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July 24, 2002

Mr. Barney Chan Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, CA 94502-6577

Subject:

Second Quarter 2002 - Groundwater Monitoring Report

United States Postal Service Vehicle Maintenance Facility

1675 7th Street, Oakland, California

Fuel Leak Case: RO0000016 PSI Project No.: 575-2G007

Dear Ms. Martin:

On behalf of the United States Postal Service, Professional Service Industries is pleased to present this quarterly groundwater monitoring report which describes the results of the groundwater sampling and laboratory analysis for the Vehicle Maintenance Facility site in Oakland, California. This report was intended to address specific reporting requirements discussed with you and listed in your recent letter dated May 13, 2002.

This report addresses only the groundwater at the subject site. A discussion of the site history, including fuel tank and hydraulic lift removal activities, associated soil analyses and an evaluation of the Tier II Risk Appraisal will be forthcoming in a report to be submitted at the completion of the currently planned site investigation.

If you have any questions regarding this report or any aspect of the project, please do hot hesitate to call.

Respectfully submitted,

PROPESSIONAL SERVICE INDUSTRIES, INC.

Frank R. Poss

Senior Technical Professional

# SECOND QUARTER 2002 GROUNDWATER MONITORING REPORT

USPS GMF/VMF 1675 7<sup>TH</sup> STREET OAKLAND, CALIFORNIA

Prepared for

United States Postal Service 1675 7<sup>TH</sup> Street Oakland, California

Professional Service Industries 4703 Tidewater Avenue, Suite B Oakland, California 94601

> July 24, 2002 575-2G007

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### STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

Information provided in Professional Services Industries, Inc., (PSI) report number 575-2G007 is intended exclusively for the United States Postal Service (USPS) for the evaluation of groundwater contamination as it pertains to the subject site. PSI is responsible for the facts and accuracy of the data presented herein. The professional services provided have been performed in accordance with practices generally accepted by other geologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted will identify any and all sources or locations of contamination.

This report is issued with the understanding that the USPS is responsible for ensuring that the information contained in this report is brought to the attention of the appropriate regulatory agency. This report has been reviewed by a geologist who is registered in the State of California and whose signature and license number appear below.

Frank R. Poss, R.E.A. Senior Hydrogeologist Brand Burfjeld, RG 6986 Senior Geologist

### 1.0 INTRODUCTION

### 1.1 EXECUTIVE SUMMARY

The results of our second quarter groundwater monitoring indicate that petroleum hydrocarbon compounds are still present in groundwater downgradient of the former underground storage tanks. The levels of some contaminants appear to be higher than detected last quarter, however this may be due to the use of a different analytical lab in order to obtain lower detection limits for some of the compounds. Of the contaminants detected, Naphthalene, 1,2-Dichloroethane and Methyl Tertiary-Butyl Ether (MTBE) are above their Primary Drinking Water Standard or Preliminary Remediation Goal for drinking water. PSI will continue the recommended quarterly monitoring program to monitor the concentrations of dissolved contaminants in the groundwater.

### 1.2 PURPOSE AND SCOPE OF WORK

This Quarterly Groundwater Monitoring Report (QMR) summarizes the results of the Second Quarter 2002 groundwater monitoring activities conducted on June 18 and 19, 2002 at the United States Postal Service (USPS) Vehicle Maintenance Facility (VMF) in Oakland, California (see Figure 1 – Site Location Map). The purpose of the groundwater monitoring program is to observe the change in concentration of dissolved hydrocarbon compounds at the site over time.

The work presented herein was conducted in accordance with USPS Contract Number 052571-01-J-0014 and Project Authorization Number 2-1F-055509-E-554. The scope of work performed included measurement of water levels, purging and sampling of groundwater wells, analysis of water samples, calculation of hydraulic gradient and preparation of this report. The scope of work, laboratory analysis performed, and report inclusions are intended to satisfy the reporting requirements of the Alameda County Health Care Services Agency (ACHCSA) as stated in their letter dated May 13, 2002.

### 1.3 SITE LOCATION AND DESCRIPTION

The subject site is located at 1675 7<sup>th</sup> Street in Oakland, California and consists of a one-story concrete structure with multiple indoor vehicle service bays and attached office space for operations and management. The VMF is surrounded by asphalt-paved parking to the north and west, a truck wash bay and paved parking to the south, and a fueling area and truck loading bays to the east.

### **2.0 GROUNDWATER MONITORING ACTIVITIES**

### 2.1 GROUNDWATER ELEVATION AND HYDRAULIC GRADIENT

The four groundwater monitoring wells at the site (MW-1 through MW-4) are installed to depths of approximately 20 feet below the ground surface (bgs). Prior to purging, the groundwater levels in monitoring wells MW-1, MW-2 and MW-3 were measured using a Solinst electric water level indicator. A Solinst interface meter was used to measure the water level and thickness of floating product in MW-4. Water levels are read from the north side of the top of each monitoring well casing to an accuracy of 0.01 foot. This is performed in order to calculate the well purge volumes and to determine the groundwater flow direction and gradient. The water level indicator was decontaminated before and after each use to prevent cross-contamination of the wells. Depths to groundwater, measured on June 18, 2002, and calculated groundwater elevations are presented in Table 1. A table of historic water level measurements is included in Appendix A.

Due to the inherent difficulty in factoring out the layer of free product in MW-4, depth to groundwater from this well was not used in the calculation of the groundwater gradient. Field measurements indicate that there is approximately 0.36 feet (4.32 inches) of free product in the well casing. Additionally, based on our field observations, it appears as if the WW-4 well-caeing may have been extended upward during installation of the groundwater level and gradient.

The regional groundwater gradient is expected to be toward the San Francisco Bay in a west to southwesterly direction. Our water level measurements obtained on June 18, 2002, indicate that the groundwater flow direction at the subject site is generally toward the southwest. Groundwater surface contours representing June, 2002 water levels beneath the site are shown on Figure 2. Based on these contours, a hydraulic gradient of approximately 0.008 was calculated for the site. Both the slope and direction of the gradient is generally the same as that calculated for the previous quarterly monitoring, and is in agreement with the expected regional gradient.

#### 2.2 GROUNDWATER SAMPLING

Groundwater samples were collected from monitoring wells MW-1 through MW-4. Prior to the collection of groundwater samples, monitoring wells MW-1 through MW-3 were purged of a minimum of three well volumes of water until pH, conductivity, and temperature stabilized. Due to the presence of free-floating product, a purge of monitoring well MW-4 was not performed.

The following quality assurance/quality control procedures were implemented while performing well monitoring, well purging, and water sampling:

1. All equipment was washed prior to entering the well with an Alconox solution,

followed by two tap water rinses and a deionized water rinse.

- 2. Prior to purging the wells, depth-to-water was measured using a Solinst groundwater interface probe to an accuracy of approximately 0.01 foot. The measurements were made to the top of the well casing on the north side.
- 3. Monitoring wells at the site were prepared for sampling by purging the well of a minimum of 3 well volumes of water using an electric pump. If the wells were purged to dryness, they were allowed to recover to at least 80 percent of their original static groundwater levels prior to sampling.
- 4. Water samples were collected with an electric pump through dedicated polyethylene tubing after the well had been purged and water in the well had equilibrated to approximately 80 percent of the static water level or 2 hours after well purging, whichever occurred first. The water collected was immediately decanted into laboratory-supplied vials and bottles. The containers were overfilled, capped, labeled, and placed in a chilled cooler prior to delivery to the laboratory for analysis.
- 5. Chain-of-custody procedures, including chain-of-custody forms, were used to document water sample handling and transport from collection to delivery to the laboratory for analyses.
- 6. Groundwater samples were delivered to the State-certified hazardous waste laboratory within approximately 48-hours of collection.
- 7. Purged water was contained in DOT approved 55-gallon drums. The drums were labeled with the contents, date, well number, client name, and project number.

A summary of field measurements, site conditions, well purging data, sample collection data, and other pertinent information is recorded on the groundwater monitoring purge logs, presented in Appendix B.

### 2.3 LABORATORY ANALYSIS AND RESULTS

Four groundwater samples were submitted for analysis to Basic Laboratory of Redding, California, a State of California-certified hazardous waste analytical laboratory. The laboratory chosen for the current analysis is different that that used last quarter. The change was made in order to obtain lower detection limits for some of the compounds. The samples were analyzed for the following:

- EPA 8015 modified Total Petroleum Hydrocarbons as Gasoline (TPH-G);
- EPA 8015 modified Total Petroleum Hydrocarbons as Diesel (TPH-D);
- EPA 8260 Volatile Organic Compounds (VOCs)

The groundwater sample from MW-4 was additionally analyzed for Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) in order to provide screening to help characterize the free product. With the approval of the ACHCSA, testing of the sample from MW-4 for Semi-Volatile Organic Compounds (SVOCs) using EPA Test Method 8270 (performed last quarter) has been discontinued (ACHCSA, 2002).

The results of the groundwater analyses are as follows:

- TPH-G was detected in MW-4 at 228 micrograms per liter (ug/l). TPH-G was not detected in the groundwater samples from any of the other wells.
- TPH-D was not detected in MW-2 at or above the laboratory detection limit. MW-1 and MW-3 had TPH-D concentrations of 222 and 407 ug/l respectively. TPH-D was detected in MW-4 at 235 000 ug/l
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) were not detected in the groundwater samples from any of the monitoring wells.
- Analysis for VOCs indicated 1,2-dichloroethane in MW-3 at 1.7 ug/l and naphthalene in MW-4 at 44.1 ug/l. No other VOCs were detected in the groundwater samples during this quarterly sampling event.
- Analysis for VOCs indicated that MTBE was detected in groundwater samples from all four-monitoring wells. The lowest concentrations were detected from MW-1 and MW-2 (0.9 and 1.2 ug/l respectively), while MW-3 and MW-4 had MTBE concentrations of 4.9 and 14.1 ug/l respectively.
- Analysis of the sample from MW-4 for TPH-MO (for the characterization of the free product) indicated no oil-range hydrocarbons present above lab detection limits.

A summary of the laboratory results for the groundwater samples is presented in Table 2. Copies of the laboratory analytical report and chain of custody records are presented in Appendix C.

## 2.4 DISCUSSION OF GROUNDWATER QUALITY

In general, the concentrations of contaminants detected during the Second Quarter 2002 monitoring event are similar to the results from last quarter. The detection of TPH-D in MW-1 and MTBE in MW-1 and MW-2, where these compounds were not detected last quarter, is likely due to the use of Basic Laboratory which has lower detection limits for these compounds than the lab used for the previous quarterly analysis.

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The results of the TPH-G, TPH-D and TPH-MO tests used to characterize the free product in the MW-4 well casing clearly indicate that the floating product is diesel fuel.

The results of the groundwater sample analyses were compared to the State of California Primary Drinking Water Standards (PDWS) and, if the compound did not have a PDWS, with the EPA Region IX Preliminary Remediation Goals (PRG) for tap water. The following compounds were above their respective PDWS or PRG.

- 1,2-Dichloroethane in MW-3 at 1.7 ug/l (PDWS of 0.5 ug/l)
- MTBE in MW-4 at 14.1 ug/L (PDWS of 13.0 ug/L)
- Naphthalene in MW-4 at 44.1 ug/L (PRG of 6.2 ug/L)

All other compounds detected were below their respective PDWS or PRG.

A summary of the historic groundwater analyses for the subject site has been compiled and is included as Table 3. A review of the summary table indicates that there was a sharp rise in the TPH-D levels in all four monitoring wells at the site beginning in February, 1995. For MW-4, this initial rise in diesel levels peaked in June, 1995. Historic groundwater level data indicates that free product in MW-4 was first detected in August, 1995. In accordance with requests made in the referenced ACHCSA letter, the removal of free product, using a system of absorbent socks, is planned to commence in August, 2002 (PSI, July, 2002).

### 3.0 SUMMARY AND CONCLUSIONS

PSI performed groundwater monitoring activities on July 18 and 19, 2002. The results of the monitoring event are summarized below.

- Groundwater flows toward the southwest under a hydraulic gradient of 0.008.
- The free product in MW-4 has been characterized as diesel fuel.
- TPH-G was detected only in the sample from MW-4, and was not detected at or above the laboratory detection limit in the samples from any of the other wells.
- TPH-D was detected in MW-1, MW-3 and MW-4 and was not detected at or above the laboratory detection limit in MW-2.
- Three VOCs were detected in the groundwater samples submitted for the site. MTBE
  was detected in all of the wells but was above the PDWS only for the sample from
  MW-4. Naphthalene was detected in MW-4 and 1,2-dichloroethane was detected in
  MW-3, both above their respective PRG or PDWS. No other VOCs were detected in
  any of the samples analyzed.
- Historic analytical records indicate that TPH-D levels in all of the wells rose sharply in February, 1995, followed by the detection later that year of free product in well MW-4.

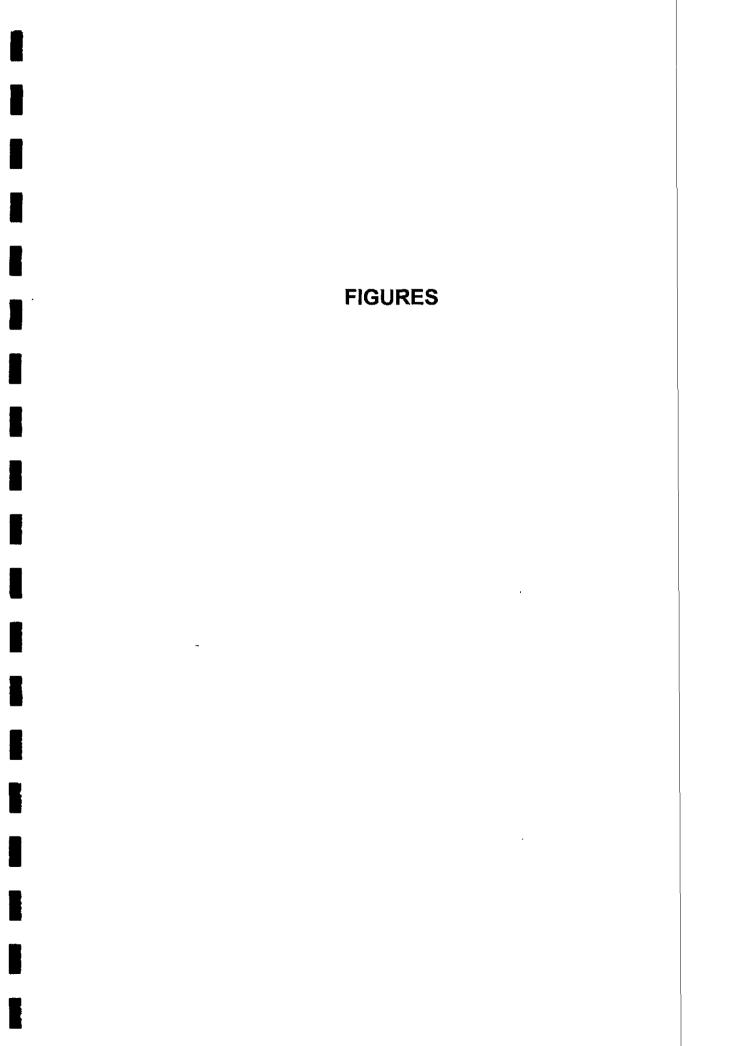
### **4.0 RECOMMENDATIONS**

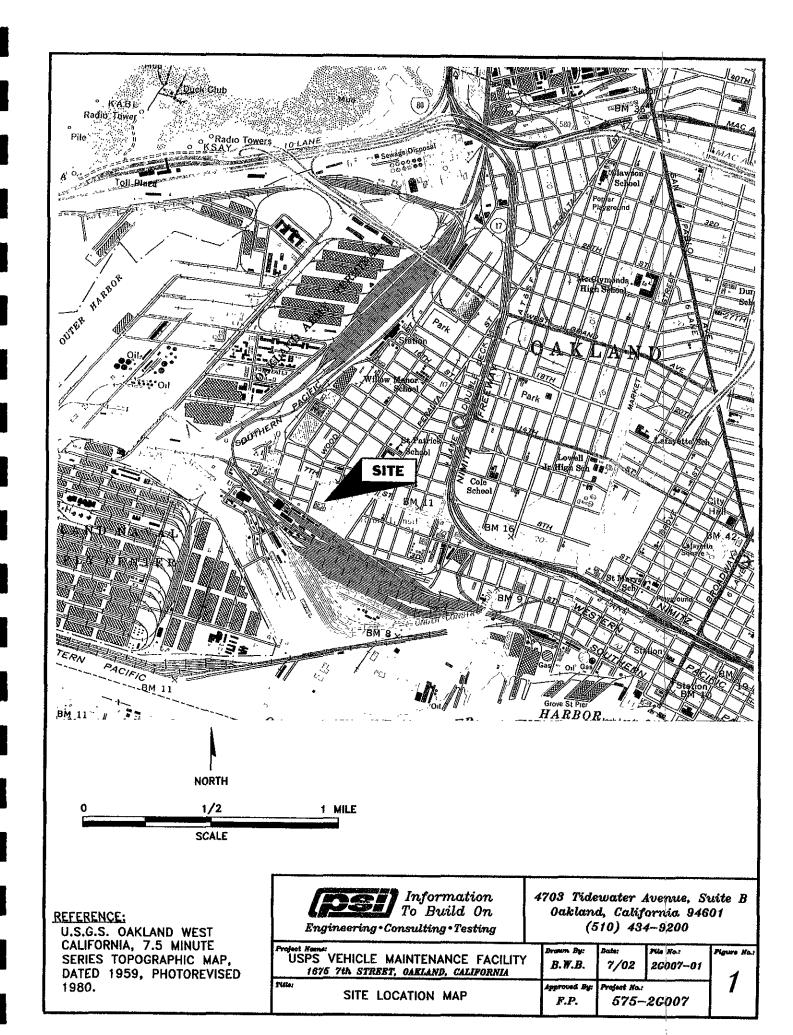
Based on the analytical results, PSI recommends that quarterly sampling, with analysis for TPH-G, TPH-D, and VOCs continue at this site. Additionally, PSI recommends that removal of free product (diesel fuel) from MW-4 begin as soon as possible in order to reduce the amount of contamination introduced to the groundwater.

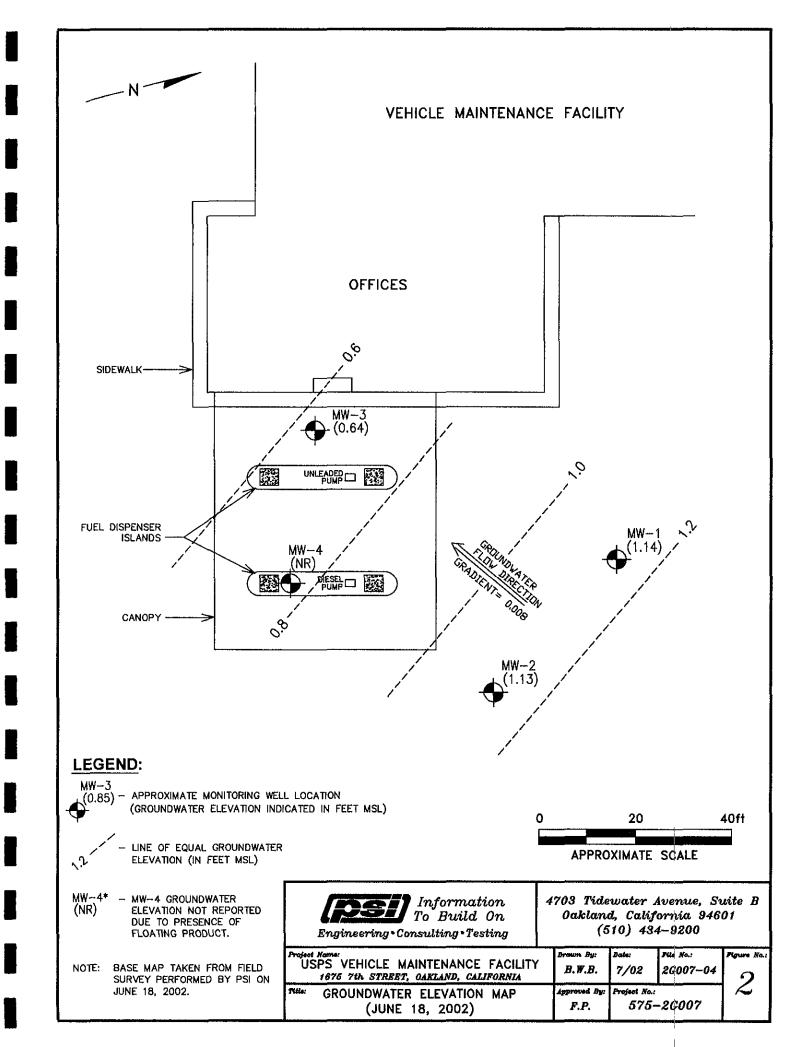
Unless otherwise instructed, PSI will initiate product removal in August, 2002, in accordance with the referenced workplan (PSI, July, 2002). Additionally, a boring is planned to be drilled hydraulically downgradient of MW-4 to determine the lateral extent of the free product plume.

### **5.0 REFERENCES**

- 1. Alameda County Health Care Services Agency, May 13, 2002, Letter titled: "Fuel Leak Case RO0000016, 1675 7<sup>th</sup> Street, Oakland, CA 94607."
- 2. Professional Service Industries, April 26, 2002, "First Quarter 2002 Groundwater Monitoring Report, USPS GMF/VMF, 1675 7<sup>th</sup> Street, Oakland, California," Project No. 575-2G007.
- 3. Professional Service Industries, July 17, 2002, "Workplan: Site Investigation & Free Product Removal, USPS GMF/VMF, 1675 7<sup>th</sup> Street, Oakland, California," Project No. 575-2G007









# TABLE 1

# DEPTH TO GROUNDWATER DATA USPS VEHICLE MAINTENANCE FACILITY OAKLAND, CALIFORNIA

Sample I.D.	Date	TOC Elevation (feet msl)	Depth To Groundwater (feet)	Groundwater  Elevation  (feet.msi)
MW-1	6/18/02	8.30	7.16	1.14
MW-2	6/18/02	8.86	7.73	1.13
MW-3	6/18/02	9.28	8.64	0.64
MW-4	6/18/02	8.73	NT	NT

Notes: TOC = Top of well casing elevation.

msl = Mean sea level

NT = Not Tested / Not Measured

# TABLE 2

# ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES USPS VEHICLE MAINTENANCE FACILITY OAKLAND, CALIFORNIA

Sample I.D.	Date	TPH-G (ug/l)	TPH-D (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl- benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	VOCs (ug/l)
MW-1	6/18/02	<50	222	<0.5	<0.5	<0.5	<1.0	1.2	ND
MW-2	6/18/02	<50	<50	<0.5	<0.5	<0.5	<1.0	0.9	ND
MW-3	6/19/02	<50	407	<0.5	<0.5	<0.5	<1.0	4.9	1,2-Dichloroethane - 1.7
MW-4	6/19/02	228 3	235,000	<2.5	<2.5	<2.5	<5.0	14.1	Naphthalene - 44.1

Notes:

TPH-G = Total petroleum hydrocarbons as gasoline

TPH-D = Total petroleum hydrocarbons as diesel

MTBE = Methyl tert-butyl ether

VOCs = Volatile Organic Compounds

VOCs presented are only compounds detected; all other compounds were not detected.

ug/l = Micrograms per liter

< = Less than the laboratory test method detection limit indicated.

ND = Not Detected

# TABLE 3

# SUMMARY OF HISTORIC GROUNDWATER ANALYTICAL RESULTS USPS, VEHICLE MAINTENANCE FACILITY OAKLAND, CALIFORNIA

Sample		TPH-G	TPH-D	Benzene	Toluene	Ethyl-	Total	MTBE
I.D.	Date	(ug/l)	(ug/l)	(ùg/l)	(ug/l)	benzene (ug/l)	Xylenes (ug/l)	(ug/l)
MW-1	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	73	<0.5	<0.5	<0.5	<0.5	NA
	2/22/95	<50	600	<0.5	<0.5	<0.5	<0.5	NA
	6/6/95	<50	900	<0.5	<0.5	<0.5	<0.5	NA
	8/16/95	<50	810	<0.5	<0.5	<0.5	<0.5	NA
	11/14/95	<50	590	<0.5	<0.5	<0.5	<0.5	NA
	5/16/96	NA	900	NA	NA	NA	NA	NA
	11/15/96	NA NA	330	NA	NA	NA	NA	NA
	3/11/02	<500	<400	<0.5	<0.5	<0.5	<1.0	<1.0
	6/18/02	<50	222	<0.5	<0.5	<0.5	<1.0	1.2
MW-2	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	2/22/95	<50	280	<0.5	<0.5	<0.5	<0.5	NA
	6/6/95	<50	570	<0.5	<0.5	<0.5	<0.5	NA
	8/16/95	<50	150	<0.5	<0.5	<0.5	<0.5	NA
	11/14/95	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/16/96	NA	320	NA	NA	NA	NA	NA
	11/15/96	NA	<50	AN	NA	NA	NA	NA
	3/11/02	<500	<400	<0.5	<0.5	<0.5	<1.0	<1.0
	6/18/02	<50	<50	<0.5	<0.5	<0.5	<1.0	0.9
MW-3	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	Insufficient wa	ater - no samp	ole collected.				
	2/22/95	50	350	<0.5	<0.5	<0.5	<0.5	NA
	6/6/95	<50	380	<0.5	<0.5	<0.5	<0.5	NA
	8/16/95	<50	440	<0.5	<0.5	<0.5	<0.5	NA
	11/14/95	<50	200	0.8	<0.5	<0.5	<0.5	NA
	5/16/96	NA	1,100	NA	NΑ	NA	NA	NA
	11/15/96	NA	470	NA	NA	NA	NA	NA
	3/11/02	<500	540	<0.5	<0.5	<0.5	<1.0	3.8
	6/19/02	<50	407	<0.5	<0.5	<0.5	<1.0	4.9
MW-4	9/1/93	<50	580	<0.5	< 0.5	<0.5	<0.5	NA
	1/26/94	<50	850	0.8	<0.5	<0.5	<0.5	NA .
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	260	- ş-1.7 °-:	<0.5	<0.5	<0.5	NA
	2/22/95	140	1.100	1.4	<0.5	<0.5	< 0.5	NA
	6/6/95	24,000	23,000	<0.5	<0.5	0.5	<0.5	NA
	8/16/95	2,000	3,400	1.2	<0.5	1.0	0.8	NA
	11/14/95	950	7,400	<0.5	< 0.5	<0.5	<0.5	NA
	5/16/96	<50	2,000	<0.5	<0.5	<0.5	<1.0	NA
	11/15/96	600	13,000	-0,78	<0.5	0.94	<1.0	NA
	3/11/02	NT	NT	<0.5	<0.5	<0.5	<1.0	8,5
	6/19/02	228	235,000	<2.5	<2.5	<2.5	<5.0	14.1
MW-5	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
,,	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA NA
	6/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA NA
	1 0/1/04	1 -00	-00		1	-0.0	-0.0	1 1777

Notes:

TPH-D = Total petroleum hydrocarbons as diesel TPH-G = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether ug/l = Micrograms per liter

< = Less than laboratory test method detection limit, as indicated.

NT = Not Tested / Not Measured

# **APPENDIX A**

HISTORIC WATER LEVELS

Table 1. Summary of Groundwater Elevations
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

		Top of Well Casing	Depth to	Depth to	Product	Groundwater
Well		Elevation	Product	Water	Thickness	Elevation
Name	Date	(fi MSL)*	(ft BTOC)**	(ft BTOC)**	(lect)	(fl.MSL)*
MW-1	9/93	8.30	No Product	3.90	No Product	4.40
	1/26/94		No Product	3.64	No Product	4.66
	2/94		No Product	3.37	No Product	4.93
	3/94		No Product	7.51	No Product	0.79
	4/94		No Product	10.74	No Product	-2.44
	5/94		No Product	12.98	No Product	-4.68
	6/94		No Product	15.55	No Product	-7.25
	2/22/95		No Product	6.98	No Product	1.32
	6/6/95		No Product	7.51	No Product	0.79
	8/16/95		No Product	8.11	No Product	0.19
	11/14/95		No Product	9.04	No Product	-0.74
	5/16/96		No Product	7.00	No Product	1.30
MW-2	9/93	8.86	No Product	4.55	No Product	4.31
	1/26/94		No Product	4.69	No Product	4.17
	2/94	•	No Product	3.98	No Product	4.88
	3/94		No Product	8.14	No Product	0.72
	4/94		No Product	10.60	No Product	-1.74
	5/94		No Product	13.47	No Product	-4.61
	6/94		No Product	15.50	No Product	-6.64
	2/22/95		No Product	7.66	No Product	1.20
	6/6/95		No Product	8.06	No Product	0.80
	8/16/95		No Product	8.77	No Product	0.09
	11/14/95		No Product	9.66	No Product	-0.80
<u>.                                </u>	5/16/96		No Product	7.58	No Product	1.28
MW-3	9/93	9.28	No Product	5.00	No Product	4.28
	1/26/94		No Product	5.04	No Product	4.24
	2/94		No Product	4.62	No Product	4.66
	3/94		No Product	9.54	No Product	-0.26
	4/94	•	No Product	11.69	No Product	-2.41
	5/94		No Product	14.85	No Product	<i>-5</i> .57
	6/94		No Product	17.30	No Product	-8.02
	2/22/95		No Product	8.64	No Product	0.64
	6/6/95		No Product	9.07	No Product	0 21
	8/16/95		No Product	9.66	No Product	-0.38
	11/14/95		No Product	10.46	No Product	-1.18
	5/16/96		No Product	8.61	No Product	0.67

### Table 1. Summary of Groundwater Elevations United States Postal Service - GMF/VMF 1675 7th Street Oakland, California

		Top of Well Casing	Depth to	Depth to	Product	Groundwaler
Well		Elcyation	Product	Water	Thickness	Elevation
Name	Date	(î MSL)*	(ft BTOC)**	(f. BTOC)**	(fcet)	(ft.MSL)*
MW-4	9/93	8.73	No Product	4.55	No Product	4.19
141.444	1/26/94	0.75	No Product	4.60	No Product	4.18 4.13
	2/94		No Product	3.95	No Product	4.78
	3/94	•	No Product	8.96	No Product	-0.23
	4/94		No Product	8.96	No Product	-0.23
	5/94		No Product	14.24	No Product	-5.51
	6/94		No Product	17.28	No Product	-8.55
-	2/22/95		No Product	7.93	No Product	0.80
	6/6/95		No Product	8.48	No Product	0.25
	8/16/95		8.92	9.08	0.16	-0.20***
	11/14/95		9.82	9.92	0.10	-1.0***
	5/16/96		No Product	7.88	No Product	0.85
MW-5	9/93	8.23	No Product	3.63	No Product	4.60
	1/26/94		No Product	3.70	No Product	4.53
	2/94		No Product	3.23	No Product	5.00
	3/94		No Product	7.76	No Product	0.47
	4/94		No Product	10.19	No Product	-1.96
	5/94		No Product	11.46	No Product	-3.23
	6/94		No Product	14.25	No Product	-6.02
		Well Abandoned		W - 4 days		

#### Notes:

Feet above mean sea level
 Feet below top of casing

••• Groundwater elevation corrected for product

# **APPENDIX B**

**GROUNDWATER PURGE LOGS** 

# FLUID MEASUREMENT FIELD DATA

							SHEET: (	OF (
DATE: JUNE	18, ZOOZ	PROJECT NAME:	46P5 - 0A	KUMD VM	F	PROJECT NO:	575-ZG00	7
WATER LEVEL N	MEASUREMENT INST	RUMENT: 50.	WAT 5310	)		SERIAL NO:		
PRODUCT DETE	CTION INSTRUMEN	T: Socrest	MONTE 121	, STR# 12	07	SERIAL NO:		
EQUIP. DECON:	CTION INSTRUMEN	WASH 🛣 DIST	DEION 1 RINSE	☐ ISOPROPANOL	☐ ANALYTE F	REE FINAL RINSE	☐ TAP WATER F	NAL RINSE
☐ TAP WA	TER WASH	LIQUINOX WASH	DIST/DEIO	N 2 RINSE	OTHER SOLVENT	DIST/DEION	FINAL RINSE	🗷 AIR DRY
WELL	GROUND	TOP OF	DEPTH TO	DEPTH TO	WELL	PRODUCT	WATER	ACTUAL
NUMBER	SURFACE	CASING	PRODUCT	WATER	DEPTH	THICKNESS	TABLE	TIME
	ELEVATION	ELEVATION	BELOW TOC	BELOW TOC	BELOW TOC		ELEVATION	
MW-1		8.30	ಬ/A	7.16	ZO '	N/A	1.14	13:25
MW-Z		8.86' 9.28'		7.73'_			1.13'	(3:30
MW-3		9.28	V	8.64 '_	>	V	0.64'	13:35
MW-Z MW-3 MW-4		8,73'(?)	8.72	7.16' 7.73' 8.64' 9.08'	V	0.36	N.R.	13:45
4777								
	16							
	NOTE: MW-	4 ctame.	MICH IS W	FUEL	Purp 194	W APPEARS	TO WANT	
	<b>アモデ</b> ン	EXTENDO	DuARD - PO	RUAPS FOR	Congrencia	m' of Futi	PurP	
	Igu							
						·		
						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7	
			<u> </u>					
			_	, , , , , , , , , , , , , , , , , , ,				
			_	-				
				2 155.4	·			
							· 	
REMEMBER TO C	ORRECT PRODUCT 1	HICKNESS FOR DE	NSITY BEFORE CAL	CULATING WATER	TABLE ELEVATION	PREPARED BY:	B. BURFTER	J)

	WELL NO: MW-
DATE: 6/18/02 PROJECT NAME: USPS	- 0-AKUND PROJECT NO: 575-2600 7
WEATHER CONDITIONS:	
WELL DIAMETER (IN.)	<b>△</b> 4
SAMPLE TYPE: KGROUNDWATER WAS	STEWATER SURFACE WATER OTHER
WELL DEPTH (TOC) ZO F	FT. DEPTH TO WATER BEFORE PURGING (TOC) 7.16 FT.
LENGTH OF WATER 12.84 F	FT. CALCULATED ONE WELL VOLUME <sup>1</sup> : 8.3 GAL.
PURGING DEVICE: PUC PWP	☐ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED
SAMPLING DEVICE:	☐ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED
EQUIP. DECON. ☐ TAP WATER WASH ☐ ALCONOX WASH ☐ DIST/DEION 2 RIN	
CONTAINER PRESERVATION: 💢 LAB PRESERV	VED FIELD PRESERVED
WATER ANALYZER MODEL & SERIAL NO: MYRON L ULTRANCISC GL	
ACTUAL CUMUL. TEMP SPECIFIC PH TIME VOLUME PURGED (GAL)  TEMP SPECIFIC CONDUCT.  CONDU	DISS. TURBIDITY WATER REMARKS OXYGEN (NTUs) APPEAR (EVIDENT ODOR, COLOR, PID)  CL=CLEAR CO=CLOUDY TU=TURBID
14510 INITIAL 20.8 2375 7.96	Coart
1425 9 CAL 20.5 1893 7.96	
14:18 10 CM 20.3 1980 7.95	
14:2019 20.2 1976 7.95	
14:24 20 20.1 2570 7.95	5 (1
14:28 29 20.1 2443 7.94	f u
14:35 WELL 5ANDUD	
DEPTH TO WATER AFTER PURGING (TOC)	FT. SAMPLE FILTERED ☐ YES ☑ NO SIZE
NOTES:	SAMPLE TIME: 14:35 ID# MW-1
	DUPLICATE TIME: ID#:
	EQUIP. BLANK: TIME: ID#:
	PREPARED BY: B. BURFIELD

<sup>1</sup>A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

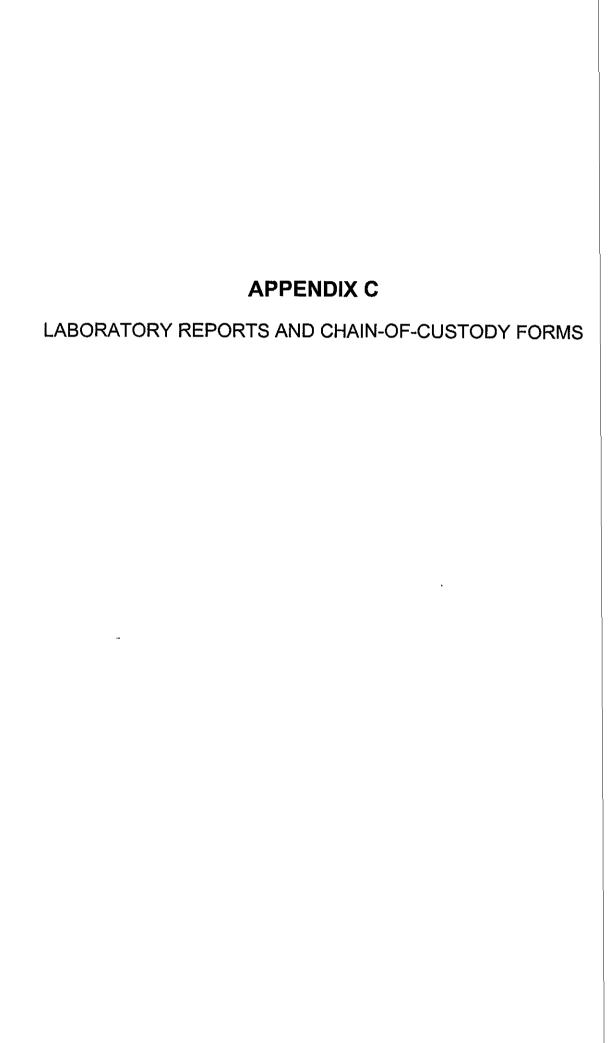
							WELL N	0:	Mw.	Z
DATE:	18/02	PROJECT	NAME: (	1989.2	AKLA	<b>₽</b>	PROJEC	T NO:	974-	26007
	R CONDITI			e cure	•					
WELL DIA	METER (IN		<u> </u>	2	<b>Z</b> 4	□ 6	OTHER			
SAMPLE 1	rype: )	GROUNI	DWATER	WAST	EWATER	SURF	ACE WATE	R 🔲	OTHER	
WELL DEI	тн (тос)	20	)	FT.	DEPTH	TO WATER	BEFORE F	PURGING	(TOC) 7	7.73 FT.
LENGTH (	OF WATER	12	127	FT.	CALCUI	_ATED ONE	E WELL VO	LUME <sup>1</sup> :	8.0	GAL.
PURGING	DEVICE:	PUC F	2ur8		DEDIC	ATED [	] DISPOSA	BLE 🗶	DECONTA	MINATED
SAMPLIN	G DEVICE:	PUC	PUTP		DEDIC	ATED [	] DISPOSA	BLE 📈	DECONTA	MINATED
EQUIP. DI	ECON. CONOX W <i>i</i>		P WATER V	VASH ION 1 RINSE		ISOPROPA OTHER SO	NOL [			NAL RINSE RINSE
	W XONIUG		<del></del>	ION 2 RINSE			R FINAL RII	ISE L	AIR DRY	
			SERIAL NO	PRESERVE	)   FIELD	PRESERV	ED			
MYR	m L	ULTRAI	EVE	6L			r- <del></del>			
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F  X °C	SPECIFIC CONDUCT.	pН	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	(EVIDE	REMARK ENT ODOR, C	
15109	iNITIAL	20.8	1708	7.94			TU	SLIGH	et unde	CURBON OF
15213	5	20.7		7.92			Co		(	
15:16	10	20.4	976	7.44			. 11			
14:19	17	20.1	1919	7.94	···		71			
15:22		19.7	1642	7.94			erianar			
15:25	25 wen.	20.0	1620	7.93			и		4	
19:39	wen.	ALPUT	2 -							
·								·	·	
<del></del>										
	<u> </u>	<u> </u>			·					
	O WATER	AFTER PL	IRGING (TO	······	FT.	<u> </u>	ILTERED		<del></del>	
NOTES:				-	SAMPLE		1:35	ID:	# MW	-Z
				-	DUPLICAT		TIME:	ID:		
					EQUIP. BL		TIME:	ID:	<del></del>	
				]	PREPARE	DBY: B	. Burs	TITY	<u> </u>	<u> </u>

<sup>1</sup>A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0 65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

							WELL N	10: /	100-	3
DATE: 🕏	19/02	PROJECT	ΓNAME: υ	1989 - 6	AXCAN	D VIJ	PROJE	CT NO: ,	ラフラー さ	G007
WEATHE	R CONDITI		+ بهندويد							
WELL DIA	METER (IN	٧.)	<u> </u>	□ 2	<b>X</b> 4	□ 6	OTHER			
SAMPLE :	TYPE:	GROUN	DWATER	☐ was	TEWATER	SUR	ACE WATE	R 🔲	OTHER	
WELL DE	PTH (TOC)	2	9	FT	DEPTH	TO WATER	BEFORE	PURGING	€ (TOC)	3.64° FT.
LENGTH	OF WATER	۱) ۲	.36	FT	CALCU	LATED ONI	E WELL VO	LUME <sup>1</sup> :	7.	f GAL.
PURGING	DEVICE:	RV	C PW	₽	DEDIC	ATED [	DISPOSA	BLE K	DECONTA	MINATED
SAMPLIN	G DEVICE:	PV	Pur	P	DEDIC	CATED [	DISPOSA	BLE X	DECONTA	MINATED
EQUIP. D			NP WATER V			ISOPROPA				NAL RINSE
☐ ALCONOX WASH										
	ER PRESE					PRESERV		NOL L	AIR DRT	
1			SERIAL NO							
Mrs	2000 L	ULK	AMENER	6L					·	
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □ °F St*°C	SPECIFIC CONDUCT	pΗ	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	(EVIDE	REMARK NT ODOR, C	
19:02	INITIAL	19.2	5020	7.89			در	no d	Dak	
19709	9	18.5	2896	7.83			ſ	1		
19:10	0	18.3	4098	7.88						
15:13		18.2	3686	7.88			7			
19:16	70	18.4	9404	7.87			\			
15:22	- 25	18.2	5391	7.87			7	V	23 OF	l.
19:30	were	JALPJE	•							
						:				
DEPTH T	O WATER A	AFTER PU	IRGING (TO	C)	FT.	SAMPLE F	ILTERED	YES	□ NO S	ZE
NOTES:					SAMPLE T	IME: 15	1:30	ID#	Max	-3
					DUPLICAT	E	TIME:	ID#	f:	
					EQUIP. BL	ANK: 🗌	TIME:	ID#	<u> </u>	
					PREPARE	D BY:	B. Bu	RFE	5	

<sup>&</sup>lt;sup>1</sup>A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

	7 . 7	·					WELL	NO: 14	w-4	_
			T NAME:		- OAKL	AND	PROJE	CT NO: 5	79-26-c	007
WEATHE	R CONDIT	IONS: 9	+ المرسا	WARM						
WELL DI	AMETER (I	N.)	1	<u> </u>	☒ 4	□ 6	OTHER			
SAMPLE	TYPE:	<b>K</b> GROUN	IDWATER	WAS	TEWATER	SURI	FACE WATE	R D	THER	
WELL DE	PTH (TOC	)		0 F	r. DEPTH	TO WATE	R BEFORE	PURGING	(TOC) 9	08 FT.
LENGTH	OF WATE	₹	10.			LATED ON			7.1	GAL.
PURGING	DEVICE:	NO PO		<del></del>	DEDIC	CATED [	, DISPOSA	ABLE D	ECONTAMIN	IATED
			BAILER		DEDIC		DISPOSA		ECONTAMIN	<del></del>
LK	N XONIUG	ASH ASH		EION 1 RINS	Ε 🗆	TAP WATE	LVENT [	DIST/DEIO	FREE FINAL N FINAL RIN AIR DRY	
	NALYZER A		SERIAL N							
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP □ °F □ °C	SPECIFIC CONDUCT.	рН	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	(EVIDEN	REMARKS FODOR, COLO	R, PID)
	INITIAL	NO PUE	CE PET	17081-J-						
16:00	were									
	<i>V</i> -2	7771 40								
					<del></del>				<del></del>	
					<u>.                                    </u>				· · · · · · · · · · · · · · · · · · ·	
		<u> </u>								
	<del></del>								<del></del>	 
	1 · · · · · · · · · · · · · · · · · · ·			<u></u>	···					
DEDTE T	~ \A/A#FF	AETED C	IBOING (=	201				<u> </u>		İ
	O WAIEK.	AF IEK PL	JRGING (T	<del></del>			ILTERED	·	NO SIZE	\
NOTES:					SAMPLE T		6:00	ID#	Mw-L	<u>f</u>
l '					DUPLICAT		TIME:	ID#:		!
	··········			<del></del>	EQUIP. BL	ANK: 🗌	TIME:	ID#:	,	
					PREPARE	D BY:	B. Bu	REJEW)	>	



Report To:

Attention:

P.S.I.

4703 TIDEWATER AVE., STE B

OAKLAND, CA 94601

Lab No: Date:

0206600 07/10/02

Phone:

(510) 434-9200

Date Sampled: Date Received: 06/18,19/02

Project No.:

06/20/02 575 / 2G007

Project Name: USPS / OAKLAND

Description:

WATER TESTING

FRANK POSS

Page 1 of 12

	TPH-Gas Range	Reporting	Date	
Test:	<u>Organics</u>	4-Bromofluorobenzeле	Limit	Analyzed
Method:	8015	Surrogate		-
Units:	ug/l	%	ug/l	
Control Limit:		43-155	_	

#### Sample iD

MW-1	1	n	71.7	50	06/25/02
MW-2	2	n	79 2	50	06/25/02
MW-3	3	n	85.3	50	06/25/02
MW-4	4	228	86.1	50	06/25/02

California D.O.H.S. Cert #1677.

n - Not detected at the reporting limit.

Report To:

P.S.I.

4703 TIDEWATER AVE., STE.B

OAKLAND, CA 94601

Lab No:

0206600

Date:

07/10/02

Phone:

(510) 434-9200

Date Sampled: Date Received: 06/18,19/02

Project No.:

06/20/02 575 / 2G007

Project Name: USPS / OAKLAND

Attention:

Description: WATER TESTING

FRANK POSS

Page 2 of 12

	TPH-Diesel Range				Date
Test:	Organics	TPH-Motor Qil	Triphenylphosphate	Reporting Limit:	Analyzed
Method:	8015	8015	Surrogate		1 -
Units:	ug/l	ug/l	%	ug/l	
Control Limit:			44-128		

#### Sample ID

MW-1	1	222		87 7	50	06/27/02
MW-2	2	nn		94.8	50	06/27/02
MW-3	3	407		87.8	50	06/27/02
MW-4	4	235,000	n	*	50	07/04/02

California D.O.H.S. Cert. #1677.

n - Not detected at the reporting limit.

\*- Surrogate out of range due to dilution.

Reported by:

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-1

4703 TIDEWATER AVE., STE.B

Phone:

(510) 434-9200

OAKLAND, CA 94601

Date Sampled:

06/18,19/02

Attention:

FRANK POSS

Date Received:

06/20/02

Date Analyzed: Date Reported:

Project No.:

06/25/02

Project Number:

USPS / OAKLAND

07/10/02 575 / 2G007

Sampling Location:

MW-1

Sample ID: Sample Matrix:

WATER

Sample Collected By:

		PAGE 3 OF 12	
COMPOUND	RESULT	REPORTING	QUANTIFICATION
		UNITS	LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane -	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/i	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-1

PAGE 4 OF 12

		PAGE 4 OF 12	
COMPOUND	RESULT	REPORTING	QUALIFICATION
		UNITS	LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n n	ug/l	0.5
1,4-Dioxane	n n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	1.2	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/i	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1.1.2.2-Tetrachloroethane		·	0.5
Tetrachloroethene	n n	ug/l	
Tetrahydrofuran		ug/l	0.5 5.0
tert - Butanol (TBA)	n	ug/l	
Toluene	n	ug/l	50
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5 0.5
1.1.1-Trichloroethane	n	ug/l	
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	_ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0
SURROGATES	RECOVERY	%	CONTROL LIMITS (%)
1,2-Dichlorgethane-d4	91.9	%	28-129
Toluene-d8	88.2	%	52-150
4-Bromofluorobenzene	71.7		43-155
T DI OMONIUOI ODGITEGILG	11.1	70	40-100
			i

Comments:

Caifornia D.O.H.S Cert # 1677

n - Not detected at the quanification limit.

Reported By

#### **EPA METHOD 8260**

Report To:

Attention:

P.S.I.

Lab Number:

0206600-2

4703 TIDEWATER AVE., STE.B

Phone:

(510) 434-9200

OAKLAND, CA 94601

Date Sampled:

06/18,19/02

Date Received:

06/20/02

FRANK POSS

Date Analyzed:

06/25/02

575 / 2G007

Date Reported: USPS / OAKLAND Project No.:

07/10/02

Project Number: Sampling Location:

Sample ID: Sample Matrix:

MW-2 WATER

Sample Collected By:

		PAGE 5 OF 12	
COMPOUND	RESULT	REPORTING	QUANTIFICATION
		UNITS	LIMIT
Acetone			50
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	
	n	ug/l	0.5
Bromobenzene	<u>n</u>	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	<u>n</u>	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/i	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane -	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	0	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0,5
1,3-Dichlorobenzene	n	ug/i	0.5
1.4-Dichlorobenzene	n	ug/i	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1.1-Dichloroethane		ug/l	0.5
1.2-Dichloroethane	n	ug/l	0.5
1.1-Dichloroethene	<u>''</u>	ug/l	0.5
cis-1,2-Dichloroethene	n "	ug/l	0.5
trans-1,2-Dichloroethene	n n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-2

**PAGE 6 OF 12** 

		PAGE 6 OF 12	1
COMPOUND	RESULT	REPORTING	QUALIFICATION
		UNITS	LIMIT
1,3-Dichloropropane	П	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	<u>-11</u>	ug/i	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	0.9	ug/l	0.5
Napthalene		ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene		ug/l	0.5
Tert-Amyl Methyl Ether (TAME)		ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1.1.2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n n		5.0
tert - Butanol (TBA)	n n	ug/l	50
Toluene	n n	. ug/l	0.5
1,2,3-Trichlorobenzene		ug/l	0.5
1,2,4-Trichlorobenzene	<u>n</u>	ug/l	0.5
1,1,1-Trichloroethane		ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n .	ug/l	0.5
Trichlorofluoromethane	<u>n</u>	ug/l	
	n	ug/l	0.5
1,2,3-Trichloropropane	<u>n</u>	ug/l	0.5
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	<u>n</u>	ug/l	0.5
	<u>n</u>	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride Total Xylenes	n n	ug/l	0.5
Total Aylettes	11	ug/l	1,0
SURROGATES	RECOVERY	%	CONTROL LIMITS (%)
4.0 Diables of the second	00.5	0/	00.400
1,2-Dichloroethane-d4	98.5	%	28-129
Toluene-d8	97.6	%	52-150
4-Bromofluorobenzene	79.2	%	43-155
<del></del>			+
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Comments:

Caifornia D.O.H.S Cert # 1677

n - Not detected at the quanification limit.

Reported By

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-3

4703 TIDEWATER AVE., STE.B

Phone:

(510) 434-9200

OAKLAND, CA 94601

Date Sampled:

06/18,19/02

Attention:

Date Received:

06/20/02

FRANK POSS

Date Analyzed:

06/25/02 07/10/02

Project Number:

USPS / OAKLAND

Date Reported: Project No.:

575 / 2G007

Sampling Location:

Sample ID:

MW-3

Sample Matrix:

WATER

Sample Collected By:

		PAGE 7 OF 12	
COMPOUND	RESULT	REPORTING	QUANTIFICATION
		UNITS	LIMIT
Acetone	n –	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/i	0.5
tert-Butylbenzene	n	· ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/i	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/i	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	1.7	ug/l	0.5
1,1-Dichloroethene	n	ug/i	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-3

**PAGE 8 OF 12** 

RESULT	REPORTING	QUALIFICATION
	UNITS	LIMIT
		0.5
		0.5
		0.5
····· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··		0.5
		0.5
	ug/l	0.5
		25
· · · · · · · · · · · · · · · · · · ·		0.5
		0.5
		0.5
·		5.0
n	ug/l	0.5
n	ug/l	0.5
n	ug/l	0.5
n	ug/l	5.0
n	ug/l	1.0
4.9	ug/l	0.5
n		5.0
		50
		0.5
		0.5
		0.5
		0.5
		0.5
· · · · · · · · · · · · · · · · · · ·		0.5
		0.5
		0.5
		0.5
		0.5
		0.5
		0.5
		0.5
n	ug/i	1.0
RECOVERY	%	CONTROL LIMITS (%)
400		00.100
		28-129
		52-150
85.3		43-155
	n n n n n n n n n n n n n n n n n n n	Note

Comments:

Caifornia D.O.H.S Cert # 1677

n - Not detected at the quanification limit.

Reported By

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-4

4703 TIDEWATER AVE., STE.B

Phone:

(510) 434-9200

OAKLAND, CA 94601

Date Sampled: Date Received: 06/18,19/02

Attention: FRANK POSS

Date Analyzed:

06/20/02 06/25/02

Project Number:

Date Reported:

07/10/02

Commitment and in a

USPS / OAKLAND

Project No.:

575 / 2G007

Sampling Location:

Sample ID:

MW-4

Sample Matrix:

WATER

Sample Collected By:

**PAGE 9 OF 12** 

	PAGE 9 OF 12			
COMPOUND	RESULT	REPORTING	QUANTIFICATION	
		UNITS	LIMIT*	
		<u> </u>		
Acetone	n	ug/l	25	
Acrylonitrile	n	ug/l	25	
Benzene	n	ug/l	2.5	
Bromobenzene	n	ug/l	2.5	
Bromochloromethane	n	ug/l	2.5	
Bromodichloromethane	n	ug/l	2.5	
Bromoform	n	ug/l	2.5	
Bromomethane	n	ug/l	2.5	
2-Butanone (MEK)	n	ug/l	25	
n-Butylbenzene	n	ug/l	2.5	
sec-Butylbenzene	n	ug/l	2.5	
tert-Butylbenzene	n	· ug/l	2.5	
Carbon Disulfide	n	ug/l	2.5	
Carbon tetrachloride	n	ug/l	2.5	
Chlorobenzene	n	ug/l	2.5	
Chloroethane -	n	ug/l	2.5	
2-Chloroethylvinylether	n	ug/l	2.5	
Chloroform	n	ug/l	2.5	
Chloromethane	n	ug/l	2.5	
2-Chlorotoluene	n	ug/l	2.5	
4-Chlorotoluene	n	ug/l	2.5	
Dibromochloromethane	n	ug/l	2.5	
1,2-Dibromo-3-Chloropropane	n	ug/l	2.5	
			245 ð	
Dibromomethane	n	ug/l	2.5	
1,2-Dichlorobenzene	n	ug/l	2.5	
1,3-Dichlorobenzene	n	ug/l	2.5	
1,4-Dichlorobenzene	n	ug/l	2.5	
Dichlorodifluoromethane	n	ug/l	2.5	
476 Dichloroethane	n	ug/l	2.5	
1:2-Dichloroethane	SACRO CONTRACTOR OF THE SACRO O		2.5	
1,1-Dichloroethene	n	ug/l	2.5	
cis-1,2-Dichloroethene	n	ug/l	2.5	
trans-1,2-Dichloroethene	n	ug/l	2.5	
1,2-Dichloropropane	n	ug/l	2.5	

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-4

**PAGE 10 OF 12** 

		PAGE 10 OF 12		
COMPOUND	RESULT	REPORTING	QUALIFICATION	
		UNITS	LIMIT	
1,3-Dichloropropane	n	ug/l	2.5	
2,2-Dichloropropane	n	ug/l	2.5	
1,1-Dichloropropene	n	ug/l	2.5	
cis-1,3-Dichloropropene	n	ug/l	2.5	
trans-1,3-Dichloropropene	n	ug/l	2.5	
1,4-Dioxane	n	ug/l	125	
Ethyl Benzene	n	ug/l	2.5	
Ethyl-Tert-Bulyl Ether (ETBE)	The state of the s	ug/l	2.5	
Hexachlorobutadiene	n	ug/l	2.5	
2-Hexanone (MBK)	n	ug/l	2.5	
Isopropylbenzene	n	ug/l	25	
Di-laopropyl Ether (DIRE)		ug/l	2.5	
p-Isopropyltoluene	П	ug/l	2.5	
4-Methyl-2-Pentanone (MIBK)	n	ug/i	25	
Methylene Chloride	n	ug/l	50	
MethyPTeMBUINEINER(MTSE)	Control of the Contro	ug/l	2.5	
Napthalene	44.1	ug/l	2.5	
n-Propylbenzene	n	ug/l	2.5	
Styrene	'n	ug/l	2.5	
	Parts And Santage Control of the Con	ug/l	2.5	
1,1,1,2-Tetrachloroethane	U	ug/l	2.5	
1.1.2.2-Tetrachloroethane	n n	ug/l	2.5	
Tetrachioroethene	n ''	ug/l	2.5	
Tetrahydrofuran	n	ug/i	25	
tertesutanel (TBA)		ug/l	250	
Toluene	Π	ug/l	2.5	
1,2,3-Trichlorobenzene	n	ug/l	2.5	
1.2.4-Trichlorobenzene	n	ug/l	2.5	
1.1.1-Trichloroethane	n	ug/l	2.5	
1,1,2-Trichloroethane	n	ug/l	2.5	
Trichloroethene	n	ug/l	2.5	
1,1,2-Trichlorotrifluoroethane	n	ug/l	2.5	
Trichlorofluoromethane	n	ug/i	2.5	
1,2,3-Trichloropropane	n	ug/l	2.5	
1,2,4-Trimethylbenzene	n n	ug/l	2.5	
1,3,5-Trimethylbenzene	" " " " " " " " " " " " " " " " " " "	ug/l	2.5	
Vinyl Acetate	n	ug/l	2.5	
Vinyl Chloride	n n	ug/l	2.5	
Total Xylenes	n "	ug/l	5.0	
			<del></del>	
SURROGATES	RECOVERY	%	CONTROL LIMITS (%)	
1,2-Dichloroethane-d4	104	%	28-129	
Toluene-d8	102	%	52-150	
4-Bromofluorobenzene	104			
	86.1	%	43-155	
T OT OTTORIO GOOD COLLEGIO	86.1	%	43-155	

Comments:

Caifornia D.O.H.S Cert # 1677

n - Not detected at the quanification limit.

\* - QL raised due to dilution required by matrix

Reported By

# Basic Laboratory, Inc.

### **EPA METHOD 8260**

Report To:

Attention:

P.S.I.

Lab Number:

0206600-TB

4703 TIDEWATER AVE., STE.B

Phone:

(510) 434-9200

OAKLAND, CA 94601

Date Sampled:

06/18,19/02

ř

Date Received:

Project No.:

06/20/02

FRANK POSS

Date Analyzed:

07/03/02

Date Reported:

07/1

Project Number:

USPS / OAKLAND

07/10/02 575 / 2G007

Sampling Location:

Sample ID:

TRIP BLANK

Sample Matrix:

WATER

Sample Collected By:

PAGE 11 OF 12

		PAGE 11 OF 12	
COMPOUND	RESULT	REPORTING	QUANTIFICATION
		UNITS	LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/i	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	· ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane -	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	u	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/i	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/i	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

#### **EPA METHOD 8260**

Report To:

P.S.I.

Lab Number:

0206600-TB

	PAGE 12 OF 12											
COMPOUND	RESULT	REPORTING	QUALIFICATION									
		UNITS	LIMIT									
1,3-Dichloropropane	n	ug/l	0.5									
2,2-Dichloropropane	n	ug/l	0.5									
1,1-Dichloropropene	n	ug/l	0.5									
cis-1,3-Dichloropropene	n	ug/l	0.5									
trans-1,3-Dichloropropene	n	ug/l	0.5									
1,4-Dioxane	n	ug/l	25									
Ethyl Benzene	n	ug/l	0.5									
Ethyl-Tert-Butyl Ether (ETBE)	n n	ug/l	0.5									
Hexachlorobutadiene	n	ug/l	0.5									
2-Hexanone (MBK)	n	ug/l	5.0									
Isopropylbenzene	n	ug/l	0.5									
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5									
p-Isopropyitoluene			0.5									
4-Methyl-2-Pentanone (MIBK)	n	ug/l ug/l	5.0									
Methylene Chloride	n	ug/l	1.0									
Methyl Tert-Butyl Ether (MTBE)	n	ug/l	0.5									
Napthalene	n	ug/l	0.5									
n-Propylbenzene	n		0.5									
Styrene	n	ug/l ug/l	0.5									
Tert-Amyl Methyl Ether (TAME)												
1,1,1,2-Tetrachloroethane	n	ug/l	0.5 0.5									
1.1.2.2-Tetrachloroethane	n	ug/l										
Tetrachloroethene	n n	ug/l	0.5									
	ņ	ug/l	0.5									
Tetrahydrofuran	n	ug/l	5.0									
tert - Butanol (TBA)	n		50									
Toluene	n	ug/l	0.5									
1,2,3-Trichlorobenzene	n	ug/l	0.5									
1,2,4-Trichlorobenzene	n	ug/l	0.5									
1,1,1-Trichloroethane	n	ug/l	0.5									
1,1,2-Trichloroethane	n	ug/l	0.5									
Trichloroethene	n	ug/l	0.5									
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5									
Trichlorofluoromethane	n	ug/l	0.5									
1,2,3-Trichloropropane	n	ug/l	0.5									
1,2,4-Trimethylbenzene	<u>n</u>	ug/l	0.5									
1,3,5-Trimethylbenzene	n	ug/l	0.5									
Vinyl Acetate	ń	ug/i	0.5									
Vinyl Chloride	<u>n</u>	ug/l	0.5									
Total Xylenes	n	ug/l	1.0									
SURROGATES	RECOVERY	%	CONTROL LIMITS (%)									
4.2 Diables others = 44	440		00.100									
1,2-Dichloroethane-d4	118	<u>%</u>	28-129									
Toluene-d8	91.7	%	52-150									
4-Bromofluorobenzene	82.7	%	43-155									

Comments:

Caifornia D.O.H.S Cert # 1677

n - Not detected at the quanification limit.

Reported By

# BASIC LABORATORY CHAIN OF CUSTODY RECORD 2218 Railroad Avenue, Redding, CA 96001 (530) 243-7234 FAX 243-7494

CENT NAME:				PROJECT NAME: PROJECT #:									LAB #:						
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