  
 Anamatrix WO #: **9512137**  
 Client Project Number: **360-014.1A**  
 Matrix: **SOIL**

Analyst: *g*  
 Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	1.0	ND	
Lead	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	4.0	ND	
Nickel	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	4.0	ND	
Zinc	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	2.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
LABORATORY CONTROL SAMPLE REPORT**

Lab. Control Sample ID: LD145SB  
Anamatrix WO #: 9512137  
Client Project Number: 360-014.1A  
Matrix: SOIL

Analyst: *CS*  
Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Cadmium	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	5.0	5.2	104	
Chromium	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	20.0	20.5	103	
Lead	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	50.0	50.5	101	
Nickel	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	50.0	50.1	100	
Zinc	3050A	6010A	ICP2	12/14/95	12/15/95	1	mg/Kg	50.0	49.5	99.0	

COMMENTS:



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

### SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9512137 CLIENT PROJECT ID: 360-014. 1A

#### COOLER

Shipping slip (airbill, etc.) present?	YES	NO	<input checked="" type="radio"/> N/A
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	<input checked="" type="radio"/> N/A
Condition: INTACT _____ BROKEN _____			
Temperature of sample (s) within range? <u>2/c</u>	<input checked="" type="radio"/> YES	NO	N/A
List temperature of cooler (s): _____			

#### SAMPLES

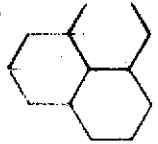
Chain of custody seal present for each container?	YES	NO	<input checked="" type="radio"/> N/A
Condition: INTACT _____ BROKEN _____			
Samples arrived within holding time?	<input checked="" type="radio"/> YES	NO	N/A
Samples in proper containers for methods requested?	<input checked="" type="radio"/> YES	NO	
Condition of containers: INTACT <input checked="" type="checkbox"/> BROKEN _____			
If NO, were samples transferred to proper container? _____			
Were VOA containers received with zero headspace?	YES	NO	<input checked="" type="radio"/> N/A
If NO, was it noted on the chain of custody? _____			
Were container labels complete? (ID, date, time preservative, etc.)	<input checked="" type="radio"/> YES	NO	
Were samples preserved with the proper preservative?	YES	NO	<input checked="" type="radio"/> N/A
If NO, was the proper preservative added at time of receipt? _____			
pH check of samples required at time of receipt?	YES	<input checked="" type="radio"/> NO	
If YES, pH checked and recorded by: _____			
Sufficient amount of sample received for methods requested?	<input checked="" type="radio"/> YES	NO	
If NO, has the client or lab project manager been notified? _____			
Field blanks received with sample batch? # of Sets: _____	YES	NO	<input checked="" type="radio"/> N/A
Trip blanks received with sample batch? # of Sets: _____	YES	NO	<input checked="" type="radio"/> N/A

#### CHAIN OF CUSTODY

Chain of custody received with samples?	YES	<input checked="" type="radio"/> NO
Has it been filled out completely and in ink?	<input checked="" type="radio"/> YES	NO
Sample ID's on chain of custody agree with container labels?	<input checked="" type="radio"/> YES	NO
Number of containers indicated on chain of custody agree with number received?	YES	<input checked="" type="radio"/> NO
Analysis methods clearly specified?	<input checked="" type="radio"/> YES	NO
Sampling date and time indicated?	<input checked="" type="radio"/> YES	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	<input checked="" type="radio"/> YES	NO
Turnaround time? REGULAR <input checked="" type="checkbox"/> RUSH _____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: J Date: 12/13/15 Project Manager: WJ2 Date: 12/14/15



AN/EN Inc

7/12/95

1412

455 RESERVATION ROAD \* SUITE C \* MARINA, CA 93933 \* PHONE: 408/883-0123 \* FAX: 408/883-0122

SAMPLING AND ANALYSIS CHAIN OF CUSTODY RECORD

NAME AN/EN, Inc ADDRESS PHONE LAB # 3720

PROJECT ID: 360-014.1A ACCT #

Table with columns: #, WATER \ SOIL, OTHER, CONTAINERS, SAMPLED BY, AN/EN Inc., SUBCONTRACT LAB: and rows for sample IDs B-3(6') through -11.

TAT NORMAL \ RUSH SPECIAL INSTRUCTIONS:

Relinquished by: [Signature] Date: 12/12/95 Time: 16:05 Received by: [Signature]

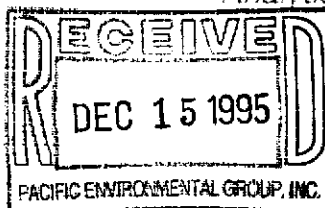
Relinquished by: [Signature] Date: 12-12-95 Time: 19:20 Received by: Josephine DeCarli

Relinquished by: Date: Time: Received by:



AN / EN Inc

Analytical & Environmental Chemistry



11/24/95

A/E3720

MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP, INC.  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

This is the **CERTIFICATE OF ANALYSIS** for the following samples as received.

Client Project ID: 360-014.1A  
Date Received by Lab: 11/15/95  
Total Number of Samples: 8  
Sample Matrix: SOIL

Volatile Organics are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation/introduction. Method 8010 (Halogenated Volatile Organics-GC/ELCD) or Method 8240 (Volatile Organics-GC/MS) is used for the analysis.

BTEX is analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation / introduction. Method 8020 (Aromatic Volatile Organics) is used for the analysis.

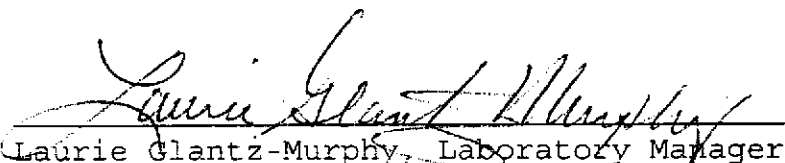
Total Volatile Petroleum Hydrocarbons (Gasoline, Stoddard) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. Method 5030 (Purge and Trap) is used for the sample preparation and introduction.

Total Extractable Petroleum Hydrocarbons (Diesel, Oil, Kerosene, Stoddard, etc.) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. EPA Method 3550-sonication (soil) or EPA Method 3510-separatory funnel liquid-liquid (water) is used for sample extraction/preparation.

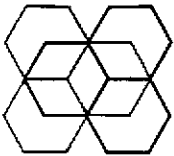
Organochlorine Pesticides are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. EPA Method 3550 (soil) or EPA Method 3510 (water) is used for sample extraction/preparation. Method 8080 (Organochlorine Pesticides - GC-ECD/ECD) is used for the analysis.

AN/EN, Inc. is accredited by the California Department of Health Services; Certificate Number 1183 (original issue May 7, 1990). The DHS- Environmental Laboratory Accreditation Program can be reached at (510) 540-2800.

Reviewed and Approved:

  
Laurie Glantz-Murphy, Laboratory Manager

455 RESERVATION ROAD, SUITE G • MARINA, CA 93933 • (408) 883-0123 • FAX (408) 883-0122



## TPH-EXTRACTABLE (DIESEL/MOTOR OIL RANGE) BY GC/FID

Client Project/I.D.: 360-014.1A  
Date Sampled: 11/10/95-11/13/95  
Date Received: 11/15/95  
Date Extracted: 11/15/95  
Matrix: Soil  
Analyst: *pm*

Concentration in samples expressed as mg/Kg (ppm).

Sample ID	Diesel	Motor Oil	Lab I.D.	Date	
				Analyzed	PQL
B-3 (6')	ND	720	3720-01	11/17/95	200
B-6 (5')	ND	ND	3720-02	11/17/95	10
B-7 (5')	ND	ND	3720-03	11/17/95	10
B-8 (5')	ND	ND	3720-04	11/17/95	10
B-9 (5')	12	ND	3720-05	11/17/95	10
B-13 (5')	1700	850	3720-06	11/17/95	300
B-14 (5')	ND	ND	3720-07	11/17/95	10
B-15 (5')	ND	ND	3720-08	11/17/95	10
Method Blank	ND	ND	3720-MB	11/15/95	10

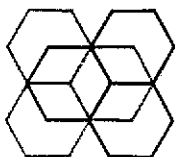
ND = None Detected at or above the PQL.

PQL = Practical Quantitation Limit.

J = Estimated value below PQL, but above method detection limit.

NOTE: The diesel concentration reported for sample B-13 (5') is due to either aged diesel or a light oil in the boiling point range of diesel.

Total Extractable Petroleum Hydrocarbons (as Diesel) is analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Manual, Last Revision October 1989. Method 3550 is used for sample extraction.



**LABORATORY CONTROL SPIKE REPORT - SOIL**

Laboratory I.D.: 3720-LCS

Date Extracted: 11/15/95

Date Analyzed: 11/15/95

Concentration of sample and spikes expressed as mg/Kg (ppm).

ANALYTE	Spike Added	LCS Conc	LCS %Rec	%Rec Limits
Diesel	50	42.5	85%	71-135

Spike Recovery: 0 out of 1 outside limits.

# Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Fmr Dorr-Oliver

Facility Address: 2901 Glascock Ave, Oakland

Billing Reference Number: PO-30624

CLIENT engineer: SJA

PACIFIC Point of Contact: Marce Dale Sampler: Dory Andrus

Laboratory Name: An/En

00  
00  
00  
00  
00  
00  
00  
00

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix		Sampling Date	Sampling Time	BTEX/ VPHgas (8015/8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Distlvd. Metals	VOC (EPA 624/8240)	SVOC (EPA 627/8270)	HVOC (EPA 601/8010)	Evel Fingerprint
				W-water S-soil A-air	G-grab D-disc C-comp.										
B-3(6')	1	2 1/2" Brass	NP	S	D	11/10/95									X
B-6(5')*															
B-7(5')*															
B-8(5')															
B-9(5')						11/13/95									
B-13(5')						11/13/95									
B-14(5')															
B-15(5')															

Comments:  
\* Please compare results w/ oil's grease standards to determine what is present.

Lab:  
Please note any oil + grease detection

Condition of Sample:		Temperature Received:		Mail original Analytical Report to: Pacific Environmental Group		Turnaround Time:	
Relinquished by <u>Dory Andrus</u>	Date <u>11-14-95</u>	Time <u>4:30pm</u>	Received by <u>D. Darden</u>	Date <u>11/15/95</u>	Time <u>1:00</u>	2025 Gateway Place #440 San Jose, CA 95110	Priority Rush (1 day) <input type="checkbox"/>
Relinquished by <u>D. Darden</u>	Date <u>11/15/95</u>	Time <u>11:00</u>	Received by <u>Steve Trester</u>	Date <u>11/15</u>	Time <u>11:00</u>	620 Contra Costa Blvd. #209 Pleasant Hill, CA 94523	Rush (2 days) <input type="checkbox"/>
Relinquished by	Date	Time	Received by	Date	Time	25725 Jeronimo Rd. #576C Mission Viejo, CA 92622	Expedited (5 days) <input type="checkbox"/>
Relinquished by	Date	Time	Received by laboratory	Date	Time	4020 148th Ave NE #B Redmond, WA 98052	Standard (10 days) <input checked="" type="checkbox"/>
							As Contracted <input type="checkbox"/>

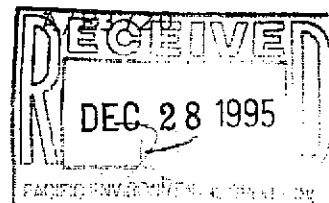




**AN/EN Inc**

Analytical & Environmental Chemistry

11/24/95



MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP, INC.  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

This is the **CERTIFICATE OF ANALYSIS** for the following samples as received.

Client Project ID: 360-014.1A  
Date Received by Lab: 11/15/95  
Total Number of Samples: 8  
Sample Matrix: SOIL

Volatile Organics are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation/introduction. Method 8010 (Halogenated Volatile Organics-GC/ELCD) or Method 8240 (Volatile Organics-GC/MS) is used for the analysis.

BTEX is analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation / introduction. Method 8020 (Aromatic Volatile Organics) is used for the analysis.


Total Volatile Petroleum Hydrocarbons (Gasoline, Stoddard) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. Method 5030 (Purge and Trap) is used for the sample preparation and introduction.

Total Extractable Petroleum Hydrocarbons (Diesel, Oil, Kerosene, Stoddard, etc.) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. EPA Method 3550-sonication (soil) or EPA Method 3510-separatory funnel liquid-liquid (water) is used for sample extraction/preparation.

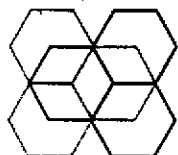
Organochlorine Pesticides are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. EPA Method 3550 (soil) or EPA Method 3510 (water) is used for sample extraction/preparation. Method 8080 (Organochlorine Pesticides - GC-ECD/ECD) is used for the analysis.

AN/EN, Inc. is accredited by the California Department of Health Services; Certificate Number 1183 (original issue May 7, 1990). The DHS- Environmental Laboratory Accreditation Program can be reached at (510) 540-2800.

Reviewed and Approved:

  
Laurie Glantz-Murphy, Laboratory Manager

455 RESERVATION ROAD, SUITE G • MARINA, CA 93933 • (408) 883-0123 • FAX (408) 883-0122



## TPH-EXTRACTABLE (DIESEL/MOTOR OIL RANGE) BY GC/FID

Client Project/I.D.: 360-014.1A  
Date Sampled: 11/10/95-11/13/95  
Date Received: 11/15/95  
Date Extracted: 11/15/95  
Matrix: Soil  
Analyst: *pm*

Concentration in samples expressed as mg/Kg (ppm).

Sample ID	Diesel	Motor Oil	Lab I.D.	Date	PQL
				Analyzed	
B-3 (6')	ND	720	3720-01	11/17/95	200
B-6 (5')	ND	ND	3720-02	11/17/95	10
B-7 (5')	ND	ND	3720-03	11/17/95	10
B-8 (5')	ND	ND	3720-04	11/17/95	10
B-9 (5')	12	ND	3720-05	11/17/95	10
B-13 (5')	1700	850	3720-06	11/17/95	300
B-14 (5')	ND	ND	3720-07	11/17/95	10
B-15 (5')	ND	ND	3720-08	11/17/95	10
Method Blank	ND	ND	3720-MB	11/15/95	10

ND = None Detected at or above the PQL.

PQL = Practical Quantitation Limit.

J = Estimated value below PQL, but above method detection limit.

NOTE: The diesel concentration reported for sample B-13 (5') is due to either aged diesel or a light oil in the boiling point range of diesel.

Total Extractable Petroleum Hydrocarbons (as Diesel) is analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Manual, Last Revision October 1989. Method 3550 is used for sample extraction.



**AN / EN Inc**

Analytical & Environmental Chemistry

**LABORATORY CONTROL SPIKE REPORT - SOIL**

Laboratory I.D.: 3720-LCS

Date Extracted: 11/15/95

Date Analyzed: 11/15/95

Concentration of sample and spikes expressed as mg/Kg (ppm).

ANALYTE	Spike Added	LCS Conc	LCS %Rec	%Rec Limits
Diesel	50	42.5	85%	71-135

Spike Recovery: 0 out of 1 outside limits.

11/15/95

### Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Fmr Dorr-Oliver

Facility Address: 2901 Glascock Ave, Oakland

Billing Reference Number: PO 30624

CLIENT engineer: SJC

PACIFIC Point of Contact: Marce Dade Sampler: Doug Andrus

Laboratory Name: An/En

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix		Sampling Date	Sampling Time	BTEX/ VPHgas (8015/ 8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Dislvd. Metals	VOC (EPA 624/ 8240)	SVOC (EPA 627/ 8270)	HVOC (EPA 601/ 8010)	Fuel Fingerprint
				W-water S-soil A-air	G-grab D-disc C-comp										
B-3(6')	1	2 1/8" Brass	NP	S	D	11/10/95									X
B-6(5')*	↓	↓	↓	↓	↓	↓									↓
B-7(5')*	↓	↓	↓	↓	↓	↓									↓
B-8(5')	↓	↓	↓	↓	↓	↓									↓
B-9(5')	↓	↓	↓	↓	↓	11/13/95									↓
B-13(5')	↓	↓	↓	↓	↓	11/15/95									↓
B-14(5')	↓	↓	↓	↓	↓	↓									↓
B-15(5')	↓	↓	↓	↓	↓	↓									↓

Comments:  
\* Please compare results w/ oil & grease standards to determine what is present.  
  
Lab: Please note any oil & grease detection

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by: Doug Andrus Date: 11-14-95 Time: 4:30pm  
 Relinquished by: M Dade Date: 11/15/95 Time: 1100  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: M Dade Date: 11/14/95 Time: 1635  
 Received by: Steve Trester Date: 11/15 Time: 1100  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by laboratory: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Pacific Environmental Group  
 2025 Gateway Place #440 San Jose, CA 95110   
 620 Contra Costa Blvd. #209 Pleasant Hill, CA 94523   
 25725 Jeronimo Rd. #576C Mission Viejo, CA 92622   
 4020 148th Ave NE #B Redmond, WA 98052

Priority Rush (1 day)   
 Rush (2 days)   
 Expedited (5 days)   
 Standard (10 days)   
 As Contracted

# Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Fmr Dorr-Oliver

Facility Address: 2901 Glascock Ave, Oakland

Billing-Reference Number: PO-30624

CLIENT engineer: Joe

PACIFIC Point of Contact: Marce Dada Sampler: Dory Andrus

Laboratory Name: An/En

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix		Sampling Date	Sampling Time	BTEX/ VPHgas (8015/8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Dislvd. Metals	VOC (EPA 624/8240)	SVOC (EPA 627/8270)	HVOC (EPA 601/8010)	Fuel Fingerprint	Leak Metals (Cd, Cr, Ni, Pb, Zn)
				W-water S=soil A=air	G=grab D=disc C=comp.											
B-3(6')	1	2 1/8" BRASS	NP	S	D	11/10/95									X	X
B-6(5')*																
B-7(5')*																
B-8(5')																
B-9(5')						11/13/95										
B-13(5')						11/13/95										
B-14(5')																
B-15(5')																

Comments:  
\* Please compare results w/ oil's grease standards to determine what is present.  
  
Lab: Please note any oil + grease detection  
  
\*\* Please sub to Anametrix to perform metals ~~analyses~~

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by <u>[Signature]</u>	Date <u>11-14-95</u>	Time <u>4:30pm</u>	Received by <u>[Signature]</u>	Date <u>11/14/95</u>	Time <u>1630</u>
Relinquished by <u>[Signature]</u>	Date <u>11/15/95</u>	Time <u>1100</u>	Received by <u>[Signature]</u>	Date <u>11/15/95</u>	Time <u>1100</u>
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by laboratory	Date	Time

Pacific Environmental Group  
2025 Gateway Place #440  
San Jose, CA 95110   
620 Contra Costa Blvd. #209  
Pleasant Hill, CA 94523   
25725 Jeronimo Rd. #576C  
Mission Viejo, CA 92622   
4020 148th Ave NE #B  
Redmond, WA 98052

- Priority Rush (1 day)
- Rush (2 days)
- Expedited (5 days)
- Standard (10 days)
- As Contracted



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
 Suite E  
 San Jose, CA 95131  
 Tel: 408-432-8192  
 Fax: 408-432-8198

MS. MAREE DODEN  
 PACIFIC ENVIRONMENTAL GROUP  
 2025 GATEWAY PLACE, SUITE 440  
 SAN JOSE, CA 95110

Workorder # : 9511150  
 Date Received : 11/15/95  
 Project ID : 360-014.1A  
 Purchase Order: 30629

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9511150- 1	B-2 (1')
9511150- 2	B-4 (1')
9511150- 3	B-5 (1')
9511150- 4	B-6 (1')
9511150- 5	B-7 (1')
9511150- 6	B-10 (1')
9511150- 7	B-11 (1')
9511150- 8	B-12 (1')
9511150- 9	B-2 (3')
9511150-10	B-4 (3')
9511150-11	B-5 (3')
9511150-12	B-6 (3')
9511150-13	B-7 (3')
9511150-14	B-10 (3')
9511150-15	B-11 (3')
9511150-16	B-12 (3')

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

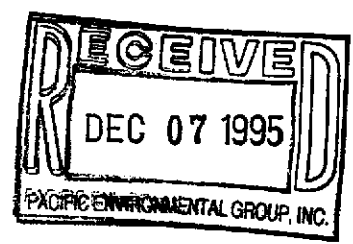
If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Susan Kraska Yeager  
 Laboratory Director

James Uberta  
 Project Manager

12/6/95  
 Date

This report consists of 34 pages.





# Inchcape Testing Services

## Anametrix Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

### GC/PESTICIDE REPORT DESCRIPTION

#### Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and within each method, organized sequentially in order of increasing Inchcape Testing Services ID Number.

#### Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "\*" and the total number of surrogates outside the limits will be listed in the column labeled "Total Out."

#### Matrix Spike Recovery, Laboratory Control Sample Forms

These forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes, laboratory control samples and their duplicates. This information is a statement of accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "\*\*".

#### Qualifiers

Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed, but not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an estimated value.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

#### REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report form. However, the report cover letter and report summary pages do display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511150  
Date Received : 11/15/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : GC  
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511150- 1	B-2(1')	SOIL	11/10/95	8080 PCB
9511150- 2	B-4(1')	SOIL	11/10/95	8080 PCB
9511150- 3	B-5(1')	SOIL	11/10/95	8080 PCB
9511150- 4	B-6(1')	SOIL	11/10/95	8080 PCB
9511150- 5	B-7(1')	SOIL	11/10/95	8080 PCB
9511150- 6	B-10(1')	SOIL	11/09/95	8080 PCB
9511150- 7	B-11(1')	SOIL	11/09/95	8080 PCB
9511150- 8	B-12(1')	SOIL	11/09/95	8080 PCB



REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511150  
Date Received : 11/15/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : GC  
Sub-Department: PEST

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- Sample B-2(1') was analyzed at a ten fold dilution to get the target compounds within calibration range. The sample had high recovery of surrogate Decachlorobiphenyl due to the dilution required for the analysis.
- Sample B-12(1') was analyzed at a 1000 fold dilution to get the target compounds within calibration range. The sample had no surrogate recoveries due to the high dilution required for the analysis.

Steve Sims  
Department Supervisor

11/22/95  
Date

[Signature]  
Chemist

11/22/95  
Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-2(1')  
 Matrix : SOIL  
 Date Sampled : 11/10/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/20/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-01  
 Analyst : *SY*  
 Supervisor : *h*  
 Dilution Factor : 10.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	170.	ND	U
11104-28-2	Aroclor-1221	330.	ND	U
11141-16-5	Aroclor-1232	170.	ND	U
53469-21-9	Aroclor-1242	170.	ND	U
12672-29-6	Aroclor-1248	170.	ND	U
11097-69-1	Aroclor-1254	170.	ND	U
11096-82-5	Aroclor-1260	170.	660.	

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-4(1')  
 Matrix : SOIL  
 Date Sampled : 11/10/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-02  
 Analyst : SY  
 Supervisor : M

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	30.	

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-5(1')  
 Matrix : SOIL  
 Date Sampled : 11/10/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-03  
 Analyst : SY  
 Supervisor : M

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-6(1')  
 Matrix : SOIL  
 Date Sampled : 11/10/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-04  
 Analyst : SY  
 Supervisor : M

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-7(1')  
 Matrix : SOIL  
 Date Sampled : 11/10/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-05  
 Analyst : *SY*  
 Supervisor : *m*

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	19.	

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-10(1')  
 Matrix : SOIL  
 Date Sampled : 11/ 9/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-06  
 Analyst : *sy*  
 Supervisor : *n*

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	44.	

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-11(1')  
 Matrix : SOIL  
 Date Sampled : 11/ 9/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-07  
 Analyst : SY  
 Supervisor : M  
 Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	210.	



ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-12(1')  
 Matrix : SOIL  
 Date Sampled : 11/ 9/95  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/20/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-08  
 Analyst : *SY*  
 Supervisor : *m*  
 Dilution Factor : 1000.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17000.	ND	U
11104-28-2	Aroclor-1221	33000.	ND	U
11141-16-5	Aroclor-1232	17000.	ND	U
53469-21-9	Aroclor-1242	17000.	ND	U
12672-29-6	Aroclor-1248	17000.	ND	U
11097-69-1	Aroclor-1254	17000.	ND	U
11096-82-5	Aroclor-1260	17000.	130000.	

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : PBLKN9  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Extracted : 11/16/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : BN16H1PE  
 Analyst : SY  
 Supervisor : M

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8080 PCB  
ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
Matrix : SOIL

Anamatrix ID : 9511150  
Analyst : Sy  
Supervisor :

	SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6
1	PBLKN9	87	95				
2	PLCSKC	87	97				
3	PLCSD4G	83	92				
4	B-2(1')	119 *	102				
5	B-4(1')	81	96				
6	B-5(1')	77	99				
7	B-6(1')	81	99				
8	B-7(1')	81	92				
9	B-10(1')	90	104				
10	B-11(1')	84	99				
11	B-12(1')	0 *	0 *				
12	B-5(1')MS	87	99				
13	B-5(1')MSD	91	103				
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

QC LIMITS  
-----

SU1 = Decachlorobiphenyl #2 (62-110)  
SU2 = Tetrachloro-m-xylene # (69-129)

\* Values outside of Anamatrix QC limits

MATRIX SPIKE RECOVERY FORM -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : B-5(1')  
 Matrix : SOIL  
 Date Sampled : 11/10/95  
 Date Extracted : 11/16/95  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : 9511150-03  
 Analyst : *SY*  
 Supervisor : *M*

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	%REC LIMITS
Aroclor-1016	166.67	.00	154.81	93	45-137
Aroclor-1260	166.67	4.13	134.44	78	45-137

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Aroclor-1016	166.67	163.76	98	6	25	45-137
Aroclor-1260	166.67	138.93	81	3	25	45-137

\* Value is outside of Anamatrix QC limits

RPD: 0 out of 2 outside limits  
 Spike Recovery: 0 out of 4 outside limits

LCS SPIKE RECOVERY FORM -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : LCS/LCSD  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Extracted : 11/16/95  
 Date Analyzed : 11/19/95  
 Instrument ID : HP31

Anamatrix ID : M/NN16H1PE  
 Analyst : SY  
 Supervisor : M

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	%REC LIMITS
Aroclor-1016	166.67	.00	144.43	87	45-137
Aroclor-1260	166.67	.00	132.34	79	45-137

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Aroclor-1016	166.67	142.08	85	2	25	45-137
Aroclor-1260	166.67	128.97	77	3	25	45-137

\* Value is outside of Anamatrix QC limits

RPD: 0 out of 2 outside limits  
 Spike Recovery: 0 out of 4 outside limits

# ANAMETRIX REPORT DESCRIPTION

## INORGANICS

### Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

### Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anamatrix control limit for MSR is 75-125% with 25% for RPD limits, except for Method 6010A, which is 80-120% with 25% RPD limits.

### Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anamatrix control limit for LCSR is 80-120%.

### Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

### Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anamatrix control limit for PDSR is 75-125%.

### Qualifiers (Q)

Anamatrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

- I - Sample was analyzed at the stated dilution due to interferences.
- U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
- B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
- H - Spike percent recovery was outside of Anamatrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
- L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

### Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

- A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
- T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
- C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
- D - Reported results are dissolved, not total, metals.

### Reporting Conventions

Analytical values reported are gross values, i.e., not corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511150  
Date Received : 11/15/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511150- 1	B-2 (1')	SOIL	11/10/95	6010
9511150- 2	B-4 (1')	SOIL	11/10/95	6010
9511150- 3	B-5 (1')	SOIL	11/10/95	6010
9511150- 4	B-6 (1')	SOIL	11/10/95	6010
9511150- 5	B-7 (1')	SOIL	11/10/95	6010
9511150- 6	B-10 (1')	SOIL	11/09/95	6010
9511150- 7	B-11 (1')	SOIL	11/09/95	6010
9511150- 8	B-12 (1')	SOIL	11/09/95	6010
9511150- 1	B-2 (1')	SOIL	11/10/95	9045
9511150- 2	B-4 (1')	SOIL	11/10/95	9045
9511150- 3	B-5 (1')	SOIL	11/10/95	9045
9511150- 4	B-6 (1')	SOIL	11/10/95	9045
9511150- 5	B-7 (1')	SOIL	11/10/95	9045
9511150- 6	B-10 (1')	SOIL	11/09/95	9045
9511150- 7	B-11 (1')	SOIL	11/09/95	9045
9511150- 8	B-12 (1')	SOIL	11/09/95	9045

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511150  
Date Received : 11/15/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- Holding times have been met for the analyses reported in this section.

*Maree Doden* 12/5/95  
Department Supervisor Date

*Stephen Carroll* 12/5/95  
Chemist Date



**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anametrix Sample ID: 9511150-01  
Client Sample ID: B-2(1')  
Client Project Number: 360-014.1A  
Matrix: SOIL

Date Sampled: 11/10/95  
Analyst: <sup>SC</sup>  
Supervisor: MK

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	5	mg/Kg	2.5	ND	I
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	60.0	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	5	mg/Kg	20.0	520	I
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	5	mg/Kg	20.0	113	I
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	5	mg/Kg	10.0	233	I
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	8.4	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511150-02  
 Client Sample ID: B-4(1')  
 Client Project Number: 360-014.1A  
 Matrix: SOIL

Date Sampled: 11/10/95  
 Analyst: *SL*  
 Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	10.7	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	40.7	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	298	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	59.7	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	10	mg/Kg	20.0	788	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	8.3	

COMMENTS:

**INCHCAPE TESTING SERVICES**  
**ANAMATRIX LABORATORIES**  
(408) 432-8192  
**DATA REPORT**

Anamatrix Sample ID: 9511150-03  
Client Sample ID: B-5(1')  
Client Project Number: 360-014.1A  
Matrix: SOIL

Date Sampled: 11/10/95  
Analyst: *sc*  
Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	27.3	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	32.4	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	23.4	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	2.0	79.2	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	9.0	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511150-04  
Client Sample ID: B-6(1')  
Client Project Number: 360-014.1A  
Matrix: SOIL

Date Sampled: 11/10/95  
Analyst: *SC*  
Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	30.0	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	26.5	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	29.8	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	2.0	86.4	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	8.4	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511150-05  
 Client Sample ID: B-7(1')  
 Client Project Number: 360-014.1A  
 Matrix: SOIL

Date Sampled: 11/10/95  
 Analyst: *AC*  
 Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	52.4	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	87.8	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	64.1	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	2.0	168	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	8.5	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511150-06  
Client Sample ID: B-10(1')  
Client Project Number: 360-014.1A  
Matrix: SOIL

Date Sampled: 11/09/95  
Analyst: *sc*  
Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	40.1	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	16.9	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	50.5	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	2.0	95.8	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	7.5	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511150-07  
 Client Sample ID: B-11(1')  
 Client Project Number: 360-014.1A  
 Matrix: SOIL

Date Sampled: 11/09/95  
 Analyst: *JK*  
 Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	2.3	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	42.3	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	39.7	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	51.1	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	2.0	164	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	7.4	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anametrix Sample ID: 9511150-08  
 Client Sample ID: B-12(1')  
 Client Project Number: 360-014.1A  
 Matrix: SOIL

Date Sampled: 11/09/95  
 Analyst: *SL*  
 Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	0.50	1.9	
Chromium	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	1.0	42.1	
Lead	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	33.0	
Nickel	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	4.0	55.4	
Zinc	3050A	6010A	ICP1	11/17/95	11/26/95	1	mg/Kg	2.0	135	
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	+/-0.1	7.5	

COMMENTS:



**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
METHOD BLANK REPORT**

Anamatrix Sample ID: **BN175SA**  
Anamatrix WO #: **9511150**  
Client Project Number: **360-014.1A**  
Matrix: **SOIL**

Analyst: *JC*  
Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	1.0	ND	
Lead	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	4.0	ND	
Nickel	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	4.0	ND	
Zinc	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	2.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
SAMPLE DUPLICATE REPORT**

Anamatrix Sample ID: 9511150-01D  
Client Sample ID: B-2(1')  
Client Project Number: 360-014.1A  
Matrix: SOIL

Analyst: *SC*  
Supervisor: *MU*

Analyte	Prep. Method	Analyt. Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Sample Conc.	Sample Duplicate Conc.	RPD	Q
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	8.4	8.5	1.2	

COMMENTS:

INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
SAMPLE DUPLICATE REPORT

Anamatrix Sample ID: 9511150-05D  
Client Sample ID: B-7(1')  
Client Project Number: 360-014.1A  
Matrix: SOIL

Analyst: *SC*  
Supervisor: *MU*

Analyte	Prep. Method	Analyt. Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Sample Conc.	Sample Duplicate Conc.	RPD	Q
pH	9045	9045	MET3	11/15/95	11/15/95	1	pH	8.5	8.5	0.0	

COMMENTS:

**INCHCAPE TESTING SERVICES**  
**ANAMETRIX LABORATORIES**  
(408) 432-8192  
**LABORATORY CONTROL SAMPLE REPORT**

Lab. Control Sample ID: LN175SA  
Anamatrix WO #: 9511150  
Client Project Number: 360-014.1A  
Matrix: SOIL

Analyst: *rc*  
Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Cadmium	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	5.0	5.2	104	
Chromium	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	20.0	19.8	99.0	
Lead	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	50.0	48.1	96.2	
Nickel	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	50.0	47.9	95.8	
Zinc	3050A	6010A	ICP2	11/17/95	11/24/95	1	mg/Kg	50.0	51.9	104	

COMMENTS:



## SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9511150

CLIENT PROJECT ID: 360-014.1A

### COOLER

Shipping slip (airbill, etc.) present?	YES	NO	<input checked="" type="radio"/> N/A
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	<input checked="" type="radio"/> N/A
Condition: INTACT _____ BROKEN _____			
Temperature of sample (s) within range?	<input checked="" type="radio"/> YES	NO	N/A
List temperature of cooler (s): <u>50c</u>			

### SAMPLES

Chain of custody seal present for each container?	YES	NO	<input checked="" type="radio"/> N/A
Condition: INTACT _____ BROKEN _____			
Samples arrived within holding time?	<input checked="" type="radio"/> YES	NO	N/A
Samples in proper containers for methods requested?	<input checked="" type="radio"/> YES	NO	
Condition of containers: INTACT <u>✓</u> BROKEN _____			
If NO, were samples transferred to proper container? _____			
Were VOA containers received with zero headspace?	YES	NO	<input checked="" type="radio"/> N/A
If NO, was it noted on the chain of custody? _____			
Were container labels complete? (ID, date, time preservative, etc.)	YES	<input checked="" type="radio"/> NO	
Were samples preserved with the proper preservative?	YES	NO	<input checked="" type="radio"/> N/A
If NO, was the proper preservative added at time of receipt? _____			
pH check of samples required at time of receipt?	YES	<input checked="" type="radio"/> NO	
If YES, pH checked and recorded by: _____			
Sufficient amount of sample received for methods requested?	<input checked="" type="radio"/> YES	NO	
If NO, has the client or lab project manager been notified? _____			
Field blanks received with sample batch? # of Sets: _____	YES	NO	<input checked="" type="radio"/> N/A
Trip blanks received with sample batch? # of Sets: _____	YES	NO	<input checked="" type="radio"/> N/A

### CHAIN OF CUSTODY

Chain of custody received with samples?	<input checked="" type="radio"/> YES	NO
Has it been filled out completely and in ink?	<input checked="" type="radio"/> YES	NO
Sample ID's on chain of custody agree with container labels?	<input checked="" type="radio"/> YES	NO
Number of containers indicated on chain of custody agree with number received?	<input checked="" type="radio"/> YES	NO
Analysis methods clearly specified?	<input checked="" type="radio"/> YES	NO
Sampling date and time indicated?	<input checked="" type="radio"/> YES	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	<input checked="" type="radio"/> YES	NO
Turnaround time? REGULAR <u>6</u> RUSH _____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: [Signature]

Date: 11/18/95

Project Manager: [Signature]

Date: 11/21/95







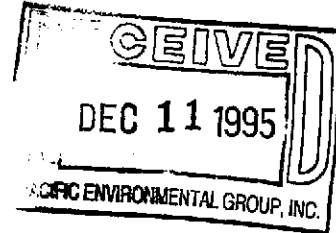
# Inchcape Testing Services

## Anamatrix Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

November 29, 1995

Ms. Maree Doden  
Pacific Environmental Group  
2025 Gateway Place  
Suite 440  
San Jose, CA 95110



Dear Ms. Doden:

Enclosed are the analytical results for your project ID: 360-014.1A, we received on November 15, 1995. The enclosed work was performed by a laboratory subcontracted by Inchcape Testing Services - Anamatrix Laboratories.

<u>I.T.S. Anamatrix ID:</u>	<u>Client ID:</u>
9511150-4	B-6 (1)
9511150-5	B-7 (1)

If you have any questions regarding this workorder, please give me a call at (408)432-8192.

Sincerely,

INCHCAPE TESTING SERVICES  
ANAMATRIX LABORATORIES

Cristina Velasquez Rayburn  
Project Manager





AN/EN Inc

Analytical & Environmental Chemistry

11/27/95

A/E3736

CHRISTINE RAYBURN  
INCHCAPE TESTING SERVICES/ANAMETRIX LABORATORIES  
1961 CONCOURSE DRIVE, SUITE E  
SAN JOSE, CA 95131

This is the **CERTIFICATE OF ANALYSIS** for the following samples as received.

Client Project ID: 360-014.1D (9511150)  
Date Received by Lab: 11/20/95  
Total Number of Samples: 2  
Sample Matrix: SOIL

Volatile Organics are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation/introduction. Method 8010 (Halogenated Volatile Organics-GC/ELCD) or Method 8240 (Volatile Organics-GC/MS) is used for the analysis.

BTEX is analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation / introduction. Method 8020 (Aromatic Volatile Organics) is used for the analysis.


Total Volatile Petroleum Hydrocarbons (Gasoline, Stoddard) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. Method 5030 (Purge and Trap) is used for the sample preparation and introduction.

Total Extractable Petroleum Hydrocarbons (Diesel, Oil, Kerosene, Stoddard, etc.) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. EPA Method 3550-sonication (soil) or EPA Method 3510-separatory funnel liquid-liquid (water) is used for sample extraction/preparation.

Organochlorine Pesticides are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. EPA Method 3550 (soil) or EPA Method 3510 (water) is used for sample extraction/preparation. Method 8080 (Organochlorine Pesticides - GC-ECD/ECD) is used for the analysis.

AN/EN, Inc. is accredited by the California Department of Health Services; Certificate Number 1183 (original issue May 7, 1990). The DHS- Environmental Laboratory Accreditation Program can be reached at (510) 540-2800.

Reviewed and Approved:

  
Laurie Glantz-Murphy, Laboratory Manager

455 RESERVATION ROAD, SUITE G • MARINA, CA 93933 • (408) 883-0123 • FAX (408) 883-0122



**TPH-EXTRACTABLE (DIESEL/MOTOR OIL RANGE) BY GC/FID**

Client Project/I.D.: 9511150

Date Sampled: 11/10/95

Date Received: 11/20/95

Date Extracted: 11/21/95

Matrix: Soil

Analyst: *AM*

Concentration in samples expressed as mg/Kg (ppm).

Sample ID	Diesel	Motor Oil	Lab I.D.	Date	PQL
				Analyzed	
4	11	22	3736-01	11/25/95	10
5	32	45	3736-02	11/22/95	10
Method Blank	ND	ND	3736-MB	11/21/95	10

ND = None Detected at or above the PQL.

PQL = Practical Quantitation Limit.

J = Estimated value below PQL, but above method detection limit.

NOTE: The concentration reported as diesel is due to aged diesel, or a light oil in the boiling point range of diesel.

Total Extractable Petroleum Hydrocarbons (as Diesel) is analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Manual, Last Revision October 1989. Method 3550 is used for sample extraction.



**LABORATORY CONTROL SPIKE REPORT - SOIL**

Laboratory I.D.: 3736-LCS

Date Extracted: 11/21/95

Date Analyzed: 11/21/95

Concentration of sample and spikes expressed as mg/Kg (ppm).

ANALYTE	Spike Added	LCS Conc	LCSD Conc	LCS %Rec	LCSD %Rec	RPD	%Rec Limits	RPD Limits
Diesel	50	54.2	49.2	108%	98%	10%	38-128	33

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits.

# Chain of Custody

PACIFIC ENVIRONMENTAL GROUP, INC.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT NO. 360-014.1A

FACILITY NO. Four Dorr - Oliver Site

FACILITY ADDRESS: 2901 Glascock Ave, Oakland

Billing Reference Number:

CLIENT engineer:

PACIFIC Point of Contact: Marce Dodson

Sampler: Doug Anderson

Laboratory Name: Anametrix

Comments:

Sample ID	Cont. No.	Container Size (m)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	Total				PCB's	PH	Metals (Cd, Cr, Ni, Pb, Zn)	
								BTEX (B015/020)	VPHgas (B015)	Oil and Grease (5520)	Ultrav. Metals				VOC (EPA 824)
1) B-2 (1')		2 1/4" Glass	NP	S	D	11/10/95							X	X	X
2) B-4 (1')															
3) B-5 (1')															
4) B-6 (1') *															
5) B-7 (1') *															
6) B-10 (1')															
7) B-11 (1')															
8) B-12 (1')															

Page 1 of 2

\* Sand samples to An/En for fingerprint analysis

NOV 15 1995

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:  
Pacific Environmental Group

Turnaround Time:

Relinquished by <u>Doug Anderson</u>	Date <u>11/14/95</u>	Time <u>4:30pm</u>	Received by <u>Marce Dodson</u>	Date <u>11/14/95</u>	Time <u>1630</u>
Relinquished by <u>Marce Dodson</u>	Date <u>11/15/95</u>	Time <u>1:15</u>	Received by <u>Doug Anderson</u>	Date <u>11/15/95</u>	Time <u>12:15</u>
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by laboratory	Date	Time

2025 Gateway Place #440  
San Jose, CA 95110

One Contra Costa Blvd. #209  
Pleasant Hill, CA 94523

28725 Jeronimo Rd. #576C  
Menlo Park, CA 94022

4020 148th Ave NE #B  
Redmond, WA 98052

- Priority Rush (1 day)
- Rush (2 days)
- Expedited (5 days)
- Standard (10 days)
- As Contracted

### Chain of Custody

PROJECT No. 360-014.1A

Facility No. Fmr Dorr - Oliver Site

Facility Address. 2901 Glascock Ave, Oakland

Billing Reference Number:

CLIENT engineer:

PACIFIC Point of Contact: Marce Dodson (Sampler: Doug Anderson)

Laboratory Name: Anametrix

Comments:

Sample ID	Cool. No.	Container Size (ml)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	Total				PCB's	PH	Metals (Cd, Cr, Ni, Pb, Zn)	
								BTEX (8015/8020)	TPH (8015)	Oil and Grease (5520)	Distill. Metals				VOC (EPA 824/8240)
1) B-2(1')		2 1/2" 8935	NP	S	D	11/14/95							X	X	X
2) B-4(1')															
3) B-5(1')															
4) B-6(1') *															
5) B-7(1') *						11/9/95									
6) B-10(1')															
7) B-11(1')															
8) B-12(1')															

Page 1 of 2  
 \* Send samples to An/En for fingerprint analysis

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by	Date	Time	Received by	Date	Time
<u>Doug Anderson</u>	11/14/95	4:30pm	<u>Marce Dodson</u>	11/14/95	1:30
Relinquished by	Date	Time	Received by	Date	Time
<u>Marce Dodson</u>	11/15/95	1:15	<u>Doug Anderson</u>	11/15/95	12:15
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by laboratory	Date	Time

Pacific Environmental Group  
 2025 Gateway Place #440  
 San Jose, CA 95110  
 680 Contra Costa Blvd. #200  
 Pleasant Hill, CA 94523  
 26726 Jeronimo Rd. #676C  
 Mission Viejo, CA 92692  
 4020 148th Ave NE #B  
 Redmond, WA 98052

- Priority Rush (1 day)
- Rush (2 days)
- Expedited (5 days)
- Standard (10 days)
- As Contracted

NOV 15 1995 11:15 AM



**Inchcape Testing Services**  
Anamatrix Laboratories

1961 Concourse Drive, Suite E  
San Jose, CA 95131  
(408) 432-8192 • Fax (408) 432-8198

AIE 5730

# CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis										Condition of Samples	Initial		
Send Report Attention of:		Report Due	Verbal Due																		
Sample Number	Date	Time	Comp	Matrix	Station Location																
9511150																					
CRISTINA RAYBURN		12/4/95	/ /																		
4	11/10/95			S	B-6(1)	1	120ml(S)	Fuel Fingerprint													
5	11/10/95			S	B-7(1)	1	S														
												Please bill PEG directly.					Please perform Fuel fingerprint <u>only</u> (for samples 4 & 5).				
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks: PLEASE SEND ORIGINAL CHAIN OF CUSTODY ALONG WITH THE REPORT. <i>submitted to AN/EN</i>													
<i>[Signature]</i>		11-20-95 0910		<i>[Signature]</i> AN/EN		11-20-95 0910															
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time															
<i>[Signature]</i>		11/20/95																			
Relinquished by: (Signature)		Date/Time		Received by Labs:		Date/Time		COMPANY: INCHCAPE TESTING SERVICES, ANAMATRIX LABS ADDRESS: 1961 CONCOURSE DRIVE, SUITE E SAN JOSE, CA 95131 PHONE : (408)432-8192 FAX : (408)432-8198													
<i>[Signature]</i>																					

### Chain of Custody

PROJECT NO. 360-014.1A

Facility No. Four Dory - Oliver Site

Facility Address: 2901 Glascock Ave, Oakland

Billing Reference Number:

CLIENT engineer:

PACIFIC Point of Contact: Marce Vidan (Sampler: Dong Anheun S)

Laboratory Name: Anamatrix

Comments:

Sample ID	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	BTEX			Total	VOC (EPA 824)	SVOC (EPA 827)	HVOC (EPA 801)	PCB'S	P/H	Metals (Cd, Cr, Ni, Pb, Zn)
								VPHgas (8015/8020)	TPH Diesel (8015)	Oil and Grease (5520)							
1) B-2(1')		2 1/2" Brass	NP	S	D	11/10/15								X	X	X	
2) B-4(1')																	
3) B-5(1')																	
4) B-6(1') *																	
5) B-7(1') *						11/9/15											
6) B-10(1')																	
7) B-11(1')																	
8) B-12(1')																	

Page 1 of 2

\* Send samples to An/En for fingerprint analysis

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by

Date: 11/14/15 Time: 4:30pm

Received by: [Signature]

Date: 11/14/15 Time: 12:30

Relinquished by

Date: 11/15/15 Time: 12:15

Received by: [Signature]

Date: 11/15/15 Time: 12:15

Relinquished by

Date:

Received by laboratory

Date: Time:

- Pacific Environmental Group
- 2025 Gateway Place #440 San Jose, CA 95110
- 888 Contra Costa Blvd. #208 Pleasant Hill, CA 94523
- 26726 Jeronimo Rd. #676C Menlo Park, CA 94022
- 4020 148th Ave NE #B Redmond, WA 98052

- Priority Rush (1 day)
- Rush (2 days)
- Expedited (5 days)
- Standard (10 days)
- As Contracted

NOV 1 10 11 15 16 18



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
 Suite E  
 San Jose, CA 95131  
 Tel: 408-432-8192  
 Fax: 408-432-8198

MS. MAREE DODEN  
 PACIFIC ENVIRONMENTAL GROUP  
 2025 GATEWAY PLACE, SUITE 440  
 SAN JOSE, CA 95110

Workorder # : 9511220  
 Date Received : 11/21/95  
 Project ID : 360-014.1A  
 Purchase Order: 30629

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9511220- 1	SP-1234

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

*Tracey Pham*

Susan Kraska Yeager  
 Laboratory Director

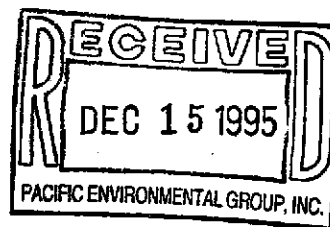
12/14/95

Date

*Jane Wakita*

Project Manager

This report consists of 23 pages.







# Inchcape Testing Services

## Anamatrix Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

### GC/PESTICIDE REPORT DESCRIPTION

#### Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and within each method, organized sequentially in order of increasing Inchcape Testing Services ID Number.

#### Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "\*" and the total number of surrogates outside the limits will be listed in the column labeled "Total Out."

#### Matrix Spike Recovery, Laboratory Control Sample Forms

These forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes, laboratory control samples and their duplicates. This information is a statement of accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "\*\*".

#### Qualifiers

Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed, but not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an estimated value.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

#### REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report form. However, the report cover letter and report summary pages do display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511220  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : GC  
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511220- 1	SP-1234	SOIL	11/16/95	8080 PCB

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511220  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : GC  
Sub-Department: PEST

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- No QA/QC problems were encountered.

Steve Amer 11/30/95  
Department Supervisor Date

Robin Yip 11/30/95  
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : SP-1234  
 Matrix : SOIL  
 Date Sampled : 11/16/95  
 Date Extracted : 11/22/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : 9511220-01  
 Analyst : SY  
 Supervisor : M

Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	140.	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : PBLKOV  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Extracted : 11/22/95  
 Amount Extracted : 30.0 g  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : BN22H1PE  
 Analyst : SY  
 Supervisor : M  
 Dilution Factor : 1.0  
 Conc. Units : ug/Kg

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	17.	ND	U
11104-28-2	Aroclor-1221	33.	ND	U
11141-16-5	Aroclor-1232	17.	ND	U
53469-21-9	Aroclor-1242	17.	ND	U
12672-29-6	Aroclor-1248	17.	ND	U
11097-69-1	Aroclor-1254	17.	ND	U
11096-82-5	Aroclor-1260	17.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8080 PCB  
ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
Matrix : SOIL

Anamatrix ID : 9511220  
Analyst : SY  
Supervisor : M

	SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6
1	PBLKOV	96	99				
2	PLCSKY	96	99				
3	PLCSD4Y	95	98				
4	SP-1234	93	96				
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

QC LIMITS

SU1 = Decachlorobiphenyl (62-110)  
SU2 = Tetrachloro-m-xylene (69-129)

\* Values outside of Anamatrix QC limits

LCS SPIKE RECOVERY FORM -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.1A  
 Sample ID : LCS/LCSD  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Extracted : 11/22/95  
 Date Analyzed : 11/29/95  
 Instrument ID : HP31

Anamatrix ID : M/NN22H1PE  
 Analyst : SY  
 Supervisor : M

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	%REC LIMITS
Aroclor-1016	166.67	.00	175.17	105	45-137
Aroclor-1260	166.67	.00	168.20	101	45-137

COMPOUND	SPIKE ADDED (ug/Kg)	LCSD CONCENTRATION (ug/Kg)	LCSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Aroclor-1016	166.67	172.85	104	1	25	45-137
Aroclor-1260	166.67	166.04	100	1	25	45-137

\* Value is outside of Anamatrix QC limits

RPD: 0 out of 2 outside limits  
 Spike Recovery: 0 out of 4 outside limits

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511220  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : PREP  
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511220- 1	SP-1234	SOIL	11/16/95	5520EF



REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511220  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : PREP  
Sub-Department: PREP

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Cathy Mullen 11/30/95  
Department Supervisor Date

Lori Plumley 11/30/95  
Chemist Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS  
INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

PROJECT # : 360-014.1A ANAMETRIX I.D. : 9511220  
MATRIX : SOIL ANALYST : LP  
DATE SAMPLED : 11/16/95 SUPERVISOR : CM  
DATE EXTRACTED : 11/27/95 DATE RELEASED : 11/29/95  
DATE ANALYZED : 11/29/95

WORKORDER #	SAMPLE I.D.	REPORTING LIMIT (mg/Kg)	AMOUNT FOUND (mg/Kg)
9511220-01	SP-1234	30	97
BN27H1W9	METHOD BLANK	30	ND

ND - Not detected above the reporting limit for the method.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by  
Standard Method 5520EF, 18th edition.

All testing procedures follow California Department of Health  
Services (Cal-DHS) approved methods.

MATRIX SPIKE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS  
 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

SAMPLE I.D.	: SP-1234MS, MD	ANAMETRIX I.D.	: 9511220-01
MATRIX	: SOIL	ANALYST	: LP
DATE SAMPLED	: 11/16/95	SUPERVISOR	: CM
DATE EXTRACTED	: 11/27/95	DATE RELEASED	: 11/29/95
DATE ANALYZED	: 11/29/95		

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC. (mg/Kg)	MS AMT	%REC MS	MD AMT	%REC MD	%RPD	% REC LIMITS
MOTOR OIL	300	97	310	71	320	74	3	48-114

\* Quality control limits established by Anamatrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by  
 Standard Method 5520EF, 18th edition.

LAB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS  
 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE  
 Matrix : SOIL  
 Date Extracted : 11/27/95  
 Date Analyzed : 11/29/95

Anametrix I.D. : M/NN27HIW9  
 Analyst : *UP*  
 Supervisor : *Ch*  
 Date Released : 11/29/95

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	LCSD (mg/Kg)	%REC LCSD	% RPD	REC LIMITS
MOTOR OIL	300	310	103	270	90	14	71-119

\* Quality control limits established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF.

BENCHSHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS  
 INCHCAPE TESTING SERVICES - ANAMETRIX LABORATORIES (408) 432-8192

Date Extracted : 11/27/95  
 Date Analyzed : 11/29/95

Analyst : MW/LP  
 Batch No: HSN27W91

Workorder #	Sample I.D. #	Amount Extracted (grams)	Final Weight (grams)	Initial Weight (grams)	Weight of Residue (grams)	Total Oil & Grease (ppm)
9511220-01	SP-1234	30	10.8430	10.8401	0.0029	97
BN27HIW9	METHOD BLANK	30	10.8107	10.8099	0.0008	ND
MN27HIW9	LCS	30	10.6825	10.6733	0.0092	310
NN27HIW9	LCSD	30	11.0062	10.9981	0.0081	270
9511220-01	SP-1234MS	30	11.0137	11.0043	0.0094	310
9511220-01	SP-1234MD	30	10.9551	10.9454	0.0097	320

% REC of LCS = 103

% REC of LCSD = 90

RPD of LCS & LCD = 14

% REC of MS = 71

% REC of MD = 74

RPD of MS & MD = 3

APPROVED BY:                      *DM 11/30/95*

# ANAMETRIX REPORT DESCRIPTION

## INORGANICS

### Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

### Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anamatrix control limit for MSR is 75-125% with 25% for RPD limits, except for Method 6010A, which is 80-120% with 25% RPD limits.

### Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anamatrix control limit for LCSR is 80-120%.

### Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

### Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anamatrix control limit for PDSR is 75-125%.

### Qualifiers (Q)

Anamatrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

- I - Sample was analyzed at the stated dilution due to interferences.
- U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
- B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
- H - Spike percent recovery was outside of Anamatrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
- L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

### Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

- A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
- T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
- C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
- D - Reported results are dissolved, not total, metals.

### Reporting Conventions

Analytical values reported are gross values, i.e., not corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511220  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511220- 1	SP-1234	SOIL	11/16/95	6010

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511220  
Date Received : 11/21/95  
Project ID : 360-014.1A  
Purchase Order: 30629  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Mona Kameel For 12/04/95  
Department Supervisor Date

Stephen Carroll 12/3/95  
Chemist Date



**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511220-01  
Client Sample ID: SP-1234  
Client Project Number: 360-014.1A  
Matrix: SOIL

Date Sampled: 11/16/95  
Analyst: *sc*  
Supervisor: *ML*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	1.0	51.4	
Lead	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	4.0	44.0	
Nickel	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	4.0	56.7	
Zinc	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	2.0	51.7	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
METHOD BLANK REPORT**

Anamatrix Sample ID: **BN245SD**  
Anamatrix WO #: **9511220**  
Client Project Number: **360-014.1A**  
Matrix: **SOIL**

Analyst: *sc*  
Supervisor: *MU*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	0.50	ND	
Chromium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	1.0	ND	
Lead	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	4.0	ND	
Nickel	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	4.0	ND	
Zinc	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	2.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
LABORATORY CONTROL SAMPLE REPORT**

Lab. Control Sample ID: LN245SD  
Anamatrix WO #: 9511220  
Client Project Number: 360-014.1A  
Matrix: SOIL

Analyst: *SC*  
Supervisor: *MKL*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Cadmium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	5.0	4.9	98.0	
Chromium	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	20.0	18.8	94.0	
Lead	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	50.0	47.7	95.4	
Nickel	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	50.0	46.6	93.2	
Zinc	3050A	6010A	ICP1	11/24/95	11/28/95	1	mg/Kg	50.0	48.4	96.8	

COMMENTS:

# Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Former Dorr-Oliver Site

Facility Address: 2901 Glascock St., Oakland

Billing Reference Number: 30629

CLIENT engineer:

PACIFIC Point of Contact: Marie Dodson

Sampler: Doug Andrews

Laboratory Name: Anematrix

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	W-water	G-grab	Sampling Date	Sampling Time	BTEX/ VPHgas (8015/ 8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Dislvd. Metals	VOC (EPA 624/ 8240)	SVOC (EPA 627/ 8270)	HVOC (EPA 601/ 8010)	Luff metals**	PCBS
				S-soil	D-disc.											
SP-1	1	2"x6"	NP	S	C	11/14/95				X					X	X
SP-2	↓	↓	↓	↓	↓	↓				↓					↓	↓
SP-3	↓	↓	↓	↓	↓	↓				↓					↓	↓
SP-4	↓	↓	↓	↓	↓	↓				↓					↓	↓

Comments:  
\* Composite  
4 to 1 please  
\*\* Luff metals  
are (Cd, Cr, Ni, Pb, Zn)

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by

Date

Time

Received by

Date

Time

2025 Gateway Place #440  
San Jose, CA 95110

Relinquished by

Date

Time

Received by

Date

Time

620 Contra Costa Blvd. #209  
Pleasant Hill, CA 94523

Relinquished by

Date

Time

Received by

Date

Time

25725 Jeronimo Rd. #578C  
Mission Viejo, CA 92622

Relinquished by

Date

Time

Received by Laboratory

Date

Time

4020 148th Ave NE #B  
Redmond, WA 98052

Priority Rush (1 day)

Rush (2 days)

Expedited (5 days)

Standard (10 days)

As Contracted

\* Composite

5520 EF  
Oil and Grease  
FIC Method

VOC (EPA 624/ 8240)  
SVOC (EPA 627/ 8270)  
HVOC (EPA 601/ 8010)

11/21/95 1500



## SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9511220 CLIENT PROJECT ID: 360-014.1A

### COOLER

Shipping slip (airbill, etc.) present?	YES	NO	<input type="radio"/> N/A
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	<input type="radio"/> N/A
Condition: INTACT _____ BROKEN _____			
Temperature of sample (s) within range?	<input checked="" type="radio"/> YES	NO	N/A
List temperature of cooler (s): <u>2°C</u>			

### SAMPLES

Chain of custody seal present for each container?	YES	NO	<input type="radio"/> N/A
Condition: INTACT _____ BROKEN _____			
Samples arrived within holding time?	<input checked="" type="radio"/> YES	NO	N/A
Samples in proper containers for methods requested?	<input checked="" type="radio"/> YES	NO	
Condition of containers: INTACT <input checked="" type="checkbox"/> BROKEN _____			
If NO, were samples transferred to proper container? _____			
Were VOA containers received with zero headspace?	YES	NO	<input type="radio"/> N/A
If NO, was it noted on the chain of custody? _____			
Were container labels complete? (ID, date, time preservative, etc.)	<input checked="" type="radio"/> YES	NO	
Were samples preserved with the proper preservative?	YES	NO	<input type="radio"/> N/A
If NO, was the proper preservative added at time of receipt? _____			
pH check of samples required at time of receipt?	YES	<input checked="" type="radio"/> NO	
If YES, pH checked and recorded by: _____			
Sufficient amount of sample received for methods requested?	<input checked="" type="radio"/> YES	NO	
If NO, has the client or lab project manager been notified? _____			
Field blanks received with sample batch? # of Sets: _____	YES	NO	<input type="radio"/> N/A
Trip blanks received with sample batch? # of Sets: _____	YES	NO	<input type="radio"/> N/A

### CHAIN OF CUSTODY

Chain of custody received with samples?	<input checked="" type="radio"/> YES	NO	
Has it been filled out completely and in ink?	<input checked="" type="radio"/> YES	NO	
Sample ID's on chain of custody agree with container labels?	<input checked="" type="radio"/> YES	NO	
Number of containers indicated on chain of custody agree with number received?	<input checked="" type="radio"/> YES	NO	
Analysis methods clearly specified?	<input checked="" type="radio"/> YES	NO	
Sampling date and time indicated?	<input checked="" type="radio"/> YES	NO	
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	<input checked="" type="radio"/> YES	NO	
Turnaround time? REGULAR <input checked="" type="checkbox"/> RUSH _____			

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: JP Date: 11/21/95 Project Manager: W Date: 11/22/95

# Chain of Custody

Pacific Environmental Group, Inc.

2025 Gateway Place #440, San Jose CA 95110

Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Former Dorr-Oliver Site

Facility Address: 2901 Glascock St., Oakland

Billing Reference Number: 30629

CLIENT engineer:

PACIFIC Point of Contact: Maree Dodson

Sampler: Doug Andrews

Laboratory Name: Anametrix

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix		Sampling Date	Sampling Time	BTEX/ VPHgas (8015/ 8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Dislvd. Metals	VOC (EPA 824)	SVOC (EPA 827)	HVOC (EPA 801/ 8010)	Luff metals**	PCBS
				W-water S-soil A-air	G-grab D-disc. C-comp.											
SP-1	1	2" x 6"	NP	S	C	11/4/95				X					X	X
SP-2	↓	↓	↓	↓	↓	↓				↓					↓	↓
SP-3	↓	↓	↓	↓	↓	↓				↓					↓	↓
SP-4	↓	↓	↓	↓	↓	↓				↓					↓	↓

Comments:  
 \* Composite  
 4 to 1 please  
 \*\* Luff metals  
 are (Cd, Cr, Ni, Pb, Zn)

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by <i>[Signature]</i>	Date 11-21-95	Time 1300
Relinquished by	Date	Time
Relinquished by	Date	Time
Relinquished by	Date	Time

Received by	Date	Time
Received by	Date	Time
Received by	Date	Time
Received by laboratory	Date	Time

Pacific Environmental Group

2025 Gateway Place #440  
San Jose, CA 95110

620 Contra Costa Blvd. #209  
Pleasant Hill, CA 94523

25725 Jeronimo Rd. #576C  
Mission Viejo, CA 92622

4020 148th Ave NE #B  
Redmond, WA 98052

Priority Rush (1 day)

Rush (2 days)

Expedited (5 days)

Standard (10 days)

As Contracted



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
 Suite E  
 San Jose, CA 95131  
 Tel: 408-432-8192  
 Fax: 408-432-8198

MS. SUE WILLHITE  
 PACIFIC ENVIRONMENTAL GROUP  
 2025 GATEWAY PLACE, SUITE 440  
 SAN JOSE, CA 95110

Workorder # : 9601207  
 Date Received : 01/19/96  
 Project ID : 3600141A  
 Purchase Order: 30904

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9601207- 1	MW-1
9601207- 2	MW-2
9601207- 3	MW-3
9601207- 4	MW-4
9601207- 5	MW-5
9601207- 6	MW-6
9601207- 7	MW-7
9601207- 8	MW-8

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

*Susan Kraska Yeager for*  
 \_\_\_\_\_  
 Susan Kraska Yeager  
 Laboratory Director

*Joanne Urbida*  
 \_\_\_\_\_  
 Project Manager

01/30/96  
 Date

This report consists of 18 pages.

# ANAMETRIX REPORT DESCRIPTION

## INORGANICS

### Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

### Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anamatrix control limit for MSR is 75-125% with 25% for RPD limits, except for Method 6010A, which is 80-120% with 25% RPD limits.

### Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anamatrix control limit for LCSR is 80-120%.

### Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

### Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anamatrix control limit for PDSR is 75-125%.

### Qualifiers (Q)

Anamatrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

- I - Sample was analyzed at the stated dilution due to interferences.
- U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
- B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
- H - Spike percent recovery was outside of Anamatrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
- L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

### Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

- A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
- T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
- C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
- D - Reported results are dissolved, not total, metals.

### Reporting Conventions

Analytical values reported are gross values, i.e., not corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.



REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. SUE WILLHITE  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9601207  
Date Received : 01/19/96  
Project ID : 3600141A  
Purchase Order: 30904  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9601207- 1	MW-1	WATER	01/18/96	6010
9601207- 2	MW-2	WATER	01/18/96	6010
9601207- 3	MW-3	WATER	01/18/96	6010
9601207- 4	MW-4	WATER	01/18/96	6010
9601207- 5	MW-5	WATER	01/18/96	6010
9601207- 6	MW-6	WATER	01/18/96	6010
9601207- 7	MW-7	WATER	01/18/96	6010
9601207- 8	MW-8	WATER	01/18/96	6010

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MS. SUE WILLHITE  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9601207  
Date Received : 01/19/96  
Project ID : 3600141A  
Purchase Order: 30904  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Michael A. Hill 1-30-96  
Department Supervisor Date

Stephen Carroll 1/30/96  
Chemist Date

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9601207-01  
Client Sample ID: MW-1  
Client Project Number: 3600141A  
Matrix: WATER

Date Sampled: 01/18/96  
Analyst: SC  
Supervisor: WSA

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9601207-02  
Client Sample ID: MW-2  
Client Project Number: 3600141A  
Matrix: WATER

Date Sampled: 01/18/96  
Analyst: SC  
Supervisor: MB

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9601207-03  
 Client Sample ID: MW-3  
 Client Project Number: 3600141A  
 Matrix: WATER

Date Sampled: 01/18/96  
 Analyst: SC  
 Supervisor: ~~MA~~

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	51.2	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9601207-04  
 Client Sample ID: MW-4  
 Client Project Number: 3600141A  
 Matrix: WATER

Date Sampled: 01/18/96  
 Analyst: SC  
 Supervisor: MA

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	20.5	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9601207-05  
Client Sample ID: MW-5  
Client Project Number: 3600141A  
Matrix: WATER

Date Sampled: 01/18/96  
Analyst: *SC*  
Supervisor: *MA*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	22.6	

COMMENTS:

**INCHCAPE TESTING SERVICES**  
**ANAMETRIX LABORATORIES**  
(408) 432-8192  
**DATA REPORT**

Anamatrix Sample ID: 9601207-06  
Client Sample ID: MW-6  
Client Project Number: 3600141A  
Matrix: WATER

Date Sampled: 01/18/96  
Analyst: SL  
Supervisor: WA

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3040A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	ND	

COMMENTS:



**INCHCAPE TESTING SERVICES**  
**ANAMETRIX LABORATORIES**  
(408) 432-8192  
**DATA REPORT**

Anamatrix Sample ID: 9601207-07  
Client Sample ID: MW-7  
Client Project Number: 3600141A  
Matrix: WATER

Date Sampled: 01/18/96  
Analyst: *sc*  
Supervisor: *wkc*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	25.1	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9601207-08  
Client Sample ID: MW-8  
Client Project Number: 3600141A  
Matrix: WATER

Date Sampled: 01/18/96  
Analyst: SC  
Supervisor: ~~WAX~~

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
METHOD BLANK REPORT**

Anamatrix Sample ID: **BJ246WA**  
Anamatrix WO #: **9601207**  
Client Project Number: **3600141A**  
Matrix: **WATER**

Analyst: *SC*  
Supervisor: *MW*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	20.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
SAMPLE DUPLICATE REPORT**

Anamatrix Sample ID: 9601207-06D  
Client Sample ID: MW-6  
Client Project Number: 3600141A  
Matrix: WATER

Analyst: *rc*  
Supervisor: *AAK*

Analyte	Prep. Method	Analyt. Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Sample Conc.	Sample Duplicate Conc.	RPD	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	ND	ND	N/A	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	ND	ND	N/A	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	ND	ND	N/A	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	ND	ND	N/A	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	ND	29.4	N/A	

COMMENTS:

**INCHCAPE TESTING SERVICES**  
**ANAMETRIX LABORATORIES**  
(408) 432-8192  
**MATRIX SPIKE REPORT**

Anamatrix. Sample ID: 9601207-06MS, MD  
Client Sample ID: MW-6  
Client Proj. Number: 3600141A  
Matrix: WATER

Analyst: *SC*  
Supervisor: *MA*

Analyte	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amount	Sample Conc.	Matrix Spike Conc.	% Rec.	Matrix Sp. Dup. Conc.	% Rec.	RPD	Q
Cadmium	6010A	ICP2	01/24/96	01/26/96	ug/L	50.0	0.0	48.6	97.2	46.4	92.8	4.6	
Chromium	6010A	ICP2	01/24/96	01/26/96	ug/L	200	0.0	189	94.5	180	90.0	4.9	
Lead	6010A	ICP2	01/24/96	01/26/96	ug/L	500	0.0	467	93.4	446	89.2	4.6	
Nickel	6010A	ICP2	01/24/96	01/26/96	ug/L	500	0.0	472	94.4	451	90.2	4.6	
Zinc	6010A	ICP2	01/24/96	01/26/96	ug/L	500	0.0	523	105	487	97.4	7.1	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
LABORATORY CONTROL SAMPLE REPORT**

Lab. Control Sample ID: LJ246WA  
Anametrix WO #: 9601207  
Client Project Number: 3600141A  
Matrix: WATER

Analyst: *SC*  
Supervisor: *WAT*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Cadmium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	50.0	51.5	103	
Chromium	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	200	199	100	
Lead	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	500	495	99.0	
Nickel	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	500	497	99.4	
Zinc	3010A	6010A	ICP2	01/24/96	01/27/96	1	ug/L	500	511	102	

COMMENTS:



9610

9601207

(10/19)

# CHAIN OF CUSTODY

No. 056129

Page 1 of 1

CONSULTANT'S NAME: **PACIFIC ENVIRONMENTAL GROUP** ADDRESS: **2005 GATEWAY PLACE #110** CITY: **SAULBURY** STATE: **CA** ZIP CODE: **95110**

BP SITE NUMBER: **TEMPERANCE SITE** BP CORNER ADDRESS/CITY: **2901 BLAYLOCK ST OAKLAND CA.**

CONSULTANT PROJECT NUMBER: **3800141A**

CONSULTANT CONTRACT NUMBER: **PO-11-30**

BP CONTACT: **WERNER, JIM** PHONE NUMBER: **408 411 7500** FAX NUMBER: **408 411 7539**

LAB CONTACT: **ANAMETRIX** BP ADDRESS: **295 W 14TH BLVD STE N** PHONE NUMBER: **206 251 0689** FAX NO.: **206 251 0938**

SAMPLED BY (Please Print Name): **FERRIS KOIB** LABORATORY ADDRESS: **1701 CONCORD DR #5 E** PHONE NUMBER: **108 432 8192** FAX NO.: **108 432 8198**

SAMPLED BY (Signature): *[Signature]* SHIPMENT DATE: SHIPMENT METHOD:

TAT:  24 Hours  48 Hours  1 Week  Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	UP Metal												COMMENTS
			NO.	TYPE (VOL.)														
1) Mw-1	1-18-96 11:10	W	1	1L	NP	X												DIAPYCN METALS: (CO, CR, NI, PB, ZN) FILTER SAMPLES BEFORE ANALYSIS
2) Mw2	11:25																	
3) Mw3	9:40																	
4) Mw4	9:55																	
5) Mw5	10:55																	
6) Mw6	10:30																	
7) Mw7	9:25																	
8) Mw8	10:10																	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>[Signature]</i>	1-18-96	14:30	Phonda DeJury	1-18-96	2:30	
Phonda DeJury	1-19-96	2:20	Laura Olson	1-19-96	14:20	
Laura Olson	1-19-96	15:00	<i>[Signature]</i>	1-19-96	15:00	





## SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9641207 CLIENT PROJECT ID: 3564141A

### COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT _____ BROKEN _____			
Temperature of sample (s) within range?	(YES)	NO	N/A
List temperature of cooler (s): <u>50c</u>			

### SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT _____ BROKEN _____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT <u>(checked)</u> BROKEN _____			
If NO, were samples transferred to proper container? _____			
Were VOA containers received with zero headspace?	YES	NO	(N/A)
If NO, was it noted on the chain of custody? _____			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	YES	(NO)	N/A
If NO, was the proper preservative added at time of receipt? <u>Yes + filtered</u>			
pH check of samples required at time of receipt?	YES	(NO)	
If YES, pH checked and recorded by: _____			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? _____			
Field blanks received with sample batch? # of Sets: _____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: _____	YES	NO	(N/A)

### CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO	
Has it been filled out completely and in ink?	(YES)	NO	
Sample ID's on chain of custody agree with container labels?	(YES)	NO	
Number of containers indicated on chain of custody agree with number received?	(YES)	NO	
Analysis methods clearly specified?	(YES)	NO	
Sampling date and time indicated?	(YES)	NO	
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO	
Turnaround time? REGULAR <u>(checked)</u> RUSH _____			

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: J Date: 01/19/96 Project Manager: uw Date: 1/23/96





# CHAIN OF CUSTODY

No 056129

Page 1 of 1

CONSULTANT'S NAME KACAP Environmental Labs 8185 Oakway Pl. #110 San Diego		ADDRESS	CITY	STATE CA	ZIP CODE 92110
BP SITE NUMBER TEMP. Down through 2	BP CORNER ADDRESS/CITY 101 Glasscock St. San Diego CA.		CONSULTANT PROJECT NUMBER 3600/41A		
CONSULTANT PROJECT MANAGER GUE WILLHITE		PHONE NUMBER 408 411 7300	FAX NUMBER 408 411 7339	CONSULTANT CONTRACT NUMBER P.O. # 309104	
BP CONTACT DEBORAH SPOON	BP ADDRESS 215 SW 11th St. Bloomington	PHONE NUMBER 606 251 0689	FAX NO. 408 432 1170	LAB CONTACT ANNE LEX	
LAB CONTACT ANNE LEX	LABORATORY ADDRESS 11610 Montezuma Dr. # E	PHONE NUMBER 714 284 18	FAX NO.	SAMPLED BY (Please Print Name) GORDON K. S.P.	
SAMPLED BY (Signature)		SHIPMENT DATE	SHIPMENT METHOD		

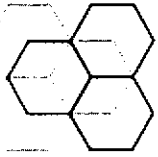
TAT:  24 Hours  48 Hours  1 Week  Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

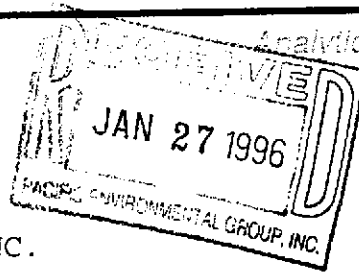
SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)	LAB SAMPLE #	
MW-1	1-18-98	W	1	1L	NP	Dissolve Metals: (Cd, Cr, Ni, Pb, Zn) Filter & sample for PC Analysis
MW2	1-18-98					
MW3	9:40					
MW4	7:55					
MW5	10:33					
MW6	10:30					
MW7	1:35					
MW8	10:10					

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
Phonda Brifony	1-18-98	14:30	Phonda Brifony	1-18-98	2:30	
	1-19-98					



AN/EN Inc

Analytical & Environmental Chemistry



01/26/96

A/E3883

SUE WILLHITE  
PACIFIC ENVIRONMENTAL GROUP, INC.  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

This is the **CERTIFICATE OF ANALYSIS** for the following samples as received.

Client Project ID: 360-014.1A 2901 GLASSCOCK ST., OAKLAND,  
Date Received by Lab: 01/19/96  
Total Number of Samples: 8  
Sample Matrix: WATER

Volatile Organics are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation/introduction. Method 8010 (Halogenated Volatile Organics-GC/ELCD) or Method 8240 (Volatile Organics-GC/MS) is used for the analysis.

BTEX is analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation / introduction. Method 8020 (Aromatic Volatile Organics) is used for the analysis.

Total Volatile Petroleum Hydrocarbons (Gasoline, Stoddard) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. Method 5030 (Purge and Trap) is used for the sample preparation and introduction.

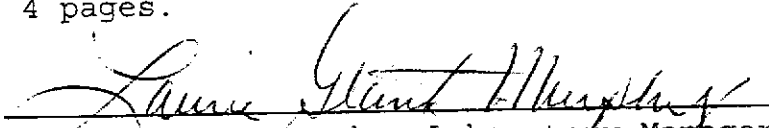
Total Extractable Petroleum Hydrocarbons (Diesel, Oil, Kerosene, Stoddard, etc.) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. EPA Method 3550-sonication (soil) or EPA Method 3510-separatory funnel liquid-liquid (water) is used for sample extraction/preparation.

Organochlorine Pesticides are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. EPA Method 3550 (soil) or EPA Method 3510 (water) is used for sample extraction/preparation. Method 8080 (Organochlorine Pesticides - GC-ECD/ECD) is used for the analysis.

AN/EN, Inc. is accredited by the California Department of Health Services; Certificate Number 1183 (original issue May 7, 1990). The DHS- Environmental Laboratory Accreditation Program can be reached at (510) 540-2800.

Complete report consists of 4 pages.

Reviewed and Approved:

  
Laurie Glantz-Murphy, Laboratory Manager

455 RESERVATION ROAD, SUITE G • MARINA, CA 93933 • (408) 883-0123 • FAX (408) 883-0122



## TPH-EXTRACTABLE AS DIESEL BY GC/FID

Client Project/I.D.: 360-014.1A 2901 Glasscock St., Oakland, CA

Date Sampled: 01/18/96

Date Received: 01/19/96

Date Extracted: 01/22/96

Matrix: Water

Analyst: *PM*

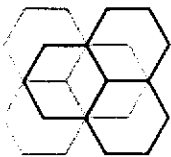
Concentration in samples expressed as ug/L (ppb).

Sample ID	Diesel	Lab I.D.	Date	
			Analyzed	PQL
MW1	23000	3883-01	01/23/96	5000
MW2	22000	3883-02	01/23/96	5000
MW3	210	3883-03	01/23/96	50
MW4	ND	3883-04	01/23/96	50
MW5	49 J	3883-05	01/23/96	50
MW6	59000	3883-06	01/23/96	10000
MW7	ND	3883-07	01/23/96	50
MW8	ND	3883-08	01/23/96	50
Method Blank	ND	3883-MB	01/22/96	50

PQL = Practical Quantitation Limit. ND = None Detected at or above the PQL.

J = Estimated value below PQL, but above method detection limit.

Total Extractable Petroleum Hydrocarbons (as Diesel) is analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Manual, Last Revision October 1989. Method 3510 is used for sample preparation.



**AN / EN Inc**

Analytical & Environmental Chemistry

**LABORATORY CONTROL SPIKE REPORT - WATER**

Laboratory I.D.: 3883-LCS

Date Extracted: 01/22/96

Date Analyzed: 01/22/96

Concentration of sample and spikes expressed as ug/L (ppb).

ANALYTE	Spike Added	LCS Conc	LCSD Conc	LCS %Rec	LCSD %Rec	RPD	%Rec Limits	RPD Limits
Diesel	500	370	405	74%	81%	-9%	57-116	37

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits.



AIE 3883

# CHAIN OF CUSTODY

No. 056130

CONSULTANT'S NAME <i>Pacific Environmental Services</i>		ADDRESS <i>2005 Gateway place #100</i>		CITY <i>Fullerton</i>	STATE <i>CA</i>	ZIP CODE <i>95110</i>
BP SITE NUMBER <i>Time Resources</i>	BP CORNER ADDRESS/CITY <i>2901 Glamorgan st OAKLAND CA.</i>		CONSULTANT PROJECT NUMBER <i>300 019 1A</i>		CONSULTANT CONTRACT NUMBER <i>PO# 30903</i>	
CONSULTANT PROJECT MANAGER <i>Joe Willhite</i>		PHONE NUMBER <i>408 441 7500</i>	FAX NUMBER <i>408 441 7539</i>		PHONE NUMBER <i>306 2510689</i>	
BP CONTACT <i>WERNER AICOO</i>		BP ADDRESS <i>295 gwl st Bldg 3 ste N</i>	PHONE NUMBER <i>306 2510689</i>		FAX NO. <i>306 2510736</i>	
LAB CONTACT <i>AU/EN</i>		LABORATORY ADDRESS <i>455 Reservoir Road Dale G. Martin</i>	PHONE NUMBER <i>1088830123</i>		FAX NO. <i>1088830122</i>	
SAMPLED BY (Please Print Name) <i>YEDRO Ruiz</i>		SAMPLED BY (Signature) <i>[Signature]</i>		SHIPMENT DATE	SHIPMENT METHOD	

TAT:  24 Hours  48 Hours  1 Week  Standard 2 Weeks

## ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)	LAB SAMPLE #	
NW1 -01	1-18-96 11:10	(W)	2	1L	NP	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">01-26-1996 0004</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">NP</p>
NW2 -02	11:25					
NW3 -03	9:40					
NW4 -04	9:55					
NW5 -05	10:55					
NW6 -06	10:30					
NW7 -07	9:25					
NW8 -08	10:10					

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>[Signature]</i>	1-18-96	11:30	<i>Randa Nijung PEG</i>	1-18-96	2:30	
<i>[Signature]</i>	1-19-96	12:30	<i>John Murphy AU/EN</i>	1-19-96	12:30	



# CHAIN OF CUSTODY

No. 056130

Page 1 of 1

CONSULTANT'S NAME Pete Wilkerson		ADDRESS 223 Gateway Place #110		CITY Gallatin	STATE CA	ZIP CODE 95110
BP SITE NUMBER Time Done	BP CORNER ADDRESS/CITY 2901 Glasscock St Oakland CA			CONSULTANT PROJECT NUMBER 380 019 1A		
CONSULTANT PROJECT MANAGER Sue Wilkerson		PHONE NUMBER 408 441 7500	FAX NUMBER 408 441 7539		CONSULTANT CONTRACT NUMBER PO# 30903	
BP CONTACT WILKESON SUE	BP ADDRESS 315 Gateway Blvd #1312	PHONE NUMBER 408 251 6831	FAX NO. 408 251 6831		FAX NO. 205 251 0736	
LAB CONTACT AU/EN	LABORATORY ADDRESS 455 Pine	PHONE NUMBER 408 251 6831	FAX NO. 408 251 6831		FAX NO. 408 251 0736	
SAMPLED BY (Please Print Name) Pedro Ruiz	SAMPLED BY (Signature) <i>[Signature]</i>	SHIPMENT DATE		SHIPMENT METHOD		

TAT:  24 Hours  48 Hours  1 Week  Standard 2 Weeks

ANALYSIS REQUIRED

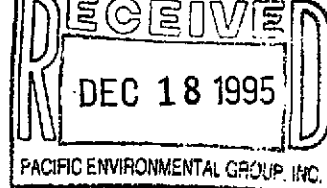
AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	NP	COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)	LAB SAMPLE #		
MW1	1-13-16 11:16	(S)	2	1L	NP	X	
MW2	11:35						
MW3	1:40						
MW4	1:55						
MW5	10:50						
MW6	1:35						
MW7	1:51						
MW8	1:51						

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>[Signature]</i>	1-13-16	11:30	Klara N. King P96	1-13-16	2:30	
<i>[Signature]</i>	1-19-16	12:30	<i>[Signature]</i>	1-16-16	12:30	



AN/EN Inc



Analytical & Environmental Chemistry

12/14/95

A/E3775

MAREE DODEN  
PACIFIC ENVIRONMENTAL GROUP, INC.  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

This is the **CERTIFICATE OF ANALYSIS** for the following samples as received.

Client Project ID: 360-014.1A  
Date Received by Lab: 12/04/95  
Total Number of Samples: 2  
Sample Matrix: WATER

Volatile Organics are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation/introduction. Method 8010 (Halogenated Volatile Organics-GC/ELCD) or Method 8240 (Volatile Organics-GC/MS) is used for the analysis.

BTEX is analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. Method 5030 (Purge and Trap) is used for the sample preparation / introduction. Method 8020 (Aromatic Volatile Organics) is used for the analysis.

Total Volatile Petroleum Hydrocarbons (Gasoline, Stoddard) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. Method 5030 (Purge and Trap) is used for the sample preparation and introduction.

Total Extractable Petroleum Hydrocarbons (Diesel, Oil, Kerosene, Stoddard, etc.) are analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual, Last Revision October 1989. EPA Method 3550-sonication (soil) or EPA Method 3510-separatory funnel liquid-liquid (water) is used for sample extraction/preparation.

Organochlorine Pesticides are analyzed in accordance with EPA Test Methods for Evaluating Solid Waste, (SW846), Third edition, July 1992. EPA Method 3550 (soil) or EPA Method 3510 (water) is used for sample extraction/preparation. Method 8080 (Organochlorine Pesticides - GC-ECD/ECD) is used for the analysis.

AN/EN, Inc. is accredited by the California Department of Health Services; Certificate Number 1183 (original issue May 7, 1990). The DHS- Environmental Laboratory Accreditation Program can be reached at (510) 540-2800.

Reviewed and Approved:

  
Laurie Glantz-Murphy, Laboratory Manager

455 RESERVATION ROAD, SUITE G • MARINA, CA 93933 • (408) 883-0123 • FAX (408) 883-0122



## TPH-EXTRACTABLE (DIESEL/MOTOR OIL RANGE) BY GC/FID

Client Project/I.D.: 360-014.1A

Date Sampled: 12/01/95

Date Received: 12/04/95

Date Extracted: 12/05/95

Matrix: Water

Analyst: *JM*

Concentration in samples expressed as ug/L (ppb).

Sample ID	Diesel	Motor Oil	Lab I.D.	Date	
				Analyzed	PQL
MW-1	ND	ND	3775-01	12/07/95	50
MW-6	35000	5400	3775-02	12/08/95	2000
Method Blank	ND	ND	3775-MB	12/07/95	50

PQL = Practical Quantitation Limit. ND = None Detected at or above the PQL.  
J = Estimated value below PQL, but above method detection limit.

NOTE: The concentration reported as motor oil for sample MW-6 is due to unidentified hydrocarbons in the motor oil range (C25-C35).

Total Extractable Petroleum Hydrocarbons (as Diesel) is analyzed in accordance with the California State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Manual, Last Revision October 1989. Method 3510 is used for sample preparation.





**LABORATORY CONTROL SPIKE REPORT - WATER**

Laboratory I.D.: 3775-LCS

Date Extracted: 12/05/95

Date Analyzed: 12/07/95

Concentration of sample and spikes expressed as ug/L (ppb).

ANALYTE	Spike Added	LCS Conc	LCSD Conc	LCS %Rec	LCSD %Rec	RPD	%Rec Limits	RPD Limits
Diesel	500	445	430	89%	86%	3%	57-116	37

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits.

# Chain of Custody

A/E 3775

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014 1A

Facility No. Four Door - Oliver Site

Facility Address: 2901 Glascock Ave, San Oakland

Billing Reference Number: P.O. 3088

CLIENT engineer:

PACIFIC Point of Contact: Maree DeLeon

Sampler: Doug Anderson

Laboratory Name: An/En

Comments:

\* Laboratory  
Please advise  
of any O&E  
plates

Sample ID	Cont. No.	Size (ml)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	Total			VOC (EPA 824)	SVOC (EPA 827)	HVOC (EPA 801)	* Fuel Fingerprint
								BTEX (8015)	TPH (8015)	Oil and Diesel Grease (5520)				
MW-1	1	1L	NP	W	D	12-1-95	12:15							X
MW-2	6	1L	NP	W	D	12-1-95	12:30							X
(A)														
(A)														

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:  
Pacific Environmental Group

Turnaround Time:

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

2025 Gateway Place #440  
San Jose, CA 95110

Priority Rush (1 day)

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

800 Contra Costa Blvd #208  
Pleasant Hill, CA 94523

Rush (2 days)

Expedited (5 days)

Relinquished by:

Date:

Time:

Received by:

Date:

Time:

25725 Jerome Rd #570C  
Mission Viejo, CA 92622

Standard (10 days)

Relinquished by:

Date:

Time:

Received by laboratory

Date:

Time:

4020 148th Ave NE #B  
Redmond WA 98052

As Contracted

### Chain of Custody

Pacific Environmental Group, Inc.  
2025 Gateway Place #440, San Jose CA 95110  
Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.1A

Facility No. Fmr Dorr-Oliver Site

Facility Address: 2901 Glascock Ave, San Oakland

Billing Reference Number: P.O. 30881

CLIENT engineer:

PACIFIC Point of Contact: Maree Dolev

Sampler: Doug Andrews

Laboratory Name: An/En

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix	W-water S-soil A-air	G-grab D-disc. C-comp.	Sampling Date	Sampling Time	BTEX/ VPHgas (8015/ 8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Disolv. Metals	VOC (EPA 624/ 8240)	SVOC (EPA 627/ 8270)	HVOC (EPA 601/ 8010)	*Fuel Fingerprint
MW-1	1	1L	NP	W	D	12-1-95	12:15									X
MW-2 6	1	1L	NP	W	D	12-1-95	12:20									X
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																
<del>_____</del>																

Comments:  
\* Laboratory:  
Please advise  
of any OIG  
peaks

Condition of Sample:

Temperature Received:

Mail original Analytical Report to:

Turnaround Time:

Relinquished by <u>Doug Andrews</u>	Date <u>12-1-95</u>	Time <u>2:00pm</u>
Relinquished by <u>Maree Dolev</u>	Date <u>12/1/95</u>	Time <u>1:00</u>
Relinquished by	Date	Time
Relinquished by	Date	Time

Received by <u>Maree Dolev</u>	Date <u>12/1/95</u>	Time <u>1:40</u>
Received by <u>Maree Dolev</u>	Date <u>12-1-95</u>	Time <u>2:00</u>
Received by	Date	Time
Received by laboratory	Date	Time

Pacific Environmental Group

2025 Gateway Place #440  
San Jose, CA 95110

620 Contra Costa Blvd. #209  
Pleasant Hill, CA 94523

26725 Jeronimo Rd. #576C  
Mission Viejo, CA 92622

4020 148th Ave NE #B  
Redmond, WA 98052

- Priority Rush (1 day)
- Rush (2 days)
- Expedited (5 days)
- Standard (10 days)
- As Contracted



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
 Suite E  
 San Jose, CA 95131  
 Tel: 408-432-8192  
 Fax: 408-432-8198

MR. DOUG ANDREWS  
 PACIFIC ENVIRONMENTAL GROUP  
 2025 GATEWAY PLACE, SUITE 440  
 SAN JOSE, CA 95110

Workorder # : 9511305  
 Date Received : 11/30/95  
 Project ID : 360-014.1A  
 Purchase Order: 30880

The following samples were received at Anametrix for analysis :

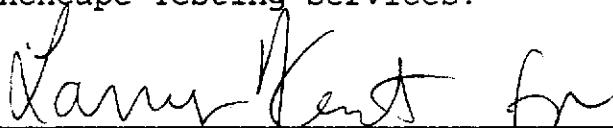
ANAMETRIX ID	CLIENT SAMPLE ID
9511305- 1	MW-1
9511305- 2	MW-4
9511305- 3	MW-6
9511305- 4	MW-7
9511305- 5	MW-8

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

  
 \_\_\_\_\_  
 Susan Kraska Yeager  
 Laboratory Director

  
 \_\_\_\_\_  
 Project Manager

12-18-95  
 \_\_\_\_\_  
 Date

This report consists of 29 pages.



## GC VOA REPORT DESCRIPTION

### Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Inchcape Testing Services ID number.

### Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "\*\*", and the total number of surrogates outside the limits will be listed in the column labeled "Total Out."

### Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "\*\*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

### Qualifiers

Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the reported amount exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

### REPORTING CONVENTIONS

- " Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- " Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DOUG ANDREWS  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511305  
Date Received : 11/30/95  
Project ID : 360-014.1A  
Purchase Order: 30880  
Department : GC  
Sub-Department: VOA

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511305- 1	MW-1	WATER	11/29/95	8010
9511305- 2	MW-4	WATER	11/29/95	8010
9511305- 3	MW-6	WATER	11/29/95	8010
9511305- 4	MW-7	WATER	11/29/95	8010
9511305- 5	MW-8	WATER	11/29/95	8010

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DOUG ANDREWS  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511305  
Date Received : 11/30/95  
Project ID : 360-014.1A  
Purchase Order: 30880  
Department : GC  
Sub-Department: VOA

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- Samples MW-1 and MW-6 were analyzed at a dilution due to interfering hydrocarbon peaks.
- The RPD for 1,1-Dichloroethane is outside of Anametrix control limits for EPA Method 8010 in the matrix spike/ matrix spike duplicate of sample MW-4.

M. Hossainia 12/12/95  
Department Supervisor Date

Kamel G. Kamel 12/12/95  
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-1  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anamatrix ID : 9511305-01  
 Analyst : *KK*  
 Supervisor : *Dh*  
 Dilution Factor : 20.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	20.	ND	U
74-87-3	Chloromethane	20.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	10.	ND	U
76-13-1	Trichlorotrifluoroethane	10.	ND	U
75-35-4	1,1-Dichloroethene	10.	ND	U
75-09-2	Methylene chloride	20.	ND	U
156-60-5	trans-1,2-Dichloroethene	10.	ND	U
75-34-3	1,1-Dichloroethane	10.	ND	U
156-59-2	cis-1,2-Dichloroethene	10.	ND	U
67-66-3	Chloroform	10.	ND	U
71-55-6	1,1,1-Trichloroethane	10.	ND	U
56-23-5	Carbon tetrachloride	10.	ND	U
107-06-2	1,2-Dichloroethane	10.	ND	U
79-01-6	Trichloroethene	10.	ND	U
78-87-5	1,2-Dichloropropane	10.	ND	U
75-27-4	Bromodichloromethane	10.	ND	U
110-75-8	2-Chloroethylvinylether	20.	ND	U
10061-01-5	cis-1,3-Dichloropropene	10.	ND	U
10061-02-6	trans-1,3-Dichloropropene	10.	ND	U
79-00-5	1,1,2-Trichloroethane	10.	ND	U
127-18-4	Tetrachloroethene	10.	ND	U
124-48-1	Dibromochloromethane	10.	ND	U
108-90-7	Chlorobenzene	10.	ND	U
75-25-2	Bromoform	10.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	10.	ND	U
541-73-1	1,3-Dichlorobenzene	10.	ND	U
106-46-7	1,4-Dichlorobenzene	10.	ND	U
95-50-1	1,2-Dichlorobenzene	10.	ND	U



ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-4  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anamatrix ID : 9511305-02  
 Analyst : *KL*  
 Supervisor : *Sh*  
 Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	.61	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-6  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anamatrix ID : 9511305-03  
 Analyst : *KK*  
 Supervisor : *de*  
 Dilution Factor : 10.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	10.	ND	U
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	5.0	ND	U
74-83-9	Bromomethane	5.0	ND	U
75-00-3	Chloroethane	5.0	ND	U
75-69-4	Trichlorofluoromethane	5.0	ND	U
76-13-1	Trichlorotrifluoroethane	5.0	ND	U
75-35-4	1,1-Dichloroethene	5.0	ND	U
75-09-2	Methylene chloride	10.	ND	U
156-60-5	trans-1,2-Dichloroethene	5.0	ND	U
75-34-3	1,1-Dichloroethane	5.0	ND	U
156-59-2	cis-1,2-Dichloroethene	5.0	ND	U
67-66-3	Chloroform	5.0	ND	U
71-55-6	1,1,1-Trichloroethane	5.0	ND	U
56-23-5	Carbon tetrachloride	5.0	ND	U
107-06-2	1,2-Dichloroethane	5.0	ND	U
79-01-6	Trichloroethene	5.0	ND	U
78-87-5	1,2-Dichloropropane	5.0	ND	U
75-27-4	Bromodichloromethane	5.0	ND	U
110-75-8	2-Chloroethylvinylether	10.	ND	U
10061-01-5	cis-1,3-Dichloropropene	5.0	ND	U
10061-02-6	trans-1,3-Dichloropropene	5.0	ND	U
79-00-5	1,1,2-Trichloroethane	5.0	ND	U
127-18-4	Tetrachloroethene	5.0	ND	U
124-48-1	Dibromochloromethane	5.0	ND	U
108-90-7	Chlorobenzene	5.0	ND	U
75-25-2	Bromoform	5.0	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	ND	U
541-73-1	1,3-Dichlorobenzene	5.0	ND	U
106-46-7	1,4-Dichlorobenzene	5.0	ND	U
95-50-1	1,2-Dichlorobenzene	5.0	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-7  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anamatrix ID : 9511305-04  
 Analyst : KK  
 Supervisor : SL  
 Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	.74	
75-34-3	1,1-Dichloroethane	.50	.79	
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-8  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anamatrix ID : 9511305-05  
 Analyst : KK  
 Supervisor : *sh*  
 Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	.53	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	1.3	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-01  
 Sample ID : VBLKB1  
 Matrix : WATER  
 Date Sampled : 0/ 0/ 0  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anamatrix ID : BD0602I1  
 Analyst : KK  
 Supervisor : *sh*  
 Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
75-71-8	Dichlorodifluoromethane	1.0	ND	U
74-87-3	Chloromethane	1.0	ND	U
75-01-4	Vinyl chloride	.50	ND	U
74-83-9	Bromomethane	.50	ND	U
75-00-3	Chloroethane	.50	ND	U
75-69-4	Trichlorofluoromethane	.50	ND	U
76-13-1	Trichlorotrifluoroethane	.50	ND	U
75-35-4	1,1-Dichloroethene	.50	ND	U
75-09-2	Methylene chloride	1.0	ND	U
156-60-5	trans-1,2-Dichloroethene	.50	ND	U
75-34-3	1,1-Dichloroethane	.50	ND	U
156-59-2	cis-1,2-Dichloroethene	.50	ND	U
67-66-3	Chloroform	.50	ND	U
71-55-6	1,1,1-Trichloroethane	.50	ND	U
56-23-5	Carbon tetrachloride	.50	ND	U
107-06-2	1,2-Dichloroethane	.50	ND	U
79-01-6	Trichloroethene	.50	ND	U
78-87-5	1,2-Dichloropropane	.50	ND	U
75-27-4	Bromodichloromethane	.50	ND	U
110-75-8	2-Chloroethylvinylether	1.0	ND	U
10061-01-5	cis-1,3-Dichloropropene	.50	ND	U
10061-02-6	trans-1,3-Dichloropropene	.50	ND	U
79-00-5	1,1,2-Trichloroethane	.50	ND	U
127-18-4	Tetrachloroethene	.50	ND	U
124-48-1	Dibromochloromethane	.50	ND	U
108-90-7	Chlorobenzene	.50	ND	U
75-25-2	Bromoform	.50	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	.50	ND	U
541-73-1	1,3-Dichlorobenzene	.50	ND	U
106-46-7	1,4-Dichlorobenzene	.50	ND	U
95-50-1	1,2-Dichlorobenzene	.50	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Matrix : LIQUID

Anamatrix ID : 9511305  
 Analyst : *kk*  
 Supervisor : *sl*

	SAMPLE ID	SU1	SU2	SU3
1	VBLKB1	65	76	93
2	MW-4	62	78	86
3	MW-4 MS	77	96	98
4	MW-4 MSD	80	98	101
5	MW-7	67	77	90
6	MW-8	65	77	88
7	MW-6	65	77	91
8	MW-1	66	76	91
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

QC LIMITS

-----  
 SU1 = Bromochloromethane (33-141)  
 SU2 = 1-Chloro-2-fluorobenze (53-125)  
 SU3 = 2-Bromochlorobenzene (60-118)

\* Values outside of Anamatrix QC limits

MATRIX SPIKE RECOVERY FORM -- EPA METHOD 8010  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-4  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Analyzed : 12/ 6/95  
 Instrument ID : HP24

Anametrix ID : 9511305-02  
 Analyst : *kk*  
 Supervisor : *DR*

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	%REC LIMITS
Trichlorotrifluoroethan	10.0	.0	8.5	85	42-111
1,1-Dichloroethene	10.0	.0	9.0	90	47-128
trans-1,2-Dichloroethen	10.0	.0	9.1	91	63-110
1,1-Dichloroethane	10.0	.6	9.1	85	72-128
cis-1,2-Dichloroethene	10.0	.0	10.5	105	62-126
1,1,1-Trichloroethane	10.0	.0	8.8	88	65-128
Trichloroethene	10.0	.0	10.1	101	64-115
Tetrachloroethene	10.0	.0	9.2	92	64-111
Chlorobenzene	10.0	.0	9.4	94	75-124
1,3-Dichlorobenzene	10.0	.0	9.6	96	68-119
1,4-Dichlorobenzene	10.0	.0	9.7	97	72-125
1,2-Dichlorobenzene	10.0	.0	10.4	104	70-131

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Trichlorotrifluoroethan	10.0	8.6	86	1	16	42-111
1,1-Dichloroethene	10.0	9.2	92	2	14	47-128
trans-1,2-Dichloroethen	10.0	9.2	92	1	12	63-110
1,1-Dichloroethane	10.0	10.4	98	14 *	12	72-128
cis-1,2-Dichloroethene	10.0	10.3	103	2	17	62-126
1,1,1-Trichloroethane	10.0	8.9	89	1	25	65-128
Trichloroethene	10.0	9.7	97	4	24	64-115
Tetrachloroethene	10.0	9.6	96	5	12	64-111
Chlorobenzene	10.0	9.6	96	3	10	75-124
1,3-Dichlorobenzene	10.0	9.6	96	1	9	68-119
1,4-Dichlorobenzene	10.0	9.9	99	1	9	72-125
1,2-Dichlorobenzene	10.0	10.4	104	0	9	70-131

\* Value is outside of Anametrix QC limits

RPD: 1 out of 12 outside limits  
 Spike Recovery: 0 out of 24 outside limits

EPA METHOD 8010  
 INCHCAPE TESTING SERVICES - ANAMETRIX  
 (408) 432-8192

LABORATORY CONTROL SAMPLE

Sample ID:	LAB CONTROL SAMPLE	Laboratory ID:	MD060111
Batch:	11305	Instrument ID:	HP24
Matrix:	WATER	Concentration Units:	ug/L
Date Analyzed:	12/6/95	Analyst:	KK
		Supervisor:	JL

COMPOUND NAME	SPIKE AMOUNT	LCS REC	%REC LCS	%RECOVERY LIMITS
Trichlorotrifluoroethane	10	8.2	82%	65-116
1,1-Dichloroethene	10	9.0	90%	64-125
trans-1,2-Dichloroethene	10	9.2	92%	77-113
1,1-Dichloroethane	10	9.5	95%	85-129
cis-1,2-Dichloroethene	10	10.4	104%	78-130
1,1,1-Trichloroethane	10	8.7	87%	83-125
Trichloroethene	10	9.7	97%	76-124
Tetrachloroethene	10	8.9	89%	80-118
Chlorobenzene	10	9.5	95%	81-130
1,3-Dichlorobenzene	10	10.2	102%	82-115
1,4-Dichlorobenzene	10	10.6	106%	85-122
1,2-Dichlorobenzene	10	10.7	107%	86-122

SURROGATE NAME	SPIKE AMT	SURR. REC	% REC	% REC LIMITS
Bromochloromethane	5	4.1	82%	33-141
1-Chloro-2-fluorobenzene	5	4.8	96%	53-125
2-Bromochlorobenzene	5	4.9	98%	60-118





# Inchcape Testing Services

## Anamatrix Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

### GC/PESTICIDE REPORT DESCRIPTION

#### Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and within each method, organized sequentially in order of increasing Inchcape Testing Services ID Number.

#### Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "\*" and the total number of surrogates outside the limits will be listed in the column labeled "Total Out."

#### Matrix Spike Recovery, Laboratory Control Sample Forms

These forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes, laboratory control samples and their duplicates. This information is a statement of accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "\*".

#### Qualifiers

Inchcape Testing Services uses several data qualifiers (Q) in its report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed, but not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an estimated value.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

#### REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report form. However, the report cover letter and report summary pages do display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DOUG ANDREWS  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511305  
Date Received : 11/30/95  
Project ID : 360-014.1A  
Purchase Order: 30880  
Department : GC  
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511305- 3	MW-6	WATER	11/29/95	8080 PCB
9511305- 5	MW-8	WATER	11/29/95	8080 PCB

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DOUG ANDREWS  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511305  
Date Received : 11/30/95  
Project ID : 360-014.1A  
Purchase Order: 30880  
Department : GC  
Sub-Department: PEST

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- No QA/QC problems were encountered.

Steve Andrews                      12/8/95  
Department Supervisor                      Date

Dr. B. R. Patel                      December, 8<sup>th</sup> 1995  
Chemist                      Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-6  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Extracted : 12/ 6/95  
 Amount Extracted : 1000.0 mL  
 Date Analyzed : 12/ 7/95  
 Instrument ID : HP10

Anamatrix ID : 9511305-03  
 Analyst : ESP  
 Supervisor : *m*

Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	.50	ND	U
11104-28-2	Aroclor-1221	1.0	ND	U
11141-16-5	Aroclor-1232	.50	ND	U
53469-21-9	Aroclor-1242	.50	ND	U
12672-29-6	Aroclor-1248	.50	ND	U
11097-69-1	Aroclor-1254	.50	ND	U
11096-82-5	Aroclor-1260	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : MW-8  
 Matrix : WATER  
 Date Sampled : 11/29/95  
 Date Extracted : 12/ 6/95  
 Amount Extracted : 1000.0 mL  
 Date Analyzed : 12/ 7/95  
 Instrument ID : HP10

Anamatrix ID : 9511305-05  
 Analyst :  
 Supervisor : M <sup>(SP)</sup>

Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	.50	ND	U
11104-28-2	Aroclor-1221	1.0	ND	U
11141-16-5	Aroclor-1232	.50	ND	U
53469-21-9	Aroclor-1242	.50	ND	U
12672-29-6	Aroclor-1248	.50	ND	U
11097-69-1	Aroclor-1254	.50	ND	U
11096-82-5	Aroclor-1260	.50	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-01  
 Sample ID : PBLKPA  
 Matrix : WATER  
 Date Sampled : 0/ 0/ 0  
 Date Extracted : 12/ 6/95  
 Amount Extracted : 1000.0 mL  
 Date Analyzed : 12/ 7/95  
 Instrument ID : HP10

Anamatrix ID : BD0611PE  
 Analyst :  
 Supervisor : M <sup>EP</sup>

Dilution Factor : 1.0  
 Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
12674-11-2	Aroclor-1016	.50	ND	U
11104-28-2	Aroclor-1221	1.0	ND	U
11141-16-5	Aroclor-1232	.50	ND	U
53469-21-9	Aroclor-1242	.50	ND	U
12672-29-6	Aroclor-1248	.50	ND	U
11097-69-1	Aroclor-1254	.50	ND	U
11096-82-5	Aroclor-1260	.50	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8080 PCB  
ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
Matrix : LIQUID

Anametrix ID : 9511305  
Analyst :  
Supervisor : *M* <sup>(98)</sup>

	SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6
1	PBLKPA	109	87				
2	PLCSLD	114	93				
3	PLCSD5D	116	93				
4	MW-6	58	78				
5	MW-8	49	98				
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

QC LIMITS  
-----

SU1 = Decachlorobiphenyl (34-135)  
SU2 = Tetrachloro-m-xylene (30-140)

\* Values outside of Anametrix QC limits

LCS RECOVERY FORM -- EPA METHOD 8080 PCB  
 ANAMETRIX, INC. (408)432-8192

Project ID : 360-014.  
 Sample ID : LCS/LCSD  
 Matrix : WATER  
 Date Sampled : N/A  
 Date Extracted : 12/ 6/95  
 Date Analyzed : 12/ 7/95  
 Instrument ID : HP10

Anamatrix ID : M/ND0611PE  
 Analyst :   
 Supervisor : M MP

COMPOUND	SPIKE ADDED (ug/L )	SAMPLE CONCENTRATION (ug/L )	LCS CONCENTRATION (ug/L )	LCS % REC	%REC LIMITS
Aroclor-1016	5.00	.00	4.99	100	38-120
Aroclor-1260	5.00	.00	4.83	97	38-120

COMPOUND	SPIKE ADDED (ug/L )	LCSD CONCENTRATION (ug/L )	LCSD % REC	% RPD	RPD LIMITS	%REC LIMITS
Aroclor-1016	5.00	5.22	104	4	25	38-120
Aroclor-1260	5.00	4.98	100	3	25	38-120

\* Value is outside of Anamatrix QC limits

RPD: 0 out of 2 outside limits  
 Spike Recovery: 0 out of 4 outside limits



REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DOUG ANDREWS  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511305  
Date Received : 11/30/95  
Project ID : 360-014.1A  
Purchase Order: 30880  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9511305- 3	MW-6	WATER	11/29/95	6010
9511305- 5	MW-8	WATER	11/29/95	6010

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DOUG ANDREWS  
PACIFIC ENVIRONMENTAL GROUP  
2025 GATEWAY PLACE, SUITE 440  
SAN JOSE, CA 95110

Workorder # : 9511305  
Date Received : 11/30/95  
Project ID : 360-014.1A  
Purchase Order: 30880  
Department : METALS  
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Mona Kamei For 12/11/95  
Department Supervisor Date

Stephen Carroll 12/11/95  
Chemist Date

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511305-03  
 Client Sample ID: MW-6  
 Client Project Number: 360-014.1A  
 Matrix: WATER

Date Sampled: 11/29/95  
 Analyst: *xl*  
 Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	10.0	822	
Lead	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	40.0	107	
Nickel	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	40.0	1190	
Zinc	3010A	6010A	ICP2	12/08/95	12/10/95	1	ug/L	20.0	851	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
DATA REPORT**

Anamatrix Sample ID: 9511305-05  
Client Sample ID: MW-8  
Client Project Number: 360-014.1A  
Matrix: WATER

Date Sampled: 11/29/95  
Analyst: *SC*  
Supervisor: *MU*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	10.0	319	
Lead	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	40.0	42.0	
Nickel	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	40.0	381	
Zinc	3010A	6010A	ICP2	12/08/95	12/10/95	1	ug/L	20.0	309	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
METHOD BLANK REPORT**

Anamatrix Sample ID: **BD015WC, BD085WA**  
Anamatrix WO #: **9511305**  
Client Project Number: **360-014.1A**  
Matrix: **WATER**

Analyst: *sc*  
Supervisor: *MK*

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Cadmium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	40.0	ND	
Nickel	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	40.0	ND	
Zinc	3010A	6010A	ICP2	12/08/95	12/10/95	1	ug/L	20.0	ND	

COMMENTS:

**INCHCAPE TESTING SERVICES  
ANAMETRIX LABORATORIES  
(408) 432-8192  
LABORATORY CONTROL SAMPLE REPORT**

Lab. Control Sample ID: LD015WC, LD085WA  
 Anamatrix WO #: 9511305  
 Client Project Number: 360-014.1A  
 Matrix: WATER

Analyst: SC  
 Supervisor: MK

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Cadmium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	50.0	51.7	103	
Chromium	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	200	204	102	
Lead	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	500	505	101	
Nickel	3010A	6010A	ICP2	12/01/95	12/07/95	1	ug/L	500	501	100	
Zinc	3010A	6010A	ICP2	12/08/95	12/10/95	1	ug/L	500	536	107	

COMMENTS:

# Chain of Custody

Pacific Environmental Group, Inc.

2025 Gateway Place #440, San Jose CA 95110

Phone 408 441 7790 Fax 408 441 7539

PROJECT No. 360-014.LA

Facility No. \_\_\_\_\_

Facility Address: 2901 Glascock Ave. Oakland, CA

Billing Reference Number: PO # 30880

CLIENT engineer: ~~\_\_\_\_\_~~

PACIFIC Point of Contact: Doug Andrews

Sampler: S. Metz

Laboratory Name: Anamatrix

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	BTEX/ VPHgas (8015/ 8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Dislvd. Metals	VOC (EPA 624/ 8240)	SVOC (EPA 627/ 8270)	HVOC (EPA 601/ 8010)	PCBs (8080)	Metals (total) Cd, Cr, Ni, Pb + Zn	Comments:
① MW-1	3	40ml	NP	W	D	11-29-95	1200							X			
② MW-4	3	40ml	NP				1130							X			
MW-6	3	40ml	NP				1230							X			
↓	1	1000	NP				1230								X		
↓	1	500ml	HNO <sub>3</sub>				1230									X	
④ MW-7	3	40ml	NP				1315							X			
MW-8	3	40ml	NP				1100							X			
↓	1	1000	NP				1100								X		
↓	1	500ml	HNO <sub>3</sub>	↓	↓	↓	1100									X	

Condition of Sample:		Temperature Received:		Mail original Analytical Report to:		Turnaround Time:	
				Pacific Environmental Group		<input type="checkbox"/> Priority Rush (1 day) <input type="checkbox"/> Rush (2 days) <input type="checkbox"/> Expedited (5 days) <input checked="" type="checkbox"/> Standard (10 days) <input type="checkbox"/> As Contracted	
Relinquished by	Date	Time	Received by	Date	Time	2025 Gateway Place #440 <input checked="" type="checkbox"/>	
<u>S. Metz</u>	11-29-95	1500	<u>M. Doden</u>	11/29/95	1500	San Jose, CA 95110	
Relinquished by	Date	Time	Received by	Date	Time	620 Contra Costa Blvd. #209 <input type="checkbox"/>	
<u>M. Doden</u>	11/30/95	0910	<u>Benny L. Carrizosa</u>	11/30/95	0910	Pleasant Hill, CA 94523	
Relinquished by	Date	Time	Received by	Date	Time	25725 Jeronimo Rd. #576C <input type="checkbox"/>	
<u>Benny L. Carrizosa</u>	11/30/95	0930				Mission Viejo, CA 92622	
Relinquished by	Date	Time	Received by laboratory	Date	Time	4020 148th Ave NE #B <input type="checkbox"/>	
			<u>[Signature]</u>	11/30/95	930	Redmond, WA 98052	



# Inchcape Testing Services

## Environmental Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

### SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9511305 CLIENT PROJECT ID: 360-014.1A

#### COOLER

Shipping slip (airbill, etc.) present?	YES	NO	<u>N/A</u>
If YES, enter carrier name and airbill #: _____			
Custody Seal on the outside of cooler?	YES	NO	<u>N/A</u>
Condition: INTACT _____ BROKEN _____			
Temperature of sample (s) within range?	<u>YES</u>	NO	N/A
List temperature of cooler (s): <u>3°C</u>			

#### SAMPLES

Chain of custody seal present for each container?	YES	NO	<u>N/A</u>
Condition: INTACT _____ BROKEN _____			
Samples arrived within holding time?	<u>YES</u>	NO	N/A
Samples in proper containers for methods requested?	<u>YES</u>	NO	
Condition of containers: INTACT <u>✓</u> BROKEN _____			
If NO, were samples transferred to proper container? _____			
Were VOA containers received with zero headspace?	<u>YES</u>	NO	N/A
If NO, was it noted on the chain of custody? _____			
Were container labels complete? (ID, date, time preservative, etc.)	<u>YES</u>	NO	
Were samples preserved with the proper preservative?	<u>YES</u>	NO	N/A
If NO, was the proper preservative added at time of receipt? _____			
pH check of samples required at time of receipt?	<u>YES</u>	NO	
If YES, pH checked and recorded by: <u>JP</u>			
Sufficient amount of sample received for methods requested?	<u>YES</u>	NO	
If NO, has the client or lab project manager been notified? _____			
Field blanks received with sample batch? # of Sets: _____	YES	NO	<u>N/A</u>
Trip blanks received with sample batch? # of Sets: _____	YES	NO	<u>N/A</u>

#### CHAIN OF CUSTODY

Chain of custody received with samples?	<u>YES</u>	NO
Has it been filled out completely and in ink?	<u>YES</u>	NO
Sample ID's on chain of custody agree with container labels?	<u>YES</u>	NO
Number of containers indicated on chain of custody agree with number received?	<u>YES</u>	NO
Analysis methods clearly specified?	<u>YES</u>	NO
Sampling date and time indicated?	<u>YES</u>	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	<u>YES</u>	NO
Turnaround time? REGULAR <u>✓</u> RUSH _____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: JP Date: 11/30/95 Project Manager: WJ Date: 12/3/95



# Chain of Custody

Pacific Environmental Group, Inc.

2025 Gateway Place #440, San Jose CA 95110

Phone 408 441 7790 Fax 408 441 7539

PROJECT No. **360-014.1A**

Facility No. \_\_\_\_\_ Facility Address: **2701 Glascock Ave. Oakland, CA**

Billing Reference Number: **PO # 30880**

CLIENT engineer: **MD** ~~\_\_\_\_\_~~

PACIFIC Point of Contact: **Doug Andrews** Sampler: **S. Metz**

Laboratory Name: **Anamatrix**

Sample I.D.	Cont. No.	Container Size (ml)	Sample Preserv.	Matrix	Type	Sampling Date	Sampling Time	BTEX/ VPHgas (8015/ 8020)	TPH Diesel (8015)	Oil and Grease (5520)	Total Dislvd. Metals	VOC (EPA 624/ 8240)	SVOC (EPA 627/ 8270)	HVOC (EPA 601/ 8010)	PCBs (8080)	Metals (total) Cd, Cr, Ni, Pb, Zn	Comments:
MW-1	3	40ml	NP	W	D	11-29-95	1200								X		
MW-4	3	40ml	NP				1130								X		
MW-6	3	40ml	NP				1230								X		
↓	1	1000	NP				1230								X		
↓	1	500 ml	HNO <sub>3</sub>				1230									X	
MW-7	3	40ml	NP				1315								X		
MW-8	3	40ml	NP				1100								X		
↓	1	1000	NP				1100								X		
↓	1	500 ml	HNO <sub>3</sub>	↓	↓	↓	1100									X	

Condition of Sample:		Temperature Received:		Mail original Analytical Report to:		Turnaround Time:	
				Pacific Environmental Group		Priority Rush (1 day) <input type="checkbox"/>	
Relinquished by <i>[Signature]</i>		Date <b>11-29-95</b> Time <b>1500</b>		Received by <i>[Signature]</i>		Date <b>11/29/95</b> Time <b>1500</b>	
Relinquished by <i>[Signature]</i>		Date <b>1/30/95</b> Time <b>0910</b>		Received by <i>[Signature]</i>		Date <b>1/30/95</b> Time <b>0910</b>	
Relinquished by _____		Date _____ Time _____		Received by _____		Date _____ Time _____	
Relinquished by _____		Date _____ Time _____		Received by laboratory		Date _____ Time _____	
				2025 Gateway Place #440 San Jose, CA 95110 <input checked="" type="checkbox"/>		Rush (2 days) <input type="checkbox"/>	
				620 Contra Costa Blvd. #209 Pleasant Hill, CA 94523 <input type="checkbox"/>		Expedited (5 days) <input type="checkbox"/>	
				25725 Jeronimo Rd. #576C Mission Viejo, CA 92622 <input type="checkbox"/>		Standard (10 days) <input checked="" type="checkbox"/>	
				4020 148th Ave NE #B Redmond, WA 98052 <input type="checkbox"/>		As Contracted <input type="checkbox"/>	