

# PORT OF OAKLAND

April 20, 2001

APR 24 2001

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

**Subject: Groundwater Monitoring Report, October 2000 Annual Event, Ninth Avenue Terminal, Oakland**

Dear Mr. Chan:

Please find enclosed the results of the annual groundwater monitoring event conducted in October 2000 at the Ninth Avenue Terminal (Site), Oakland. The report also summarizes the status of the underground storage tanks located at the site.

If you have any questions, please contact me at (510) 627-1184.

Sincerely,

Douglas P. Herman  
Associate Port Environmental Scientist

encl: Groundwater Monitoring Program Report

cc w/ encl: Betty Graham, RWQCB  
Anne Henny, Port

**GROUNDWATER MONITORING PROGRAM REPORT**

**October 2000 Annual Event  
Ninth Avenue Terminal  
Oakland, CA**

**April 13, 2001**



Subsurface Consultants, Inc.

April 13, 2001  
SCI 133.009

Mr. Douglas Herman  
Environmental Health & Safety Compliance Department  
Port of Oakland  
530 Water Street, Second Floor  
Oakland, CA 94607-2064

**Groundwater Monitoring Program Report  
October 2000 Annual Event  
Ninth Avenue Terminal  
Oakland, California**

Dear Mr. Herman:

This report presents the results of the annual groundwater monitoring event conducted in October 2000 at the Ninth Avenue Terminal (Site) by Subsurface Consultants, Inc. (SCI). The location of the Site is shown on Plate 1. This report also summarizes information pertaining to the underground storage tank locations at the Site, as requested by Mr. Barney Chan of Alameda County Health Care Services Agency (ACHCSA) in a telephone discussion with SCI on November 7, 2000.

Previous characterization studies indicate that petroleum hydrocarbons, as well as, other potentially hazardous chemicals and metals have impacted soil and groundwater at the Site. Monitoring is being performed on a semi-annual basis in general accordance with the monitoring plan presented in SCI's June 15, 2000 Groundwater Monitoring Report, and amended in their letters dated July 11 and July 27, 2000 (Appendix A). The current groundwater monitoring program is outlined in the attached Table 1.

**MONITORING ACTIVITIES**

Prior to sampling, the depth to water was measured from below the top of the casing in all Site wells with an electric well sounder. Wells located along the Clinton and Brooklyn Basin shorelines are tidally influenced, while interior wells and those located in close proximity to the concrete bulkhead wall are not. For this event, groundwater level measurements were obtained from tidally influenced wells first to minimize the potential discrepancies in elevation across the Site. A summary of groundwater measurements is presented in Table 2.

Selected wells were checked for the presence of free product, using a steel tape coated with petroleum sensitive paste. Free product was detected in well MW-6 in the immediate vicinity of the KOT 1992 point of release. Approximately 7 gallons of water and free product mixture was removed from the well using a disposable bailer and placed in 55-gallon drums, which are stored, on-site. Due to the presence of free product, well MW-6 was not purged or sampled during this event. Well MW-4, which has contained free product in the past, was covered with steel beams, and was inaccessible during this event. The "oil filled manhole" was also checked for the presence of free product; no free product was observed.

Disposable bailers were used for purging and sampling the wells, and were decontaminated and discarded after each use. The pH, temperature, TDS<sup>1</sup>, Eh<sup>2</sup> and DO<sup>3</sup> of the purged water were measured after each well volume was removed. The wells were considered purged when these environmental parameters had stabilized. A Well Sampling Form was completed for each well sampled during this event. Water generated during purging was placed into 55-gallon steel drums, which are stored on-site. Well Sampling Forms are included in Appendix B.

Groundwater samples were retained in glass and polyethylene containers pre-cleaned by the supplier in accordance with EPA protocol. The filled sample containers were placed in cooled chests and remained refrigerated until delivery to the analytical laboratory. Chain-of-Custody forms accompanied the samples to the laboratory.

## **ANALYTICAL TESTING PROGRAM AND RESULTS**

The chemical testing program for the annual event, as outlined in Table 1, was conducted by Curtis & Tompkins, Ltd., a State of California Department of Health Services certified analytical laboratory that has provided all previous analytical services in conjunction with SCI's studies at the Site. Analytical test results are presented in Tables 3 through 9. These tables are comprehensive as they present all groundwater data generated to date for Site wells. Analytical test reports and chain-of-custody forms are included in Appendix C. The test result data are summarized herein:

### **Ecological Parameter Data**

Table 3 presents ecological parameter test results of groundwater for the selected wells sampled during this event. These parameters include field measurements of pH, Eh, TDS, temperature and DO.

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<sup>1</sup> TDS = Total Dissolved Solids

<sup>2</sup> Eh = Redox potential or oxidizing-reduction potential

<sup>3</sup> DO = dissolved oxygen. Initial DO readings were recorded down-hole.

In general, initial down-hole pH readings ranged between about 6.0 and 7.70. These readings are considered within the normal range, when compared to background readings across the Site. The highest pH reading was recorded in well SCIMW-1 at 7.69.

TDS readings ranged from about 460 to 21,000 mg/L during this event. Well SCIMW-28 registered a TDS value of 460 mg/L. Well SCIMW-28 is located near the depressed trackage area adjacent to the Lakeside Metals area. This well has historically had very low TDS values, likely associated with fresh water intrusion from unpaved portions of the Site. High TDS readings were recorded in wells SCIMW-5, SCIMW-10, and SCIMW-12 at 18,280, 20,570, and 18,430 mg/L, respectively. Wells SCIMW-5 and SCIMW-12 are perimeter wells that are tidally influenced, i.e. salt water with high TDS values readily infiltrates these wells. Well SCIMW-10 is an interior well and the likely reason for the high TDS value is unknown.

DO readings ranged from about 0.5 to 7.5. The DO reading from well SCIMW-8 was 0.56 mg/L. This low reading is most likely associated with stagnant water, as a result of its close proximity to the concrete bulkhead wall. The concrete bulkhead disrupts normal groundwater flow by preventing natural groundwater ebb and flow from the channel. Low DO readings were also measured in wells SCIMW-9 and SCIMW-10. These wells contain significant concentrations of petroleum hydrocarbons, and have historically recorded low DO readings. High DO readings are an indication that sufficient oxygen exists to promote and support microbial activity. **The highest DO readings were recorded from wells SCIMW-7, SCIMW-13, and SCIMW-24 at 6.48, 6.24, and 7.45 mg/L, respectively.**

### Chemical Data

The data generated to date suggests that impacts to groundwater resulting from petroleum hydrocarbons are widespread at the Site, with concentrations in specific source areas remaining relatively high. Similarly chemical and metal impacts to groundwater resulting from other previous Site activities appear localized to their respective areas of use.

Specific results of interest are outlined below.

- TEH as diesel was non-detect in wells MW-2, MW-3, SCIMW-1, SCIMW-3, SCIMW-7 through SCIMW-11, SCIMW-15, SCIMW-18, SCIMW-21, SCIMW-22, SCIMW-26, SCIMW-28, SCIMW-30, SCIMW-33 and SCIMW-34. **The concentrations of TEH in the other wells ranged from 60 parts per billion (ppb) to a high concentration of 1,200 ppb at SCIMW-24.**
- TEH as motor oil was non-detect in wells MW-2, MW-3, SCIMW-5, SCIMW-1, SCIMW-2, SCIMW-3, SCIMW-7, SCIMW-8, SCIMW-10, SCIMW-11, SCIMW-15, SCIMW-18, SCIMW-21, SCIMW-22, SCIMW-23, SCIMW-24, SCIMW-26, SCIMW-28, SCIMW-30, SCIMW-33 and SCIMW-34. TEH as motor oil was detected in wells SCIMW-9 at 470 ppb, and SCIMW-13 at 1,500 ppb.

- Chlorinated pesticide analyses were conducted on samples collected from wells SCIMW-7 and SCIMW-33. No chlorinated pesticides were detected in samples from either well. Well SCIMW-33 previously contained 1.7 ppb of DDD in December 1999. No chlorinated pesticides have been detected from samples collected from well SCIMW-7 since October 1997.
- Wells SCIMW-7, SCIMW-26, SCIMW-30, SCIMW-31D, and SCIMW-33 were tested for VOCs. Well SCIMW-7 contained concentrations of chloroethane (790 ppb), cis-1,1 dichloroethane (1,1 DCA @ 380 ppb), cis 1,1 dichloroethene (41 ppb), cis 1,2 dichloroethene (830 ppb), trans 1,2 DCE (77 ppb), 1,1,1- Trichloroethane (810 ppb), trichloroethene (73 ppb) vinyl chloride (590 ppb) and cis 1,3 dichloropropene (370 ppb). Carbon disulfide (7.4 ppb) was detected in well SCIMW-30. BTEX, Chlorobenzene (180 ppb) and 1,2-cis DCE (1.1 ppb) was detected in well SCIMW-33. No detectable concentrations of VOCs were measured in wells SCIMW-26 and SCIMW-31D.
- Filtered samples from wells SCIMW-24 and SCIMW-34 were tested for PNAs. Naphthalene was detected in well SCIMW-24 at 67 ppb. No detectable concentrations of PNAs were measured in well SCIMW-34.
- Filtered samples from wells SCIMW-2, and SCIMW-28 were submitted for heavy metal analyses. Well SCIMW-2 contained 7.2 ppb of arsenic, 230 ppb of barium, and 16 ppb of vanadium. Well SCIMW-28 contained 36 ppb of arsenic and 22 ppb of barium. Well SCIMW-34 was also tested for cadmium, chromium, nickel and zinc. Well SCIMW-34 contained 24 ppb of nickel.
- TVH as gasoline was tested for in wells SCIMW-5, SCIMW-11, SCIMW-24, SCIMW-34, and SCIMW-35. TVH as gasoline was detected in wells SCIMW-11 and SCIMW-24 at 69 ppb and 5,400 ppb, respectively.
- BTEX was non detectable in wells SCIMW-11, SCIMW-26, SCIMW-34 and SCIMW-35. The sample from well SCIMW-24 contained 1,600 ppb of benzene, 36 ppb of toluene, 59 ppb of ethylbenzene and 69 ppb of xylenes. The sample from well SCIMW-7 contained 850 ppb of benzene, 370 ppb of toluene, and 14.4 ppb of xylenes.
- MTBE analyses were conducted on samples from wells MW-3, MW-5, SCIMW-7, SCIMW-21, SCIMW-26, SCIMW-29, SCIMW-30, SCIMW-31D, SCIMW-33, and SCIMW-34. The sample from well MW-5 contained 1.3 ppb of MTBE. MTBE was not detected in any other well<sup>4</sup>.

Table 8 includes historic data for cyanide, nitrate and phosphorous. No samples were analyzed for these compounds during this event and none are included in the ongoing groundwater

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<sup>4</sup> Method 8260B was used to analyze for MTBE, with a detection limit of 0.5 ppb.

program. These data are presented herein to keep the entirety of analytical data for the monitoring wells intact.

## DISCUSSION

### Groundwater Elevation and Flow Patterns

The approximate groundwater elevation contours for this event are presented on Plate 2. Groundwater elevation contour patterns have remained relatively consistent since 1996. In general, groundwater elevations tend to be higher in the central portion of the Site, with flow radiating outward toward the shorelines of Clinton Basin and Brooklyn Basin. The bulkhead wall extending along the southeastern and southwestern portions of the Site appears to act as an inhibitor to the flow of groundwater. The contours also indicate that groundwater migrates to open shoreline areas.

Groundwater elevations during this event were overall lower than the measurements taken in April 2000. The most significant changes in groundwater elevation not related to tidal influence, occurred in and around wells SCIMW-10 (groundwater elevation 8.48 feet above mean sea level (MSL) in April 2000 and 6.57 feet above MSL in October 2000) and SCIMW-22 (groundwater elevation at 7.50 feet above MSL in April 2000 and 5.36 feet above MSL in October 2000). This pattern is consistent with data from past years. Groundwater elevations in wells SCIMW-20 and SCIMW-28, were elevated by over one foot compared to groundwater elevations from the April 2000 event.

Wells SCIMW-20, SCIMW-25 and SCIMW-28, are located within or near the depressed unpaved area between Building H-211 (Furniture Liquidators) and H-314 (Lakeside Metals), referred to as the depressed trackage area. Surface water accumulates and readily infiltrates this area resulting in active recharge, which causes elevated groundwater conditions to exist. Groundwater elevation in well SCIMW-25 continues to remain near the ground surface.

### MTBE

As requested by the ACHCSA, MTBE was added to the testing program for wells in former underground storage tank areas and in areas where free floating petroleum hydrocarbon has been identified. MTBE was detected in one of the original wells installed to monitor the 1992 KOT release area, well MW-5 (1.3 ppb). MTBE was not detected in any other wells sampled.

### 1992 Diesel Release Area

A plume of free floating diesel still remains in the area of the 1992 point of release at former building H-213. Free floating diesel is still observed in wells MW-4, MW-5 and MW-6, and in the "oil-filled" manhole on a regular basis. Impacted soil resultant from the 1992 release and

subsequent regulatory required imminent-danger cleanup activities has been observed in bedding materials along storm drain and sanitary sewer pipelines which extend through the area of the 1992 release.

### Solvent Plume Area

The solvent plume appears relatively stabilized to the former depressed trackage area between wells SCIMW-7 and SCIMW-33. Well SCIMW-7 is in an area where VOC concentrations still remain elevated, although concentrations are significantly less than those initially measured. Lateral plume migration outside of the depressed trackage area has not been observed to date. Plume constituents have not been detected in the next lower aquifer system as observed by well SCI MW-31D. As such, it does not appear that the plume is migrating vertically, although some stratification is likely occurring. VOC will continue to be monitored on an annual basis.

In July 2000, a soil gas survey of the solvent plume area was conducted. Flux chambers were set on continuous, cracked and open soil areas, in an attempt to quantify how well the pavement is acting as a barrier to vertical migration of VOC vapors. Soil gas data does show that soil vapor contains VOC concentrations, however, in areas where the pavement is intact the pavement is adequately functioning to limit emissions. The results of this investigation will be presented in a separate report.

### Methane Gas Plume Area

Previous studies have identified the presence of a thin layer of free floating petroleum hydrocarbon product and petroleum hydrocarbon saturated soil in the area of former bulk petroleum hydrocarbon storage tanks and processing areas at the Site. These conditions exist near the shoreline in the vicinity of well SCIMW-24, and further inland below paved surfaces in areas of wells SCIMW-3, 9, 10 and 13.

To preliminarily evaluate the potential that methane gas is being generated and contained below paved surfaces, a soil gas survey was conducted during July 2000. Methane concentrations in soil vapor ranged up to 48% in the area of wells SCIMW-10 and 13. Vapor samples obtained from selected monitoring wells also detected methane ranging up to 56%. Preliminary results of this investigation indicate that the paved portions of the Site are acting as a cap, mitigating the emission of methane vapors. The results of this investigation will be presented in a separate report.

Any action?

### LOP Sites Annual Review

Within the Site, there are five individual ACHCSA Local Oversight Program (LOP) sites. As requested by Mr. Chan of the ACHCSA, SCI reviewed and evaluated the data from individual LOP sites, a summary of which is presented below:



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① **LOP No. 3335 - Keep on Trucking (KOT) Shop Tank at Bldg. H-107** – The former UST at this location, installed circa 1971, was removed in October 1994 by others. Soil and groundwater samples collected in the former tank area indicated some impact did exist from diesel range hydrocarbons. Well MW-7 was installed to monitor conditions in the former tank. Well MW-7 was monitored from 1995 to January 1997, and relatively low concentrations of diesel range petroleum hydrocarbons were detected (200ppb in January 1997). The ACHCSA approved in 1998 that the well no longer needed to be monitored in 1998 and currently the well is only used for obtaining water level data on a semi-annual basis.

*Proceed w/ closure review*

There is sufficient data to proceed with formal closure of this LOP site. Once closure is approved, then the well should be properly abandoned.

- **Former Cannery Tanks at Building H-211, LOP No. 225** – The former boiler fuel supply tank(s) associated with the cannery which operated within former Building H-211 from the early 1930's through the late 1960's still remain in-place. Plans for the cannery suggest that two oil-storage UST's were installed and operated. The existing KOT office building, however, is situated over the top of the tank location, which makes it difficult to confirm their exact location.

Well SCIMW-27 was installed to monitor conditions in the area of the former UST's. Well SCIMW-27 has not been sampled since November 1999, previously it had been non detect for diesel and motor oil range hydrocarbons since November 1998. The ACHCSA approved in 1998 that the well no longer needed to be monitored and currently the well is only used for obtaining water level data on a semi-annual basis.

*Need more work - work w/ City*

The UST at this LOP site should be removed or closed in place. However, additional studies need to be conducted to determine the best course of action given the UST area is located below an existing structure. Subsequent to tank removal, the analytical data needs to be further evaluated to determine (1) the need for additional soil removal and (2) the risk posed to human and ecological receptors due to the presence of impacted soil and groundwater. This may, at a minimum, require that groundwater wells be installed and periodically monitored

- **LOP No. 6895 – Former Building H-209 Tanks** – Two underground storage tanks (UST's) are believed to exist in the area of the former Building H-209. One tank was encountered during exploratory test pit excavations conducted by SCI in February 1997. The second tank has not been encountered during field exploration activities conducted to date, as it may lie below the existing building H-209. The tanks were installed circa 1958, and were reportedly in use from 1958 to 1960. It is unknown if the tanks were used by others after 1960.

*Specify samples & results.*

Soil samples collected from the tank area were found to be impacted by diesel and motor oil range hydrocarbons. Grab groundwater samples collected from a test pit and a boring adjacent to the former tank area were impacted by gasoline, diesel and motor oil range hydrocarbons. There have not been any wells installed in this area to monitor groundwater conditions. *What about SCI-31?*

*Need work plan.*

The UST's at this LOP site should be removed. However, additional studies need to be conducted to determine the best course of action for tank removal, given the close proximity of the existing building. Subsequent to tank removal, the analytical data needs to be further evaluated to determine (1) the need for remedial activities and (2) the risk(s) posed to human and ecological receptors due to the presence of impacted soil and groundwater. This may, at a minimum, require that groundwater wells be installed and periodically monitored.

- **LOP No. 5067 - Marine Terminals Corporation (MTC) Shop Tanks at Building H-317** – A 1954 tank installation map shows two 1,000 gallon UST's situated end to end between the west side of Building H-317 and the ramp leading to Building H-309. This UST area is situated within about 150 feet of the Brooklyn Basin shoreline; the shoreline is not protected.

In 1975 there was a documented release of about 200 gallons of gasoline from this area to the estuary, and the Port subsequently obtained a permit to remove the two UST's. The removal of the UST pre-dated the requirement that samples be obtained and analyzed.

Review of Site maps indicate that an active stormdrain line extends through the former UST area. In October 1997, several test pits were excavated and borings were extended by SCI in the former UST area. The 1997 analytical data suggested that the soil in the area contained concentrations of gasoline and motor oil range petroleum hydrocarbons, lead, benzene, toluene, ethylbenzene and xylene.

*Need to summarize data.*

Wells SCIMW-34 and SCIMW-35 were also installed by SCI in the area of the former UST. Based on current data neither well contains detectable concentrations of gasoline or diesel range petroleum hydrocarbons, and MTBE was not detected in samples from well SCIMW-34.

*I need up gradient well.*

*What about SCI TP-33 A-D?*

This site needs to be further evaluated to determine (1) the need for further remedial activities and (2) the risk(s) posed to human and ecological receptors due to the presence of impacted soil and groundwater. Groundwater monitoring should be continued.

- **LOP No. 6894 - Card Lock Tanks at Former Bldg. H-204** – The former Building H-204 was constructed in 1945 as a gasoline service station operated as part of a bulk fuel processing area. This UST area is situated within about 100 feet inland from the Clinton Basin shoreline; the shoreline is unprotected.

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It is believed that two 1,000-gallon tanks were installed and utilized at this location between 1945 through 1974. H-204 was demolished in 1974. Gasoline impacted soil and groundwater have been encountered by various studies conducted in the specific area by SCI and others. Well SCIMW-24 was installed by SCI to monitor groundwater conditions. During this event, well SCIMW-24 contained 5,400 ppb of gasoline range petroleum hydrocarbons, 1,200 ppb of diesel range petroleum hydrocarbons, 1,600 ppb of benzene, 36 ppb of toluene, 59 ppb of toluene, and 69 ppb of xylenes, no MTBE was detected. Free floating product has been detected (August 1999) in this well.

SCI TP-14  
SCIMW-24

This site needs to be further evaluated to determine (1) the need for remedial activities and (2) the risk(s) posed to human and ecological receptors due to the presence of impacted soil and groundwater. Groundwater monitoring should be continued.

#### WELL ABANDONMENT

SCI requested in the SCI Groundwater Monitoring Program Report dated June 15, 2000 and approved by the ACHCSA in their letter dated July 11, 2000, wells MW-1, SCIMW-5, SCIMW-11, SCUMW-14, SCIMW-17, SCIMW-20, and SCIMW-25 will be abandoned. A work plan describing well abandonment procedures will be sent for you review and comment under separate cover.

#### ONGOING MONITORING

In accordance with ACHCSA's July 11, 2000 letter and based on the non detectable levels of MTBE in wells MW-3, SCIMW-7, SCIMW-21, SCIMW-26, SCIMW-29, SCIMW-30, SCIMW-31D, SCIMW-33, and SCIMW-34, MTBE will no longer be tested for in these wells. MTBE will continue to be tested for in well MW-5.

The next groundwater monitoring event, as proposed herein would be the semi-annual event scheduled to occur in the spring of 2001. If you have any questions, please call either of the undersigned at (925) 299-7960.

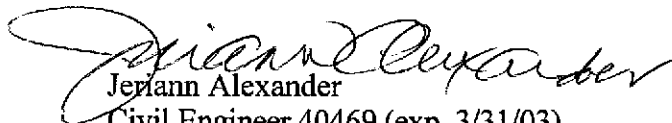
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Yours very truly,

Subsurface Consultants, Inc.



Emily Silverman  
Staff Geologist



Jeriann Alexander  
Civil Engineer 40469 (exp. 3/31/03)  
Registered Environmental Assessor 03130 (exp. 7/01)

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**Tables:**

- Table 1 - Groundwater Monitoring Program
- Table 2 - Summary of Groundwater Elevation Data
- Table 3 - Ecological Parameter Results in Groundwater
- Table 4 - Petroleum Hydrocarbon, BTEX, Pesticide and PCB Concentrations in Groundwater
- Table 5 - Volatile Organic Concentrations in Groundwater
- Table 6 - Semi-Volatile Organic Concentrations in Groundwater
- Table 7 - Polynuclear Aromatic Concentrations in Groundwater
- Table 8 - Heavy Metal Concentrations in Groundwater
- Table 9 - Cyanide, Nitrate and Phosphorus Concentrations in Groundwater

**Illustrations:** Plate 1 - Vicinity Map  
Plate 2 - Groundwater Elevations October 2000

**Appendices:** A - ACHCSA Letter Dated July 11 and July 27, 2000  
B - Well Sampling Forms  
C - Analytical Test Reports and Chain-of-Custody Records

**Table 1**  
**Groundwater Monitoring Program**  
**Ninth Avenue Terminal, Port of Oakland**  
**September 2000**

Monitoring Well ID	TVH/ BTEX (EPA 8015m/ 8020)	TEHd, mo (8015m; w/ silica gel clean-up)	VOCs (EPA 8260/ 8240 list)	PNAs (EPA 8270; Filtered)	Pesticides (EPA 8080)	Heavy Metals Filtered (EPA 6010/ 7000; Filtered)	Field Parameters	Water Levels	Free Product Removal	Comments*
MW-1										Abandon Well
MW-2		A					A	SA		
MW-3		A	MTBE				A	SA		
MW-4	A	A	MTBE				A	SA	SA	
MW-5	SA (No TVH)	SA	MTBE				SA	SA		
MW-6	A	A, if FP not present						SA	SA	
MW-7								SA		
SCIMW-1		A					A	SA		
SCIMW-2		SA				SA	SA	SA		
SCIMW-3		A					A	SA		
SCIMW-4								SA		
SCIMW-5										Abandon Well
SCIMW-6								SA		
SCIMW-7		A	SA		SA		SA	SA		
SCIMW-8		A					A	SA		
SCIMW-9		A					A	SA		
SCIMW-10		A					A	SA		

**Groundwater Monitoring Program  
Ninth Avenue Terminal, Port of Oakland  
September 2000**

Monitoring Well ID	TVH/ BTEX (EPA 8015m/ 8020)	TEHd, mo (8015m; w/ silica gel clean-up)	VOCs (EPA 8260/ 8240 list)	PNAs (EPA 8270; Filtered)	Pesticides (EPA 8080)	Heavy Metals Filtered (EPA 6010/ 7000; Filtered)	Field Parameters	Water Levels	Free Product Removal	Comments*
SCIMW-11	SA	SA					SA	SA		
SCIMW-12								SA		
SCIMW-13		A					A	SA		
SCIMW-14										Abandon Well
SCIMW-15		SA					SA	SA		
SCIMW-16								SA		
SCIMW-17										Abandon Well
SCIMW-18		A					A	SA		
SCIMW-19								SA		
SCIMW-20										Abandon Well
SCIMW-21		A	MTBE				A	SA		
SCIMW-22		A					SA	SA		
SCIMW-23		SA					SA	SA		
SCIMW-24	SA	SA		A			SA	SA		
SCIMW-25										Abandon Well
SCIMW-26		A	MTBE				A	SA		
SCIMW-27								SA		
SCIMW-28		A				SA	SA	SA		
SCIMW-29			MTBE					SA		
SCIMW-30		A	SA				SA	SA		
SCIMW-31D			SA				SA	SA		

**Groundwater Monitoring Program  
Ninth Avenue Terminal, Port of Oakland  
September 2000**

Monitoring Well ID	TVH/BTEX (EPA 8015m/8020)	TEHd, mo (8015m; w/ silica gel clean-up)	VOCs (EPA 8260/8240 list)	PNAs (EPA 8270; Filtered)	Pesticides (EPA 8080)	Heavy Metals Filtered (EPA 6010/7000; Filtered)	Field Parameters	Water Levels	Free Product Removal	Comments*
SCIMW-32								SA		
SCIMW-33		A	SA		A		SA	SA		
SCIMW-34 STID 5067	SA	SA	MTBE	SA		SA (Cd, Cr, Ni, Zn only)	SA	SA		
SCIMW-35 STID 5067	A							SA		

**Notes:**

\* - Wells to be abandoned in the future

Q = Quarterly - conducted each quarter

SA = Conducted semi-annually

A = Conducted annually

TVH = Total Volatile Hydrocarbons

BTEX = Benzene, Toluene, Ethylbenzene and total Xylenes

TEH = Total Extractable Hydrocarbons

VOCs = Volatile Organic Compounds

SVOCs = Semi-Volatile Organic Compounds

PCBs = Polychlorinated Biphenyls

TDS = Total Dissolved Solids

Obtain one duplicate VOC sample semi-annually for QA/QC

TABLE 2  
SUMMARY OF GROUNDWATER ELEVATION DATA  
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>MW-1</b>				<b>TOC Elevation = 9.99</b>			
9/20/93	5.20	4.79	none	5/5/1997	5.02	4.97	none
12/1/93	5.15	4.84	none	6/27/1997	5.12	4.87	none
3/31/94	4.09	5.90	none	7/23/1997	5.20	4.79	none
6/2/94	4.82	5.17	none	8/25/1997	5.20	4.79	none
9/30/94	5.63	4.36	none	9/25/1997	5.28	4.71	none
12/22/94	5.00	4.99	none	10/30/1997	5.40	4.59	none
4/10/95	4.94	5.05	none	12/3/1997	5.07	4.92	none
7/24/95	5.02	4.97	none	12/30/1997	5.13	4.86	none
11/10/95	5.52	4.47	none	1/28/1998	4.95	5.04	none
2/20/96	4.49	5.50	none	3/11/1998	4.75	5.24	none
5/23/96	5.04	4.95	none	3/30/1998	4.82	5.17	none
6/28/96	5.13	4.86	none	4/27/1998	4.92	5.07	none
7/29/96	5.21	4.78	none	6/1/1998	4.97	5.02	none
9/3/96	5.37	4.62	none	6/26/1998	5.05	4.94	none
9/9/96	5.65	4.34	none	9/17/1998	5.31	4.68	none
9/18/96	5.35	4.64	none	12/7/1998	5.23	4.76	none
9/23/96	5.36	4.63	none	5/4/1999	5.21	4.78	none
9/30/96	5.39	4.60	none	8/25/1999	7.11	2.88	none
10/28/96	5.09	4.90	none	11/29/1999	5.40	4.59	none
12/2/96	4.80	5.19	none	4/4/2000	5.30	4.69	none
12/30/96	4.25	5.74	none				
1/16/97	4.37	5.62	none				
2/28/1997	4.00	5.99	none				
3/26/1997	4.80	5.19	none				
<b>MW-2</b>				<b>TOC Elevation = 10.32</b>			
9/20/93	4.40	5.92	none	6/27/1997	3.77	6.55	none
12/1/93	4.75	5.57	none	7/23/1997	3.88	6.44	none
3/31/94	5.01	5.31	none	8/25/1997	3.88	6.44	none
6/2/94	4.61	5.71	none	9/25/1997	3.95	6.37	none
9/30/94	4.93	5.39	none	10/30/1997	5.32	5.00	none
12/22/94	4.43	5.89	none	12/3/1997	4.98	5.34	none
4/10/95	4.03	6.29	none	12/30/1997	4.95	5.37	none
7/24/95	4.41	5.91	none	1/28/1998	4.96	5.36	none
11/10/95	4.59	5.73	none	3/11/1998	5.02	5.30	none
2/20/96	3.81	6.51	none	3/30/1998	4.45	5.87	none
5/23/96	4.41	5.91	none	4/27/1998	4.62	5.70	none
6/28/96	3.81	6.51	none	6/1/1998	5.15	5.17	none
7/29/96	3.81	6.51	none	6/26/1998	4.77	5.55	none
9/3/96	3.98	6.34	none	9/17/1998	5.03	5.29	none
9/9/96	4.00	6.32	none	12/7/1998	4.96	5.36	none
9/18/96	4.08	6.24	none	5/3/1999	4.85	5.47	none
9/23/96	4.08	6.24	none	8/25/1999	5.01	5.31	none
9/30/96	4.08	6.24	none	11/29/1999	5.05	5.27	none
10/28/96	4.34	5.98	none	4/4/2000	4.81	5.51	none
12/2/96	4.30	6.02	none	10/3/2000	5.28	5.04	none
12/30/96	3.92	6.40	none				
1/16/97	3.99	6.33	none				
2/28/1997	3.88	6.44	none				
3/26/1997	3.83	6.49	none				
5/5/1997	3.85	6.47	none				



**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>MW-3</b>		<b>TOC Elevation = 10.18</b>					
9/20/93	15.20	-5.02+	none	6/27/1997	4.51	5.67	none
12/1/93	5.70	4.48	none	7/23/1997	4.58	5.60	none
3/31/94	4.23	5.95	none	8/25/1997	4.62	5.56	none
6/2/94	3.86	6.32	none	9/25/1997	4.53	5.65	none
9/30/94	5.44	4.74	none	10/30/1997	4.70	5.48	none
12/22/94	4.87	5.31	none	12/3/1997	4.10	6.08	none
4/10/95	7.64	2.54+	none	12/30/1997	4.59	5.59	none
7/24/95	3.62	6.56	none	1/28/1998	4.59	5.59	none
11/10/95	5.11	5.07	none	3/11/1998	4.48	5.70	none
2/20/96	4.14	6.04	none	3/30/1998	4.31	5.87	none
5/23/96	4.49	5.69	none	4/27/1998	4.26	5.92	none
6/28/96	--	--	--	6/1/1998	3.92	6.26	none
7/29/96	4.64	5.54	none	6/26/1998	--	--	--
9/3/96	4.48	5.70	none	9/17/1998	4.35	5.83	none
9/18/96	6.42	3.76+	none	12/7/1998	3.56	6.62	none
9/23/96	6.06	4.12	none	5/4/1999	4.45	5.73	none
9/30/96	5.18	5.00	none	8/25/1999	6.34	3.84	none
10/28/96	4.83	5.35	none	11/29/1999	4.74	5.44	none
12/2/96	4.84	5.34	none	4/4/2000	4.51	5.67	none
12/30/96	4.84	5.34	none	10/3/2000	4.41	5.77	none
1/16/97	4.73	5.45	none				
3/5/97	4.69	5.49	none				
3/26/1997	4.76	5.42	none				
5/5/1997	4.69	5.49	none				
<b>MW-4</b>		<b>TOC Elevation = 11.98</b>					
9/20/93	5.80	6.18	8.04	3/26/1997	3.90	8.08	trace
12/1/93	4.10	7.88	trace	5/5/1997	3.92	8.06	0.13
3/31/94	4.20	7.78	6.96	6/27/1997	4.11	7.87	0.50
6/2/94	3.88	8.10	6.00	7/23/1997	4.30	7.68	trace
9/30/94	5.80	6.18	12.00	8/25/1997	3.55	8.43	trace
12/22/94	3.47	8.51	10.08	9/25/1997	3.91	8.07	trace
4/10/95	3.80	8.18	0.00	10/30/1997	4.98	7.00	0.13
5/16/95	3.07	8.91	NA	12/3/1997	3.60	8.38	0.50
7/24/95	3.65	8.33	0.00	12/30/1997	3.52	8.46	trace
11/10/95	NA	NA	0.00	1/28/1998	3.02	8.96	0.63
2/20/96	NA	NA	NA	3/11/1998	3.28	8.70	trace
5/23/96	2.96	9.02	0.00	3/30/1998	3.29	8.69	trace
6/28/96	3.93	8.05	2.38	4/27/1998	3.55	8.43	0.25
7/29/96	5.09	6.89	0.50	6/1/1998	3.02	8.96	0.19
9/3/96	4.65	7.33	0.25	6/26/1998	3.75	8.23	trace
9/9/96	5.15	6.83	0.50	9/17/1998	4.45	7.53	0.25
9/18/96	5.45	6.53	0.13	12/7/1998	3.35	8.63	0.38
9/23/96	4.80	7.18	0.38	5/4/1999	Well Inaccessible		
9/30/96	4.88	7.10	0.06	8/25/1999	4.65	7.33	0.85
10/28/96	5.12	6.86	0.25	11/29/1999	5.17	6.81	0.38
12/2/96	3.22	8.76	2.00	4/4/2000	No Measurements Taken		trace
12/30/96	2.94	9.04	0.25				
1/16/97	3.22	8.76	trace				
2/28/1997	3.78	8.20	trace				

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**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>MW-5</b>		<b>TOC Elevation = 11.84</b>					
4/10/95	4.64	7.20	none	9/25/1997	5.40	6.44	none
7/24/95	5.24	6.60	none	10/30/1997	5.45	6.39	none
11/10/95	5.38	6.46	none	12/3/1997	2.42	9.42	none
2/20/96	2.69	9.15	none	12/30/1997	5.04	6.80	none
5/23/96	2.67	9.17	none	1/28/1998	2.79	9.05	none
6/28/96	5.29	6.55	none	3/11/1998	4.54	7.30	none
7/29/96	5.35	6.49	none	3/30/1998	4.60	7.24	none
9/3/96	5.44	6.40	none	4/27/1998	5.18	6.66	none
9/9/96	5.45	6.39	none	6/1/1998	3.17	8.67	none
9/18/96	5.51	6.33	none	6/26/1998	5.31	6.53	none
9/23/96	5.51	6.33	none	9/17/1998	5.44	6.40	none
9/30/96	5.49	6.35	none	12/7/1998	3.79	8.05	none
10/28/96	5.56	6.28	none	5/3/1999	5.25	6.59	none
12/2/96	4.64	7.20	none	8/25/1999	5.46	6.38	none
12/30/96	2.42	9.42	none	11/29/1999	5.31	6.53	none
1/16/97	3.46	8.38	none	4/4/2000	5.28	6.56	none
2/28/97	5.14	6.70	none				
3/26/97	5.28	6.56	none				
5/5/97	5.39	6.45	none				
6/27/1997	5.45	6.39	none				
7/23/1997	5.39	6.45	none				
8/25/1997	5.18	6.66	none				
<b>MW-6</b>		<b>TOC Elevation = 11.86</b>					
4/10/95	4.12	7.74	12.00	9/25/1997	3.94	7.92	7.25
7/24/95	5.19	6.67	13.20	10/30/1997	5.06	6.80	2.00
11/10/95	NA	NA	NA	12/3/1997	4.88	6.98	7.00
2/20/96	NA	NA	NA	12/30/1997	4.53	7.33+	0.25
5/23/96	NA	NA	4.50	1/28/1998	4.47	7.39	0.38
6/28/96	4.89	6.97	3.00	3/11/1998	4.35	7.51	trace
7/29/96	5.00	6.86	1.00	3/30/1998	4.45	7.41	trace
9/3/96	5.19	6.67	0.50	4/27/1998	4.83	7.03	2.00
9/9/96	5.29	6.57	trace	6/1/1998	4.54	7.32	1.50
9/18/96	5.34	6.52	trace	6/26/1998	5.02	6.84	3.00
9/23/96	5.17	6.69	0.13	9/17/1998	5.24	6.62	4.00
9/30/96	5.10	6.76	0.13	12/7/1998	3.83	8.03	1.75
10/28/96	5.23	6.63	0.13	5/4/1999	4.65	7.21	0.50
12/2/96	3.96	7.90	1.00	8/25/1999	5.25	6.61	1.15
12/30/96	4.55	7.31	0.33	11/29/1999	4.88	6.98	0.67
1/16/97	4.23	7.63	trace	4/4/2000	No Measurements Taken		trace
2/28/97	4.54	7.32	0.50				
3/26/97	4.54	7.32	trace				
5/5/97	4.82	7.04	0.50				
6/27/1997	4.82	7.04	0.50				
7/23/1997	--	--	--				
8/25/1997	4.50	7.36	trace				

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>MW-7</b>		TOC Elevation = 10.13					
4/10/95	4.41	5.72	none	6/27/1997	3.71	6.42	none
7/24/95	3.72	6.41	none	7/23/1997	--	--	--
11/10/95	4.78	5.35	none	8/25/1997	3.73	6.40	none
2/20/96	4.13	6.00	none	9/25/1997	3.75	6.38	none
5/23/96	4.69	5.44	none	10/30/1997	3.88	6.25	none
6/28/96	3.81	6.32	none	12/3/1997	3.58	6.55	none
7/29/96	4.32	5.81	none	12/30/1997	3.67	6.46	none
9/3/96	4.65	5.48	none	1/28/1998	3.48	6.65	none
9/9/96	4.79	5.34	none	3/11/1998	3.64	6.49	none
9/18/96	4.45	5.68	none	3/30/1998	3.65	6.48	none
9/23/96	4.28	5.85	none	4/27/1998	3.26	6.87	none
9/30/96	4.18	5.95	none	6/1/1998	3.67	6.46	none
10/28/96	4.48	5.65	none	6/26/1998	3.63	6.50	none
12/2/96	4.88	5.25	none	9/17/1998	3.75	6.38	none
12/30/96	3.62	6.51	none	12/7/1998	3.82	6.31	none
1/16/97	3.65	6.48	none	5/3/1999	3.67	6.46	none
2/28/97	3.71	6.42	none	8/25/1999	3.80	6.33	none
3/26/97	3.71	6.42	none	11/29/1999	4.00	6.13	none
5/5/97	3.80	6.33	none	4/4/2000	3.67	6.46	none
<b>SCIMW-1</b>		TOC Elevation = 10.37					
5/23/96	5.28	5.09	none	10/30/1997	5.79	4.58	none
6/28/96	5.75	4.62	none	12/3/1997	4.80	5.57	none
7/29/96	5.81	4.56	none	12/30/1997	4.94	5.43	none
9/3/96	5.98	4.39	none	1/28/1998	4.59	5.78	none
9/9/96	6.04	4.33	none	3/11/1998	4.70	5.67	none
9/18/96	6.04	4.33	none	3/30/1998	4.62	5.75	none
9/23/96	6.07	4.30	none	4/27/1998	4.84	5.53	none
9/30/96	6.00	4.37	none	6/1/1998	4.61	5.76	none
10/28/96	6.10	4.27	none	6/26/1998	4.94	5.43	none
12/2/96	5.52	4.85	none	9/17/1998	5.35	5.02	none
12/30/96	4.66	5.71	none	12/7/1998	4.81	5.56	none
1/16/97	5.08	5.29	none	5/4/1999	5.16	5.21	none
2/28/97	5.38	4.99	none	8/25/1999	5.85	4.52	none
3/26/97	5.54	4.83	none	11/29/1999	5.81	4.56	none
5/5/97	5.86	4.51	none	4/4/2000	5.10	5.27	none
6/27/97	5.76	4.61	none	10/3/2000	5.62	4.75	none
7/23/97	5.59	4.78	none				
8/25/1997	5.41	4.96	none				
9/25/1997	5.60	4.77	none				
<b>SCIMW-2</b>		TOC Elevation = 9.92		<b>Tidally Influenced</b>			
5/23/96	5.88	4.04	none	10/30/1997	3.32	6.60	none
6/28/96	7.33	2.59	none	12/3/1997	3.54	6.38	none
7/29/96	7.43	2.49	none	12/30/1997	3.60	6.32	none
9/3/96	6.54	3.38	none	1/28/1998	2.42	7.50	none
9/9/96	4.67	5.25	none	3/11/1998	3.33	6.59	none
9/18/96	6.50	3.42	none	3/30/1998	7.08	2.84	none
9/23/96	3.78	6.14	none	4/27/1998	7.36	2.56	none
9/30/96	6.18	3.74	none	6/1/1998	5.78	4.14	none
10/28/96	3.72	6.20	none	6/26/1998	7.02	2.90	none
12/2/96	6.60	3.32	none	9/17/1998	5.85	4.07	none
12/30/96	4.57	5.35	none	12/7/1998	6.40	3.52	none
1/16/97	6.10	3.82	none	5/3/1999	5.40	4.52	none
2/28/97	7.04	2.88	none	8/25/1999	6.92	3.00	none
3/26/97	6.59	3.33	none	11/29/1999	6.07	3.85	none
5/5/97	7.03	2.89	none	4/4/2000	7.09	2.83	none
6/27/97	6.50	3.42	none	10/3/2000	5.89	4.75	none
7/23/97	7.23	2.69	none				
8/25/1997	5.90	4.02	none				
9/25/1997	3.81	6.11	none				

TABLE 2  
SUMMARY OF GROUNDWATER ELEVATION DATA  
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-3</b> TOC Elevation = 11.87				<b>Tidally Influenced</b>			
5/23/96	4.65	7.22	none	10/30/1997	5.55	6.32	none
6/28/96	4.86	7.01	none	12/3/1997	5.30	6.57	none
7/29/96	5.03	6.84	none	12/30/1997	5.13	6.74	none
9/3/96	5.20	6.67	none	1/28/1998	4.71	7.16	none
9/9/96	5.28	6.59	none	3/11/1998	--	--	--
9/18/96	5.24	6.63	none	3/30/1998	4.13	7.74	none
9/23/96	5.26	6.61	none	4/27/1998	4.02	7.85	none
9/30/96	5.31	6.56	none	6/1/1998	4.30	7.57	none
10/17/96	5.43	6.44	none	6/26/1998	4.11	7.76	none
10/28/96	5.58	6.29	none	9/17/1998	7.58	4.29	none
12/2/96	5.78	6.09	none	12/7/1998	5.56	6.31	none
12/30/96	5.49	6.38	none	5/3/1999	4.92	6.95	none
1/16/97	5.41	6.46	none	8/25/1999	5.30	6.57	none
2/28/97	5.27	6.60	none	11/29/1999	5.70	6.17	none
3/26/97	4.98	6.89	none	4/4/2000	4.87	7.00	none
5/5/97	4.93	6.94	none	10/3/2000	5.38	6.49	none
6/27/97	4.83	7.04	none				
7/23/97	4.94	6.93	none				
8/25/1997	5.10	6.77	none				
9/25/1997	5.14	6.73	none				
<b>SCIMW-4</b> TOC Elevation = 10.03							
9/9/96	4.53	5.50	none	12/30/1997	2.77	7.26	none
9/18/96	4.54	5.49	none	1/28/1998	2.95	7.08	none
9/23/96	4.32	5.71	none	3/11/1998	1.95	8.08	none
9/30/96	4.37	5.66	none	3/30/1998	2.13	7.90	none
10/28/96	3.75	6.28	none	4/27/1998	2.45	7.58	none
12/2/96	2.09	7.94	none	6/1/1998	2.03	8.00	none
12/30/96	1.00	9.03	none	6/26/1998	2.95	7.08	none
1/16/97	1.60	8.43	none	9/17/1998	3.83	6.20	none
2/28/97	2.16	7.87	none	12/7/1998	1.95	8.08	none
3/26/97	2.68	7.35	none	5/4/1999	2.65	7.38	none
5/5/97	3.21	6.82	none	8/25/1999	3.75	6.28	none
6/27/97	3.13	6.90	none	11/29/1999	3.21	6.82	none
7/23/97	3.65	6.38	none	4/4/2000	2.71	7.32	none
8/25/97	3.41	6.62	none	10/3/2000	3.55	6.48	none
9/25/97	3.90	6.13	none				
10/30/1997	4.03	6.00	none				
12/3/1997	2.25	7.78	none				
<b>SCIMW-5</b> TOC Elevation = 10.19				<b>Tidally Influenced</b>			
9/9/96	5.56	4.63	none	12/30/1997	4.20	5.99	none
9/18/96	4.68	5.51	none	1/28/1998	2.55	7.64	none
9/23/96	4.42	5.77	none	3/11/1998	4.38	5.81	none
9/30/96	4.44	5.75	none	3/30/1998	3.95	6.24	none
10/28/96	4.40	5.79	none	4/27/1998	3.86	6.33	none
12/2/96	4.95	5.24	none	6/1/1998	4.66	5.53	none
12/30/96	4.21	5.98	none	6/26/1998	3.90	6.29	none
1/16/97	4.07	6.12	none	9/17/1998	4.41	5.78	none
2/28/97	4.74	5.45	none	12/7/1998	4.55	5.64	none
3/26/97	4.53	5.66	none	5/3/1999	4.93	5.26	none
5/5/97	4.49	5.70	none	8/25/1999	4.48	5.71	none
6/27/97	4.63	5.56	none	11/29/1999	4.45	5.74	none
7/23/97	4.74	5.45	none	4/4/2000	6.65	3.54	none
8/25/97	4.40	5.79	none	10/3/2000	4.59	5.60	none
9/25/97	4.26	5.93	none				
10/30/1997	4.37	5.82	none				
12/3/1997	4.21	5.98	none				

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**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-6</b>				<b>Tidally Influenced</b>			
TOC Elevation =		10.55					
9/9/96	5.86	4.69	none	12/30/1997	5.42	5.13	none
9/18/96	6.54	4.01	none	1/28/1998	3.56	6.99	none
9/23/96	5.47	5.08	none	3/11/1998	5.11	5.44	none
9/30/96	6.44	4.11	none	3/30/1998	6.46	4.09	none
10/28/96	5.93	4.62	none	4/27/1998	6.64	3.91	none
12/2/96	7.04	3.51	none	6/1/1998	6.04	4.51	none
12/30/96	5.60	4.95	none	6/26/1998	6.23	4.32	none
1/16/97	5.87	4.68	none	9/17/1998	6.17	4.38	none
2/28/97	7.00	3.55	none	12/7/1998	6.64	3.91	none
3/26/97	6.54	4.01	none	5/3/1999	6.16	4.39	none
5/5/97	6.72	3.83	none	8/25/1999	6.56	3.99	none
6/27/97	6.65	3.90	none	11/25/1999	6.55	4.00	none
7/23/97	6.60	3.95	none	4/4/2000	6.87	3.68	none
8/25/97	6.15	4.40	none	10/3/2000	6.37	4.18	none
9/25/97	5.11	5.44	none				
10/30/1997	5.37	5.18	none				
12/3/1997	5.29	5.26	none				
<b>SCIMW-7</b>				<b>Tidally Influenced</b>			
TOC Elevation =		12.26					
9/9/96	8.95	3.31+	none	12/30/1997	4.83	7.43	none
9/18/96	6.87	5.39	none	1/28/1998	4.65	7.61	none
9/23/96	6.95	5.31	none	3/11/1998	4.72	7.54	none
9/30/96	7.04	5.22	none	3/30/1998	4.77	7.49	none
10/28/96	7.40	4.86	none	4/27/1998	4.85	7.41	none
12/2/96	4.95	7.31	none	6/1/1998	4.70	7.56	none
12/30/96	4.73	7.53	none	6/26/1998	4.97	7.29	none
1/16/97	4.94	7.32	none	9/17/1998	6.52	5.74	none
2/28/97	4.85	7.41	none	12/7/1998	4.52	7.74	none
3/26/97	4.94	7.32	none	5/3/1999	4.86	7.40	none
5/5/97	5.13	7.13	none	8/25/1999	5.42	6.84	none
6/27/97	5.86	6.40	none	11/29/1999	6.70	5.56	none
7/23/97	6.25	6.01	none	4/4/2000	3.48	8.78	none
8/25/97	5.94	6.32	none	10/3/2000	4.01	8.25	none
9/25/97	5.93	6.33	none				
10/30/1997	5.30	6.96	none				
12/3/1997	4.85	7.41	none				
<b>SCIMW-8</b>				<b>Tidally Influenced</b>			
TOC Elevation =		12.81					
9/9/96	5.70	7.11	none	10/30/1997	5.61	7.20	none
9/18/96	5.81	7.00	none	12/3/1997	5.09	7.72	none
9/23/96	5.79	7.02	none	12/30/1997	4.19	8.62	none
9/30/96	5.89	6.92	none	1/28/1998	--	--	--
10/17/96	5.95	6.86	none	3/11/1998	--	--	--
10/28/96	6.13	6.68	none	3/30/1998	--	--	--
12/2/96	5.39	7.42	none	4/27/1998	5.06	7.75	none
12/30/96	4.98	7.83	none	6/1/1998	4.18	8.63	none
1/16/97	5.11	7.70	none	6/26/1998	5.17	7.64	none
2/28/97	5.42	7.39	none	9/17/1998	5.56	7.25	none
3/26/97	5.39	7.42	none	12/7/1998	5.17	7.64	none
5/5/97	5.40	7.41	none	5/3/1999	5.13	7.68	none
6/27/97	5.45	7.36	none	8/25/1999	6.95	5.86	none
7/23/97	--	--	--	11/29/1999	5.45	7.36	none
8/25/97	5.21	7.60	none	4/4/2000	5.10	7.71	none
9/25/97	5.49	7.32	none	10/3/2000	5.31	7.50	none

TABLE 2  
SUMMARY OF GROUNDWATER ELEVATION DATA  
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-9</b>				<b>TOC Elevation = 11.32</b>			
9/9/96	4.92	6.40	none	12/30/1997	4.60	6.72	none
9/18/96	4.94	6.38	none	1/28/1998	4.40	6.92	none
9/23/96	4.94	6.38	none	3/11/1998	4.11	7.21	none
9/30/96	4.92	6.40	none	3/30/1998	4.38	6.94	none
10/17/96	4.97	6.35	none	4/27/1998	4.35	6.97	none
10/28/96	5.07	6.25	none	6/1/1998	4.08	7.24	none
12/2/96	4.71	6.61	none	6/26/1998	4.42	6.90	none
12/30/96	4.51	6.81	none	9/17/1998	4.68	6.64	none
1/16/97	4.66	6.66	none	12/7/1998	4.52	6.80	none
3/26/97	4.60	6.72	none	5/3/1999	4.51	6.81	none
5/5/97	4.65	6.67	none	8/25/1999	4.72	6.60	none
6/27/97	4.71	6.61	none	11/29/1999	4.63	6.69	none
7/23/97	4.77	6.55	none	4/4/2000	4.25	7.07	none
8/25/97	4.72	6.60	none	10/3/2000	4.71	6.61	none
9/25/97	--	--	--				
10/30/1997	4.90	6.42	none				
12/3/1997	--	--	--				
<b>SCIMW-10</b>				<b>TOC Elevation = 12.56</b>			
9/9/96	4.61	7.95	none	12/30/1997	6.10	6.46	none
9/18/96	4.87	7.69	none	1/28/1998	4.97	7.59	none
9/23/96	4.81	7.75	none	3/11/1998	--	--	--
9/30/96	4.91	7.65	none	3/30/1998	5.36	7.20	none
10/17/96	5.03	7.53	none	4/27/1998	5.21	7.35	none
10/28/96	5.31	7.25	none	6/1/1998	5.18	7.38	none
12/2/96	5.15	7.41	none	6/26/1998	5.17	7.39	none
12/30/96	4.60	7.96	none	9/17/1998	4.92	7.64	none
1/16/97	4.69	7.87	none	12/7/1998	6.07	6.49	none
2/28/97	4.47	8.09	none	5/3/1999	5.25	7.31	none
3/26/97	4.33	8.23	none	8/25/1999	6.65	5.91	trace
5/5/97	4.21	8.35	none	11/29/1999	6.58	5.98	none
6/27/97	5.71	6.85	none	4/4/2000	4.08	8.48	none
7/23/97	5.96	6.60	none	10/3/2000	5.99	6.57	none
8/25/97	6.07	6.49	none				
9/25/97	5.90	6.66	none				
10/30/1997	6.60	5.96	none				
12/3/1997	--	--	--				
<b>SCIMW-11</b>				<b>Tidally Influenced</b>			
<b>TOC Elevation = 9.49</b>							
9/9/96	5.66	3.83	none	12/30/1997	1.63	7.86	none
9/18/96	6.39	3.10	none	1/28/1998	3.64	5.85	none
9/23/96	4.12	5.37	none	3/11/1998	3.37	6.12	none
9/30/96	6.24	3.25	none	3/30/1998	7.02	2.47	none
10/28/96	5.46	4.03	none	4/27/1998	7.33	2.16	none
12/2/96	6.03	3.46	none	6/1/1998	--	--	--
12/30/96	3.56	5.93	none	6/26/1998	--	--	--
1/16/97	5.17	4.32	none	9/23/1998	4.77	4.72	none
2/28/97	6.60	2.89	none	12/7/1998	6.17	3.32	none
3/26/97	6.85	2.64	none	5/3/1999	6.01	3.48	none
5/5/97	6.94	2.55	none	8/25/1999	4.31	5.18	none
6/27/97	5.94	3.55	none	11/29/1999	5.42	4.07	none
7/23/97	7.18	2.31	none	4/4/2000	7.00	2.49	none
8/25/97	5.04	4.45	none	10/3/2000	5.49	4.00	none
9/25/97	3.31	6.18	none				
10/30/1997	3.81	5.68	none				
12/3/1997	4.85	4.64	none				

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SUMMARY OF GROUNDWATER ELEVATION DATA  
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-12 TOC Elevation = 10.94</b>				<b>Tidally Influenced</b>			
9/9/96	6.85	4.09	none	12/30/1997	2.90	8.04	none
9/18/96	7.24	3.70	none	1/28/1998	5.11	5.83	none
9/23/96	5.59	5.35	none	3/11/1998	4.83	6.11	none
9/30/96	7.26	3.68	none	3/30/1998	7.22	3.72	none
10/28/96	7.00	3.94	none	4/27/1998	7.23	3.71	none
12/2/96	7.31	3.63	none	6/1/1998	7.00	3.94	none
12/30/96	5.12	5.82	none	6/1/1998	7.20	3.74	none
1/16/97	6.41	4.53	none	9/17/1998	6.80	4.14	none
2/28/97	7.19	3.75	none	12/7/1998	7.21	3.73	none
3/26/97	7.24	3.70	none	5/3/1999	7.19	3.75	none
5/5/97	7.26	3.68	none	8/25/1999	6.91	4.03	none
6/27/97	7.09	3.85	none	11/29/1999	6.91	4.03	none
7/23/97	7.24	3.70	none	4/4/2000	6.41	4.53	none
8/25/97	6.61	4.33	none	10/3/2000	6.66	4.28	none
9/25/97	4.69	6.25	none				
10/30/1997	5.24	5.70	none				
12/3/1997	6.53	4.41	none				
<b>SCIMW-13 TOC Elevation = 12.56</b>							
9/9/96	5.35	7.21	none	10/30/1997	5.75	6.81	none
9/18/96	5.47	7.09	none	12/3/1997	5.55	7.01	none
9/23/96	5.51	7.05	none	12/30/1997	5.43	7.13	none
9/30/96	4.94	7.62	none	1/28/1998	5.08	7.48	none
10/17/96	5.70	6.86	none	3/11/1998	4.46	8.10	none
10/28/96	5.86	6.70	none	3/30/1998	4.42	8.14	none
12/2/96	5.91	6.65	none	4/27/1998	4.22	8.34	none
12/30/96	5.70	6.86	none	6/1/1998	4.24	8.32	none
1/16/97	5.63	6.93	none	6/26/1998	4.25	8.31	none
2/28/97	5.31	7.25	none	9/17/1998	5.14	7.42	none
3/26/97	5.14	7.42	trace	12/7/1998	5.78	6.78	none
5/5/97	4.99	7.57	none	5/3/1999	4.61	7.95	none
6/27/97	4.92	7.64	none	8/25/1999	5.32	7.24	none
7/23/97	--	--	--	11/29/1999	5.83	6.73	none
8/25/97	--	--	--	4/4/2000	4.84	7.72	none
9/25/97	5.14	7.42	none	10/3/2000	5.52	7.04	none
<b>SCIMW-14 TOC Elevation = 13.64</b>							
9/9/96	8.28	5.36	none	12/30/1997	7.52	6.12	none
9/18/96	8.50	5.14	none	1/28/1998	7.19	6.45	none
9/23/96	8.18	5.46	none	3/11/1998	7.21	6.43	none
9/30/96	8.41	5.23	none	3/30/1998	7.41	6.23	none
10/28/96	8.43	5.21	none	4/27/1998	7.99	5.65	none
12/2/96	8.56	5.08	none	6/1/1998	7.59	6.05	none
12/30/96	7.89	5.75	none	6/26/1998	8.07	5.57	none
1/16/97	8.00	5.64	none	9/17/1998	8.16	5.48	none
2/28/97	8.48	5.16	none	12/7/1998	7.73	5.91	none
3/26/97	8.34	5.30	none	5/3/1999	7.64	6.00	none
5/5/97	8.30	5.34	none	8/25/1999	7.95	5.69	none
6/27/97	8.20	5.44	none	11/29/1999	8.34	5.30	none
7/23/97	8.30	5.34	none	4/4/2000	8.03	5.61	none
8/25/97	8.09	5.55	none	10/3/2000	8.21	5.43	none
9/25/97	7.81	5.83	none				
10/30/1997	8.17	5.47	none				
12/3/1997	7.58	6.06	none				

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**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-15 TOC Elevation = 13.45</b>							
9/9/96	8.60	4.85	none	12/30/1997	8.23	5.22	none
9/18/96	8.61	4.84	none	1/28/1998	8.14	5.31	none
9/23/96	8.62	4.83	none	3/11/1998	--	--	--
9/30/96	8.51	4.94	none	3/30/1998	--	--	--
10/28/96	8.72	4.73	none	4/27/1998	--	--	--
12/2/96	8.91	4.54	none	6/1/1998	8.11	5.34	none
12/30/96	8.36	5.09	none	6/26/1998	8.00	5.45	none
1/16/97	8.44	5.01	none	9/17/1998	8.28	5.17	none
2/28/97	8.54	4.91	none	12/7/1998	8.63	4.82	none
3/26/97	8.57	4.88	none	5/3/1999	8.30	5.15	none
5/5/97	8.73	4.72	none	8/25/1999	8.75	4.70	none
6/27/97	8.42	5.03	none	11/29/1999	8.74	4.71	none
7/23/97	8.28	5.17	none	4/4/2000	8.28	5.17	none
8/25/97	8.31	5.14	none	10/3/2000	8.48	4.97	none
9/25/97	8.32	5.13	none				
10/30/1997	--	--	--				
12/3/1997	8.21	5.24	none				
<b>SCIMW-16 TOC Elevation = 10.40</b>							
9/9/96	3.59	6.81	none	12/30/1997	--	--	--
9/18/96	3.46	6.94	none	1/28/1998	--	--	--
9/23/96	3.44	6.96	none	3/11/1998	3.23	7.17	none
9/30/96	3.44	6.96	none	3/30/1998	3.24	7.16	none
10/28/96	4.39	6.01	none	4/27/1998	3.26	7.14	none
12/2/96	3.64	6.76	none	6/1/1998	3.10	7.30	none
12/30/96	3.19	7.21	none	6/26/1998	3.07	7.33	none
1/16/97	3.37	7.03	none	9/17/1998	3.36	7.04	none
2/28/97	3.47	6.93	none	12/7/1998	3.83	6.57	none
3/26/97	3.39	7.01	none	5/3/1999	3.72	6.68	none
5/5/97	3.27	7.13	none	8/25/1999	5.65	4.75	none
6/27/97	3.27	7.13	none	11/29/1999	3.74	6.66	none
7/23/97	3.39	7.01	none	4/4/2000	3.75	6.65	none
8/25/97	3.11	7.29	none	10/3/2000	3.76	6.64	none
9/25/97	3.35	7.05	none				
10/30/1997	3.19	7.21	none				
12/3/1997	3.22	7.18	none				
<b>SCIMW-17 TOC Elevation = 10.14</b>							
9/9/96	3.59	6.55	none	10/30/1997	3.17	6.97	none
9/18/96	2.83	7.31	none	12/3/1997	4.94	5.20+	none
9/23/96	2.96	7.18	none	12/30/1997	2.67	7.47	none
9/30/96	3.00	7.14	none	1/28/1998	2.25	7.89	none
10/28/96	3.04	7.10	none	3/11/1998	2.25	7.89	none
12/2/96	2.86	7.28	none	3/30/1998	2.35	7.79	none
12/30/96	0.18	9.96	none	4/27/1998	2.36	7.78	none
1/16/97	2.47	7.67	none	6/1/1998	2.27	7.87	none
2/28/97	2.63	7.51	none	6/26/1998	4.51	5.63	none
3/26/97	2.51	7.63	none	9/17/1998	3.20	6.94	none
5/5/97	2.63	7.51	none	12/7/1998	3.66	6.48	none
6/27/97	1.87	8.27	none	5/3/1999	3.02	7.12	none
7/23/97	5.61	4.53+	none	8/25/1999	4.95	5.19	none
8/25/97	3.65	6.49	none	11/29/1999	3.49	6.65	none
9/25/97	5.50	4.64+	none	4/4/2000	3.45	6.69	none



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<b>SCIMW-18 TOC Elevation = 10.81</b>							
9/9/96	5.59	5.22+	none	10/30/1997	3.97	6.84	none
9/18/96	3.86	6.95	none	12/3/1997	3.85	6.96	none
9/23/96	3.82	6.99	none	12/30/1997	3.83	6.98	none
9/30/96	3.85	6.96	none	1/28/1998	3.57	7.24	none
10/17/96	4.00	6.81	none	3/11/1998	3.40	7.41	none
10/28/96	4.18	6.63	none	3/30/1998	3.36	7.45	none
12/2/96	4.06	6.75	none	4/27/1998	3.15	7.66	none
12/30/96	3.60	7.21	none	6/1/1998	3.09	7.72	none
1/16/97	3.83	6.98	none	6/26/1998	3.15	7.66	none
2/28/97	3.56	7.25	none	9/17/1998	3.58	7.23	none
3/26/97	4.70	6.11	none	12/7/1998	4.01	6.80	none
5/5/97	3.36	7.45	none	5/3/1999	3.25	7.56	none
6/27/97	3.17	7.64	none	8/25/1999	5.85	4.96	none
7/23/97	3.42	7.39	none	11/29/1999	4.14	6.67	none
8/25/97	3.49	7.32	none	4/4/2000	4.45	6.36	none
9/25/97	3.42	7.39	none	10/3/2000	3.70	7.11	none
<b>SCIMW-19 TOC Elevation = 10.46</b>							
9/9/96	4.30	6.16	none	1/28/1998	2.91	7.55	none
9/18/96	4.36	6.10	none	3/11/1998	3.08	7.38	none
9/23/96	4.32	6.14	none	3/30/1998	3.16	7.30	none
9/30/96	4.23	6.23	none	4/27/1998	3.38	7.08	none
10/28/96	4.45	6.01	none	6/1/1998	3.00	7.46	none
12/2/96	3.54	6.92	none	6/26/1998	3.58	6.88	none
12/30/96	2.59	7.87	none	9/17/1998	4.08	6.38	none
1/16/97	3.04	7.42	none	12/7/1998	3.24	7.22	none
2/28/97	3.69	6.77	none	5/3/1999	3.54	6.92	none
3/26/97	3.69	6.77	none	8/25/1999	4.60	5.86	none
5/5/97	3.82	6.64	none	11/29/1999	4.00	6.46	none
6/27/97	3.94	6.52	none	4/4/2000	3.56	6.90	none
7/23/97	3.89	6.57	none	10/3/2000	4.18	6.28	none
8/25/97	3.78	6.68	none				
9/25/97	4.02	6.44	none				
10/30/1997	4.12	6.34	none				
12/3/1997	3.11	7.35	none				
12/30/1997	3.52	6.94	none				
<b>SCIMW-20 TOC Elevation = 9.11</b>							
9/9/96	2.08	7.03	none	10/30/1997	2.02	7.09	none
9/18/96	2.27	6.84	none	12/3/1997	1.38	7.73	none
9/23/96	2.26	6.85	none	12/30/1997	1.61	7.50	none
9/30/96	2.34	6.77	none	1/28/1998	1.30	7.81	none
10/28/96	2.68	6.43	none	3/11/1998	1.35	7.76	none
12/2/96	1.45	7.66	none	3/30/1998	1.43	7.68	none
12/30/96	1.12	7.99	none	4/27/1998	1.51	7.60	none
1/16/97	1.44	7.67	none	6/1/1998	1.29	7.82	none
2/28/97	1.60	7.51	none	6/26/1998	1.76	7.35	none
3/26/97	1.54	7.57	none	9/17/1998	2.32	6.79	none
5/5/97	1.65	7.46	none	12/7/1998	1.71	7.40	none
6/27/97	1.92	7.19	none	5/3/1999	1.42	7.69	none
7/23/97	2.05	7.06	none	8/25/1999	2.19	6.92	none
8/25/97	1.62	7.49	none	11/29/1999	5.71	6.41	none
9/25/97	1.88	7.23	none	4/4/2000	1.52	7.59	none

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-21 TOC Elevation = 9.67</b>							
5/5/97	2.23	7.44	none	6/1/1998	1.16	8.51	none
6/27/97	2.40	7.27	none	6/26/1998	1.76	7.91	none
7/23/97	2.75	6.92	none	9/17/1998	2.13	7.54	none
8/25/97	2.87	6.80	none	12/7/1998	1.71	7.96	none
9/25/97	3.00	6.67	none	5/3/1999	1.35	8.32	none
10/30/97	3.16	6.51	none	8/25/1999	1.35	8.32	none
12/3/97	2.21	7.46	none	11/29/1999	0.69	8.98	none
12/30/97	2.11	7.56	none	4/4/2000	0.50	9.17	none
1/28/98	1.67	8.00	none	10/3/2000	1.92	7.75	none
3/1/98	1.27	8.40	none				
3/30/1998	1.35	8.32	none				
4/27/1998	1.41	8.26	none				
<b>SCIMW-22 TOC Elevation = 12.00</b>							
5/5/97	3.78	8.22	none	6/1/1998	3.59	8.41	none
6/27/97	4.10	7.90	none	6/26/1998	4.21	7.79	none
7/23/97	4.34	7.66	none	9/17/1998	4.76	7.24	none
8/25/97	4.04	7.96	none	12/7/1998	3.93	8.07	none
9/25/97	4.31	7.69	none	5/3/1999	4.34	7.66	none
10/30/97	4.39	7.61	none	8/25/1999	5.71	6.29	none
12/3/97	4.05	7.95	none	11/29/1999	5.19	6.81	none
12/30/97	4.48	7.52	none	4/4/2000	4.50	7.50	none
1/28/98	4.03	7.97	none	10/3/2000	6.64	5.36	none
3/1/98	4.07	7.93	none				
3/30/1998	3.87	8.13	none				
4/27/1998	4.21	7.79	none				
<b>SCIMW-23 TOC Elevation = 9.74 Slight Tidal Influence</b>							
5/5/97	4.19	5.55	none	4/27/1998	--	--	--
6/27/97	4.10	5.64	none	6/1/1998	--	--	--
7/23/97	4.43	5.31	none	6/26/1998	--	--	--
8/25/97	4.37	5.37	none	9/17/1998	4.28	5.46	none
9/25/97	--	--	--	12/10/1998	3.35	6.39	none
10/30/97	4.27	5.47	none	5/3/1999	3.65	6.09	none
12/3/97	3.24	6.50	none	8/25/1999	4.35	5.39	none
12/30/97	3.52	6.22	none	11/29/1999	4.18	5.56	none
1/28/98	3.02	6.72	none	4/4/2000	6.95	2.79	none
3/1/98	3.32	6.42	none	10/3/2000	4.55	5.19	none
3/30/1998	3.35	6.39	none				
<b>SCIMW-24 TOC Elevation = 9.74 Slight Tidal Influence</b>							
5/5/97	5.30	4.44	none	6/1/1998	3.96	5.78	none
6/27/97	4.85	4.89	none	6/26/1998	4.21	5.53	none
7/23/97	4.79	4.95	none	9/17/1998	4.78	4.96	none
8/25/97	4.28	5.46	none	12/7/1998	3.95	5.79	none
9/25/97	4.45	5.29	none	5/3/1999	4.60	5.14	none
10/30/97	4.67	5.07	none	8/25/1999	5.15	4.59	0.50
12/3/97	3.63	6.11	none	11/29/1999	4.75	4.99	none
12/30/97	3.58	6.16	none	4/4/2000	4.69	5.05	none
1/28/98	3.58	6.16	none	10/3/2000	4.79	4.95	none
3/1/98	--	--	--				
3/30/1998	4.23	5.51	none				
4/27/1998	4.55	5.19	none				
<b>SCIMW-25 TOC Elevation = 8.30</b>							
5/5/97	1.00	7.30	none	3/30/1998	0.65	7.65	none
6/27/97	2.11	6.19	none	4/27/1998	0.73	7.57	none
7/23/97	1.94	6.36	none	6/1/1998	0.55	7.75	none
8/25/97	1.53	6.77	none	6/26/1998	0.75	7.55	none
9/25/97	1.46	6.84	none	9/17/1998	1.11	7.19	none
10/30/97	1.08	7.22	none	12/7/1998	0.86	7.44	none
12/3/97	0.87	7.43	none	5/3/1999	0.88	7.42	none
12/30/97	0.83	7.47	none	8/25/1999	1.23	7.07	none
1/28/98	0.70	7.60	none	11/29/1999	0.60	7.70	none
3/1/98	0.50	7.80	none	4/4/2000	0.42	7.88	none

TABLE 2  
SUMMARY OF GROUNDWATER ELEVATION DATA  
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
<b>SCIMW-26 TOC Elevation = 11.33</b>							
5/5/97	3.18	8.15	none	6/1/1998	3.56	7.77	none
6/27/97	3.31	8.02	none	6/26/1998	3.65	7.68	none
7/23/97	3.46	7.87	none	9/17/1998	3.92	7.41	none
8/25/97	3.21	8.12	none	12/7/1998	3.25	8.08	none
9/25/97	3.42	7.91	none	5/3/1999	3.68	7.65	none
10/30/97	3.56	7.77	none	8/25/1999	3.61	7.72	none
12/3/97	2.55	8.78	none	11/29/1999	3.41	7.92	none
12/30/97	3.25	8.08	none	4/4/2000	3.90	7.43	none
1/28/98	2.93	8.40	none	10/3/2000	3.41	7.92	none
3/11/98	3.98	7.35	none				
3/30/1998	4.13	7.20	none				
4/27/1998	3.93	7.40	none				
<b>SCIMW-27 TOC Elevation = 11.43</b>							
5/5/97	4.98	6.45	none	6/1/1998	4.74	6.69	none
6/27/97	4.85	6.58	none	6/26/1998	4.74	6.69	none
7/23/97	4.80	6.63	none	9/17/1998	4.85	6.58	none
8/25/97	4.81	6.62	none	12/7/1998	4.77	6.66	none
9/25/97	4.85	6.58	none	5/4/1999	4.91	6.52	none
10/30/97	4.91	6.52	none	8/25/1999	4.95	6.48	none
12/3/97	4.74	6.69	none	11/29/1999	4.91	6.52	none
12/30/97	4.75	6.68	none	4/4/2000	3.78	7.65	none
1/28/98	4.37	7.06	none	10/3/2000	4.9	6.53	none
3/11/98	4.70	6.73	none				
3/30/1998	4.71	6.72	none				
4/27/1998	4.53	6.90	none				
<b>SCIMW-28 TOC Elevation = 13.30</b>							
5/5/97	4.96	8.34	none	6/1/1998	4.25	9.05	none
6/27/97	5.12	8.18	none	6/26/1998	4.70	8.60	none
7/23/97	--	--	--	9/17/1998	5.47	7.83	none
8/25/97	5.04	8.26	none	12/7/1998	4.64	8.66	none
9/25/97	5.23	8.07	none	5/3/1999	4.32	8.98	none
10/30/97	5.39	7.91	none	8/25/1999	5.44	7.86	none
12/3/97	4.47	8.83	none	11/29/1999	5.04	8.26	none
12/30/97	4.72	8.58	none	4/4/2000	3.56	9.74	none
1/28/98	4.16	9.14	none	10/3/2000	5.51	7.79	none
3/11/98	4.20	9.10	none				
3/30/1998	4.27	9.03	none				
4/27/1998	4.41	8.89	none				
<b>SCIMW-29 TOC Elevation = 13.18</b>							
5/5/97	5.70	7.48	none	6/1/1998	5.26	7.92	none
6/27/97	5.58	7.60	none	6/26/1998	5.50	7.68	none
7/23/97	5.63	7.55	none	9/17/1998	5.67	7.51	none
8/25/97	5.56	7.62	none	12/7/1998	5.24	7.94	none
9/25/97	5.61	7.57	none	5/3/1999	5.55	7.63	none
10/30/97	5.63	7.55	none	8/25/1999	5.95	7.23	none
12/3/97	5.23	7.95	none	11/29/1999	5.71	7.47	none
12/30/97	5.52	7.66	none	4/4/2000	5.59	7.59	none
1/28/98	5.29	7.89	none	10/3/2000	5.68	7.50	none
3/11/98	5.37	7.81	none				
3/30/1998	5.37	7.81	none				
4/27/1998	5.48	7.70	none				
<b>SCIMW-30 TOC Elevation = 12.34</b>							
10/30/97	4.81	7.53	none	12/7/1998	4.39	7.95	none
12/3/97	3.99	8.35	none	5/3/1999	4.45	7.89	none
12/30/97	4.26	8.08	none	8/25/1999	4.95	7.39	none
1/28/98	3.75	8.59	none	11/29/1999	4.40	7.94	none
3/11/98	3.81	8.53	none	4/4/2000		well not accessible	
3/30/98	4.21	8.13	none	10/3/2000	5.08	7.26	none
4/27/98	4.35	7.99	none				
6/1/98	4.15	8.19	none				
6/26/98	4.51	7.83	none				
9/17/98	4.71	7.63	none				

**TABLE 2**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**NINTH AVENUE TERMINAL STUDY AREA**

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
Extends into Merrit Sand Formation Below Estuarine Deposits.							
<b>SCIMW-31D</b>	TOC Elevation = 11.92			Displays Confined Aquifer Characteristics.			
10/30/97	7.69	4.23	none	12/7/1998	7.90	4.02	none
12/3/97	7.58	4.34	none	5/3/1999	7.91	4.01	none
12/30/97	7.47	4.45	none	8/25/1999	7.85	4.07	none
1/28/98	7.37	4.55	none	11/29/1999	7.79	4.13	none
3/11/98	7.20	4.72	none	4/4/2000		well not accessible	
3/30/98	7.35	4.57	none	10/3/2000	7.60	4.32	none
4/27/98	7.54	4.38	none				
6/1/98	7.57	4.35	none				
6/26/98	7.63	4.29	none				
9/17/98	7.58	4.34	none				
Extends into Merrit Sand Formation Below Estuarine Deposits.							
<b>SCIMW-32</b>	TOC Elevation = 12.75			Displays Confined Aquifer Characteristics.			
10/30/97	5.02	7.73	none	12/7/1998	4.51	8.24	none
12/3/97	4.50	8.25	none	5/3/1999	4.32	8.43	none
12/30/97	4.59	8.16	none	8/25/1999	7.80	4.95	none
1/28/98	-	-	-	11/29/1999	4.71	8.04	none
3/11/98	4.17	8.58	none	4/4/2000	4.65	8.10	none
3/30/98	4.39	8.36	none	10/3/2000	5.50	7.25	none
4/27/98	4.34	8.41	none				
6/1/98	4.33	8.42	none				
6/26/98	4.53	8.22	none				
9/17/98	5.04	7.71	none				
Extends into Merrit Sand Formation Below Estuarine Deposits.							
<b>SCIMW-33</b>	TOC Elevation = 11.47			Displays Confined Aquifer Characteristics.			
10/30/97	4.58	6.89	none	12/7/1998	4.21	7.26	none
12/3/97	4.11	7.36	none	5/3/1999	4.00	7.47	none
12/30/97	4.07	7.40	none	8/25/1999	4.60	6.87	none
1/28/98	4.03	7.44	none	11/29/1999	4.72	6.75	none
3/11/98	4.02	7.45	none	4/4/2000	5.00	6.47	none
3/30/98	4.00	7.47	none	10/3/2000	4.35	7.12	none
4/27/98	3.96	7.51	none				
6/1/98	3.86	7.61	none				
6/26/98	4.05	7.42	none				
9/17/98	4.32	7.15	none				
Extends into Merrit Sand Formation Below Estuarine Deposits.							
<b>SCIMW-34</b>	TOC Elevation = 10.93			Tidally Influenced			
10/30/97	6.05	4.88	none	12/7/1998	6.02	4.91	none
12/3/97	5.48	5.45	none	5/3/1999	6.44	4.49	none
12/30/97	5.43	5.50	none	8/25/1999	6.86	4.07	none
1/28/98	5.30	5.63	none	11/29/1999	6.23	4.70	none
3/11/98	6.01	4.92	none	4/4/2000	5.43	5.50	none
3/30/98	5.82	5.11	none	10/3/2000	4.99	5.94	none
4/27/98	6.14	4.79	none				
6/1/98	6.05	4.88	none				
6/26/98	5.81	5.12	none				
9/17/98	6.06	4.87	none				
Extends into Merrit Sand Formation Below Estuarine Deposits.							
<b>SCIMW-35</b>	TOC Elevation = 10.10			Tidally Influenced			
10/30/97	5.23	4.87	none	12/7/1998	4.95	5.15	none
12/3/97	4.06	6.04	none	5/3/1999	5.60	4.50	none
12/30/97	4.01	6.09	none	8/25/1999	5.95	4.15	none
1/28/98	4.30	5.80	none	11/29/1999	5.47	4.63	none
3/11/98	4.98	5.12	none	4/4/2000	5.55	4.55	none
3/30/98	4.90	5.20	none	10/3/2000	4.57	5.53	none
4/27/98	5.23	4.87	none				
6/1/98	5.01	5.09	none				
6/26/98	4.97	5.13	none				
9/17/98	5.36	4.74	none				

TABLE 2  
SUMMARY OF GROUNDWATER ELEVATION DATA  
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION (FEET)	PRODUCT THICKNESS (INCHES)
Oil Filled Manhole				Hydraulically Connected to Bay water. Tidally Influenced.			
	TOC Elevation =	12.39					
12/30/96	6.22	6.17	trace	3/30/1998	8.33	4.06	trace
1/16/97	8.00	4.39	0.01	4/27/1998	8.50	3.89	trace
2/28/97	8.42	3.97	0.01	6/1/1998	8.33	4.06	trace
3/26/97	8.42	3.97	trace	6/26/1998	8.42	3.97	trace
5/5/97	8.51	3.88	0.06	9/17/1998	8.42	3.97	trace
6/27/97	8.42	3.97	trace	12/7/1998	8.33	4.06	trace
7/23/97	8.42	3.97	trace	5/2/1998	7.0 to 8.0	-	0.50
8/25/97	7.67	4.72	trace	8/25/1999	-	-	4.50
9/25/97	6.17	6.22	trace	11/29/1999	-	-	trace
10/30/97	6.42	5.97	0.00	4/4/2000	5.25	7.14	trace
12/3/97	8.08	4.31	trace	10/3/2000	4.57	7.82	none
12/30/97	4.50	7.89	trace				
1/28/1998	6.00	6.39	trace				
3/11/1998	5.92	6.47	trace				

Notes:

All elevations presented reference the Port of Oakland datum

- = Inaccessible

NA = Data not available

+ = Elevation is probably not static

TABLE 3  
ECOLOGICAL PARAMETER RESULTS  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak, Datum (FEET)	pH FIELD, BEFORE SAMPLING	pH LABORATORY	Eh FIELD, BEFORE PURGE (mV)	Eh FIELD, BEFORE SAMPLING (mV)	Eh LABORATORY (mV)	TDS FIELD, BEFORE PURGE (mg/L)	TDS LABORATORY (mg/L)	TEMPERATURE FIELD, BEFORE PURGE (°C)	TEMPERATURE FIELD, BEFORE SAMPLING (°C)	SALINITY FIELD, BEFORE PURGE (mg/L)	SALINITY FIELD, BEFORE SAMPLING (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (%)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (mg/L)
MW-1	SCI	F	9/25/98	4.68	6.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	SCI	F	12/3/99	4.59	6.73	--	-92.7	-101.2	--	7,831	--	20.03	19.56	--	--	--	--	--	3.58
MW-2	SCI	F	9/23/98	5.29	6.74	--	-33.0	--	--	--	--	--	--	--	--	--	--	--	0.12
MW-2	SCI	F	12/3/99	5.27	6.92	--	12463.0	22,352.0	--	8,800	--	20.41	19.15	--	--	--	--	--	3.39
MW-3	SCI	F	9/29/98	5.83	7.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	SCI	F	12/3/99	5.44	7.14	--	-60.7	-174.9	--	6,931	--	19.32	18.22	--	--	--	--	--	2.24
MW-3	SCI	F	10/4/00	5.77	6.31	--	41.7	-57.3	--	10,480	--	20.49	19.79	--	--	--	--	--	3.08
MW-5	SCI	F	9/23/98	6.40	6.75	--	-71.0	--	--	--	--	--	--	--	--	--	--	--	0.11
MW-5	SCI	F	5/7/99	6.59	6.66	--	-18.5	-41.0	--	1,049	--	16.68	16.04	0.82	2.43	--	--	42.5	4.15
MW-5	SCI	F	12/3/99	6.53	6.70	--	2656.0	20,057.0	--	2,095	--	18.44	17.97	--	--	--	--	--	2.65
MW-5	SCI	F	10/6/00	6.56	6.41	--	130.7	56.0	--	15,060	--	19.77	20.53	--	--	--	--	--	2.84
SCIMW-1	SCI	E/H	9/22/98	5.02	6.99	--	-129.0	--	--	--	--	--	--	--	--	--	--	--	0.26
SCIMW-1	SCI	E/H	12/2/99	4.56	6.61	--	-89.1	-219.1	--	10,940	--	16.25	16.50	--	--	--	--	--	1.18
SCIMW-1	SCI	E/H	10/6/00	4.75	7.69	--	141.5	--	--	11,040.0	--	18.67	--	--	--	--	--	--	6.10
SCIMW-2	SCI	N	9/18/98	4.07	7.13	5.8	43.0	--	-31.0	12,600	--	--	--	--	--	4.4	--	--	0.11
SCIMW-2	SCI	N	12/10/98	3.52	6.95	6.6	96.6	41.5	63.0	6,180	--	--	--	--	--	5.4	--	--	1.59
SCIMW-2	SCI	N	5/6/99	4.52	7.36	--	36.8	-11.0	--	8,082	4,710	15.53	16.41	7.16	9.02	9.9	--	48	4.62
SCIMW-2	SCI	N	8/26/99	3.00	7.17	--	16.1	-74.6	--	12,192	12,300	--	--	--	--	4.7	--	--	1.91
SCIMW-2	SCI	N	12/2/99	3.85	6.97	--	-39.6	-100.3	--	6,366	9,390	17.67	18.61	--	--	4.9	--	--	3.05
SCIMW-2	SCI	N	4/6/00	2.83	6.63	--	190.6	164.5	--	6,998	8,040	15.67	16.75	--	--	5.7	--	--	4.51
SCIMW-2	SCI	N	10/3/00	4.75	6.93	--	65.1	-40.3	--	15,500	--	21.18	19.08	--	--	--	--	--	5.00
SCIMW-3	SCI	I/J	9/18/98	4.29	6.81	--	-154.0	--	--	--	--	--	--	--	--	--	--	--	0.11
SCIMW-3	SCI	I/J	11/30/99	6.17	6.62	--	-44.5	-111.0	--	7,234	--	21.07	21.15	--	--	--	--	--	5.38
SCIMW-3	SCI	I/J	10/4/00	6.49	6.65	--	-77.1	-84.5	--	13,960	--	23.42	20.40	--	--	--	--	--	4.30
SCIMW-4	SCI	L	9/22/98	6.20	6.83	--	-127.0	--	--	--	--	--	--	--	--	--	--	--	0.23
SCIMW-4	SCI	L	12/3/99	6.82	6.79	--	-131.8	-128.7	--	5,022	--	19.21	21.33	--	--	--	--	--	0.78
SCIMW-5	SCI	M	9/17/98	5.78	6.75	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-5	SCI	M	12/17/98	5.64	6.81	--	130.6	--	--	--	--	--	--	--	--	--	--	--	2.41
SCIMW-5	SCI	M	5/6/99	5.26	6.65	--	330.6	-36.9	--	16,030	--	15.72	15.95	15.02	20.59	--	--	6.91	0.63
SCIMW-5	SCI	M	8/26/99	4.48	7.79	--	198.5	-89.9	--	20,569	--	--	--	--	--	--	--	--	2.73
SCIMW-5	SCI	M	12/2/99	5.74	6.80	--	47.7	25.1	--	23,170	--	16.98	16.34	--	--	--	--	--	5.22
SCIMW-5	SCI	M	4/6/00	3.54	6.60	--	459.0	367.2	--	18,280	--	15.99	15.69	--	--	--	--	--	2.89

TABLE 3  
 ECOLOGICAL PARAMETER RESULTS  
 IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Part of Oak. Datum (FEET)	pH FIELD, BEFORE SAMPLING	pH LABORATORY	Eh FIELD, BEFORE PURGE (mV)	Eh FIELD, BEFORE SAMPLING (mV)	Eh LABORATORY (mV)	TDS FIELD, BEFORE PURGE (mg/L)	TDS LABORATORY (mg/L)	TEMPERATURE FIELD, BEFORE PURGE (°C)	TEMPERATURE FIELD, BEFORE SAMPLING (°C)	SALINITY FIELD, BEFORE PURGE (mg/L)	SALINITY FIELD, BEFORE SAMPLING (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (%)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (mg/L)
SCIMW-6	SCI	C	9/23/98	4.38	7.02	6.2	270.0	--	223.0	--	--	--	--	--	--	--	<1.0	--	4.10
SCIMW-6	SCI	C	12/10/98	3.91	7.19	6.7	42.0	125.0	189.0	21,600	--	--	--	--	--	<1.0	--	--	7.46
SCIMW-6	SCI	C	5/6/99	4.39	7.27	--	56.6	200.0	--	16,630	17,700	14.77	14.86	15.6	14.27	1.9	--	59.4	5.52
SCIMW-6	SCI	C	8/26/99	6.56	7.11	--	140.6	176.4	--	23,244	23,500	--	--	--	--	<1.0	--	--	6.44
SCIMW-6	SCI	C	12/2/99	4.00	7.02	--	23.7	18.9	--	22,360	26,800	15.38	17.44	--	--	1.2	--	--	7.49
SCIMW-6	SCI	C	4/6/00	3.68	6.78	--	280.2	270.9	--	17,940	18,900	14.91	15.73	--	--	<1.0	--	--	5.12
SCIMW-7	SCI	P/Q	9/17/98	5.74	6.78	--	-155.0	--	--	--	--	--	--	--	--	--	--	--	0.10
SCIMW-7	SCI	P/Q	5/6/99	7.40	6.58	--	-82.9	-108.4	--	12,500	--	16.80	17.20	10.9	15.15	--	--	93.2	8.54
SCIMW-7	SCI	P/Q	12/1/99	5.56	6.68	--	-45.7	-84.5	--	12,730	--	18.48	18.46	--	--	--	--	--	4.03
SCIMW-7	SCI	P/Q	10/5/00	8.25	6.14	--	3.1	-50.8	--	13,120	--	20.35	18.40	--	--	--	--	--	6.48
SCIMW-8	SCI	I	9/18/98	7.25	6.70	--	-146.0	--	--	--	--	--	--	--	--	--	--	--	0.15
SCIMW-8	SCI	I	11/30/99	7.36	6.50	--	-79.4	-115.0	--	4,298	--	20.62	19.32	--	--	--	--	--	2.41
SCIMW-8	SCI	I	10/4/00	7.50	6.56	--	-68.1	-85.8	--	4,839	--	24.15	19.44	--	--	--	--	--	0.56
SCIMW-9	SCI	I	9/21/98	6.64	6.67	--	-127.0	--	--	--	--	--	--	--	--	--	--	--	0.15
SCIMW-9	SCI	I	12/1/99	6.69	7.14	--	-99.4	-192.1	--	7,050	--	20.81	21.47	--	--	--	--	--	1.16
SCIMW-9	SCI	I	10/5/00	6.61	6.99	--	-61.0	-62.0	--	6,800	--	19.20	19.15	--	--	--	--	--	1.47
SCIMW-10	SCI	J	9/18/98	7.64	6.92	--	-257.0	--	--	--	--	--	--	--	--	--	--	--	0.08
SCIMW-10	SCI	J	12/1/99	5.98	7.02	--	-129.4	-204.5	--	16,210	--	21.39	21.10	--	--	--	--	--	2.70
SCIMW-10	SCI	J	10/4/00	6.57	6.65	--	-132.5	-1,563.0	--	20,570	--	22.50	21.38	--	--	--	--	--	1.56
SCIMW-11	SCI	N	9/23/98	4.72	7.01	6.5	-158.0	--	123.0	7,260	--	--	--	--	--	--	6.3	--	0.17
SCIMW-11	SCI	N	12/10/98	3.32	7.12	6.8	-55.4	-123.8	-29.0	7,600	--	--	--	--	--	7.3	--	--	1.47
SCIMW-11	SCI	N	5/6/99	3.48	7.21	--	358.1	39.8	--	4,511	3,880	17.81	17.63	3.84	3.41	12	6.5	27.6	2.59
SCIMW-11	SCI	N	8/26/99	4.31	7.28	--	145.5	139.9	--	21,644	6,530	--	--	--	--	6.5	--	--	4.49
SCIMW-11	SCI	N	12/1/99	4.07	6.52	--	286.4	-56.1	--	9,560	7,850	17.52	18.37	--	--	5.1	--	--	5.53
SCIMW-11	SCI	N	4/6/00	2.49	6.74	--	312.5	-87.5	--	5,980	5,280	16.74	16.99	--	--	11.0	--	--	3.89
SCIMW-11	SCI	N	10/4/00	4.00	6.19	--	82.9	-65.1	--	11,480	--	19.77	21.54	--	--	--	--	--	5.68
SCIMW-12	SCI	O	9/18/98	4.14	7.13	6.0	25.0	--	132.0	24,700	--	--	--	--	--	<1.0	--	--	4.19
SCIMW-12	SCI	O	12/11/98	3.73	7.10	6.5	52.6	47.5	252.0	27,300	--	--	--	--	--	<1.0	--	--	--
SCIMW-12	SCI	O	12/11/98	3.73	7.10	6.5	52.6	47.5	252.0	27,300	--	--	--	--	--	<1.0	--	--	--
SCIMW-12	SCI	O	8/26/99	6.91	7.29	--	149.4	140.1	--	22,904	19,800	--	--	--	--	<1.0	--	--	4.78
SCIMW-12	SCI	O	9/18/98	7.42	6.78	--	-280.0	--	--	--	--	--	--	--	--	--	--	--	0.10
SCIMW-12	SCI	O	5/7/99	3.75	7.09	--	320.1	373.9	--	19,060	23,900	16.12	15.93	18.16	15.27	2.4	--	92.8	8.25
SCIMW-12	SCI	O	11/30/99	4.03	6.33	--	417.0	387.9	--	25,160	27,400	16.37	16.79	--	--	<1.0	--	--	6.89
SCIMW-12	SCI	O	4/6/00	4.53	6.77	--	337.4	305.1	--	18,430	19,800	15.97	16.22	--	--	1.6	--	--	5.95

TABLE 3  
ECOLOGICAL PARAMETER RESULTS  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	pH FIELD, BEFORE SAMPLING	pH LABORATORY	Eh FIELD, BEFORE PURGE (mV)	Eh FIELD, BEFORE SAMPLING (mV)	Eh LABORATORY (mV)	TDS FIELD, BEFORE PURGE (mg/L)	TDS LABORATORY (mg/L)	TEMPERATURE FIELD, BEFORE PURGE (°C)	TEMPERATURE FIELD, BEFORE SAMPLING (°C)	SALINITY FIELD, BEFORE PURGE (mg/L)	SALINITY FIELD, BEFORE SAMPLING (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (%)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (mg/L)
SCIMW-13	SCI	J	9/18/98	7.42	6.78	--	-280.00	--	--	--	--	--	--	--	--	--	--	--	0.1
SCIMW-13	SCI	J	12/1/99	6.73	6.87	--	-82.6	-236.6	--	11,320	--	20.83	21.45	--	--	--	--	--	2.95
SCIMW-13	SCI	J	10/5/00	7.04	6.6	--	-40.0	-133.5	--	10,730	--	24.50	22.90	--	--	--	--	--	6.24
SCIMW-14	SCI	I/J	9/18/98	5.48	6.75	6.1	-116.0	--	140.0	3,190	--	--	--	--	--	23	--	--	0.18
SCIMW-14	SCI	I/J	12/1/98	5.91	7.00	6.8	42.3	-81.1	100.0	5,600	--	--	--	--	--	14	--	--	--
SCIMW-14	SCI	I/J	5/7/99	6.00	7.04	--	385.9	-87.2	--	1,779	1,970	17.50	16.30	--	--	--	--	70.9	--
SCIMW-14	SCI	I/J	8/26/99	7.95	7.19	--	-59.2	-77.6	--	13,657	2,930	--	--	--	--	16	--	--	1.82
SCIMW-14	SCI	I/J	11/30/99	5.30	6.40	--	321.0	-73.8	--	3,090	1,290	19.41	18.86	--	--	13	--	--	7.17
SCIMW-14	SCI	I/J	4/6/00	5.61	7.00	--	132.3	-24.2	--	630	1,080	16.05	16.47	--	--	8.4	--	--	3.36
SCIMW-15	SCI	I/J	9/21/98	5.17	6.79	--	-147.0	--	--	--	--	--	--	--	--	--	--	--	25.10
SCIMW-15	SCI	I/J	5/4/99	5.15	7.00	--	-102.2	-103.8	--	3,948	--	17.70	17.30	--	--	--	--	25.1	--
SCIMW-15	SCI	I/J	11/30/99	4.71	6.39	--	-111.9	-86.4	--	7,120	6,170	20.86	19.68	--	--	23	--	--	0.78
SCIMW-15	SCI	I/J	10/4/00	4.97	6.46	--	-75.0	-56.0	--	5,700	--	21.51	21.51	--	--	--	--	--	1.47
SCIMW-16	SCI	R	9/21/98	7.04	5.46	--	-160.0	--	--	--	--	--	--	--	--	--	--	--	0.11
SCIMW-16	SCI	R	5/4/99	6.68	6.90	--	-105.2	-145.1	--	18,200	--	19.80	13.40	--	--	--	--	49.7	--
SCIMW-16	SCI	R	11/30/99	6.66	6.95	--	-103.4	-148.8	--	22,360	--	20.76	19.52	--	--	--	--	--	2.88
SCIMW-17	SCI	R	9/21/98	6.94	5.13	--	-122.0	--	--	--	--	--	--	--	--	--	--	--	0.14
SCIMW-17	SCI	R	12/1/99	6.65	7.09	--	-124.6	-135.1	--	5,810	--	19.71	20.93	--	--	--	--	--	3.10
SCIMW-18	SCI	L	9/24/98	7.23	6.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-18	SCI	L	12/1/99	6.67	6.99	--	-138.2	-141.4	--	13,670	--	20.14	20.75	--	--	--	--	--	2.07
SCIMW-18	SCI	L	10/4/00	7.11	6.71	--	-67.4	-38.6	--	13,800	--	22.19	19.05	--	--	--	--	--	1.90
SCIMW-19	SCI	R	9/18/98	6.38	6.79	--	-138.0	--	--	--	--	--	--	--	--	--	--	--	0.14
SCIMW-19	SCI	R	12/2/99	6.46	6.93	--	102.1	-99.0	--	5,070	--	19.53	20.85	--	--	--	--	--	3.91
SCIMW-20	SCI	H/Q	9/21/98	6.79	6.85	--	-86.0	--	--	--	--	--	--	--	--	--	--	--	0.16
SCIMW-20	SCI	H/Q	12/2/99	6.41	6.81	--	76.6	-123.3	--	6,160	--	15.86	18.30	--	--	--	--	--	5.39
SCIMW-21	SCI	D	5/6/97	7.44	--	6.9	--	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-21	SCI	D	9/22/98	7.54	6.91	6.9	228.0	--	--	--	--	--	--	--	--	--	--	--	0.18
SCIMW-21	SCI	D	12/3/99	8.98	6.79	--	68.3	-117.0	--	890	--	14.13	17.59	--	--	--	--	--	2.49
SCIMW-21	SCI	D	10/5/00	7.75	6.8	--	82.4	-7.2	--	995	--	18.99	18.00	--	--	--	--	--	4.30
SCIMW-22	SCI	P	5/6/97	8.22	--	6.8	--	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-22	SCI	P	9/22/98	7.24	6.58	--	-138.0	--	--	--	--	--	--	--	--	--	--	--	0.15
SCIMW-22	SCI	P	5/5/99	7.66	6.81	--	-102.2	-107.1	--	13,217	--	17.79	17.00	--	--	--	--	31.5	--
SCIMW-22	SCI	P	12/2/99	6.81	6.77	--	-40.0	-125.7	--	17,110	--	19.79	21.05	--	--	--	--	--	3.09
SCIMW-22	SCI	P	10/6/00	5.36	7.04	--	-80.0	10.7	--	6,240	--	19.10	20.06	--	--	--	--	--	1.74



TABLE 3  
 ECOLOGICAL PARAMETER RESULTS  
 IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	pH FIELD, BEFORE SAMPLING	pH LABORATORY	Eh FIELD, BEFORE PURGE (mV)	Eh FIELD, BEFORE SAMPLING (mV)	Eh LABORATORY (mV)	TDS FIELD, BEFORE PURGE (mg/L)	TDS LABORATORY (mg/L)	TEMPERATURE FIELD, BEFORE PURGE (°C)	TEMPERATURE FIELD, BEFORE SAMPLING (°C)	SALINITY FIELD, BEFORE PURGE (mg/L)	SALINITY FIELD, BEFORE SAMPLING (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (%)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (mg/L)
SCIMW-23	SCI	B	5/6/97	5.55	--	6.8	--	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-23	SCI	B	9/24/98	5.46	6.83	6.1	--	--	-50.0	9,940	--	--	--	--	--	8.3	--	--	--
SCIMW-23	SCI	B	12/11/98	6.39	6.74	6.4	-63.0	40.0	29.0	--	--	--	--	--	--	--	--	--	1.66
SCIMW-23	SCI	B	5/6/99	6.09	6.57	--	-43.3	-60.4	--	4,660	210	18.15	17.63	3.96	7.61	11	11	72.7	6.76
SCIMW-23	SCI	B	8/26/99	4.35	6.46	--	-89.1	-85.3	--	7,653	7,490	--	--	--	--	11	--	--	1.79
SCIMW-23	SCI	B	12/3/99	5.56	6.41	--	-95.4	-136.6	--	10,680	11,200	19.21	20.35	--	--	13	--	--	0.62
SCIMW-23	SCI	B	4/6/00	2.79	6.7	--	28.0	-92.1	--	6,809	1,970	18.81	17.08	--	--	13	--	--	3.13
SCIMW-23	SCI	B	10/4/00	2.79	6.72	--	-41.0	-34.7	--	11,790	--	18.96	19.59	--	--	--	--	--	3.48
SCIMW-24	SCI	N	9/18/98	4.96	6.38	6.3	-158.0	--	-52.0	1,850	--	--	--	--	--	29	--	--	0.13
SCIMW-24	SCI	N	12/11/98	5.79	6.80	6.6	117.3	-100.6	-21.0	13,200	--	--	--	--	--	27	--	--	1.18
SCIMW-24	SCI	N	5/6/99	5.14	6.92	--	-87.2	-81.2	--	1,134	1,090	19.19	18.65	0.88	0.87	23	--	72	6.67
SCIMW-24	SCI	N	12/1/99	4.99	6.28	--	-47.0	-59.8	--	2,586	2,370	20.60	20.02	--	--	19	--	--	5.09
SCIMW-24	SCI	N	4/6/00	5.05	6.83	--	-92.1	-97.6	--	1,781	--	18.84	18.07	--	--	33	--	--	1.60
SCIMW-24	SCI	N	10/5/00	4.95	6.6	--	33.5	-32.5	--	2,720	--	24.25	23.17	--	--	--	--	--	7.45
SCIMW-26	SCI	H	9/22/98	7.41	6.54	--	-94.0	--	--	--	--	--	--	--	--	--	--	--	0.11
SCIMW-26	SCI	H	12/2/99	7.92	6.74	--	-175.4	-163.2	--	11,240	--	18.53	17.75	--	--	--	--	--	2.53
SCIMW-26	SCI	H	10/6/00	7.92	6.35	--	-9.5	-2.5	--	11,560	--	23.58	22.50	--	--	--	--	--	1.49
SCIMW-27	SCI	E/H	9/22/98	6.58	6.85	--	-52.0	--	--	--	--	--	18	--	--	--	--	--	0.11
SCIMW-27	SCI	E/H	12/2/99	6.52	6.75	--	-19.0	-97.0	--	11,180	--	15.61	17.34	--	--	--	--	--	4.29
SCIMW-28	SCI	Q	9/23/98	7.83	6.85	--	--	--	--	--	--	--	17	--	--	--	--	--	--
SCIMW-28	SCI	Q	5/6/99	8.98	6.75	--	-55.9	-77.6	--	460	--	14.36	15.70	0.35	8.5	17	--	82.3	8.47
SCIMW-28	SCI	Q	12/2/99	8.26	6.53	--	91.1	-60.1	--	219	--	15.23	16.99	--	--	--	--	--	3.51
SCIMW-28	SCI	Q	10/5/00	7.79	5.98	--	110.2	17.1	--	460	--	18.93	17.70	--	--	--	--	--	6.13
SCIMW-29	SCI	Q	10/4/00	7.50	6.4	--	64.4	-5.3	--	6,800	--	18.20	17.50	--	--	--	--	--	4.60
SCIMW-30	SCI	P	9/21/98	7.63	6.58	--	-132.0	--	--	--	--	--	16.99	--	--	--	--	--	0.12
SCIMW-30	SCI	P	5/5/99	7.89	6.30	--	-3.9	-109.1	--	4,777	--	18.60	18.50	--	--	--	--	32.3	--
SCIMW-30	SCI	P	12/2/99	7.94	7.03	--	-89.9	-139.0	--	14,410	--	19.53	19.66	--	--	--	--	--	1.71
SCIMW-30	SCI	P	10/6/00	7.26	6.73	--	-61.9	-152.6	--	13,510	--	24.26	20.40	--	--	--	--	--	3.38
SCIMW-31D	SCI	P	9/21/98	4.34	5.07	--	-20.0	--	--	--	--	--	19.66	--	--	--	--	--	0.18
SCIMW-31D	SCI	P	5/5/99	4.01	6.51	--	302.7	55.3	--	12,370	--	19.89	19.90	--	--	--	--	109.4	--
SCIMW-31D	SCI	P	12/1/99	4.13	6.36	--	80.7	50.1	--	15,780	--	20.00	19.12	--	--	--	--	--	5.73
SCIMW-31D	SCI	P	10/4/00	4.32	6.32	--	240.4	294.4	--	16,790	--	18.99	19.06	--	--	--	--	--	4.10
SCIMW-32	SCI	I/P	9/21/98	7.71	5.11	--	-101.0	--	--	--	--	--	19.12	--	--	--	--	--	0.09
SCIMW-32	SCI	I/P	5/5/99	8.43	6.24	--	-44.2	-88.4	--	2,839	--	20.56	19.08	--	--	--	--	94.6	--
SCIMW-32	SCI	I/P	12/1/99	8.04	7.03	--	-13.3	-79.8	--	3,847	--	21.68	21.45	--	--	--	--	--	3.82

TABLE 3  
 ECOLOGICAL PARAMETER RESULTS  
 IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	pH FIELD, BEFORE SAMPLING	pH LABORATORY	Eh FIELD, BEFORE PURGE (mV)	Eh FIELD, BEFORE SAMPLING (mV)	Eh LABORATORY (mV)	TDS FIELD, BEFORE PURGE (mg/L)	TDS LABORATORY (mg/L)	TEMPERATURE FIELD, BEFORE PURGE (°C)	TEMPERATURE FIELD, BEFORE SAMPLING (°C)	SALINITY FIELD, BEFORE PURGE (mg/L)	SALINITY FIELD, BEFORE SAMPLING (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (%)	DISSOLVED OXYGEN FIELD, BEFORE PURGE (mg/L)
SCIMW-33	SCI	I/J	9/21/98	7.15	4.98	--	-194.0	--	--	--	--	--	21.45	--	--	--	--	--	0.09
SCIMW-33	SCI	I/J	5/5/99	7.47	6.60	--	-72.9	-88.4	--	3,355	--	19.80	19.11	--	--	--	--	35.3	--
SCIMW-33	SCI	I/J	12/1/99	6.75	6.81	--	-58.8	-113.2	--	6,845	--	19.94	22.11	--	--	--	--	--	3.67
SCIMW-33	SCI	I/J	10/4/00	7.12	6.06	--	10.1	-79.7	--	7,800	--	24.05	20.44	--	--	--	--	--	2.97
SCIMW-34	SCI	R	9/24/98	4.87	6.87	6.3	--	--	-15.0	15,000	--	--	22.11	--	--	12	--	--	--
SCIMW-34	SCI	R	12/11/98	4.91	6.78	6.5	-110.2	-60.9	118.0	6,520	--	--	--	--	--	11	--	--	2.33
SCIMW-34	SCI	R	5/5/99	4.49	6.82	--	-52.3	-43.3	--	6,775	15,500	15.57	14.75	--	--	4.9	--	46.1	--
SCIMW-34	SCI	R	8/26/99	6.86	6.63	--	29.4	8.6	--	13,905	11,400	--	--	--	--	5.7	--	--	1.36
SCIMW-34	SCI	R	12/2/99	4.70	6.91	--	174.8	23.0	--	11,810	14,400	17.46	17.16	--	--	7.2	--	--	4.35
SCIMW-34	SCI	R	4/6/00	5.50	6.97	--	202.4	194.9	--	12,510	14,400	14.61	14.53	--	--	6.0	--	--	3.87
SCIMW-34	SCI	R	10/5/00	5.94	6.4	--	8.2	14.2	--	9,020	--	20	18.60	--	--	--	--	--	2.47
SCIMW-35	SCI	R	9/23/98	4.74	6.76	--	125.0	--	--	--	--	--	--	--	--	--	--	--	3.06
SCIMW-35	SCI	R	12/11/98	5.15	6.88	--	41.0	-7.1	--	--	--	--	--	--	--	--	--	--	1.80
SCIMW-35	SCI	R	5/5/99	4.50	6.76	--	83.0	64.0	--	2,382	--	16.06	15.70	--	--	--	--	147.6	--
SCIMW-35	SCI	R	8/26/99	5.95	6.98	--	96.6	3.3	--	9,283	--	--	--	--	--	--	--	--	2.61
SCIMW-35	SCI	R	12/2/99	4.63	6.55	--	166.9	111.5	--	10,250	--	18.39	18.56	--	--	--	--	--	4.52
SCIMW-35	SCI	R	4/6/00	4.55	6.87	--	309.5	263.4	--	6,123	--	15.57	16.03	--	--	--	--	--	2.86
SCIMW-35	SCI	R	10/5/00	4.55	6.27	--	164.0	101.3	--	7,888	--	22.28	20.77	--	--	--	--	--	3.07

Notes:  
 Eh = Redox potential or oxidizing-reduction potential  
 TDS = Total Dissolved Solids  
 mV = millivolts  
 mg/L = milligrams per Liter  
 Groundwater elevation measurements presented are those collected on the first day of sampling for the event and may not be the same as the date sampled.

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
MW-1	Uribe	F	4/4/94	5.90	--	<50	510	--	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--
MW-1	Uribe	F	10/3/94	4.36	--	--	390y	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-1	Clayton	F	4/10/95	5.05	--	<50	330	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-1	Clayton	F	7/24/95	4.97	--	<50	230	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-1	Clayton	F	11/10/95	4.47	--	<50	430	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-1	Clayton/SCI	F	2/20/96	5.50	--	<50	590yh	--	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--
MW-1	SCI	F	5/24/96	4.95	--	<50	870yh	630y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-1	SCI	F	9/6/96	4.34	--	<50	850yh	490yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-1	SCI	F	12/5/96	5.19	--	<50	4,500yh	2,100yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-1	SCI	F	9/25/98	4.68	--	--	<47	<280	--	--	--	--	--	--	--	--	--	--	--
MW-1	SCI	F	12/3/99	4.59	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
MW-2	Uribe	F	4/4/94	5.31	--	<50	1,800	--	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--
MW-2	Uribe	F	10/5/94	5.39	--	--	1,200y	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-2	Clayton	F	4/10/95	6.29	--	<50	550	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-2	Clayton	F	7/24/95	5.91	--	70	960	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-2	Clayton	F	11/10/95	5.73	--	<50	920	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-2	Clayton/SCI	F	2/20/96	6.51	--	<50	1,700h	--	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--
MW-2	SCI	F	5/24/96	5.91	--	<50	2,800yh	1,200y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	SCI	F	9/5/96	6.34	--	58z	2,900	760yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	SCI	F	12/4/96	6.02	--	<50	1,600y	1,000yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	SCI	F	9/23/98	5.29	--	--	80yl	<300	--	--	--	--	--	--	--	--	--	--	--
MW-2	SCI	F	12/3/99	5.27	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
MW-2	SCI	F	10/13/00	5.04	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
MW-3	Uribe	F	4/4/94	5.95	--	<50	690	--	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	--
MW-3	Uribe	F	10/4/94	4.74	--	--	480y	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-3	Clayton	F	4/10/95	2.54	--	<50	830	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-3	Clayton	F	7/24/95	6.56	--	<50	460	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak, Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
MW-3	Clayton	F	11/10/95	5.07	--	<50	2,100	--	<0.4	<0.3	0.7	<0.4	--	--	--	--	--	--	--
MW-3	Clayton/SCI	F	2/20/96	6.04	--	<50	620h	--	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--
MW-3	SCI	F	5/24/96	5.69	--	<50	1,100yh	550y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-3	SCI	F	9/18/96	3.76	--	<50	1,500	890yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-3	SCI	F	12/13/96	5.34	--	<50	580	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-3	SCI	F	9/29/98	5.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	SCI	F	12/3/99	5.44	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
MW-3	SCI	F	10/6/00	5.77	--	--	<50	<300	--	--	--	--	<0.5	--	--	--	--	--	--
MW-4	Clayton	F	9/20/93 (b)	6.18	--	<50	1300	--	140	40	110	235	--	--	--	--	--	--	--
MW-4	Clayton	F	12/1/93 (b)	7.88	--	<50	32,000	--	71	20	41	150	--	--	--	--	--	--	--
MW-4	Uribe	F	4/4/94 (b)	7.78	--	6,200	410,000	--	140	47	20	310	--	--	--	--	--	--	--
MW-4	Clayton	F	4/10/95	8.18	FREE PRODUCT -- NOT SAMPLED														
MW-4	Clayton	F	7/24/95	8.33 (b)	--	2,400	21,000	--	140	34	74	40	--	--	--	--	--	--	--
MW-4	SCI	F	5/24/96	9.02 (b)	--	690y	37,000	2,800yl	44	18	<2.5	7.7	--	--	--	--	--	--	--
MW-4	SCI	F	9/4/96	7.33 (b)	--	1,000h	240,000	26,000yl	100	5.2	<0.5	7.2	--	--	--	--	--	--	--
MW-4	SCI	F	12/3/96	8.76 (b)	--	1,500yh	13,000	2,000yl	120	33	0.9	22	--	--	--	--	--	--	--
MW-4	SCI	F	12/30/96	9.04	FREE PRODUCT -- NOT SAMPLED														
MW-4	SCI	F	1/16/97	8.76	FREE PRODUCT -- NOT SAMPLED														
MW-4	SCI	F	5/5/97	8.06	FREE PRODUCT -- NOT SAMPLED														
MW-4	SCI	F	9/17/98	7.53	FREE PRODUCT -- NOT SAMPLED														
MW-4	SCI	F	8/25/99	7.33	FREE PRODUCT -- NOT SAMPLED														
MW-4	SCI	F	12/3/99	6.81	FREE PRODUCT -- NOT SAMPLED														
MW-5	Clayton	F	4/10/95	7.20	--	1,100	6,200	--	3.1	2.9	<0.3	11.3	--	--	--	--	--	--	--
MW-5	Clayton	F	7/24/95	6.60	--	720	4,800	--	3.1	0.6	0.5	0.7	--	--	--	--	--	--	--
MW-5	Clayton	F	11/10/95	6.46	--	260	3,700	--	0.8	0.6	0.5	1.9	--	--	--	--	--	--	--
MW-5	Clayton/SCI	F	2/20/96	9.15	--	150y	440h	--	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--
MW-5	SCI	F	5/24/96	9.17	--	82y	4,600yh	1,900y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
MW-5	SCI	F	9/4/96	6.40	--	<50	7,700yh	1,900yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	SCI	F	12/3/96	7.20	--	140yh	13,000	1,900yl	1.5	<0.5	<0.5	2.6	--	--	--	--	--	--	--
MW-5	SCI	F	1/20/97	8.38	--	<50	9,400	1,500yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	SCI	F/H	5/6/97	6.45	<5,000	<50	8,800	2,500yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	SCI	F/H	9/23/98	6.40	--	<50	170 l	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	SCI	F/H	5/7/99	6.59	--	<50	660	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	SCI	F/H	12/3/99	6.53	--	--	490yh	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	SCI	F/H	10/6/00	6.56	--	<50	600	<300	<0.5	<0.5	<0.5	<0.5	1.3	--	--	--	--	--	--
MW-6	Clayton	F	4/10/95	7.74 (b)	--	1,300	10,000	--	4.4	0.7	<0.3	0.8	--	--	--	--	--	--	--
MW-6	SCI	F	7/24/95	6.67	FREE PRODUCT -- NOT SAMPLED														
MW-6	SCI	F	5/24/96	7.71 (b)	--	280,000yh	240,000	5,500yl	<250	<250	<250	<250	--	--	--	--	--	--	--
MW-6	SCI	F	9/5/96	6.67 (b)	89,000	200h	50,000	3,200yl	5.3	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
MW-6	SCI	F	12/4/96	7.90 (b)	--	4,700yh	140,000	7,300yl	19	<10	11	<10	--	--	--	--	--	--	--
MW-6	SCI	F	1/16/97	7.63	FREE PRODUCT -- NOT SAMPLED														
MW-6	SCI	F/H	5/6/97	7.04 (b)	330,000	440yh	620,000	24,000yl	2.4	<0.5	0.51	0.61	--	--	--	--	--	--	--
MW-6	SCI	F	9/25/97	7.97	FREE PRODUCT -- NOT SAMPLED														
MW-6	SCI	F	5/4/99	7.21	FREE PRODUCT -- NOT SAMPLED														
MW-6	SCI	F	12/3/99	6.98	FREE PRODUCT -- NOT SAMPLED														
0	SCI	F	10/4/00	6.25	FREE PRODUCT -- NOT SAMPLED														
MW-7	Clayton	M	4/10/95	5.72	--	<50	370	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-7	Clayton	M	7/24/95	6.41	--	<50	260	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-7	Clayton	M	11/10/95	5.35	--	<50	270	--	<0.4	<0.3	<0.3	<0.4	--	--	--	--	--	--	--
MW-7	Clayton/SCI	M	2/20/96	6.00	--	<50	6,100	--	<0.5	<0.5	<0.5	<1	--	--	--	--	--	--	--
MW-7	SCI	M	5/24/96	5.44	--	<50	750yh	750y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-7	SCI	M	9/5/96	5.48	<5,000	<50	480yh	310yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
MW-7	SCI	M	12/4/96	5.25	--	<50	340y	<240	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-7	SCI	M	1/17/97	6.48	--	<50	200	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-1	SCI	E/H	5/24/96	5.09	<5,000	<50	560yh	280y	<5.0	<5.0	<5.0	<5.0	--	<0.09	<0.09	<0.09	ND	<0.5	ND
SCIMW-1	SCI	E/H	9/6/96	4.39	<5,000	<50	870yh	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-1	SCI	E/H	1/22/97	5.29	--	<50	520yh	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-1	SCI	E/H	9/22/98	5.02	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-1	SCI	E/H	12/2/99	4.56	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-1	SCI	E/H	10/6/00	4.75	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	5/23/96	4.04	5,600	--	2,600 l	360yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-2	SCI	N	9/4/96	3.38	8,000	<50	5,100	770yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-2	SCI	N	1/17/97	3.82	--	95y	13,000 l	2,400yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-2	SCI	N	9/18/98	4.07	--	--	31,000h	5,400yl	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	12/28/98	3.52	--	--	5,400h	930yl	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	5/7/99	4.52	--	--	10,000	1,600yl	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	8/26/99	3.00	--	--	13,000	1,600	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	12/2/99	3.85	--	--	7,400h	860yl	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	4/6/00	2.83	--	--	220	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-2	SCI	N	10/10/00	4.75	--	--	1,100hy	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-3	SCI	I/J	5/23/96	7.22	<5,000	--	8,000yh	7,400y	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-3	SCI	I/J	9/5/96	6.67	<5,000	<50	8,800yh	4,400yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-3	SCI	I/J	1/20/97	6.46	--	<50	7,500yh	5,200y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-3	SCI	I/J	9/18/98	4.29	--	--	75yh	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-3	SCI	I/J	11/30/99	6.17	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-3	SCI	I/J	10/10/00	6.49	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-4	SCI	L	8/26/96	5.50	<5,000	<50	630yh	670yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-4	SCI	L	1/22/97	8.43	--	<50	530yh	990yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-4	SCI	L	9/23/98	6.20	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-4	SCI	L	12/3/99	6.82	--	--	56yh	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-5	SCI	M	9/3/96	4.63	<5,000	<50	<50	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-5	SCI	M	1/20/97	6.12	--	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-5	SCI	M	9/23/98	5.78	--	--	70y	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-5	SCI	M	12/17/98	5.64	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-5	SCI	M	5/10/99	5.26	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-5	SCI	M	12/2/99	5.74	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-6	SCI	C	8/28/96	4.69	<5,000	<50	150yh	260yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-6	SCI	C	1/22/97	4.68	--	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	--	<0.09	<0.09	<0.09	ND	<0.5	ND
SCIMW-6	SCI	C	9/23/98	4.38	--	--	<50	<300	--	--	--	--	--	<0.09	<0.09	<0.09	ND	<0.5	ND
SCIMW-6	SCI	C	12/10/98 (a)	3.91	--	--	<47	<280	--	--	--	--	--	<0.1	<0.1	<0.1	ND	<0.5	ND
SCIMW-6	SCI	C	5/6/99	4.39	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-6	SCI	C	12/2/99	4.00	--	--	<50	<300	--	--	--	--	--	<0.1	<0.1	<0.5	ND	<0.5	ND
SCIMW-7	SCI	P/Q	9/6/96	3.31+	<5,000	540	6,100y	1,900yl	5,300	<1,300	<1,300	<1,300	--	--	--	--	--	<1.0	ND
SCIMW-7	SCI	P/Q	1/20/97	7.32	--	6,900z	11,000y	7,500yl	8,600	<25	7,200	103	--	--	--	--	--	--	--
SCIMW-7	SCI	P/Q	10/20/97	6.96	<5,000	9,100yl	6,100yh	2,500yl	5,100	15	3,800	134	--	0.78	0.32	<0.094	**	<0.47	ND
SCIMW-7	SCI	P/Q	9/22/98	5.74	--	--	<50	<300	1,100	<250	480	<250	--	<0.1	<0.1	<0.1	ND	<0.5	ND
SCIMW-7	SCI	P/Q	5/6/99	7.40	--	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	ND	<4.8	ND
SCIMW-7	SCI	P/Q	12/2/99	5.56	--	--	<50	<300	690	<5.0	280	7.3	--	<9.4	<9.4	<9.4	ND	<47	ND
SCIMW-7	SCI	P/Q	10/5/00	8.25	--	--	<50	<300	850	<2.5	370	14.4	<2.5	<0.1	<0.1	<0.1	ND	<0.5	ND
SCIMW-8	SCI	I	8/26/96	7.11	<5,000	<50	1,200yh	1,400yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-8	SCI	I	1/21/97	7.70	--	<50	860yh	830yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-8	SCI	I	9/18/98	7.25	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-8	SCI	I	11/30/99	7.36	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-8	SCI	I	10/10/00	7.50	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-9	SCI	I	8/26/96	6.40	5,000	<50	1,800yh	1,100yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-9	SCI	I	1/23/97	6.66	--	<50	1,900yh	2,300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-9	SCI	I	9/22/98	6.64	--	--	95yh	600yh	--	--	--	--	--	--	--	--	--	--	--
SCIMW-9	SCI	I	12/1/99	6.69	--	--	<50	480	--	--	--	--	--	--	--	--	--	--	--

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FBET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-9	SCI	I	10/10/00	6.61	--	--	<50	470	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	SCI	J	8/26/96	7.95	<5,000	<50	1,100yh	1,200yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-10	SCI	J	1/23/97	7.87	--	<50	1,400yh	2,500	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--
SCIMW-10	SCI	J	9/18/98	7.64	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	SCI	J	12/1/99	5.98	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-10	SCI	J	10/10/00	6.57	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-11	SCI	N	8/28/96	3.83	<5,000	<50	400yh	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-11	SCI	N	1/17/97	4.32	--	<50	180	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-11	SCI	N	9/23/98	4.72	--	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-11	SCI	N	12/10/98	3.32	--	51	<59	<350	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-11	SCI	N	5/6/99	3.48	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-11	SCI	N	12/1/99	4.07	--	110	<50	<300	0.86	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-11	SCI	N	10/4/00	4.00	--	69	<50	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-12	SCI	O	8/29/96	4.09	<5,000	<50	<50	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-12	SCI	O	1/17/97	4.53	--	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-12	SCI	O	9/18/98	4.14	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-12	SCI	O	12/11/98	3.73	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-12	SCI	O	5/6/99	3.75	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-12	SCI	O	11/30/99	4.03	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-13	SCI	J	1/23/97	6.93	--	<50	3,400yh	3,900	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-13	SCI	J	9/18/98	7.42	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-13	SCI	J	12/1/99	6.73	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-13	SCI	J	10/5/00	7.04	--	--	400h	1,500	--	--	--	--	--	--	--	--	--	--	--
SCIMW-14	SCI	I/J	8/29/96	5.36	6,000	<50	2,200yh	1,400yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-14	SCI	I/J	1/21/97	5.64	--	<50	570yh	420yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-14	SCI	I/J	9/18/98	5.48	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-14	SCI	I/J	5/4/99	6.00	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--



TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-14	SCI	I/J	11/30/99	5.30	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-15	SCI	I/J	8/29/96	4.85	<5,000	<50	2,100yh	1,600yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-15	SCI	I/J	1/17/97	5.01	--	<50	2,500h	1,600yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-15	SCI	I/J	9/21/98	5.17	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-15	SCI	I/J	5/4/99	5.15	--	--	75yh	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-15	SCI	I/J	11/30/99	4.71	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-15	SCI	I/J	10/11/00	4.97	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-16	SCI	R	8/30/96	6.81	<5,000	<50	180	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-16	SCI	R	1/22/97	7.03	--	<50	290yh	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-16	SCI	R	9/22/98	7.04	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-16	SCI	R	5/4/99	6.68	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-16	SCI	R	11/30/99	6.66	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-17	SCI	R	8/29/96	6.55	<5,000	<50	190yh	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-17	SCI	R	1/22/97	7.67	--	<50	330yh	500yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-17	SCI	R	9/21/98	6.94	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-17	SCI	R	12/1/99	6.65	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-18	SCI	L	9/6/96	5.22+	<5,000	<50	2,200yh	1,600yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-18	SCI	L	1/20/97	6.98	--	<50	1,900yh	1,900y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-18	SCI	L	9/24/98	7.23	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-18	SCI	L	12/1/99	6.67	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-18	SCI	L	10/11/00	7.11	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-19	SCI	R	8/30/96	6.16	<5,000	<50	180	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-19	SCI	R	1/21/97	7.42	--	<50	150yh	<250	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-19	SCI	R	9/18/98	6.38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-19	SCI	R	12/2/99	6.46	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-20	SCI	H/Q	9/3/96	7.03	<5,000	<50	330y	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	<1.0	ND
SCIMW-20	SCI	H/Q	1/20/97	7.67	--	<50	340yh	290y	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-20	SCI	H/Q	9/22/98	6.79	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-20	SCI	H/Q	12/2/99	3.40	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-21	SCI	D	5/6/97	7.44	<5,000	<50	670h	860yh	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-21	SCI	D	9/23/98	7.54	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-21	SCI	D	12/3/99	8.98	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-21	SCI	D	10/6/00	7.75	--	--	<50	<300	--	--	--	--	<0.5	--	--	--	--	--	--
SCIMW-22	SCI	P	5/6/97	8.22	<5,000	<50	1,400yh	2,300hl	<0.5	<0.5	<0.5	<0.5	--	0.12	<0.094	<0.094	ND	<0.47	ND
SCIMW-22	SCI	P	10/20/97	7.61	<5,000	<50	1,500yh	2,700yh	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-22	SCI	P	9/22/98	7.24	--	--	<50	<300	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-22	SCI	P	5/5/99	7.66	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-22	SCI	P	12/2/99	6.81	--	--	<50	<300	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-22	SCI	P	10/10/00	5.36	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-23	SCI	B	5/6/97	5.55	10,000	--	1,400	1,200yl	--	--	--	--	--	<0.094	<0.094	<0.094	***	<0.47	ND
SCIMW-23	SCI	B	9/24/98	5.46	--	--	680y	<300	--	--	--	--	--	<0.09	<0.09	<0.09	ND	<0.5	ND
SCIMW-23	SCI	B	12/11/98	6.39	--	--	260yh	<300	--	--	--	--	--	<0.1	<0.1	<0.1	ND	<0.5	ND
SCIMW-23	SCI	B	5/7/99	6.09	--	--	660y	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-23	SCI	B	8/26/99	4.35	--	--	120y	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-23	SCI	B	12/3/99	5.56	--	--	74yh	<300	--	--	--	--	--	<0.1	<0.1	<0.1	ND	<0.5	ND
SCIMW-23	SCI	B	4/6/00	2.79	--	--	250	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-23	SCI	B	10/10/00	5.19	--	--	60y	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-24	SCI	N	5/6/97	4.44	<5,000	5,000	2,700 l	2,100 l	720	220	37	120	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-24	SCI	N	9/18/98	4.96	--	7,100	330yl	<300	950	99	53	98	--	--	--	--	--	--	--
SCIMW-24	SCI	N	12/11/98	5.79	--	8,300	800yl	<300	1,200	180	56	111	--	--	--	--	--	--	--
SCIMW-24	SCI	N	5/6/99	5.14	--	6,700	1,900yl	660yl	1,100	120	31	89	--	--	--	--	--	--	--
SCIMW-24	SCI	N	8/25/99	4.59	FREE PRODUCT -- NOT SAMPLED														
SCIMW-24	SCI	N	12/1/99	4.99	--	7,000	960yl	<300	860	25	35	53.6	--	--	--	--	--	--	--
SCIMW-24	SCI	N	4/6/00	5.05	--	4,500	2,600yl	2,100	1,700	87	41	81	--	--	--	--	--	--	--

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-24	SCI	N	10/10/00	4.95	--	5,400	1,200y	<300	1,600	36	59	69	--	--	--	--	--	--	--
SCIMW-25	SCI	H	5/7/97	7.30	<5,000	<50	100	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-26	SCI	H	5/6/97	8.15	<5,000	<50	140	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-26	SCI	H	9/22/98	7.41	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-26	SCI	H	12/2/99	7.92	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-26	SCI	H	10/6/00	7.92	--	--	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
SCIMW-27	SCI	E/H	5/6/97	6.45	<5,000	<50	3,400	1,800y1	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-27	SCI	E/H	9/22/98	6.58	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-27	SCI	E/H	11/29/99	6.52	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-28	SCI	Q	5/7/97	8.34	<5,000	<50	180	<300	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-28	SCI	Q	9/25/98	7.83	--	--	<47	<280	--	--	--	--	--	--	--	--	--	<0.47	ND
SCIMW-28	SCI	Q	12/2/99	8.26	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-28	SCI	Q	10/6/00	7.79	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-29	SCI	H	5/20/97	7.48	<5,000	<50	150	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-29	SCI	H	10/6/00	7.50	--	--	--	--	--	--	--	--	<0.5	--	--	--	--	--	--
SCIMW-30	SCI	P	10/20/97	7.53	<5,000	<50	530yh	830yh1	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-30	SCI	P	9/23/98	7.63	--	--	60y	<300	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-30	SCI	P	5/5/99	7.89	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-30	SCI	P	12/2/99	7.94	--	--	<50	<300	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-30	SCI	P	10/6/00	7.26	--	--	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
SCIMW-31D	SCI	P	10/20/97	4.23	<5,000	<50	170y	<300	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-31D	SCI	P	9/21/98	4.34	--	--	--	--	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-31D	SCI	P	10/4/00	4.32	--	--	--	--	--	--	--	--	<0.5	--	--	--	--	--	--
SCIMW-32	SCI	I/P	10/20/97	7.73	<5,000	<50	1,000yh	990y1	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-32	SCI	I/P	9/21/98	7.71	--	--	<50	<300	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
SCIMW-32	SCI	I/P	12/2/99	8.04	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-33	SCI	I/J	10/20/97	6.89	<5,000	780	5,700yh	1,600yh1	3.2	12	<0.5	30.7	--	1.8	0.3	0.11	ND	<0.47	ND

TABLE 4  
 PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB  
 CONCENTRATIONS IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	OIL & GREASE (µg/L)	TVH as GAS (µg/L)	TEH as DIESEL (µg/L)	TEH as MOTOR OIL (µg/L)	BENZENE (µg/L)	ETHYL-BENZENE (µg/L)	TOLUENE (µg/L)	TOTAL XYLENES (µg/L)	MTBE (µg/L)	4,4'-DDD (µg/L)	4,4'-DDE (µg/L)	4,4'-DDT (µg/L)	OTHER HERBS/ PESTS (µg/L)	AROCLOR-1260 (µg/L)	OTHER PCBs (µg/L)
SCIMW-33	SCI	I/J	9/21/98	7.15	--	--	210yl	<300	<10	<10	<10	<10	--	2.0	0.2	<0.09	ND	<0.5	ND
SCIMW-33	SCI	I/J	5/5/99	7.47	--	--	1,100h	<300	<10	<10	<10	<10	--	18.0	7.8	<4.9	ND	<24	ND
SCIMW-33	SCI	I/J	12/1/99	6.75	--	<50	87	<300	--	--	--	--	--	1.7	<1.0	<1.0	ND	<5.1	ND
SCIMW-33	SCI	I/J	10/4/00	7.12	--	--	<50	<300	2.5	0.68	0.74	13	<0.5	<0.10	<0.10	<0.10	ND	<0.5	ND
SCIMW-34	SCI	R	10/20/97	4.88	<5,000	<50	5,200yh	3,600yh1	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-34	SCI	R	9/24/98	4.87	--	92	61y	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-34	SCI	R	12/11/98	4.91	--	290	60yh	<300	150	28	1.0	6.5	--	--	--	--	--	--	--
SCIMW-34	SCI	R	5/5/99	4.49	--	91	<50	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-34	SCI	R	8/26/99	6.86	--	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-34	SCI	R	12/2/99	4.70	--	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-34	SCI	R	4/6/00	5.50	--	57	<50	<300	8.6	0.84	<0.5	<0.5	--	--	--	--	--	--	--
SCIMW-34	SCI	R	10/6/00	5.94	--	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
SCIMW-35	SCI	R	10/20/97	4.87	<5,000	<50	99yh	<300	<0.5	<0.5	<0.5	<0.5	--	<0.094	<0.094	<0.094	ND	<0.47	ND
SCIMW-35	SCI	R	9/23/98	4.74	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-35	SCI	R	12/11/98	5.15	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-35	SCI	R	5/4/99	4.50	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-35	SCI	R	12/2/99	4.63	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--	--
SCIMW-35	SCI	R	10/10/00	5.53	--	<50	--	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
XA Dup of SCIMW-16	SCI	R	8/30/96	6.81	--	--	--	--	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--
XB Dup of SCIMW-3	SCI	I/J	9/5/96	6.67	--	--	--	--	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	--

TVH = Total Volatile Hydrocarbons

TEH = Total Extractable Hydrocarbons

DDD = Dichlorodiphenyldichloroethane

DDE = Dichlorodiphenyldichloroethene

DDT = Dichlorodiphenyltrichloroethene

PCBs = Polychlorinated Biphenyls

\*\*\* = Also detected 0.05µg/L Heptachlor epoxide B

(a) Additional sample was collected on Dec 28, 1998 for the TEH analysis.

(b) These wells contained free product at time of sampling.

µg/L = micrograms per liter or parts per billion

y = Sample exhibits fuel pattern which does not resemble std

h = heavier hydrocarbons than indicated standard

l = lighter hydrocarbons than indicated standard

z = Sample exhibits unknown single peak or peaks

J = estimated value

-- = Not tested

<50 = Comp. not detected at or above stated reporting limit

ND = Not detected

+ = Groundwater level may not be stabilized

Groundwater measurements presented are those collected on the first day of sampling for the event and may not be the same as the date sampled.

TABLE 5  
VOLATILE ORGANIC CONCENTRATIONS  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	ACETONE (µg/L)	MEK or 2-BUTAN-ONE (µg/L)	CARBON DISULFIDE (µg/L)	CHLORO-BENZENE (µg/L)	CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHANE (µg/L)	1,2-DI-CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHENE (µg/L)	cis-1,2-DI-CHLORO-ETHENE (µg/L)	trans-1,2-DI-CHLORO-ETHENE (µg/L)	4-METHYL-2-PENTAN-ONE (µg/L)	1,1,1-TRI-CHLORO-ETHANE (µg/L)	TRI-CHLORO-ETHENE (µg/L)	VINYL CHLORIDE (µg/L)	OTHER 8240s*
MW-5	SCI	F	1/20/97	8.38	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
MW-5	SCI	F/H	5/6/97	6.45	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
MW-6	SCI	F	9/5/96	6.67	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
MW-6	SCI	F/H	5/6/97	7.04	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
MW-7	SCI	M	9/5/96	5.48	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
MW-7	SCI	M	1/17/97	6.48	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-1	SCI	E/H	5/24/96	5.09	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-1	SCI	E/H	9/6/96	4.39	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-1	SCI	E/H	1/22/97	5.29	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-2	SCI	N	9/4/96	3.38	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-2	SCI	N	1/17/97	3.82	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-3	SCI	I/J	5/23/96	7.22	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-3	SCI	I/J	9/5/96	6.67	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
XB Dup of SCIMW-3	SCI	I/J	9/5/96	6.67	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-3	SCI	I/J	1/20/97	6.46	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-4	SCI	L	8/26/96	5.50	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-4	SCI	L	1/22/97	8.43	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-5	SCI	M	9/3/96	4.63	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-5	SCI	M	1/20/97	6.12	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-6	SCI	C	8/28/96	4.69	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-6	SCI	C	1/22/97	4.68	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-7	SCI	P/Q	9/6/96	3.31+	<5,000	<2,500	<1,300	<1,300	2,400J	8,100	<1,300	<1,300	27,000	<1,300	<2,500	10,000	7,900	8,900	ND
SCIMW-7	SCI	P/Q	1/20/97	7.32	<13,000	<6,300	<3,100	<3,100	6,300	13,000	<3,100	<3,100	91,000	<3,100	<6,300	53,000	32,000	5,600J	ND
SCIMW-7	SCI	P/Q	10/20/97	6.96	<1,000	250J	<250	<250	4,000	6,800	<250	330	60,000	920	<500	12,000	2,900	7,400	ND
SCIMW-7	SCI	P/Q	9/22/98	5.74	<1,000	<500	<250	<250	1,400	1,700	<250	<250	5,000	180J	<500	1,600	<250	2,400	ND
SCIMW-7	SCI	P/Q	5/6/99	7.40	<100	<50	<25	<25	570	<25	<25	<25	160	34	<50	<25	<25	160	ND

TABLE 5  
VOLATILE ORGANIC CONCENTRATIONS  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	ACETONE (µg/L)	MEK or 2-BUTAN-ONE (µg/L)	CARBON DISULFIDE (µg/L)	CHLORO-BENZENE (µg/L)	CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHANE (µg/L)	1,2-DI-CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHENE (µg/L)	cis-1,2-DI-CHLORO-ETHENE (µg/L)	trans-1,2-DI-CHLORO-ETHENE (µg/L)	4-METHYL-2-PENTAN-ONE (µg/L)	1,1,1-TRI-CHLORO-ETHANE (µg/L)	TRI-CHLORO-ETHENE (µg/L)	VINYL CHLORIDE (µg/L)	OTHER 8240s*
SCIMW-7	SCI	P/Q	12/2/99	5.56	35	31	<5.0	<5.0	890	580	6.2	79	2,900	120	17	1,500	250	390	ND
SCIMW-7	SCI	P/Q	10/6/00	8.25	50	<50	<2.5	<2.5	790	380	3.5	41	830	77	<50	810	77	590	a
SCIMW-8	SCI	I	8/26/96	7.11	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-8	SCI	I	1/21/97	7.70	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-9	SCI	I	8/29/96	6.40	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-9	SCI	I	1/23/97	6.66	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-10	SCI	J	8/26/96	7.95	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-10	SCI	J	1/23/97	7.87	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-11	SCI	N	8/28/96	3.83	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-11	SCI	N	1/17/97	4.32	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-12	SCI	O	8/29/96	4.09	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-12	SCI	O	1/17/97	4.53	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-13	SCI	J	8/29/96	7.21	<20	<10	<5.0	<5.0	<10	6.7	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-13	SCI	J	1/23/97	6.93	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-14	SCI	I/J	8/29/96	5.36	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-14	SCI	I/J	1/21/97	5.64	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-15	SCI	I/J	8/29/96	4.85	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-15	SCI	I/J	1/17/97	5.01	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-16	SCI	R	8/30/96	6.81	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
XA Dup of SCIMW-16	SCI	R	8/30/96	6.81	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-16	SCI	R	1/22/97	7.03	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-17	SCI	R	8/29/96	6.55	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-17	SCI	R	1/22/97	7.67	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-18	SCI	L	9/6/96	5.22+	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-18	SCI	L	1/20/97	6.98	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-19	SCI	R	8/30/96	6.16	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND

TABLE 5  
VOLATILE ORGANIC CONCENTRATIONS  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (FEET)	ACETONE (µg/L)	MEK or 2-BUTAN-ONE (µg/L)	CARBON DISULFIDE (µg/L)	CHLORO-BENZENE (µg/L)	CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHANE (µg/L)	1,2-DI-CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHENE (µg/L)	cis-1,2-DI-CHLORO-ETHENE (µg/L)	trans-1,2-DI-CHLORO-ETHENE (µg/L)	4-METHYL-2-PENTAN-ONE (µg/L)	1,1,1-TRI-CHLORO-ETHANE (µg/L)	TRI-CHLORO-ETHENE (µg/L)	VINYL CHLORIDE (µg/L)	OTHER 8240s*
SCIMW-19	SCI	R	1/21/97	7.42	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-20	SCI	H/Q	9/3/96	7.03	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-20	SCI	H/Q	1/20/97	7.67	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-22	SCI	P	5/6/97	8.22	<100	<50	<25	<25	<50	<25	<25	<25	<25	<25	<50	<25	<25	<50	ND
SCIMW-22	SCI	P	10/20/97	7.61	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-22	SCI	P	9/23/98	7.24	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-22	SCI	P	5/5/99	7.66	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-22	SCI	P	12/2/99	6.81	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-24	SCI	N	5/6/97	4.44	<100	<50	<25	<25	<50	<25	<25	<25	<25	<25	<50	<25	<25	<50	ND
SCIMW-25	SCI	H	5/7/97	7.30	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	3.5J	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-26	SCI	H	5/6/97	8.15	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-26	SCI	H	10/6/00	7.92	<10	<10	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	<0.5	ND
SCIMW-27	SCI	E/H	5/6/97	6.45	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-29	SCI	H	5/20/97	7.48	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-30	SCI	P	10/20/97	7.53	27	5.7J	25	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-30	SCI	P	9/23/98	7.63	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-30	SCI	P	5/5/99	7.89	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-30	SCI	P	12/2/99	7.94	<20	<10	16	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-30	SCI	P	10/6/00	7.26	<10	<10	7.4	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	<0.5	ND
SCIMW-31D	SCI	P	10/20/97	4.23	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-31D	SCI	P	9/21/98	4.34	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-31D	SCI	P	5/5/99	4.01	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-31D	SCI	P	12/1/99	4.13	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-31D	SCI	P	10/4/00	4.32	<10	<10	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<0.5	<0.5	<0.5	ND
SCIMW-32	SCI	I/P	10/20/97	7.73	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-32	SCI	I/P	9/21/98	7.71	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND

TABLE 5  
VOLATILE ORGANIC CONCENTRATIONS  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	ACETONE (µg/L)	MEK or 2-BUTAN-ONE (µg/L)	CARBON DISULFIDE (µg/L)	CHLORO-BENZENE (µg/L)	CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHANE (µg/L)	1,2-DI-CHLORO-ETHANE (µg/L)	1,1-DI-CHLORO-ETHENE (µg/L)	cis-1,2-DI-CHLORO-ETHENE (µg/L)	trans-1,2-DI-CHLORO-ETHENE (µg/L)	4-METHYL-2-PENTAN-ONE (µg/L)	1,1,1-TRI-CHLORO-ETHANE (µg/L)	TRI-CHLORO-ETHENE (µg/L)	VINYL CHLORIDE (µg/L)	OTHER 8240s*
SCIMW-32	SCI	I/P	5/5/99	8.43	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-32	SCI	I/P	12/1/99	8.04	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-33	SCI	I/J	10/20/97	6.89	<50	<25	<13	310	<25	<13	<13	<13	<13	<13	<25	<13	<13	<25	ND
SCIMW-33	SCI	I/J	9/21/98	7.15	<40	<20	<10	260	<20	<10	<10	<10	<10	<10	<20	<10	<10	<20	ND
SCIMW-33	SCI	I/J	5/5/99	7.47	<40	<20	<10	290	<20	<10	<10	<10	<10	<10	<20	<10	<10	<20	ND
SCIMW-33	SCI	I/J	12/1/99	6.75	<20	<10	<5.0	160	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-33	SCI	I/J	10/6/00	7.12	<10	<10	<0.52	180	<1.0	<0.50	<0.50	<0.50	1.1	<0.50	<10	<0.50	<0.50	<0.50	ND
SCIMW-34	SCI	R	10/20/97	4.88	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND
SCIMW-35	SCI	R	10/20/97	4.87	<20	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10	ND

\* = BTEX and MTBE presented in Table 4

MEK = Methyl ethyl ketone

µg/L = micrograms per liter or parts per billion

<10 = Compound not detected at or above stated reporting limit

a = 370 µg/L of cis-1,3-Dichloropropene and 2.9 µg/L of tetrachloroethene detected

ND = Not detected

J = Estimated value

+ = Groundwater level may not be stabilized

Groundwater measurements presented are those collected on the first day of sampling for the event and may not be the same as the date sampled.



TABLE 6  
SEMI-VOLATILE ORGANIC CONCENTRATIONS (except PNA's)  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	BENZOIC ACID (µg/L)	BENZYL ALCOHOL (µg/L)	1,2-DI-CHLORO-BENZENE (µg/L)	1,4-DI-CHLORO-BENZENE (µg/L)	2,4-DI-METHYL-PHENOL (µg/L)	DI-N-OCTYL-PHTHALATE (µg/L)	BIS(2-ETHYL-HEXYL) PHTHALATE (µg/L)	2-METHYL-PHENOL (µg/L)	4-METHYL-PHENOL (µg/L)	PENTA-CHLORO-PHENOL (µg/L)	PHENOL (µg/L)	OTHER 8270s
MW-5	SCI	Filtered	F	1/20/97	8.38	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
MW-6	SCI	Filtered	F	9/5/96	6.67	<2400	<470	<470	<470	<470	<470	<470	<470	<470	<470	<470	ND
MW-7	SCI	Filtered	M	9/5/96	5.48	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
MW-7	SCI	Filtered	M	1/17/97	6.48	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-1	SCI	Filtered	E/H	5/24/96	5.09	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-1	SCI	Filtered	E/H	9/6/96	4.39	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-1	SCI	Filtered	E/H	1/22/97	5.29	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-2	SCI	Filtered	N	5/23/96	4.04	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-2	SCI	Filtered	N	9/4/96	3.38	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-2	SCI	Filtered	N	1/17/97	3.82	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-3	SCI	Filtered	I/J	5/23/96	7.22	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-3	SCI	Filtered	I/J	9/5/96	6.67	<47	<9.4	<9.4	<9.4	<9.4	5.5J	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-3	SCI	Filtered	I/J	1/20/97	6.46	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-3	SCI	Filtered	I/J	9/18/98	4.29	--	--	--	--	--	--	--	--	--	--	--	--
SCIMW-4	SCI	Filtered	L	8/26/96	5.50	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-4	SCI	Filtered	L	1/22/97	8.43	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-5	SCI	Filtered	M	9/3/96	4.63	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-5	SCI	Filtered	M	1/20/97	6.12	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-6	SCI	Filtered	C	8/28/96	4.69	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-6	SCI	Filtered	C	1/22/97	4.68	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-7	SCI	Filtered	P/Q	9/6/96	3.31+	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	4.7J	<9.4	<9.4	ND
SCIMW-7	SCI	Filtered	P/Q	1/20/97	7.32	280	11J	<19	<19	40	<19	<19	55	110	<19	27	ND
SCIMW-8	SCI	Filtered	I	8/26/96	7.11	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-8	SCI	Filtered	I	1/21/97	7.70	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-9	SCI	Filtered	I	8/29/96	6.40	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-9	SCI	Filtered	I	1/23/97	6.66	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-9	SCI	Filtered	I	9/22/98	6.64	<48	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	NL	<9.7	<9.7	ND
SCIMW-10	SCI	Filtered	J	8/26/96	7.95	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND

TABLE 6  
SEMI-VOLATILE ORGANIC CONCENTRATIONS (except PNA's)  
IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	BENZOIC ACID (µg/L)	BENZYL ALCOHOL (µg/L)	1,2-DI-CHLORO-BENZENE (µg/L)	1,4-DI-CHLORO-BENZENE (µg/L)	2,4-DI-METHYL-PHENOL (µg/L)	DI-N-OCTYL-PHTHALATE (µg/L)	BIS(2-ETHYL-HEXYL) PHTHALATE (µg/L)	2-METHYL-PHENOL (µg/L)	4-METHYL-PHENOL (µg/L)	PENTA-CHLORO-PHENOL (µg/L)	PHENOL (µg/L)	OTHER 8270s
SCIMW-10	SCI	Filtered	J	1/23/97	7.87	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-11	SCI	Filtered	N	8/28/96	3.83	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-11	SCI	Filtered	N	1/17/97	4.32	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-12	SCI	Filtered	O	8/29/96	4.09	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-12	SCI	Filtered	O	1/17/97	4.53	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-13	SCI	Filtered	J	8/29/96	7.21	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-13	SCI	Filtered	J	1/23/97	6.93	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-14	SCI	Filtered	I/J	8/29/96	5.36	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-14	SCI	Filtered	I/J	1/21/97	5.64	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-15	SCI	Filtered	I/J	8/29/96	4.85	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-15	SCI	Filtered	I/J	1/17/97	5.01	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-15	SCI	Filtered	I/J	9/21/98	5.17	<48	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	NL	<9.5	ND
SCIMW-16	SCI	Filtered	R	8/30/96	6.81	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-16	SCI	Filtered	R	1/22/97	7.03	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-17	SCI	Filtered	R	8/29/96	6.55	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-17	SCI	Filtered	R	1/22/97	7.67	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-18	SCI	Filtered	L	9/6/96	5.22+	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-18	SCI	Filtered	L	1/20/97	6.98	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-19	SCI	Filtered	R	8/30/96	6.16	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-19	SCI	Filtered	R	1/21/97	7.42	<47	<9.4	<9.4	<9.4	<9.4	<9.4	11	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-20	SCI	Filtered	H/Q	9/3/96	7.03	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-20	SCI	Filtered	H/Q	1/20/97	7.67	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-22	SCI	Filtered	P	5/6/97	8.22	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-24	SCI	Filtered	N	5/6/97	4.44	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	14	ND
SCIMW-34	SCI	Filtered	R	10/20/97	4.88	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND
SCIMW-35	SCI	Unfiltered	R	10/20/97	4.87	<47	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	<9.4	ND

µg/L = micrograms per liter or parts per billion  
 <25 = Compound not detected at or above stated reporting limit  
 NL = Not listed on analytical test report

ND = Not detected  
 + = Groundwater level may not be stabilized  
 -- = Not tested

J = Estimated value  
 e = Sample extracted 3 days after prescribed holding time  
 \* = Napthalene detected at 45 µg/L

Groundwater measurements presented are those collected on the first day of sampling for the event and may not be the same as the date sampled.





TABLE 8  
HEAVY METAL CONCENTRATIONS IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak, Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLLIUM (µg/L)	CADMIUM (µg/L)	TOTAL CHROMIUM (µg/L)	CHROMIUM VI (µg/L)	COBALT (µg/L)	COPPER (µg/L)	LEAD (µg/L)	MERCURY (µg/L)	MOLYBDENUM (µg/L)	NICKEL (µg/L)	POTASSIUM (µg/L)	SELENIUM (µg/L)	SILVER (µg/L)	THALLIUM (µg/L)	VANADIUM (µg/L)	ZINC (µg/L)
MW-5	SCI	Filtered	F	1/20/97	8.38	<60	10	49	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	6.5	<5.0	<5.0	<10	26
MW-5	SCI	Filtered	F/H	5/6/97	6.45	--	--	--	--	--	--	50	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	SCI	Filtered	F	9/5/96	6.67	<60	8.9	420	<2.0	<2.0	<10	--	<20	<10	3.5	<0.20	<20	<20	--	27	<5.0	<5.0	<10	<20
MW-6	SCI	Filtered	F/H	5/6/97	7.04	--	--	--	--	--	--	20	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	SCI	Filtered	M	9/5/96	5.48	<60	10	78	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	20	<5.0	<5.0	<10	<20
MW-7	SCI	Filtered	M	1/17/97	6.48	<60	12	44	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	23	<5.0	<5.0	<10	<20
SCIMW-1	SCI	Unfiltered	E/H	5/24/96	5.09	<60	45	1,000	2.8	2.3	63	--	<20	1,800	2,300	<0.20	<20	68	--	7.8	<5.0	<5.0	62	1,000
SCIMW-1	SCI	Filtered	E/H	5/24/96	5.09	<60	<5.0	170	2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	8.3	<5.0	<5.0	<10	<20
SCIMW-1	SCI	Filtered	E/H	9/6/96	4.39	<60	<5.0	150	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	17	<5.0	<5.0	<10	<20
SCIMW-1	SCI	Filtered	E/H	1/22/97	5.29	<60	<5.0	170	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	33	--	7.7	<5.0	<5.0	<10	210
SCIMW-2	SCI	Unfiltered	N	5/23/96	4.04	<60	14	90	<2.0	<2.0	12	--	<20	<10	2,300	0.64	<20	<20	--	14	<5.0	<5.0	<10	38
SCIMW-2	SCI	Filtered	N	5/23/96	4.04	<60	11	490	<2.0	<2.0	<10	--	<20	69	62	<0.20	<20	<20	--	22	<5.0	<5.0	<10	110
SCIMW-2	SCI	Filtered	N	9/4/96	3.38	<60	15	320	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-2	SCI	Filtered	N	1/17/97	3.82	<60	6.6	340	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-2	SCI	Filtered	N	9/18/98	4.07	<60	5.0	430	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	10	<5.0	<5.0	<10	<20
SCIMW-2	SCI	Filtered	N	12/10/98	3.52	<60	9.6	--	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	49
SCIMW-2	SCI	Filtered	N	5/7/99	4.52	<60	11.0	900	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	9.5	<5.0	<5.0	<10	24
SCIMW-2	SCI	Filtered	N	8/26/99	3.00	<60	6.8	300	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-2	SCI	Filtered	N	12/2/99	3.85	<60	6.6	330	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	24
SCIMW-2	SCI	Filtered	N	10/10/00	4.75	<60	7.2	230	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-3	SCI	Unfiltered	I/J	5/23/96	7.22	<60	<5.0	<10	<2.0	<2.0	<10	--	58	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-3	SCI	Filtered	I/J	5/23/96	7.22	<60	<5.0	42	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	8.2	<5.0	<5.0	<10	<20
SCIMW-3	SCI	Filtered	I/J	9/5/96	6.67	<60	8.5	170	<2.0	<2.0	<10	--	<20	<10	4.6	<0.20	<20	<20	--	31	<5.0	<5.0	<10	<20
SCIMW-3	SCI	Filtered	I/J	1/20/97	6.46	<60	23	110	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	31	<5.0	<5.0	<10	<20
SCIMW-4	SCI	Filtered	L	8/26/96	5.50	<60	12	37	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	22	<5.0	<5.0	<10	<20
SCIMW-4	SCI	Filtered	L	1/22/97	8.43	<60	6.6	16	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	25	<5.0	<5.0	<10	<20
SCIMW-5	SCI	Filtered	M	9/3/96	4.63	<60	<5.0	290	2.0	2.0	<10	--	<20	<10	<3.0	0.23	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
MW-5	SCI	Filtered	M	1/20/97	6.12	<60	<5.0	62	2.7	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	25

TABLE 8  
HEAVY METAL CONCENTRATIONS IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

Subsurface Consultants, Inc.

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak, Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLLIUM (µg/L)	CADMIUM (µg/L)	TOTAL CHROMIUM (µg/L)	CHROMIUM VI (µg/L)	COBALT (µg/L)	COPPER (µg/L)	LEAD (µg/L)	MERCURY (µg/L)	MOLYBDENUM (µg/L)	NICKEL (µg/L)	POTASSIUM (µg/L)	SELENIUM (µg/L)	SILVER (µg/L)	THALLIUM (µg/L)	VANADIUM (µg/L)	ZINC (µg/L)
SCIMW-6	SCI	Filtered	C	8/28/96	4.69	<60	<5.0	100	2.1	<2.0	<10	--	<20	59	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	240
SCIMW-6	SCI	Filtered	C	1/22/97	4.68	<60	<5.0	30	<2.0	<2.0	<10	--	<20	20	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	72
SCIMW-6	SCI	Filtered	C	9/23/98	4.38	<60	<5.0	73	2.5	<5.0	<10	--	<20	290	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	80
SCIMW-6	SCI	Filtered	C	12/10/98	3.91	<60	<5.0	48	<2.0	<5.0	<10	--	<20	75	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	74
SCIMW-6	SCI	Filtered	C	5/6/99	4.39	<60	<5.0	30	<2.0	<5.0	<10	--	<20	21	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	63
SCIMW-6	SCI	Filtered	C	8/26/99	6.56	<60	<5.0	43	<2.0	<5.0	<10	--	<20	26	4.3	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	110
SCIMW-6	SCI	Filtered	C	12/2/99	4.00	<60	<5.0	33	<2.0	<5.0	<10	--	<20	23	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	92
SCIMW-7	SCI	Filtered	P/Q	9/6/96	3.31+	<60	24	290	<2.0	<2.0	<10	--	<20	13	<3.0	0.52	<20	29	--	18	<5.0	<5.0	12	<20
SCIMW-7	SCI	Filtered	P/Q	1/20/97	7.32	<60	19	430	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	83	--	18	<5.0	<5.0	<10	<20
SCIMW-8	SCI	Filtered	I	8/26/96	7.11	<60	8.9	72	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	23	--	43	<5.0	<5.0	<10	21
SCIMW-8	SCI	Filtered	I	1/21/97	7.70	<60	23	57	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	10	<5.0	<5.0	<10	22
SCIMW-9	SCI	Filtered	I	8/29/96	6.40	<60	21	61	<2.0	<2.0	<10	--	<20	<10	3.1	0.20	<20	<20	--	37	<5.0	<5.0	<10	<20
SCIMW-9	SCI	Filtered	I	1/23/97	6.66	<60	16	89	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	49	--	40	<5.0	<5.0	<10	150
SCIMW-10	SCI	Filtered	J	8/26/96	7.95	<60	15	55	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	42	<5.0	<5.0	<10	<20
SCIMW-10	SCI	Filtered	J	1/23/97	7.87	<60	24	49	2.3	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	48	<5.0	<5.0	<10	<20
SCIMW-11	SCI	Filtered	N	8/28/96	3.83	<60	<5.0	210	<2.0	<2.0	<10	--	<20	<10	<3.0	0.62	<20	<20	--	16	<5.0	<5.0	<10	<20
SCIMW-11	SCI	Filtered	N	1/17/97	4.32	<60	6.2	300	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	6.6	<5.0	<5.0	<10	<20
SCIMW-11	SCI	Filtered	N	9/23/98	4.72	<60	<5.0	180	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-11	SCI	Filtered	N	12/10/98	3.32	<60	<5.0	250	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-11	SCI	Filtered	N	5/6/99	3.48	<60	<5.0	94	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-11	SCI	Filtered	N	12/1/99	4.07	<60	<5.0	180	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	8.8	<5.0	<5.0	<10	<20
SCIMW-12	SCI	Filtered	O	8/29/96	4.09	<60	5.1	64	2.5	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-12	SCI	Filtered	O	1/17/97	4.53	<60	<5.0	28	2.7	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-13	SCI	Filtered	J	8/29/96	7.21	<60	20	33	<2.0	<2.0	<10	--	<20	<10	3.2	<0.20	<20	<20	--	43	<5.0	<5.0	<10	<20
SCIMW-13	SCI	Filtered	J	1/23/97	6.93	<60	19	21	<2.0	2.1	<10	--	<20	<10	3.7	<0.20	<20	<20	--	40	<5.0	<5.0	<10	<20
SCIMW-14	SCI	Filtered	I/J	8/29/96	5.36	<60	9.7	130	<2.0	<2.0	<10	--	<20	<10	5.3	<0.20	<20	<20	--	34	<5.0	<5.0	<10	<20
SCIMW-14	SCI	Filtered	I/J	1/21/97	5.64	<60	<5.0	15	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	<20
SCIMW-15	SCI	Filtered	I/J	8/29/96	4.85	<60	16	570	<2.0	<2.0	<10	--	<20	<10	3.2	<0.20	<20	<20	--	40	<5.0	<5.0	<10	<20

TABLE 8  
HEAVY METAL CONCENTRATIONS IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

Subsurface Consultants, Inc.

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak, Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLLIUM (µg/L)	CADMIUM (µg/L)	TOTAL CHROMIUM (µg/L)	CHROMIUM VI (µg/L)	COBALT (µg/L)	COPPER (µg/L)	LEAD (µg/L)	MERCURY (µg/L)	MOLYBDENUM (µg/L)	NICKEL (µg/L)	POTASSIUM (µg/L)	SELENIUM (µg/L)	SILVER (µg/L)	THALLIUM (µg/L)	VANADIUM (µg/L)	ZINC (µg/L)
SCIMW-15	SCI	Filtered	I/J	1/17/97	5.01	<60	13	550	<2.0	<2.0	<10	--	<20	<10	5.5	<0.20	<20	<20	--	33	<5.0	<5.0	<10	<20
SCIMW-16	SCI	Filtered	R	8/30/96	6.81	<60	14	300	3.1	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	40	<5.0	<5.0	12	<20
SCIMW-16	SCI	Filtered	R	1/22/97	7.03	<60	14	220	3.6	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	22	<5.0	<5.0	26	<20
SCIMW-17	SCI	Filtered	R	8/29/96	6.55	<60	17	960	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	18	<5.0	<5.0	<10	<20
SCIMW-17	SCI	Filtered	R	1/22/97	7.67	<60	<5.0	270	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	15	<5.0	<5.0	<10	<20
SCIMW-18	SCI	Filtered	L	9/6/96	5.22+	<60	20	160	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	26	--	22	<5.0	<5.0	19	<20
SCIMW-18	SCI	Filtered	L	1/20/97	6.98	<60	21	250	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	38	<5.0	<5.0	<10	<20
SCIMW-19	SCI	Filtered	R	8/30/96	6.16	<60	32	140	<2.0	<2.0	<10	--	<20	<10	6.2	<0.20	<20	<20	--	32	<5.0	<5.0	11	<20
SCIMW-19	SCI	Filtered	R	1/21/97	7.42	<60	23	150	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	22	--	24	<5.0	<5.0	<10	<20
SCIMW-20	SCI	Filtered	H/Q	9/3/96	7.03	<60	9.5	930	<2.0	<2.0	<10	--	<20	<10	<3.0	0.24	<20	<20	--	20	<5.0	<5.0	<10	<20
SCIMW-20	SCI	Filtered	H/Q	1/20/97	7.67	<60	6.8	1,600	<2.0	<2.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	18	<5.0	<5.0	<10	<20
SCIMW-20	SCI	Filtered	H/Q	10/7/98	6.79	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-20	SCI	Filtered	H/Q	12/2/99	3.40	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-21	SCI	Filtered	D	5/6/97	7.44	--	--	--	--	--	--	--	--	--	7.2	--	--	--	110,000	--	--	--	--	--
SCIMW-22	SCI	Filtered	P	5/6/97	8.22	--	--	--	--	--	--	70	--	--	--	--	--	--	170,000	--	--	--	--	--
SCIMW-23	SCI	Filtered	B	5/6/97	5.55	<60	22	56	<2.0	<5.0	<10	80	<20	<10	<3.0	<0.20	<20	<20	16,000	20	<5.0	<5.0	<10	25
SCIMW-24	SCI	Filtered	N	5/6/97	4.44	--	--	--	--	--	--	160	--	--	6.3	--	--	--	--	--	--	--	--	--
SCIMW-24	SCI	Filtered	N	9/18/98	4.96	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-24	SCI	Filtered	N	12/11/98	5.79	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-24	SCI	Filtered	N	5/6/99	5.14	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-24	SCI	Filtered	N	12/1/99	4.99	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-24	SCI	Filtered	N	4/6/00	5.05	--	--	--	--	--	--	--	--	--	8.3	--	--	--	--	--	--	--	--	--
SCIMW-25	SCI	Filtered	H	5/7/97	7.30	<60	9.2	56	<2.0	<5.0	<10	60	<20	<10	<3.0	0.26	<20	28	--	14	<5.0	<5.0	<10	<20
SCIMW-26	SCI	Filtered	H	5/6/97	8.15	<60	20	2,900	<2.0	<5.0	<10	140	<20	<10	<3.0	<0.20	<20	<20	--	15	<5.0	<5.0	<10	<20
SCIMW-27	SCI	Filtered	E/H	5/6/97	6.45	<60	10	480	<2.0	<5.0	<10	60	<20	<10	<3.0	<0.20	<20	<20	--	21	<5.0	<5.0	<10	<20
SCIMW-28	SCI	Filtered	Q	5/7/97	8.34	--	--	--	--	--	--	90	--	--	6.9	--	--	--	--	--	--	--	--	--
SCIMW-28	SCI	Filtered	Q	9/25/98	7.83	<60	15	96	2.6	<5.0	<10	--	<20	13	4.1	<0.20	<20	<20	--	<5.0	<5.0	<5.0	11	260
SCIMW-28	SCI	Filtered	Q	5/6/99	8.98	<60	25	19	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	12	<5.0	<5.0	<5.0	<20

TABLE 8  
HEAVY METAL CONCENTRATIONS IN GROUNDWATER  
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLLIUM (µg/L)	CADMIUM (µg/L)	TOTAL CHROMIUM (µg/L)	CHROMIUM VI (µg/L)	COBALT (µg/L)	COPPER (µg/L)	LEAD (µg/L)	MERCURY (µg/L)	MOLYBDENUM (µg/L)	NICKEL (µg/L)	POTASSIUM (µg/L)	SELENIUM (µg/L)	SILVER (µg/L)	THALLIUM (µg/L)	VANADIUM (µg/L)	ZINC (µg/L)
SCIMW-28	SCI	Filtered	Q	12/2/99	8.26	<60	<5.0	11	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10.0	<20
SCIMW-28	SCI	Filtered	Q	10/6/00	8.26	<60	36	22	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	16	<20
SCIMW-29	SCI	Filtered	H	5/20/97	7.48	<60	<5.0	160	<2.0	<5.0	<10	<10	<20	12	<3.0	<0.20	<20	<20	--	34	<5.0	<5.0	<10	50
SCIMW-34	SCI	Filtered	H	9/24/98	4.87	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-34	SCI	Filtered	H	12/11/98	4.91	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-34	SCI	Filtered	H	5/6/99	4.49	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-34	SCI	Filtered	H	8/26/99	6.86	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-34	SCI	Filtered	H	12/2/99	4.70	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-34	SCI	Filtered	H	4/6/00	5.50	--	--	--	--	--	--	--	--	--	<3.0	--	--	--	--	--	--	--	--	--
SCIMW-34	SCI	Filtered	H	10/5/00	5.94	--	--	--	--	<5.0	--	<10	--	--	--	--	--	24	--	--	--	--	--	<20

µg/L = micrograms per liter or parts per billion  
<60 = Compound not detected at or above stated reporting limit

-- = Not tested  
+ = Groundwater level may not be stabilized

Groundwater measurements presented are those collected on the first day of sampling for the event and may not be the same as the date sampled.



TABLE 9  
 CYANIDE, NITRATE AND PHOSPHORUS CONCENTRATIONS  
 IN GROUNDWATER  
 NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	CYANIDE ( $\mu\text{g/L}$ )	NITRATE/ NITRITE-N ( $\mu\text{g/L}$ )	TOTAL PHOS- PHORUS ( $\mu\text{g/L}$ )
MW-5	SCI	F/H	5/6/97	6.45	<10	--	--
MW-6	SCI	F/H	5/6/97	7.04	<10	--	--
SCIMW-21	SCI	D	5/6/97	7.44	--	<50	1,100
SCIMW-22	SCI	P	5/6/97	8.22	<10	<50	4,000
SCIMW-23	SCI	B	5/6/97	5.55	<10	<50	9,300
SCIMW-24	SCI	N	5/6/97	4.44	20	--	--
SCIMW-25	SCI	H	5/7/97	7.30	<10	--	--
SCIMW-26	SCI	H	5/6/97	8.15	<10	--	--
SCIMW-27	SCI	E/H	5/6/97	6.45	<10	--	--
SCIMW-28	SCI	Q	5/7/97	8.34	<10	--	--
SCIMW-29	SCI	H	5/20/97	7.48	<10	--	--

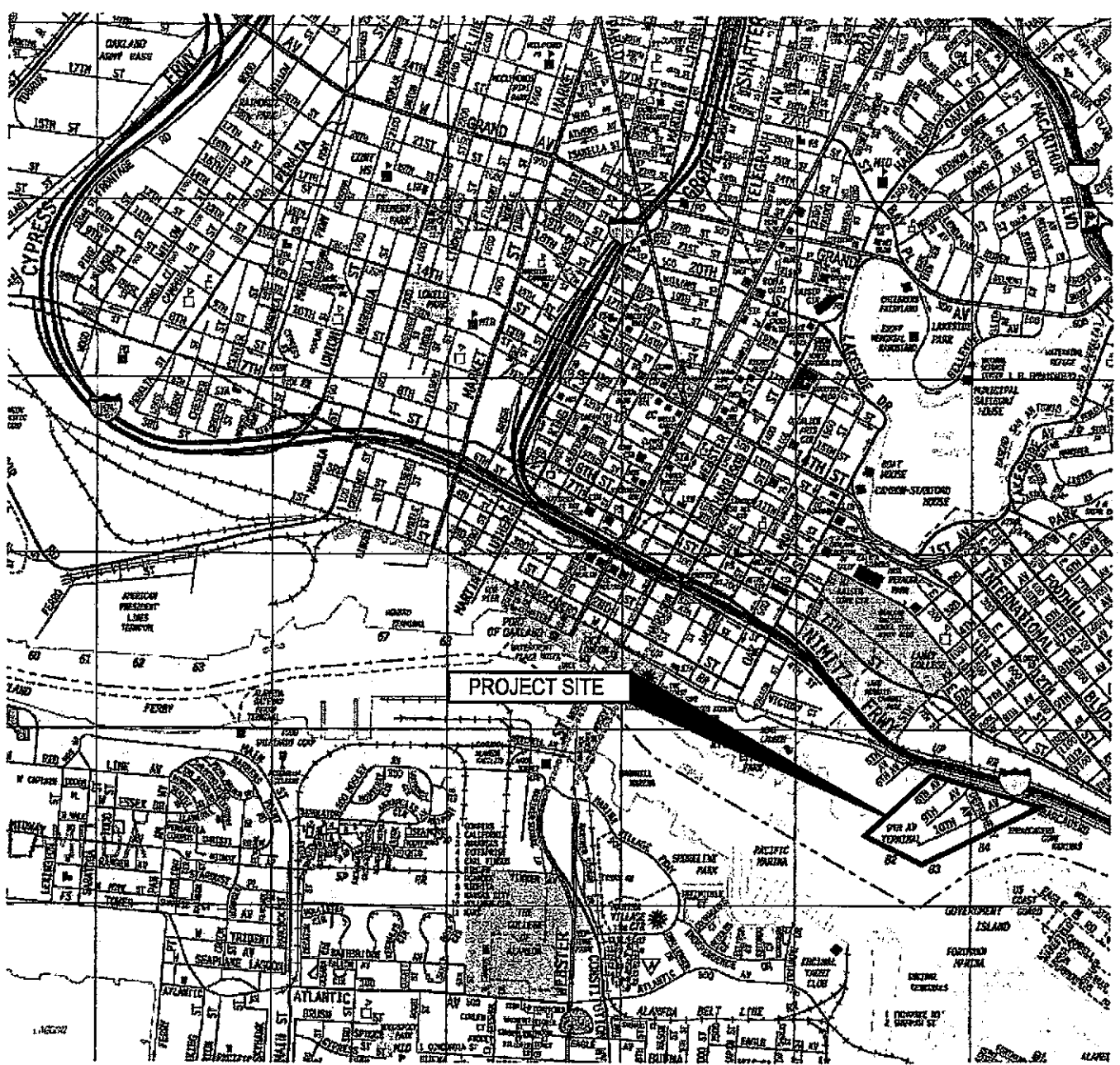
**Notes:** $\mu\text{g/L}$  = micrograms per liter or parts per billion

-- = Not tested

&lt;10 = Compound not detected at or above stated reporting limit

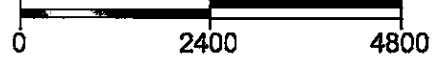
Groundwater measurements presented are those collected on the first day of sampling for the event and may not be the same as the date sampled.

G:\JOBDOCS\133\133.009\GRAPHICS\A133.009.07.dwg 4-12-01 03:22:07 P cyoung



PROJECT SITE

APPROXIMATE SCALE IN FEET



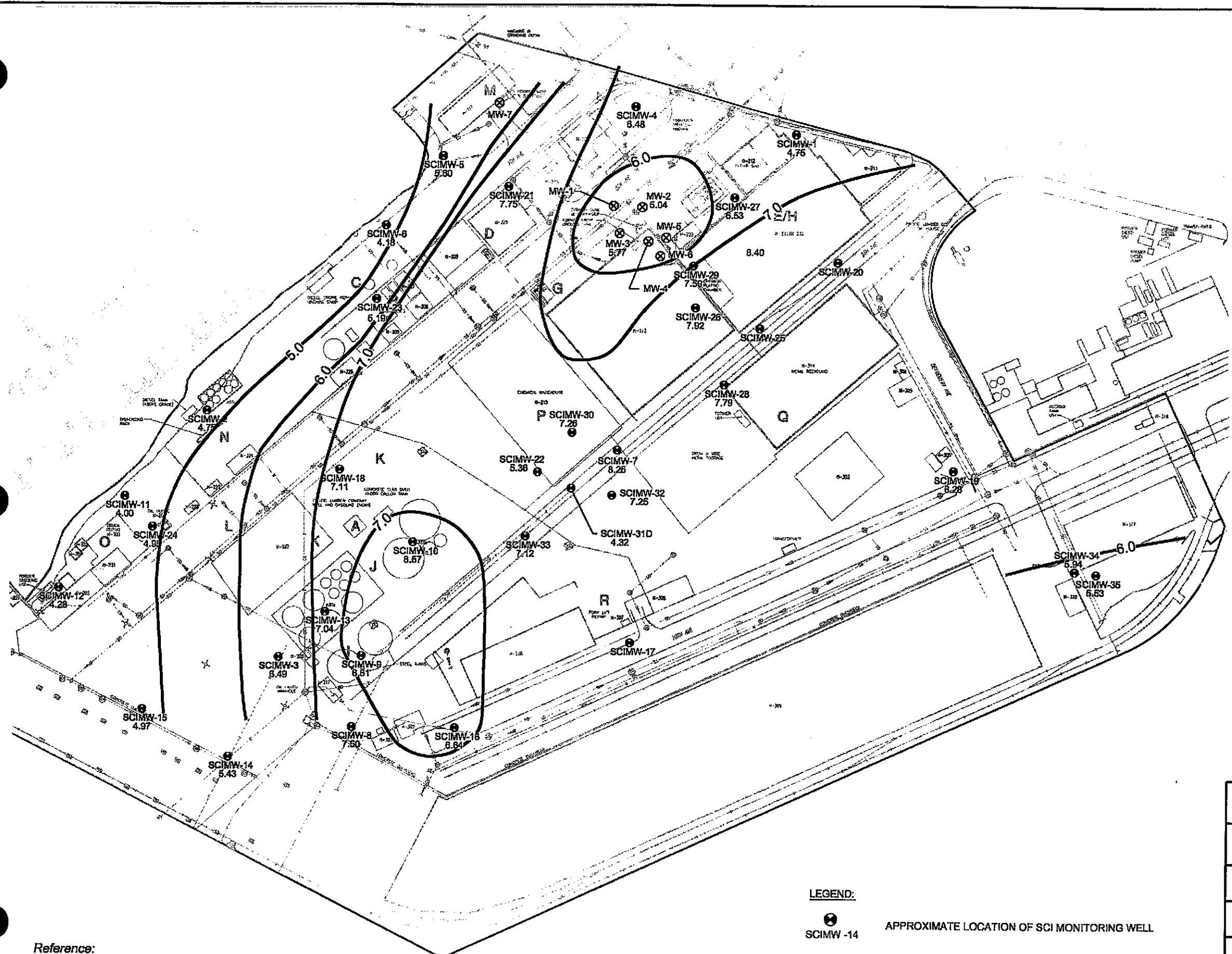
**NOTE:**



THIS VICINITY MAP IS BASED ON A THOMAS GUIDE MAP FOR SAN FRANCISCO, ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA, MAP 649, YEAR 2000.

<b>VICINITY MAP</b>		
NINTH AVENUE TERMINAL STUDY AREA OAKLAND, CALIFORNIA		
DRAWN BY: CFY	DATE 4/12/01	PLATE <b>1</b>
JOB NUMBER 133.009	FILE NUMBER: A133.009.07	




**Subsurface Consultants, Inc.**  
Geotechnical & Environmental Engineers




- LEGEND:**
- 
 APPROXIMATE LOCATION OF SCI MONITORING WELL
  - 
 5.0 GROUNDWATER CONTOURS (10/31/00)

Reference:  
 BASE MAP BY PORT OF OAKLAND, DATED 2/22/96

APPROXIMATE SCALE IN FEET  
 0 150 300



<b>GROUNDWATER ELEVATIONS OCTOBER 2000</b>	
NINTH AVENUE TERMINAL PORT OF OAKLAND, CALIFORNIA	
DRAWN BY: CFY	DATE: 10/31/00
JOB NUMBER: 133.009	FILE NUMBER: B133.009.02
PLATE <b>2</b>	

 **Subsurface Consultants, Inc.**  
 Geotechnical & Environmental Engineers

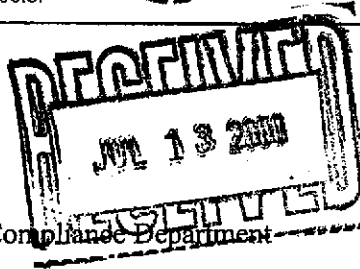
**APPENDIX A:  
ACHSCA LETTERS  
JULY 11, 2000  
AND  
JULY 27, 2000**

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

July 11, 2000

Mr. Douglas Herman  
Environmental Health & Safety Compliance Department  
Port of Oakland  
P.O. Box 2064  
Oakland CA 94607-2064

**Re: Proposed Monitoring Changes at Ninth Ave. Terminal, Oakland CA 94606**

Dear Mr. Herman:

Our office has received and reviewed the June 15, 2000 Groundwater Monitoring Program Report for the above site. Included in this report is your consultant's recommendation for modifications to the existing sampling program. This letter serves to comment on these recommendations. Upon review of current and historical monitoring data and information, our office has the following comments/observations:

- The following wells are proposed to be abandoned: MW-1, SCIMW-5, SCIMW-11, SCIMW-14, SCIMW-17, SCIMW-20, SCIMW-25 and SCIMW-35. Our office agrees with the abandonment of these wells with the exception of SCIMW-11 and SCIMW-35. SCIMW-24, up-gradient of SCIMW-11, still has high TPHg, d, mo and BTEX concentrations in groundwater. SCIMW-11 should continued to be monitored for the existing parameters semi-annually. SCIMW-35 is down-gradient of a former UST where significant concentrations of TPHg, d, mo, BTEX, lead, and PNAs were exhibited in soil. Please run groundwater samples on this well annually for TPHg and BTEX, until the LOP case (StID #5067) is closed.
- The following wells are proposed to be monitored for water level only: MW-7, SCIMW-4, SCIMW-6, SCIMW-12, SCIMW-16, SCIMW-19, SCIMW-27 and SCIMW-32. Our office agrees with this proposal.
- The following wells are proposed to reduce their TVH testing frequency from quarterly to semi-annually: SCIMW-24 and SCIMW-34. SCIMW-34 is installed adjacent to a former UST where significant soil contamination was observed (same UST mentioned for SCIMW-35 above). To complete groundwater sampling at this LOP site, please analyze this well for semi-volatiles by EPA 8270 and the soluble metals; cadmium, chromium, nickel and zinc. After this, the well should be monitored like SCIMW-35. TVH testing is proposed to be discontinued in wells MW-6 and SCIMW-11. Note, since our office concurs with the abandonment of SCIMW-11, monitoring is irrelevant. Testing of MW-6 may be discontinued until the free product has been removed, at which time annual testing should continue similar to that of MW-4, which also has a free product problem.

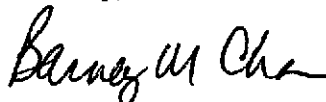
Mr. D. Herman  
Ninth Ave. Terminal, Oakland 94606  
July 11, 2000  
Page 2.

- The following wells are proposed to reduce their TEH analysis from quarterly to semi-annually: SCIMW-23, SCIMW-24 and SCIMW-34. This is approved. Monitoring of SCIMW-2 for TEH is proposed to be changed from quarterly to annually. Because the TEH results only recently decreased in concentration, you are requested to monitor this well semi-annually. TEH is proposed to be discontinued entirely in wells MW-6, SCIMW-6, SCIMW-11, SCIMW-12, SCIMW-16, SCIMW-19, SCIMW-27 and SCIMW-32. Our office concurs with this with the exception that monitoring should continue annually in MW-6, when free product is removed.
- Our office also concurs with the recommended changes for monitoring of the following parameters: solvents, PNAs, pesticides, lead, heavy metals, and the biological parameters; pH, eH, DO, TDS, and DOC.
- To comply with our office's request to add MTBE analysis to the monitoring program, your consultant proposes to analyze the following wells for MTBE: MW-3, MW-4, MW-5, SCIMW-21, SCIMW-26, SCIMW-29 and SCIMW-34. Any detected MTBE will be confirmed using EPA Method 8260. This is acceptable.

In addition, our office has received a copy of a proposal for Soil Gas and Flux Chamber Testing at this site. I have discussed this proposal with you and Subsurface Consultants. Our office cannot at this time render an opinion on the need or merit of this proposal without additional technical background. However, as you are aware, you may proceed with this investigation without our office's comment. We would, however, like to receive a copy of this report when available.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,



Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files

Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette,  
CA 94549-3659

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

July 27, 2000

Mr. Douglas Herman  
Environmental Health & Safety Compliance Department  
Port of Oakland  
P.O. Box 2064  
Oakland CA 94607-2064

**Re: Proposed Monitoring Changes at Ninth Ave. Terminal, Oakland CA 94606**

Dear Mr. Herman:

An error in my July 11, 2000 letter was recently brought to my attention regarding the required groundwater monitoring of well SCIMW-11. There was a contradiction in my bulleted items. This letter serves to correct this contradiction. This well should continue to be monitored according to the first bulleted item ie the well should be monitored semi-annually for the existing analytes. It's monitoring should not be discontinued nor should the well be abandoned as inferred in the third bullet in the July 11, 2000 letter.

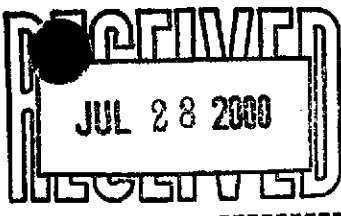
I regret any inconvenience or confusion this may have caused. Please contact me at (510) 567-6765 should you have any questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files  
Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette,  
CA 94549-3659

corr9thAveMon



**APPENDIX B:  
WELL SAMPLING  
FORMS**



**GROUNDWATER DEPTHS**

Project Name: 9th Avenue Terminal - Port of Oakland

Job No.: 133.009

Measured by: E. Silverman and O. Nzewi

Well	Date	Time	Groundwater Depth (feet)	Comments	Well Maintenance		
					New Well Cap	New Lock	Other Well Maintenance Needed?
"Oil Filled Manhole"	3-Oct-00	12:30	8.5	NO FP or smell.	/	/	—
Stormdrain (located next to SCIMW-9)	3-Oct-00	12:45	10.66	NO FP.	/	/	
<del>MW-1</del>	3-Oct-00	<del>11:55</del>	<del>5.28</del>	<del>Abandon</del>			<del>—</del>
MW-2	3-Oct-00	11:55	5.89		✓	✓	
MW-3	3-Oct-00	12:35	5.38	H <sub>2</sub> S Odor	✓	✓	
MW-4	3-Oct-00	<del>10:15</del>	<del>3.97</del>	inaccessible.	✓	✓	
MW-5	3-Oct-00	<del>10:05</del>	<del>4.54</del>		✓	✓	
MW-6	3-Oct-00	10:43	6.25	Free product.	✓	✓	FP.
<del>MW-7</del>	3-Oct-00	<del>10:30</del>	<del>3.82</del>		✓	✓	
SCIMW-1	3-Oct-00	10:10	5.62		✓	✓	
SCIMW-2	3-Oct-00	9:55	5.89		✓	✓	
SCIMW-3	3-Oct-00	12:35	5.38	H <sub>2</sub> S Odor	✓	✓	
SCIMW-4	3-Oct-00	12:15	3.55		✓	✓	
<del>SCIMW-5</del>	3-Oct-00	<del>10:05</del>	<del>4.59</del>	<del>Abandon</del>			<del>—</del>
SCIMW-6	3-Oct-00	10:10	6.37		✓	✓	
SCIMW-7	3-Oct-00	11:00	4.01		✓	✓	
SCIMW-8	3-Oct-00	12:10	5.31		✓	✓	
SCIMW-9	3-Oct-00	12:20	4.71		✓	✓	
SCIMW-10	3-Oct-00	16:00	5.94		✓	✓	
SCIMW-11	3-Oct-00	9:25	5.49		✓	✓	
SCIMW-12	3-Oct-00	9:15	6.66	No odor	✓	✓	
SCIMW-13	3-Oct-00	12:30	5.52	H <sub>2</sub> S Odor	✓	✓	
SCIMW-14	3-Oct-00	9:30	8.21		✓	✓	
SCIMW-15	3-Oct-00	13:00	8.48		✓	✓	
<del>SCIMW-16</del>	3-Oct-00	<del>15:50</del>	<del>4.35</del>		✓	✓	
<del>SCIMW-17</del>	3-Oct-00			<del>Abandon</del>			<del>—</del>
SCIMW-18	3-Oct-00	16:05	3.70		✓	✓	
SCIMW-19	3-Oct-00	13:20	4.18		✓	✓	

**GROUNDWATER DEPTHS**

Project Name: 9th Avenue Terminal - Port of Oakland

Job No.: 133.009

Measured by: E. Silverman and O. Nziwi

Well	Date	Time	Groundwater Depth (feet)	Comments	Well Maintenance		
					New Well Cap	New Lock	Other Well Maintenance Needed?
<del>SCIMW-20</del>	3-Oct-00			<i>Abandon</i>	✓	✓	
SCIMW-21	3-Oct-00	10:35	1.92		✓	✓	
SCIMW-22	3-Oct-00	1:40	6.64		✓	✓	
SCIMW-23	3-Oct-00	10:20	4.55		✓	✓	<i>well casing cracked.</i>
SCIMW-24	3-Oct-00	1:30	4.79	<i>strong odor (hydrocarbon)</i>	✓	✓	
<del>SCIMW-25</del>	3-Oct-00			<i>Abandon</i>	✓	✓	
SCIMW-26	3-Oct-00	13:10	3.41		✓	✓	
SCIMW-27	3-Oct-00	10:58	4.90		✓	✓	
SCIMW-28	3-Oct-00	1:55	5.51		✓	✓	
SCIMW-29	3-Oct-00	11:20	5.68		✓	✓	
SCIMW-30	3-Oct-00	1:15	5.08		✓	✓	
SCIMW-31	3-Oct-00	1:23	7.60		✓	✓	
SCIMW-32	3-Oct-00	10:15	5.50		✓	✓	
<sup>16</sup> SCIMW-33	3-Oct-00	9:35	3.76	<i>Strong Odor H<sub>2</sub>S</i>	✓	✓	
SCIMW-34	3-Oct-00	16:10	4.99		✓	✓	
SCIMW-35	3-Oct-00	16:35	4.57		✓	✓	

## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: MW-3  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/1/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Sunny TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 19.45 FEET  
 CALCULATED PURGE VOLUME: 7.74 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 4.41 FEET

FEET OF WATER IN WELL: 15.04 FEET

FREE PRODUCT Yes or No PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE ELECTRONIC SOUNDER OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
<u>0.25</u>	<u>3:39</u>	<u>7.1</u>	<u>20.44</u>	<u>15085</u>	<u>10.48</u>	<u>4.7</u>	<u>3.0</u>	<u>green.</u>
<u>0.5</u>	<u>3:43</u>							
<u>0.75</u>								
<u>1.0</u>								

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 4.62 (14.00) (10/6)

SAMPLING METHOD: Disposable Bailer 5.32 (10/6)

CONTAINERS / PRESERVATIVE 3 / HCL 2 / AL  
 40 ML LITER

OTHER

OTHER

ANALYSES: TET-a  
MPSE

MISC FIELD OBSERVATIONS: Purged dry at 4.5 gallons.  
24 hour recharge  
was collected 10/6

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: mw-5  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/6/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: sunny TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 19.39 FEET  
 CALCULATED PURGE VOLUME: 7.0 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 5.37 FEET

FEET OF WATER IN WELL: 14.02 FEET

FREE PRODUCT: Yes or No \_\_\_\_\_ PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE ELECTRONIC SOUNDER OTHER \_\_\_\_\_

EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	11:36	6.41	19.77	20500	15.06	130.7	2.99	Clear
1		6.24	21.20	21348	18.29	101.4	2.04	
3		6.14	20.77	29818	20.00	74.0	5.63	sheen
5		6.36	19.99	22444	19.47	83.16	7.14	sheen, green
7	11:50	6.20	20.53	32464	20.39	56.0	2.84	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 8.18

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 8.7 8.34 (13.10)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE /  
 40 ML

/  
 LITER

/  
 OTHER

/  
 OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

WELL SAMPLING FORM

PROJECT NAME: 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: MW-6  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 6 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: SUNNY TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): \_\_\_\_\_ FEET  
 CALCULATED PURGE VOLUME: \_\_\_\_\_ gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTOC): 6.25 FEET

FEET OF WATER IN WELL: \_\_\_\_\_ FEET  
 PURGE METHOD: bauler  
 FREE PRODUCT: Yes or No 12' inches

MEASUREMENT METHOD: \_\_\_\_\_  
 EQUIPMENT USED: ≈ 12" **TAPE & PASTE** ELECTRONIC SOUNDER OTHER

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (μMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0								

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): \_\_\_\_\_

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE: / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: ≈ 2 gals of diesel removed. ∴ REJECTED.  
thick & black  
≈ 3 gals of purge water.

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009  
 SAMPLED BY: Emily Silverman  
 DATE: 10/6/00  
 WEATHER: \_\_\_\_\_

WELL NO.: SCIMW-1  
 WELL CASING DIAMETER: 2"  
 WELL MATERIAL: \_\_\_\_\_  
 TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 17.70 FEET

CALCULATED PURGE VOLUME: 5.9 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOW): 5.62 FEET

FEET OF WATER IN WELL: 12.08 FEET

PURGE METHOD: \_\_\_\_\_ inches

FREE PRODUCT Yes or No No

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	13:40	7.69	18.6F	15051	11.04	141.5	6.1	
2								
4								
6								

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 6.72

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOW): 6.99 1:50

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE /  
 40 ML  
/  
 OTHER

/  
 LITER  
/  
 OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: BT ran out of batteries; recharging during this well  
3 readings dt before sample.

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009  
 SAMPLED BY: Emily Silverman  
 DATE: 10/03/00  
 WEATHER: Sunny

WELL NO.: SC1MW2  
 WELL CASING DIAMETER: 2"  
 WELL MATERIAL: \_\_\_\_\_  
 TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 14.41 FEET  
 DEPTH TO GROUNDWATER (BTOC): 4.89 FEET  
 FEET OF WATER IN WELL: 9.92 FEET

CALCULATED PURGE VOLUME: 4.9 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

PURGE METHOD: \_\_\_\_\_  
 FREE PRODUCT Yes or No \_\_\_\_\_ inches

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE \_\_\_\_\_ ELECTRONIC SOUNDER \_\_\_\_\_ OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 (hd)	2:20	7.3	21.18	22299	18.5	65.1	5.0	
1	2:27	6.6	21.6	22312	15.07	49.4	4.4	Cloudy green
3	2:32	6.8	20.3	23061	14.50	-33.3	4.3	
5	2:36	6.4	19.0	23246	16.79	-40.3	3.7	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 11.9  
 ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 6.85 (2:44) / 555 (10/10)

SAMPLING METHOD: Disposable Bailor  
 CONTAINERS / PRESERVATIVE /  
 40 ML \_\_\_\_\_  
 LITER \_\_\_\_\_  
 OTHER \_\_\_\_\_

ANALYSES: TEH-d  
Heavy metals

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME: 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1 MW-3  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 4 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy, cool TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 17.63 FEET  
 CALCULATED PURGE VOLUME: 5.9 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 5.38 FEET

FEET OF WATER IN WELL: 12.25 FEET

FREE PRODUCT Yes or No \_\_\_\_\_ PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

FIELD MEASUREMENTS								
GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 (bl)	10:07	6.24	13.48	700 SD	13.64	-77.1	1.30	H <sub>2</sub> O odor
2	10:13	6.72	18.104	10678	7.203	-71.0	4.86	Shallow, green tint.
4		6.65	21.22	20392	16.37	-76.4	4.24	grn.
6	10:40	6.65	20.4	30000	21.26	-84.5	4.32	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 6.46

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 6.95

SAMPLING METHOD: Disposable Bailor

CONTAINERS / PRESERVATIVE / 2 / AL  
 40 ML LITER  
/ /  
 OTHER OTHER

ANALYSES: TEH-d, mo  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**WELL SAMPLING FORM**

PROJECT NAME: 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009  
 SAMPLED BY: Emily Silverman  
 DATE: 10/5/00  
 WEATHER: cloudy, cool

WELL NO.: SC1MW-7  
 WELL CASING DIAMETER: 2"  
 WELL MATERIAL: \_\_\_\_\_  
 TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 17.97 FEET  
 DEPTH TO GROUNDWATER (BTOC): 4.01 FEET  
 FEET OF WATER IN WELL: 13.96 FEET

CALCULATED PURGE VOLUME: 6.8 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

PURGE METHOD: \_\_\_\_\_ inches  
 FREE PRODUCT Yes or No \_\_\_\_\_  
 MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	09:35	6.15	20.35	16606	13.12	3.1	6.48	
2	09:40	6.22	19.4	20414	14.85	20.4	7.49	greenish, solvent odor
4	9:50	6.52	18.74	28520	21.39	-53.2	7.14	greenish
6	9:55	6.73	18.40	31889	23.68	-50.8	7.75	dark murky green

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_  
 ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 5.55 (11:30) (10/5)  
 SAMPLING METHOD: Disposable Bailer 15.90 (10/6/00)

CONTAINERS / PRESERVATIVE: / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: nois recollectd 10/6  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-8  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/14/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy, cool TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 17.80 FEET CALCULATED PURGE VOLUME: 6.1 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 5.31 FEET

FEET OF WATER IN WELL: 12.49 FEET

FREE PRODUCT Yes  or No  PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE  **ELECTRONIC SOUNDER**  OTHER   
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 gal	9:44	6.24	24.15	7300	4.839	-68.1	0.86	
2	9:51	6.55	24.52	7514	5.107	-6.51	4.22	
4	9:54	6.59	24.62	9104	6.292	-76.3	5.32	
6	9:57	6.54	19.44	13822	9.454	-85.4	4.43	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 7.81

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 7.95 (10:28)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE / 2 / AL  
 40 ML ETTER  
/ /  
 OTHER OTHER

ANALYSES: TEH - d  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: greenish tint  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME: 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-9  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 5 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 18.21 FEET  
 CALCULATED PURGE VOLUME: 6.6 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTOC): 4.71 FEET  
 FEET OF WATER IN WELL: 13.5 FEET

FREE PRODUCT Yes  or No   
 PURGE METHOD: \_\_\_\_\_ inches  
 MEASUREMENT METHOD: TAPE & PASTE  **ELECTRONIC SOUNDER**  OTHER   
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0		6.99	14.20	21400	6.80	-66.0	4.47	Open
1		6.55	14.37	21460	5.47	-107.0	2.73	WTS odor
3		6.43	14.54	21100	5.36	-70.0	3.15	
5		6.15	14.66	29584	9.10	-56.1	4.00	
7		6.94	14.15	23408	8.04	-62.0	5.84	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 5.00 (10/10)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE: / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: Well sampled 10/10, well was re-purged.  
10/10 DTW before purge 4.34  
after recharge 5.00

## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1MW-10  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/21/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: cloudy, cool TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTCC): 18.01 FEET CALCULATED PURGE VOLUME: 5.9 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTCC): 5.99 FEET

FEET OF WATER IN WELL: 12.02 FEET

PURGE METHOD: \_\_\_\_\_

FREE PRODUCT Yes or No \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 (th)	11:58	6.15	22.5	2980	20.57	132.5	1.36	green
2	12:02	6.8	23.5	2515	16.34	117.9	3.87	
4	12:09	6.79	24.5	2624	17.85	143.3	2.56	dk green
6	12:13	6.76	24.38	28132	20.00	146.3	3.32	green, H <sub>2</sub> S odor

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 8.39

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTCC): 10.25 (4:15)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE /  
40 ML

/  
LITER

/  
OTHER

/  
OTHER

ANALYSES: EH-d

MISC FIELD OBSERVATIONS: \_\_\_\_\_

## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW11  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 4 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: cloudy TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 15.74 FEET CALCULATED PURGE VOLUME: 5.0 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 6.49 FEET

FEET OF WATER IN WELL: 10.25 FEET

FREE PRODUCT Yes or No \_\_\_\_\_ PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	10:59	6.19	19.77	16714	11.48	829	5.64	
1	11:09	6.20	18.81	11859	8.39	-0.5	5.52	
3	11:09	6.82	21.16	12049	8.43	-03.6	9.26	
5	11:10	6.89	21.54	12223	8.47	-05.1	4.08	green H <sub>2</sub> S color

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 7.54

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 5.70 (11:15)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: IVH / BTEX  
TEHd, mD

MISC FIELD OBSERVATIONS: \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1 MW-13  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/5/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 15.38 FEET CALCULATED PURGE VOLUME: 4.8 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTOC): 5.52 FEET  
 FEET OF WATER IN WELL: 9.86 FEET

FREE PRODUCT Yes or  No PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE  ELECTRONIC SOUNDER \_\_\_\_\_ OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	1053	6.4	24.5	16384	10.73	-40	6.24	
1	1057	6.6	24.5	16285	10.48	-89.0	7.21	greenish (dirty)
3	1059	6.6	24.4	16554	10.76	-120.0	7.26	dirty dark green
5	1101	6.6	22.9	18354	12.41	-133.5	8.10	light green

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 6.62  
 ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 5.55

SAMPLING METHOD: Disposable Bailor  
 CONTAINERS / PRESERVATIVE / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1MW-15  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 9 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 15.53 FEET CALCULATED PURGE VOLUME: 3.5 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 8.48 FEET

FEET OF WATER IN WELL: 7.05 FEET

FREE PRODUCT Yes or  No PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (uMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	10:37	6.40	21.5	8249	5.70	-7520	1.47	
1	10:41	6.33	17.8	7992.0	5.59	-829	1.41	
2	10:42	6.03	21.8	7437.4	5.14	-861	3.51	
9	10:46	6.81	21.7	7043.0	4.9	-56.1	8.5	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 10.2

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 8.52 11250

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE 40 ML LITER  
OTHER OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-18  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 24 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy, Wind TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTCC): 18.22 FEET CALCULATED PURGE VOLUME: 7.1 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTCC): 3.70 FEET  
 FEET OF WATER IN WELL: 14.52 FEET

FREE PRODUCT Yes  or No  PURGE METHOD: \_\_\_\_\_ inches  
 MEASUREMENT METHOD: TAPE & PASTE  **ELECTRONIC SOUNDER**  OTHER   
 EQUIPMENT USED: \_\_\_\_\_

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 (dn)	11:39	5.72	22.19	20143	12.80	-67.4	1.90	
3	11:40	6.50	21.18	20184	13.98	-62.8	4.50	green tint
5	11:43	6.59	20.86	21761	15.20	-54.6	4.60	
7	11:51	6.71	19.05	25481	18.13	-38.6	5.50	green H <sub>2</sub> S odor.

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 6.60  
 ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTCC): 6.34 (10:00)

SAMPLING METHOD: Disposable Bailor  
 CONTAINERS / PRESERVATIVE / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: TEH-cl.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-21  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/10/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy, cool TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 17.72 FEETCALCULATED PURGE VOLUME: 7.7 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)DEPTH TO GROUNDWATER (BTOC): 1.92 FEETFEET OF WATER IN WELL: 15.8 FEETFREE PRODUCT Yes or No  No

PURGE METHOD: \_\_\_\_\_

inches

MEASUREMENT METHOD:

TAPE &amp; PASTE

 ELECTRONIC SOUNDER

OTHER

EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 (h)		7.04	18.1	1376	0.945	82.4	4.30	
3	1335	6.4	19.5	3978	2.895	50.9	3.90	
6	1346	6.7	18.1	11463	8.74	16.5	8.3	
8	1354	6.8	18.0	16.234	12.18	-7.2	8.71	murky green

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC):

3.24(12)00SAMPLING METHOD: Disposable BailerCONTAINERS / PRESERVATIVE 3 / VOA  
40 ML1 / Amber  
LITER1  
OTHER1  
OTHERANALYSES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_MISC FIELD OBSERVATIONS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1MW-22  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/6/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTCC): 18.00 FEET  
 CALCULATED PURGE VOLUME: 5.4 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTCC): 6.44 FEET  
 FEET OF WATER IN WELL: 11.01 FEET

FREE PRODUCT Yes  No   
 PURGE METHOD: \_\_\_\_\_ inches  
 MEASUREMENT METHOD: TAPE & PASTE  **ELECTRONIC SOUNDER**  OTHER   
 EQUIPMENT USED: \_\_\_\_\_

FIELD MEASUREMENTS								
GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	2:44	7.09	19.10	42370	6.24	-80.0	4.74	Green
2		6.88	20.10	4043	3.94	-74.10	4.83	W/S
4		7.23	20.38	4997	5.06	-76.21	4.64	Cloudy
6	2:57	8.54	20.00	8249	3.88	10.74	3.31	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTCC): 7.04

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: sampled 10/10/00 (values from 10/6)  
repaired 9/10/00  
10/10 6.39 Initial  
7.04 recharge

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009  
 SAMPLED BY: Emily Silverman  
 DATE: 10 / 7 / 00  
 WEATHER: \_\_\_\_\_

WELL NO.: SC1MW-23  
 WELL CASING DIAMETER: 2"  
 WELL MATERIAL: \_\_\_\_\_  
 TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 17.11 FEET  
 DEPTH TO GROUNDWATER (BTOC): 11.55 FEET  
 FEET OF WATER IN WELL: 12.56 FEET

CALCULATED PURGE VOLUME: 7 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

FREE PRODUCT Yes or  No \_\_\_\_\_ inches

PURGE METHOD: \_\_\_\_\_

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE ELECTRONIC SOUNDER OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
<u>0.6</u>	<u>2:51</u>	<u>6.59</u>	<u>18.96</u>	<u>17430</u>	<u>11.77</u>	<u>-41.0</u>	<u>3.48</u>	<u>green tint</u>
<u>1.3</u>	<u>3:05</u>	<u>6.57</u>	<u>19.85</u>	<u>11966</u>	<u>11.45</u>	<u>-44.8</u>	<u>3.78</u>	
<u>3.0</u>	<u>3:07</u>	<u>6.62</u>	<u>21.21</u>	<u>18791</u>	<u>13.18</u>	<u>-46.4</u>	<u>4.33</u>	
<u>3.7</u>	<u>3:11</u>	<u>6.72</u>	<u>19.51</u>	<u>29818</u>	<u>21.06</u>	<u>-31.7</u>	<u>5.5</u>	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 7.07

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 11.55 6.84 (10/10)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE 1 2 / AC  
 40 ML LITER  
1 1  
 OTHER OTHER

ANALYSES: TEH-d, TEH-mo

MISC FIELD OBSERVATIONS: one hour recharge  
well recharged 10/10  
readings from 10/4 = 1/2 hr. recharge

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1MW-2H  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10/5/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: \_\_\_\_\_ TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 16.77 FEET CALCULATED PURGE VOLUME: 5.9 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 4.79 FEET

FEET OF WATER IN WELL: 11.98 FEET

FREE PRODUCT Yes or No \_\_\_\_\_ PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	1010	6.30	24.25	41260	2.72	33.5	7.45	
2	1015	6.6	22.9	44190	2.992	-24.8	6.01	grey slight sheen on top
4	1019	6.6	23.5	41130	2.78	-33.7	5.94	grey sheen on top
6		6.6	23.17	41100	2.7	-32.5	5.5	light grey, sheen

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 5.75

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 4.91 (10/5)

SAMPLING METHOD: Disposable Bailer 4.85 (10/6)

CONTAINERS / PRESERVATIVE / 40 ML LITER /  
 OTHER OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: None collected 10/6  
 \_\_\_\_\_  
 \_\_\_\_\_

WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking

JOB NO.: 133.009

WELL NO.:

SC1 MW-26

SAMPLED BY: Emily Silverman

WELL CASING DIAMETER:

2"

DATE: 10 / 6 / 00

WELL MATERIAL:

WEATHER:

TOC ELEVATION:

TOTAL DEPTH OF CASING (BTOC): 17.95 FEET

CALCULATED PURGE VOLUME: 6.7 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 3.96 FEET

FEET OF WATER IN WELL: 13.99 FEET

PURGE METHOD:

FREE PRODUCT: Yes  or No

inches

MEASUREMENT METHOD:

TAPE & PASTE

ELECTRONIC SOUNDER

OTHER

EQUIPMENT USED:

FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	1600	6.35	23.58	17.255	11.56	-9.5	1.41	
2	1610	6.83	22.3	17.554	11.72	6.0	6.4	dirty grey
4	1616	6.91	22.5	15.443	11.56	-15.4	6.8	1120
7	1622	7.00	22.5	17.600	11.3	-7.5	10.6	11

DEPTH TO GROUNDWATER WHEN 80% RECOVERED:

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 24.77

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE

/  
40 ML

/  
LITER

/  
OTHER

/  
OTHER

ANALYSES:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MISC FIELD OBSERVATIONS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-28  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 5 /00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: \_\_\_\_\_ TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 14.77 FEET  
 CALCULATED PURGE VOLUME: 6.9 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTOC): 5.51 FEET  
 FEET OF WATER IN WELL: 14.26 FEET

FREE PRODUCT Yes or No \_\_\_\_\_ PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE ELECTRONIC SOUNDER OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	1252	6.98	18.43	601.00	.460	110.2	6.13	
2	1255	6.15	18.6	1234.05	.95	36.8	9.12	1 bubble
4	1304	6.2	18.2	4237.0	3.17	6.0	7.12	clear light green
7	1308	6.3	17.7	15846	711.2	17.1	7.3	"

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 6.6

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 6.03 (11.04)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE 40 ML LITER  
 \_\_\_\_\_ OTHER \_\_\_\_\_ OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SC1MW29  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 10/00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: \_\_\_\_\_ TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 18.41 FEET CALCULATED PURGE VOLUME: 6.2 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 5.68 FEET

FEET OF WATER IN WELL: 12.73 FEET

FREE PRODUCT Yes  or No  PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE  ELECTRONIC SOUNDER  OTHER   
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
<u>0/20</u>	<u>1450</u>	<u>6.4</u>	<u>18.2</u>	<u>9020</u>	<u>6.8</u>	<u>64.9</u>	<u>4.6</u>	
<u>20</u>	<u>1500</u>	<u>6.6</u>	<u>17.5</u>	<u>12287</u>	<u>9.6</u>	<u>-5.3</u>	<u>6.4</u>	

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 6.29 (1015)

SAMPLING METHOD: Disposable Bailer 6.50 (1016)

CONTAINERS / PRESERVATIVE 3 / VOA \_\_\_\_\_  
 40 ML LITER

\_\_\_\_\_  
 OTHER OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: pingan VSI out of batteries; 7 gals purge  
not reading dh before pingan  
was recollect (1016)

**WELL SAMPLING FORM**

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-30  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 6 /00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Sunny TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 18.55 FEET  
 CALCULATED PURGE VOLUME: 6 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)  
 DEPTH TO GROUNDWATER (BTOC): 4.44 FEET  
 FEET OF WATER IN WELL: 14.11 FEET

PURGE METHOD: \_\_\_\_\_  
 FREE PRODUCT Yes  or No   
 MEASUREMENT METHOD: TAPE & PASTE  ELECTRONIC SOUNDER  OTHER   
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

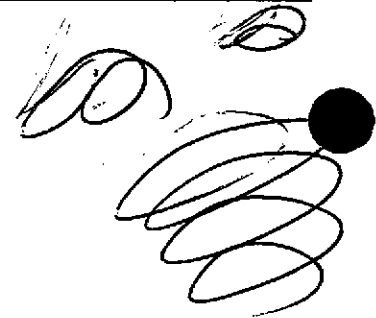
GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	2:10	6.73	24.4	20622	13.51	-61.4	3.3	green
2	2:23	6.54	21.50	15904	12.101	-23.0	6.09	NO odor
4	2	6.84	22.16	21089	14.42	-11.17	3.87	
6		7.15	20.40	23015	16.24	-15.26	5.15	yellow tint

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_  
 ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 6.20 (3.08)

SAMPLING METHOD: Disposable Bailer  
 CONTAINERS / PRESERVATIVE / 40 ML / LITER  
/ OTHER / OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_





**WELL SAMPLING FORM**

PROJECT NAME: 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-310  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 4 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Cloudy Cool TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 49.40 FEET CALCULATED PURGE VOLUME: 20.5 gallons  
 (feet of water \* casing dia.<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 7.60 FEET

FEET OF WATER IN WELL: 41.8 FEET

FREE PRODUCT Yes or No NO PURGE METHOD: Bailer  
 inches

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0 (dn)	8:52	6.32	18.54	238103	16.79	240.4	4.10	
5	8:59	6.23	19.20	223913	16.35	348.5	4.85	clear
10	9:12	6.48	16.64	236116	17.29	243.2	4.60	Slight Sheen
15	9:18	6.54	16.95	235105	17.39	246.7	5.44	"
20	9:25	6.57	19.06	23370	17.16	246.4	4.23	"

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 16.0

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 7.95 (9'28)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE 3 / HCL  
 40 ML LITER  
OTHER OTHER

ANALYSES: VOCS (8260)

MISC FIELD OBSERVATIONS: instant recharge

## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-33  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 4 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Sunny, 60.01 TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 15.80 FEETCALCULATED PURGE VOLUME: 5.6 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)DEPTH TO GROUNDWATER (BTOC): 4.35 FEETFEET OF WATER IN WELL: 11.45 FEETFREE PRODUCT Yes or No  NoPURGE METHOD: \_\_\_\_\_  
inches

MEASUREMENT METHOD:

TAPE &amp; PASTE

 ELECTRONIC SOUNDER

OTHER

EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	12:20	6.06	24.05	11920	7.800	10.1	2.70	
2	12:26	6.30	23.55	11312	7.522	53.9	4.06	
4	12:30	6.15	21.92	14994	10.22	-60.4	4.08	Opalescent tint.
6	12:34	6.07	20.44	21104	16.75	-79.9	5.30	Opalescent, green

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 6.04ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 6.84 ~~10/14~~ 24.60 10/6/00SAMPLING METHOD: Disposable BailorCONTAINERS / PRESERVATIVE 3 HCL.

40 ML

2.1 AL

LITER

OTHER

OTHER

ANALYSES: TEH-dVOCS.MISC FIELD OBSERVATIONS: VOCS recollectd 10/10/00

**WELL SAMPLING FORM**

PROJECT NAME: 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: SCIMW-34  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 5 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: \_\_\_\_\_ TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 14.67 FEET  
 CALCULATED PURGE VOLUME: 4.2 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 6.17 FEET

FEET OF WATER IN WELL: 8.5 FEET

FREE PRODUCT Yes or No (No) PURGE METHOD: \_\_\_\_\_ inches

MEASUREMENT METHOD: TAPE & PASTE ELECTRONIC SOUNDER OTHER  
 EQUIPMENT USED: \_\_\_\_\_

**FIELD MEASUREMENTS**

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	1207	6.4	20.0	12582	9.02	32.2	2.47	
2	1214	6.8	19.6	13858	9.9	28.2	9.75	light murky green.
3	1216	6.7	18.7	20584	15.0	25.6	8.5	11
4	1218	6.7	18.6	21511	15.9	14.2	8.4	dirty light green.

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: 7.4

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): 7.04 (10/5)

SAMPLING METHOD: Disposable Bailer 4.2 (10/6)

CONTAINERS / PRESERVATIVE / /  
 40 ML LITER  
/ /  
 OTHER OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: Purged dry at 4 gallons.  
 \_\_\_\_\_  
 \_\_\_\_\_

## WELL SAMPLING FORM

PROJECT NAME 9th Avenue Terminal / Keep on Trucking  
 JOB NO.: 133.009 WELL NO.: Selma-35  
 SAMPLED BY: Emily Silverman WELL CASING DIAMETER: 2"  
 DATE: 10 / 5 / 00 WELL MATERIAL: \_\_\_\_\_  
 WEATHER: Sunny, Warm TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 5.49 FEET CALCULATED PURGE VOLUME: 2.7 gallons  
 (feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOW): 11.0 FEET

FEET OF WATER IN WELL: 5.6 FEET

PURGE METHOD: \_\_\_\_\_  
 inches

FREE PRODUCT Yes or No \_\_\_\_\_

MEASUREMENT METHOD: \_\_\_\_\_ TAPE & PASTE \_\_\_\_\_ ELECTRONIC SOUNDER \_\_\_\_\_ OTHER \_\_\_\_\_  
 EQUIPMENT USED: \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	pH	TEMP (C)	CONDUCTIVITY (µMHOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
0	12:25	6.7	22.28	11347	7.88	164.0	3.07	hardly clear
1	12:30	6.7	21.76	11475	7.89	127.2	4.5	"
2	12:35	6.6	21.35	17730	12.33	117.2	8.11	"
3	12:37	6.6	20.77	21234	14.7	106.3	8.2	cloudy.

DEPTH TO GROUNDWATER WHEN 80% RECOVERED: \_\_\_\_\_

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOW): 5.54 (10/5)  
6.29 (10/6)

SAMPLING METHOD: Disposable Bailer

CONTAINERS / PRESERVATIVE /  
 40 ML

/  
 LITER

/  
 OTHER

/  
 OTHER

ANALYSES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

MISC FIELD OBSERVATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**APPENIDIX C:  
ANALYTICAL TEST REPORTS  
AND  
CHAIN-OF-CUSTODY RECORDS**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L   R E P O R T

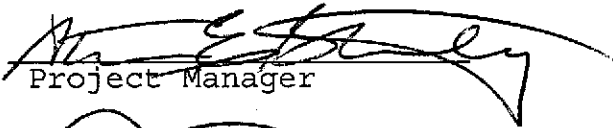
Prepared for:

Subsurface Consultants  
3736 Mt. Diablo Blvd.  
Suite 200  
Lafayette, CA 94549

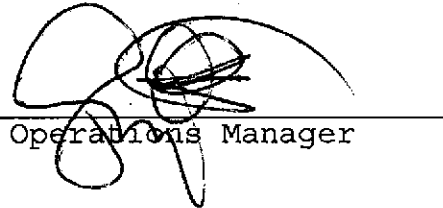
Date: 18-OCT-00  
Lab Job Number: 147884  
Project ID: 133.009  
Location: KOT/9th Ave.Terminal

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

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Curtis & Tompkins, Ltd.

Laboratory Number: **147884**  
Client: **Subsurface Consultants, Inc.**  
Project Name: **9<sup>th</sup> Ave. Terminal**

Receipt Date: **10/05/00**

### **CASE NARRATIVE**

This hardcopy data package contains sample results and batch QC results for nine water samples received from the above referenced project. The samples were received cold and intact.

**Total Volatile Hydrocarbons/BTXE:** No analytical problems were encountered.

**Total Extractable Hydrocarbons:** No analytical problems were encountered.

**Volatile Organic Compounds:** No analytical problems were encountered.

**Organochlorine Pesticides:** Calscience Environmental Laboratories, Inc. in Garden Grove, California performed the analysis. Please see the Calscience case narrative.

# CHAIN OF CUSTODY FORM

PAGE 1


PROJECT NAME: 9th Avenue Terminal  
 JOB NUMBER: 133.0719 LAB: Clint's & Tompkins  
 PROJECT CONTACT: E. Silverman TURNAROUND: Standard  
 SAMPLED BY: E. Silverman REQUESTED BY: E. Silverman

ANALYSIS REQUESTED	
TVH/BTEX (8015m)	
TEH, TELMA (8015) (2)	
VOCS (8260)	
MTBE (8260)	
PMA (8270 - Filtered)	
APC/FICUS (8010)	

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS				METHOD PRESERVED					SAMPLING DATE				NOTES
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	HCL	HSC+	HNO3	ICE	NONE	MONTH	DAY	YEAR	TIME	
147884-1	SCIMW-33	X				8	2			X			X	X	10	04	00	1625	0
-2	SCIMW-3	X					2						X	X	10	04	00	1244	
-3	SCIMW-10	X					2						X	X	10	04	00	1615	
-4	SCIMW-11	X				3	2			X			X	X	10	04	00	1115	X
-5	SCIMW-31D	X				2				X			X	X	10	04	00	0928	0
-6	SCIMW-2	X					2						X	X	10	04	00	0244	
-7	SCIMW-8	X					2						X	X	10	04	00	1028	
-8	SCIMW-18	X					2						X	X	10	04	00	1000	
-9	SCIMW-15	X					2						X	X	10	04	00	1250	

CHAIN OF CUSTODY RECORD			
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
<i>E. Silverman</i>	10/4/00 6:15	<i>[Signature]</i>	10/5/00 12:40

COMMENTS & NOTES:  
 (2) TEH w/ silica gel cleanup.  
 VOCS 8260, 8240 list  
 missing one liter for SCIMW-8; SCIMW-18  
 SCIMW-33 all 8 volt have headspace JHB



**Subsurface Consultants, Inc.**  
 171 - 12th Street, Suite 202, Oakland, CA 94607  
 (510) 268-0481 - FAX: (510) 268-0137  
 3736 ML Diablo Blvd., Ste. 200, Lafayette, CA 94549  
 (925) 299-7960 - (925) 299-7970



## Gasoline by GC/FID CA LUFT

Lab #:	147884	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Field ID:	SCIMW-11	Batch#:	58718
Matrix:	Water	Sampled:	10/04/00
Units:	ug/L	Received:	10/05/00
Diln Fac:	1.000	Analyzed:	10/05/00

Type: SAMPLE Lab ID: 147884-004

Analyte	Result	RL
Gasoline C7-C12	69	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	93	59-135
Bromofluorobenzene (FID)	103	60-140

Type: BLANK Lab ID: QC126790

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	107	59-135
Bromofluorobenzene (FID)	115	60-140

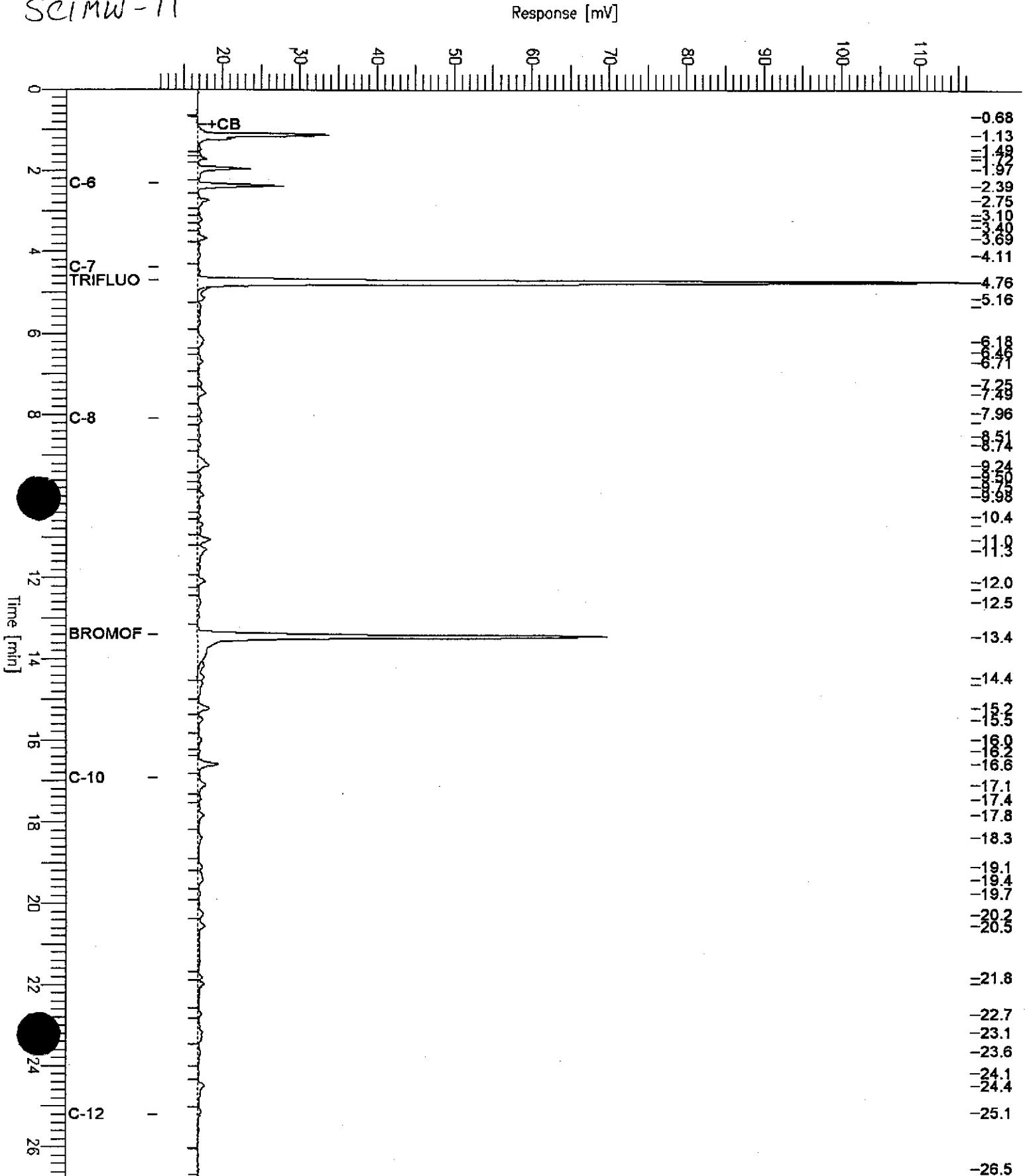
# GC19 TVH 'X' Data File (FID)

Sample Name : 147884-004,58718  
 FileName : G:\GC19\DATA\279X006.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min  
 Scale Factor : 1.0

End Time : 26.80 min  
 Plot Offset: 12 mV

Sample #: a1  
 Date : 10/5/00 10:54 PM  
 Time of Injection: 10/5/00 10:26 PM  
 Low Point : 11.68 mV  
 High Point : 116.75 mV  
 Plot Scale: 105.1 mV

SCIMW-11



# GC19 TVH 'X' Data File (FID)

Sample Name : ccv/bs,qc126791,58718,00ws9736,5/5000

Sample #: gas

Page 1 of 1

FileName : G:\GC19\DATA\279X002.raw

Date : 10/5/00 08:30 PM

Method : TVHBTXE

Time of Injection: 10/5/00 08:02 PM

Start Time : 0.00 min

End Time : 26.80 min

Low Point : -0.31 mV

High Point : 355.44 mV

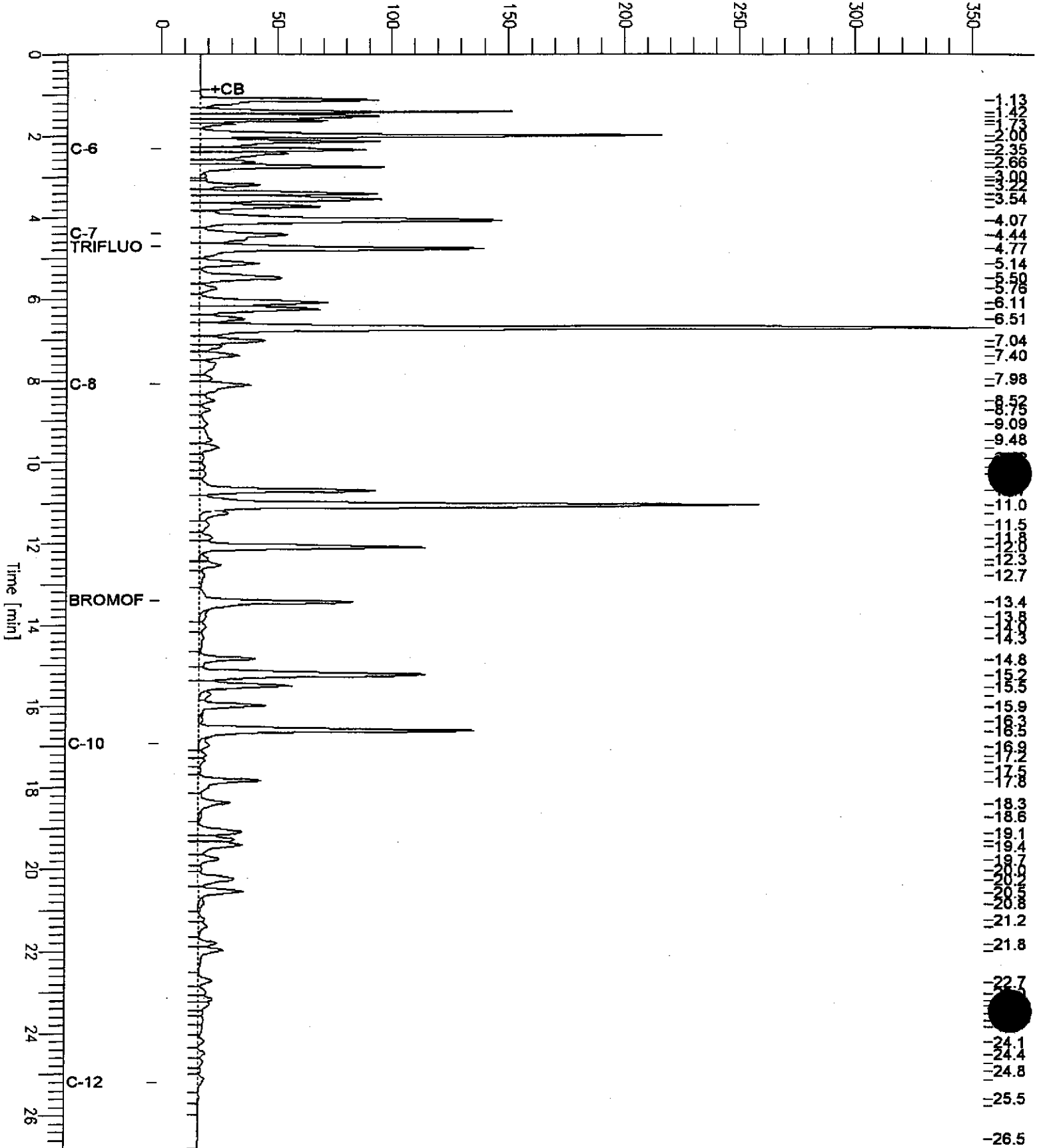
Scale Factor: 1.0

Plot Offset: -0 mV

Plot Scale: 355.8 mV

*Gasoline Standard*

Response [mV]



**Benzene, Toluene, Ethylbenzene, Xylenes**

Lab #:	147884	Location:	KOT/9th Ave Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Field ID:	SCIMW-11	Batch#:	58777
Matrix:	Water	Sampled:	10/04/00
Units:	ug/L	Received:	10/05/00
Diln Fac:	1.000	Analyzed:	10/09/00

Type: SAMPLE                      Lab ID: 147884-004

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	113	56-142
Bromofluorobenzene (PID)	111	55-149

Type: BLANK                      Lab ID: QC127031

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	109	56-142
Bromofluorobenzene (PID)	103	55-149

Gasoline by GC/FID CA LUFT

Lab #:	147884	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Matrix:	Water	Batch#:	58718
Units:	ug/L	Analyzed:	10/05/00
Diln Fac:	1.000		

Type: BS Lab ID: QC126791

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,030	102	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	127	59-135
Bromofluorobenzene (FID)	138	60-140

Type: BSD Lab ID: QC126792

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,972	99	73-121	3	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	126	59-135
Bromofluorobenzene (FID)	136	60-140

**Benzene, Toluene, Ethylbenzene, Xylenes**

Lab #:	147884	Location:	KOT/9th Ave Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127030	Batch#:	58777
Matrix:	Water	Analyzed:	10/09/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	18.55	93	67-117
Toluene	20.00	19.37	97	69-117
Ethylbenzene	20.00	19.05	95	68-124
m,p-Xylenes	40.00	39.55	99	70-125
o-Xylene	20.00	19.39	97	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	110	56-142
Bromofluorobenzene (PID)	105	55-149

**Benzene, Toluene, Ethylbenzene, Xylenes**

Lab #:	147884	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Field ID:	SCIMW-34	Batch#:	58777
MSS Lab ID:	147942-012	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/10/00
Diln Fac:	1.000		

Type: MS Lab ID: QC127032

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	<0.1000	20.00	18.40	92	65-123
Toluene	<0.09000	20.00	19.29	96	73-122
Ethylbenzene	<0.1100	20.00	18.97	95	59-137
m,p-Xylenes	<0.1400	40.00	39.72	99	68-132
o-Xylene	<0.1900	20.00	19.27	96	61-140

Surrogate	%REC	Limits
Trifluorotoluene (PID)	111	56-142
Bromofluorobenzene (PID)	109	55-149

Type: MSD Lab ID: QC127033

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	18.67	93	65-123	1	20
Toluene	20.00	19.71	99	73-122	2	20
Ethylbenzene	20.00	19.43	97	59-137	2	20
m,p-Xylenes	40.00	40.34	101	68-132	2	20
o-Xylene	20.00	20.04	100	61-140	4	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	113	56-142
Bromofluorobenzene (PID)	111	55-149

### Total Extractable Hydrocarbons

Lab #:	147884	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Sampled:	10/04/00
Units:	ug/L	Received:	10/05/00
Diln Fac:	1.000	Prepared:	10/05/00
Batch#:	58712		

Field ID: SCIMW-33                      Lab ID: 147884-001  
 Type: SAMPLE                              Analyzed: 10/10/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	94	44-121

Field ID: SCIMW-3                      Lab ID: 147884-002  
 Type: SAMPLE                              Analyzed: 10/10/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	84	44-121

Field ID: SCIMW-10                      Lab ID: 147884-003  
 Type: SAMPLE                              Analyzed: 10/10/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	101	44-121

H Heavier hydrocarbons contributed to the quantitation  
 Y Sample exhibits fuel pattern which does not resemble standard  
 ND = Not Detected  
 RL = Reporting Limit  
 Page 1 of 3



**Total Extractable Hydrocarbons**

Lab #:	147884	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Sampled:	10/04/00
Units:	ug/L	Received:	10/05/00
Diln Fac:	1.000	Prepared:	10/05/00
Batch#:	58712		

Field ID: SCIMW-11      Lab ID: 147884-004  
 Type: SAMPLE      Analyzed: 10/10/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	78	44-121

Field ID: SCIMW-2      Lab ID: 147884-006  
 Type: SAMPLE      Analyzed: 10/10/00

Analyte	Result	RL
Diesel C10-C24	1,100 H Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	86	44-121

Field ID: SCIMW-8      Lab ID: 147884-007  
 Type: SAMPLE      Analyzed: 10/10/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	85	44-121

H = Heavier hydrocarbons contributed to the quantitation  
 Y = Sample exhibits fuel pattern which does not resemble standard  
 ND = Not Detected  
 RL = Reporting Limit  
 Page 2 of 3

# Chromatogram

Sample Name : 147884-006sq,58712

Sample #: 58712

Page 1 of 1

FileName : G:\GC11\CHAM\243A036.RAW

Date : 10/11/00 09:41 AM

Method : ATEH265.MTH

Time of Injection: 10/10/00 11:12 PM

Injection Volume : 0.01 min

End Time : 31.91 min

Low Point : -11.70 mV

High Point : 496.35 mV

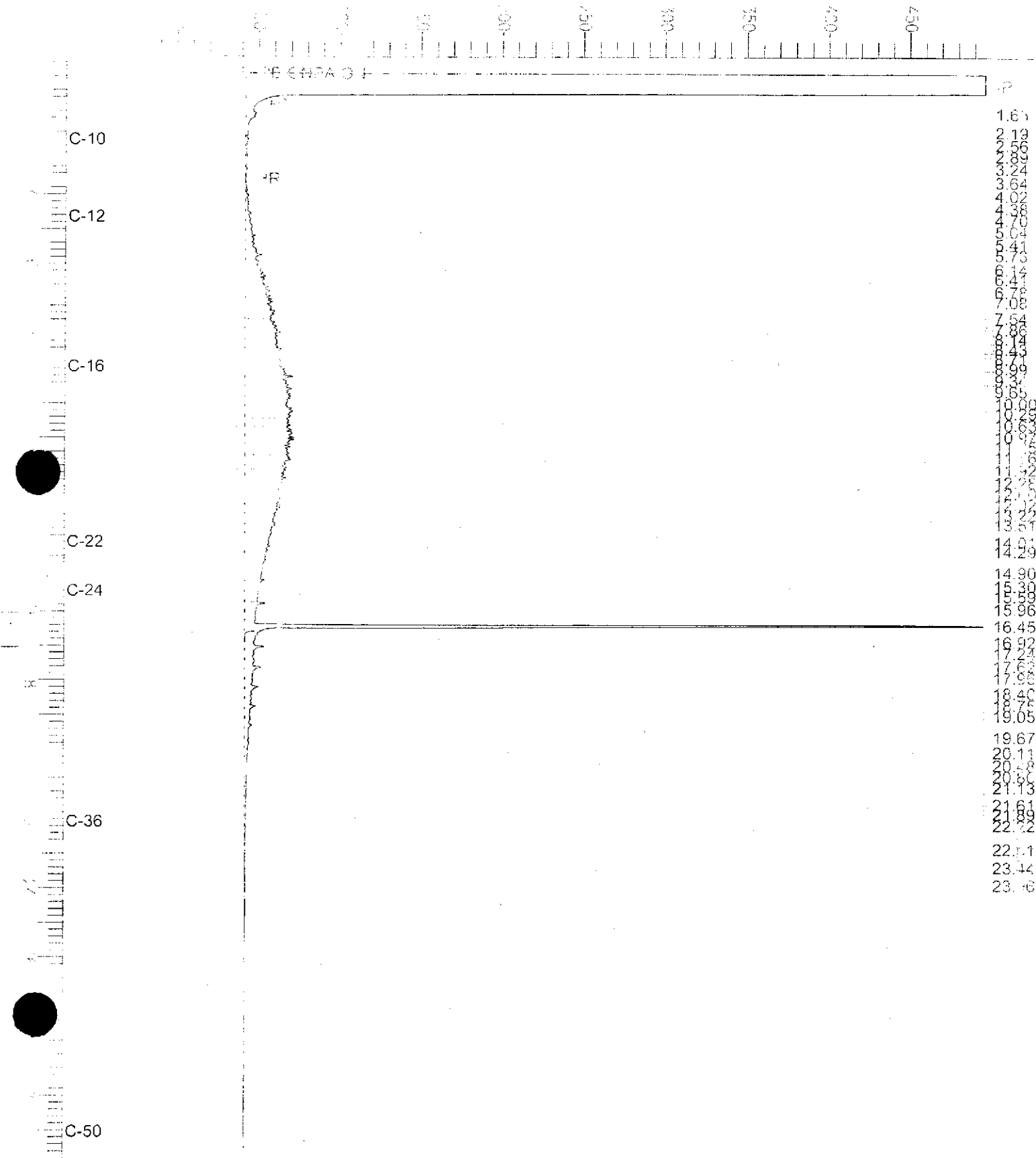
Injection Port : 0.2

Plot Offset: -12 mV

Plot Scale: 508.1 mV

SCIMW-2

Response [mV]



### Total Extractable Hydrocarbons

Lab #:	147884	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Sampled:	10/04/00
Units:	ug/L	Received:	10/05/00
Diln Fac:	1.000	Prepared:	10/05/00
Batch#:	58712		

Field ID: SCIMW-18                      Lab ID: 147884-008  
 Type: SAMPLE                              Analyzed: 10/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	71	44-121

Field ID: SCIMW-15                      Lab ID: 147884-009  
 Type: SAMPLE                              Analyzed: 10/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	82	44-121

Type: BLANK                                      Analyzed: 10/10/00  
 Lab ID: QC126764

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	92	44-121

H = Heavier hydrocarbons contributed to the quantitation  
 Y = Sample exhibits fuel pattern which does not resemble standard  
 ND = Not Detected  
 RL = Reporting Limit

# Chromatogram

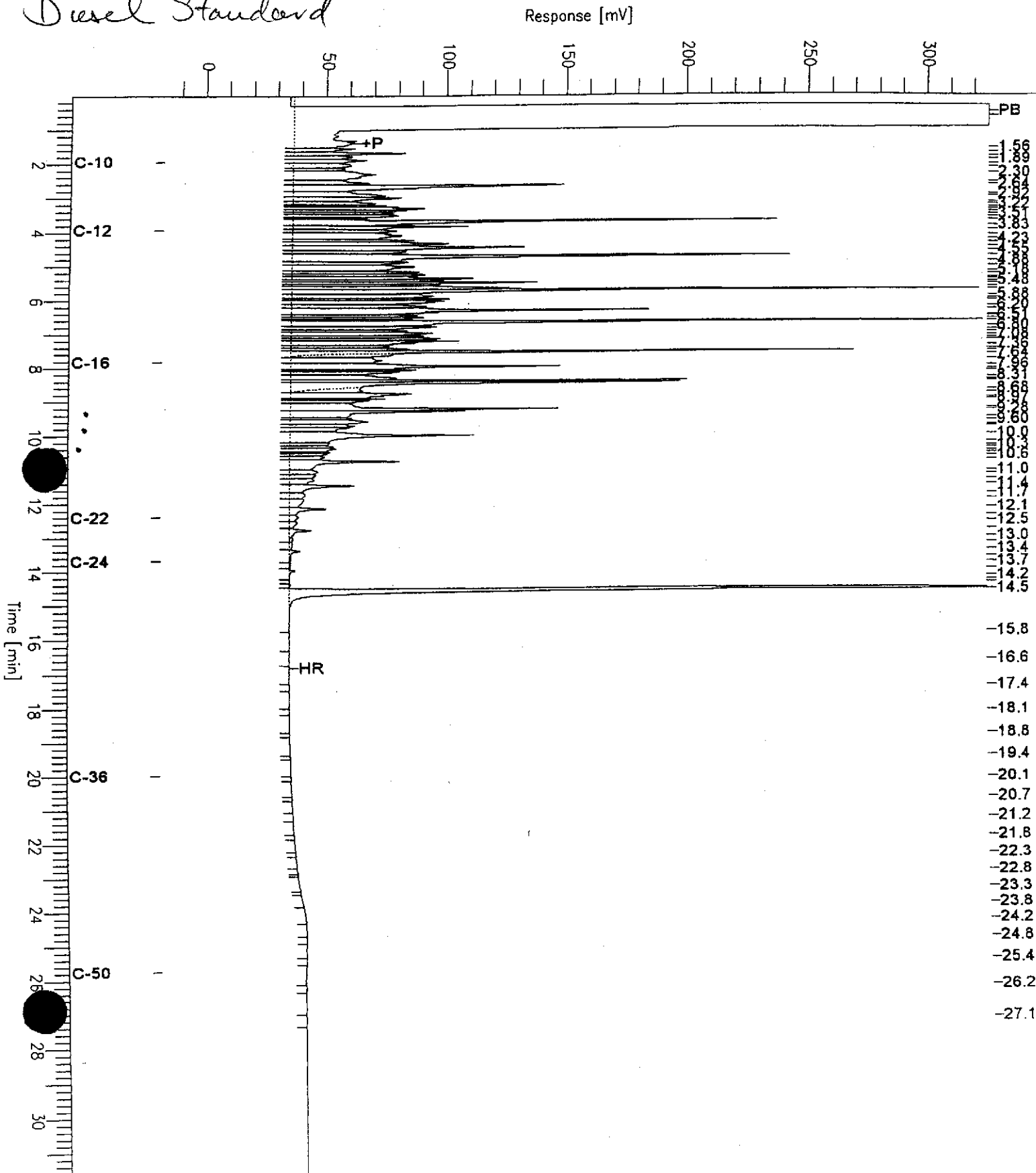
Sample Name : ccv,00ws9775,dsl  
File : G:\GC15\CHB\284B019.RAW  
Method : BTEH265.MTH  
Start Time : 0.01 min  
Scale Factor : 0.0

End Time : 31.91 min  
Plot Offset : -17 mV

Sample #: 500mg/L  
Date : 10/11/2000 08:52 AM  
Time of Injection: 10/10/2000 11:32 PM  
Low Point : -17.39 mV  
High Point : 325.93 mV  
Plot Scale: 343.3 mV

Page 1 of 1

*Diesel Standard*



# Chromatogram

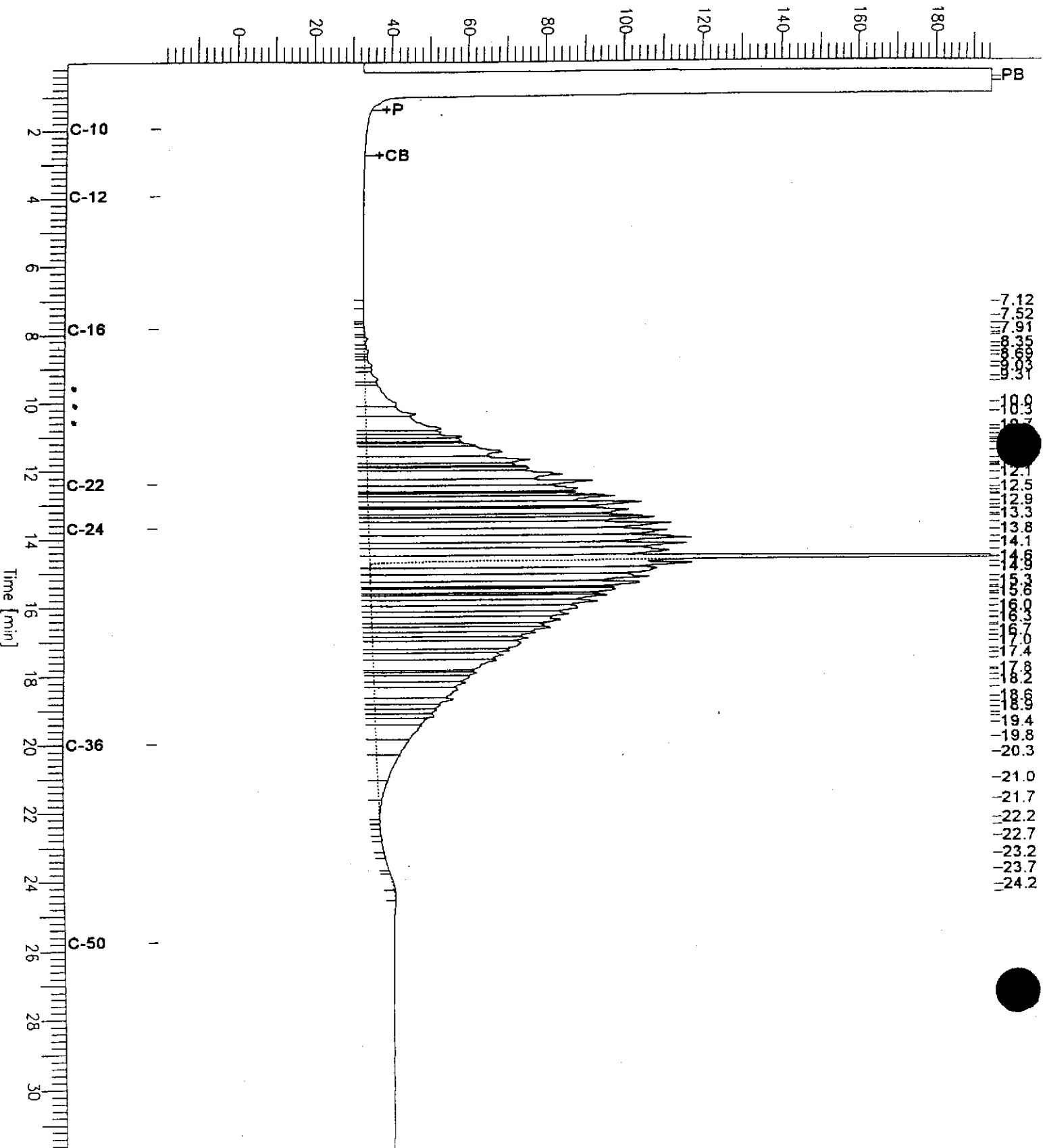
Sample Name : CCV,00WS9673,MO  
FileName : G:\GC15\CHB\284B003.RAW  
Method : BTEH265.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

End Time : 31.91 min  
Plot Offset: -20 mV

Sample : 500  
Date : 10/10/2000 12:46 PM  
Time of Injection: 10/10/2000 12:03 PM  
Low Point : -19.53 mV  
Plot Scale: 214.0 mV  
High Point : 194.50 mV

*Motor Oil Standard*

Response [mV]



**Total Extractable Hydrocarbons**

Lab #:	147884	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Batch#:	58712
Units:	ug/L	Prepared:	10/05/00
Diln Fac:	1.000	Analyzed:	10/10/00

Type: **BS**                      Lab ID: **QC126765**

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,339	1,595	68	45-110

Surrogate	%REC	Limits
Hexacosane	92	44-121

Type: **BSD**                      Lab ID: **QC126766**

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,339	1,692	72	45-110	6	22

Surrogate	%REC	Limits
Hexacosane	96	44-121



## Purgeable Organics by GC/MS

Lab #:	147884	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC126827	Batch#:	58727
Matrix:	Water	Analyzed:	10/06/00
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Trichloroethene	ND	0.50
1,2-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	IRFC	Limits
1,2-Dichloroethane-d4	102	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	97	80-115

**Purgeable Organics by GC/MS**

Lab #:	147884	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-31D	Batch#:	58727
Lab ID:	147884-005	Sampled:	10/04/00
Matrix:	Water	Received:	10/05/00
Units:	ug/L	Analyzed:	10/07/00
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
1,2-Dichloroethene	ND	0.50
1,2-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	MEC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	96	80-110
Bromofluorobenzene	98	80-115



**Purgeable Organics by GC/MS**

Lab #:	147884	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	58727
Units:	ug/L	Analyzed:	10/06/00
Diln Fac:	1.000		

Type: BS Lab ID: QC126824

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	46.74	93	74-132
Benzene	50.00	45.96	92	80-116
Trichloroethene	50.00	47.98	96	80-119
Toluene	50.00	48.90	98	80-120
Chlorobenzene	50.00	49.41	99	80-117

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	96	80-115

Type: BSD Lab ID: QC126825

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	47.71	95	74-132	2	20
Benzene	50.00	46.30	93	80-116	1	20
Trichloroethene	50.00	49.01	98	80-119	2	20
Toluene	50.00	47.32	95	80-120	3	20
Chlorobenzene	50.00	50.43	101	80-117	2	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	78-123
Toluene-d8	97	80-110
Bromofluorobenzene	100	80-115

**Calscience**  
**Environmental**  
**Laboratories, Inc.**

October 11, 2000

Steve Stanley  
Curtis & Tompkins, Ltd.  
2323 Fifth Street  
Berkeley, CA 94710

Subject: **Calscience Work Order No.: 00-10-0223**  
Client Reference: **147884**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/06/00 and analyzed in accordance with the attached chain-of-custody.

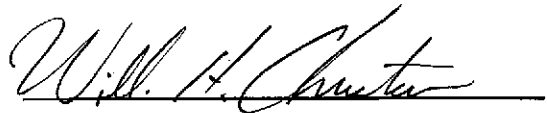
The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,



Calscience Environmental  
Laboratories, Inc.  
Jody McInerney  
Project Manager



William H. Christensen  
Quality Assurance Manager

**ANALYTICAL REPORT**

Curtis & Tompkins, Ltd.  
2323 Fifth Street  
Berkeley, CA 94710

Date Received: 10/06/00  
Work Order No: 00-10-0223  
Preparation: EPA 3520B  
Method: EPA 8081A

Project: 147884

Page 1 of 1

Client Sample Number:

Lab Sample Number: Date Collected: Matrix: Date Prepared: Date Analyzed: QC Batch ID:

SCIMW-33	00-10-0223-1	10/04/00	Aqueous	10/09/00	10/10/00	0010095
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Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Alpha-BHC	ND	0.10	1		ug/L	Endrin	ND	0.10	1		ug/L
Gamma-BHC	ND	0.10	1		ug/L	Endrin Aldehyde	ND	0.10	1		ug/L
Beta-BHC	ND	0.10	1		ug/L	4,4'-DDD	ND	0.10	1		ug/L
Heptachlor	ND	0.10	1		ug/L	Endosulfan II	ND	0.10	1		ug/L
Delta-BHC	ND	0.10	1		ug/L	4,4'-DDT	ND	0.10	1		ug/L
Aldrin	ND	0.10	1		ug/L	Endosulfan Sulfate	ND	0.10	1		ug/L
Heptachlor Epoxide	ND	0.10	1		ug/L	Methoxychlor	ND	0.10	1		ug/L
Endosulfan I	ND	0.10	1		ug/L	Chlordane	ND	1.0	1		ug/L
Dieldrin	ND	0.10	1		ug/L	Toxaphene	ND	2.0	1		ug/L
4,4'-DDE	ND	0.10	1		ug/L	Endrin Ketone	ND	0.10	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	53	50-135		2,4,5,6-Tetrachloro-m-Xylene	64	50-135	

Method Blank	095-01-015-769	N/A	Aqueous	10/09/00	10/10/00	0010095
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Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Alpha-BHC	ND	0.10	1		ug/L	Endrin	ND	0.10	1		ug/L
Gamma-BHC	ND	0.10	1		ug/L	Endrin Aldehyde	ND	0.10	1		ug/L
Beta-BHC	ND	0.10	1		ug/L	4,4'-DDD	ND	0.10	1		ug/L
Heptachlor	ND	0.10	1		ug/L	Endosulfan II	ND	0.10	1		ug/L
Delta-BHC	ND	0.10	1		ug/L	4,4'-DDT	ND	0.10	1		ug/L
Aldrin	ND	0.10	1		ug/L	Endosulfan Sulfate	ND	0.10	1		ug/L
Heptachlor Epoxide	ND	0.10	1		ug/L	Methoxychlor	ND	0.10	1		ug/L
Endosulfan I	ND	0.10	1		ug/L	Chlordane	ND	1.0	1		ug/L
Dieldrin	ND	0.10	1		ug/L	Toxaphene	ND	2.0	1		ug/L
4,4'-DDE	ND	0.10	1		ug/L	Endrin Ketone	ND	0.10	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	91	50-135		2,4,5,6-Tetrachloro-m-Xylene	56	50-135	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**Quality Control - LCS/LCS Duplicate**

Curtis & Tompkins, Ltd.  
 2323 Fifth Street  
 Berkeley, CA 94710

Date Received: 10/06/00  
 Work Order No: 00-10-0223  
 Preparation: EPA 3520B  
 Method: EPA 8081A

Project: 147884

LCS Sample Number	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-015-769	Aqueous	GC 16	10/09/00	10/10/00	0010095

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gamma-BHC	72	83	50-135	13	0-25	
Heptachlor	87	92	50-135	5	0-25	
Endosulfan I	90	96	50-135	7	0-25	
Dieldrin	93	96	50-135	3	0-25	
Endrin	103	107	50-135	4	0-25	
4,4'-DDT	88	90	50-135	2	0-25	

Work Order Number: 00-10-0223

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<u>Qualifier</u>	<u>Definition</u>
ND	Not detected at indicated reporting limit.

0223

Curtis & Tompkins, Ltd.  
Analytical Laboratories, Since 1878  
2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 ph  
(510)486-0532 fx

Project Number: 147884

Subcontract Lab:

Cal Science  
7440 Lincoln Way  
Garden Grove, CA 92641-1432  
(714) 895-5494

Please send report to: Steve Stanley

PEST. only

Turnaround Time: Due 10/11

Report Level: II

Sample ID	Date Sampled	Matrix	Analysis	C&T Lab #
SCIMW-33	04-OCT-00	Water	8080	147884-001

\*\*\*Please report using Sample ID instead of C&T Lab #.

Notes:	RELINQUISHED BY:	RECEIVED BY:
	[Signature] 10-5-00 4:00 Date/Time	[Signature] 10/6/00 Date/Time 0800

Signature on this form constitutes a firm Purchase Order for the services requested above.



ANALYTICAL REPORT

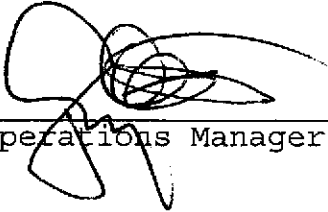
Prepared for:

Subsurface Consultants  
3736 Mt. Diablo Blvd.  
Suite 200  
Lafayette, CA 94549

Date: 23-OCT-00  
Lab Job Number: 147942  
Project ID: 133.009  
Location: KOT/9th Ave.Terminal

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:   
Project Manager

Reviewed by:   
Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: **147942**  
Client: **Subsurface Consultants, Inc.**  
Project Name: **9<sup>th</sup> Ave. Terminal**

Receipt Date: **10/06/00**

### **CASE NARRATIVE**

This hardcopy data package contains sample results and batch QC results for thirteen water samples received from the above referenced project. The samples were received cold and intact.

**Total Volatile Hydrocarbons:** The trifluorotoluene surrogate recoveries for sample SCIMW-24 (147942-010) and the matrix spikes were outside acceptance limits due to coelution of the surrogate peak with hydrocarbon peaks. The associated bromofluorobenzene surrogate recoveries were acceptable. No other analytical problems were encountered.

**BTXE:** No analytical problems were encountered.

**Total Extractable Hydrocarbons:** No analytical problems were encountered.

**Volatile Organic Compounds:** No analytical problems were encountered.

**Metals:** The blank spike duplicate recovery for silver was above acceptance limits. The associated blank spike recovery was acceptable. Silver was not detected in the associated sample.

The matrix spike recovery for silver was outside acceptance limits. The associated blank spike recovery was acceptable. No other analytical problems were encountered.



# CHAIN OF CUSTODY FORM

PROJECT NAME: 9th Avenue Terminal  
 JOB NUMBER: 133.009 LAB: Birt's & Tompkins  
 PROJECT CONTACT: E. Silverman TURNAROUND: Standard  
 SAMPLED BY: E. Silverman REQUESTED BY: E. Silverman

ANALYSIS	REQUESTED
TVH/BTEX (8015m)	
TEHD, TELMA (8015) (1)	
VOCS (8240) - 8240 list	
MTBE (8260)	
PNA (8270 - F. Heved)	
Pesticides (8080)	
THP 22 Metals (100)	

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS				METHOD PRESERVED					SAMPLING DATE				NOTES
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	NONE	MONTH	DAY	YEAR	TIME	
147942 -1	SCIMW-30	X				3	2			X			X		10	06	00	09 28	
-2	MW-5	X				6	2								10	06	00	13 10	
-3	SCIMW-1	X				3	2								10	06	00	13 50	
-4	SCIMW-21	X				3	2								10	06	00	12 09	
-5	SCIMW-28	X				3	2								10	06	00	11 04	
-6	SCIMW-35	X				3	2								10	06	00	10 40	
-7	SCIMW-7	X				3	2								10	06	00	10 40	
-8	SCIMW-33	X				3	3								10	06	00	09 05	
-9	MW-3	X				3	3								10	06	00	09 05	
-10	SCIMW-24	X				3	3								10	06	00	09 26	
-11	SCIMW-29	X				3	3								10	06	00	00 14	

CHAIN OF CUSTODY RECORD			
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
<i>E. Silverman</i>	10/6/00 5:25	<i>Carol Wathen</i>	10/6/00 5:25

COMMENTS & NOTES:  
 SCIMW-21 - only one 1-L receive) 10/9/00  
 SCIMW-24 8 VOA received 11/13  
 ① TEH w/ silica gel cleanup.  
 ② Filter before sample before running WOC  
 All VOAs impounded

**SCU** Subsurface Consultants, Inc.  
 171 - 12th Street, Suite 202, Oakland, CA 94607  
 (510) 268-0461 - FAX: (510) 268-0137  
 3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549  
 (925) 298-7960 - (925) 298-7970

# CHAIN OF CUSTODY FORM

**Curtis & Tompkins, Ltd.**  
 Analytical Laboratory Since 1878  
 2323 Fifth Street  
 Berkeley, CA 94710  
 (510)486-0900 Phone  
 (510)486-0532 Fax

C&T  
 LOGIN # 147942

Analyses

Project No: 133.009  
 Project Name: 9th Ave Terminal  
 Project P.O.: 133.009  
 Turnaround Time: Standard

Sampler: E. Silverman  
 Report To: E. Silverman  
 Company: SCI  
 Telephone:  
 Fax:

X	TVH-9	BTEX	(8020)
X	MTBE	(8260)	
X	TEH-2, TEH-11	(8015)	
X	VOCs	(8260)	- 8240 List

Laboratory Number	Sample ID.	Sampling Date - Time	Matrix			# of Containers	Preservative				Field Notes
			Soil	Water	Waste		HCL	H2SO	HNO3	ICE	
-12	SCIMW-34	10/6/00 4:10		X		6					
-13	SCIMW-20	10/6/00 16:20		X		5					

Notes: Received  On Ice  
 Cold  Ambient  Intact

SCIMW-34  
 1 YOA hot  
 bubble  
 water JHD

RELINQUISHED BY:  
E. Silverman 10/6/00  
5:25 DATE/TIME

RECEIVED BY:  
Carl Warhan 10/6/00 5:25  
 DATE/TIME

Preservation Correct?  
 Yes  No  N/A

Signature

## Gasoline by GC/FID CA LUFT

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	10/06/00
Units:	ug/L	Received:	10/06/00

Field ID: MW-5 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 58797  
 Lab ID: 147942-002 Analyzed: 10/10/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	118	59-135
Bromofluorobenzene (FID)	123	60-140

Field ID: SCIMW-35 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 58777  
 Lab ID: 147942-006 Analyzed: 10/10/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	59-135
Bromofluorobenzene (FID)	120	60-140

Field ID: SCIMW-24 Diln Fac: 10.00  
 Type: SAMPLE Batch#: 58797  
 Lab ID: 147942-010 Analyzed: 10/10/00

Analyte	Result	RL
Gasoline C7-C12	5,400	500

Surrogate	%REC	Limits
Trifluorotoluene (FID)	140 *	59-135
Bromofluorobenzene (FID)	119	60-140

\* Value outside of QC limits; see narrative

ND = Not Detected

RL = Reporting Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 147942-010,58797

Sample #:

Page 1 of 1

FileName : G:\GC07\DATA\284A011.raw

Date : 10/10/00 06:23 PM

Method : TVHBTXE

Time of Injection: 10/10/00 05:57 PM

Start Time : 0.00 min

End Time : 26.00 min

Low Point : -4.24 mV

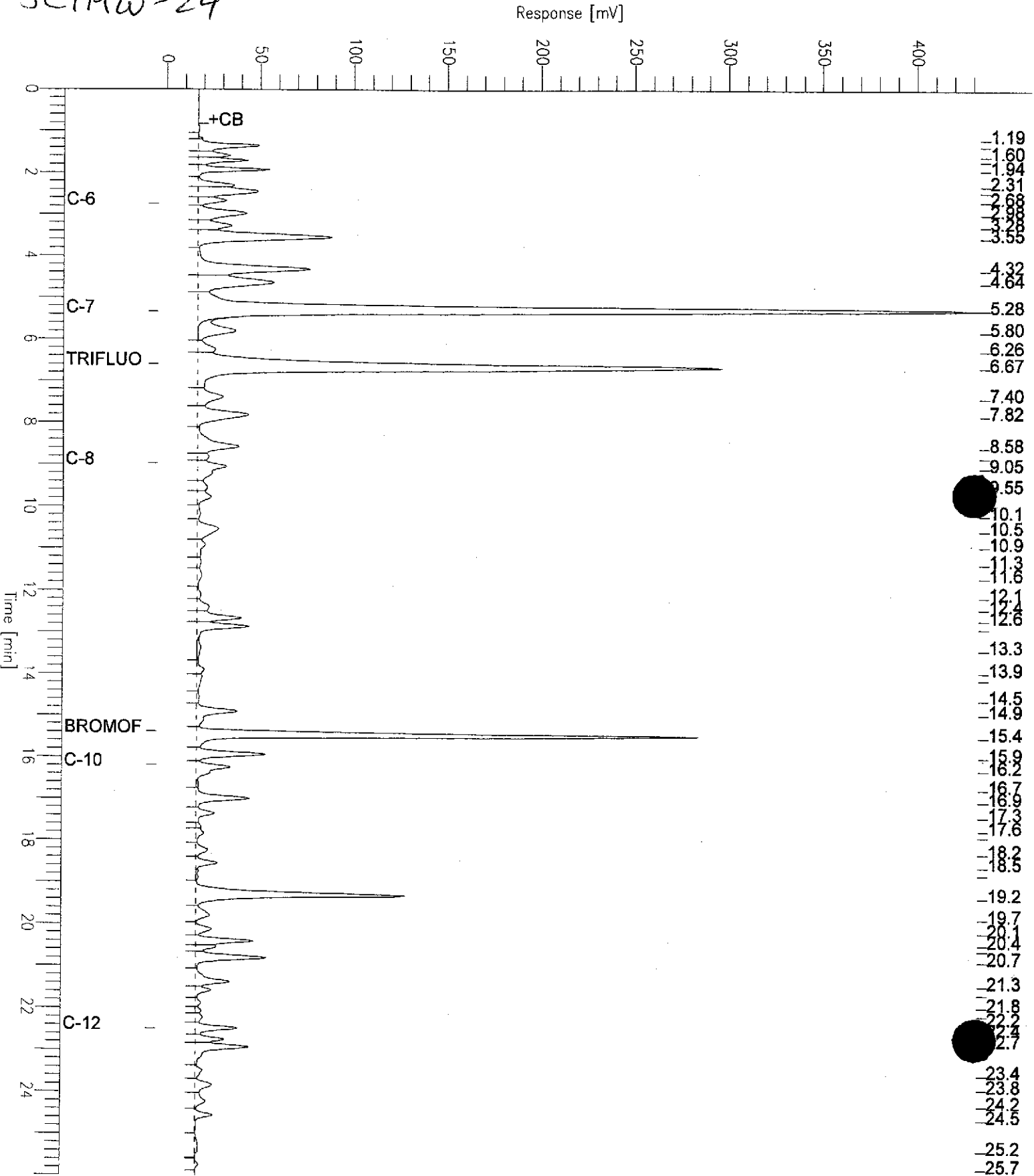
High Point : 433.6

Scale Factor: 1.0

Plot Offset: -4 mV

Plot Scale: 437.9 mV

SCIMW-24



## Gasoline by GC/FID CA LUFT

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	10/06/00
Units:	ug/L	Received:	10/06/00

Field ID: SCIMW-34 Diln Fac: 1.000  
 Type: SAMPLE Batch#: 58777  
 Lab ID: 147942-012 Analyzed: 10/10/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	59-135
Bromofluorobenzene (FID)	121	60-140

Type: BLANK Batch#: 58777  
 Lab: QC127031 Analyzed: 10/09/00  
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	59-135
Bromofluorobenzene (FID)	111	60-140

Type: BLANK Batch#: 58797  
 Lab ID: QC127109 Analyzed: 10/10/00  
 Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	59-135
Bromofluorobenzene (FID)	112	60-140

\* Value outside of QC limits; see narrative

ND = Not Detected

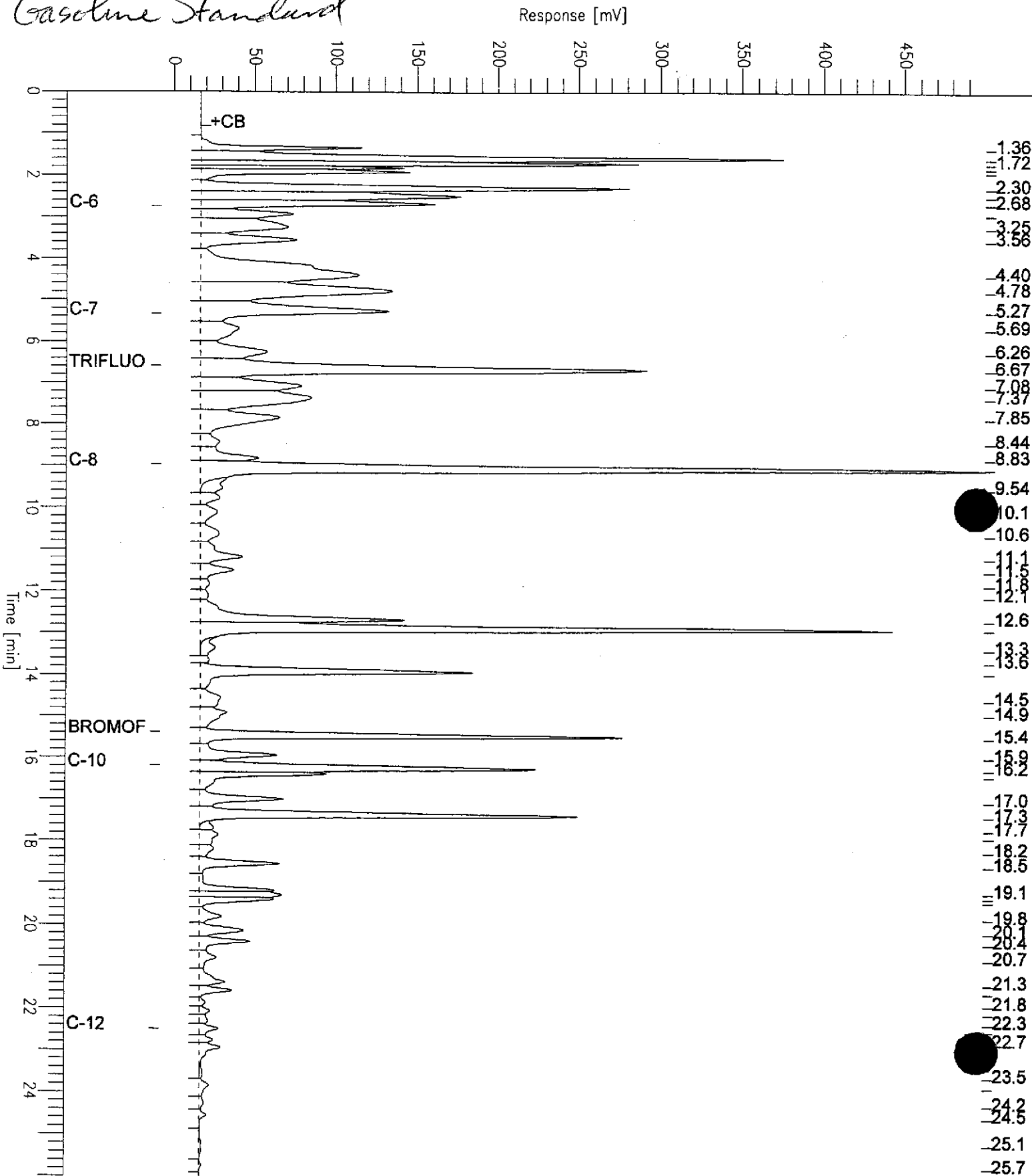
RL = Reporting Limit

# GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS, QC127029, 58777, 00WS9736, 5/5000  
 FileName : G:\GC07\DATA\283A017.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min      End Time : 26.00 min  
 Scale Factor: 1.0      Plot Offset: -8 mV

Sample #: .      Page 1 of 1  
 Date : 10/9/00 08:13 PM  
 Time of Injection: 10/9/00 07:47 PM  
 Low Point : -8.03 mV      High Point : 500.0  
 Plot Scale: 508.0 mV

*Gasoline Standard*



## Gasoline by GC/FID CA LUFT

Lab #:	147942	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127029	Batch#:	58777
Matrix:	Water	Analyzed:	10/09/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,209	110	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	59-135
Bromofluorobenzene (FID)	116	60-140

**Gasoline by GC/FID CA LUFT**

Lab #:	147942	Location:	KOT/9th Ave Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127107	Batch#:	58797
Matrix:	Water	Analyzed:	10/10/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,227	111	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	59-135
Bromofluorobenzene (FID)	117	60-140



## Gasoline by GC/FID CA LUFT

Lab #:	147942	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8015M
Field ID:	MW-5	Batch#:	58797
MSS Lab ID:	147942-002	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/10/00
Diln Fac:	1.000		

Type: MS Lab ID: QC127110

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<26.74	2,000	2,115	106	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	139 *	59-135
Bromofluorobenzene (FID)	123	60-140

Type: MSD Lab ID: QC127111

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,068	103	65-131	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	139 *	59-135
Bromofluorobenzene (FID)	122	60-140

\* = Value outside of QC limits; see narrative

RPD= Relative Percent Difference



## Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	10/06/00
Units:	ug/L	Received:	10/06/00

Field ID:	MW-5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	58777
Lab ID:	147942-002	Analyzed:	10/10/00

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	115	56-142
Bromofluorobenzene (PID)	113	55-149

Field ID:	SCIMW-35	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	58777
Lab ID:	147942-006	Analyzed:	10/10/00

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	113	56-142
Bromofluorobenzene (PID)	110	55-149

Field ID:	SCIMW-24	Diln Fac:	10.00
Type:	SAMPLE	Batch#:	58797
Lab ID:	147942-010	Analyzed:	10/10/00

Analyte	Result	RL
Benzene	1,600	5.0
Toluene	36	5.0
Ethylbenzene	59	5.0
m,p-Xylenes	66	5.0
o-Xylene	6.3	5.0

Surrogate	%REC	Limits
Trifluorotoluene (PID)	125	56-142
Bromofluorobenzene (PID)	109	55-149

**Benzene, Toluene, Ethylbenzene, Xylenes**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Matrix:	Water	Sampled:	10/06/00
Units:	ug/L	Received:	10/06/00

Field ID: SCIMW-34                      Diln Fac: 1.000  
 Type: SAMPLE                              Batch#: 58777  
 Lab ID: 147942-012                      Analyzed: 10/10/00

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m, p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	112	56-142
Bromofluorobenzene (PID)	109	55-149

Type: BLANK                              Batch#: 58777  
 Lab ID: QC127031                      Analyzed: 10/09/00  
 Diln Fac: 1.000

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m, p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	109	56-142
Bromofluorobenzene (PID)	103	55-149

Type: BLANK                              Batch#: 58797  
 Lab ID: QC127109                      Analyzed: 10/10/00  
 Diln Fac: 1.000

Analyte	Result	RL
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m, p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	108	56-142
Bromofluorobenzene (PID)	103	55-149



**Benzene, Toluene, Ethylbenzene, Xylenes**

Lab #:	147942	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127030	Batch#:	58777
Matrix:	Water	Analyzed:	10/09/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	18.55	93	67-117
Toluene	20.00	19.37	97	69-117
Ethylbenzene	20.00	19.05	95	68-124
m,p-Xylenes	40.00	39.55	99	70-125
o-Xylene	20.00	19.39	97	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	110	56-142
Bromofluorobenzene (PID)	105	55-149

**Benzene, Toluene, Ethylbenzene, Xylenes**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127108	Batch#:	58797
Matrix:	Water	Analyzed:	10/10/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	18.37	92	67-117
Toluene	20.00	19.52	98	69-117
Ethylbenzene	20.00	18.92	95	68-124
m,p-Xylenes	40.00	39.67	99	70-125
o-Xylene	20.00	19.48	97	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	110	56-142
Bromofluorobenzene (PID)	106	55-149

## Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8021B
Field ID:	SCIMW-34	Batch#:	58777
MSS Lab ID:	147942-012	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/10/00
Diln Fac:	1.000		

Type: MS

Lab ID: QC127032

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	<0.1000	20.00	18.40	92	65-123
Toluene	<0.09000	20.00	19.29	96	73-122
Ethylbenzene	<0.1100	20.00	18.97	95	59-137
m,p-Xylenes	<0.1400	40.00	39.72	99	68-132
o-Xylene	<0.1900	20.00	19.27	96	61-140

Surrogate	%REC	Limits
Trifluorotoluene (PID)	111	56-142
Bromofluorobenzene (PID)	109	55-149

Type: MSD

Lab ID: QC127033

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	18.67	93	65-123	1	20
Toluene	20.00	19.71	99	73-122	2	20
Ethylbenzene	20.00	19.43	97	59-137	2	20
m,p-Xylenes	40.00	40.34	101	68-132	2	20
o-Xylene	20.00	20.04	100	61-140	4	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	113	56-142
Bromofluorobenzene (PID)	111	55-149

### Total Extractable Hydrocarbons

Lab #:	147942	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Sampled:	10/06/00
Units:	ug/L	Received:	10/06/00
Diln Fac:	1.000	Prepared:	10/09/00
Batch#:	58780		

Field ID:	SCIMW-30	Lab ID:	147942-001
Type:	SAMPLE	Analyzed:	10/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	84	44-121

Field ID:	MW-5	Lab ID:	147942-002
Type:	SAMPLE	Analyzed:	10/11/00

Analyte	Result	RL
Diesel C10-C24	600	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	97	44-121

Field ID:	SCIMW-1	Lab ID:	147942-003
Type:	SAMPLE	Analyzed:	10/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	85	44-121

Field ID:	SCIMW-21	Lab ID:	147942-004
Type:	SAMPLE	Analyzed:	10/11/00

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	90	44-121

# Chromatogram

Sample Name : 147942-002sg,58780  
FileName : G:\GC13\CHB\284B023.RAW  
Method : BTEH253.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

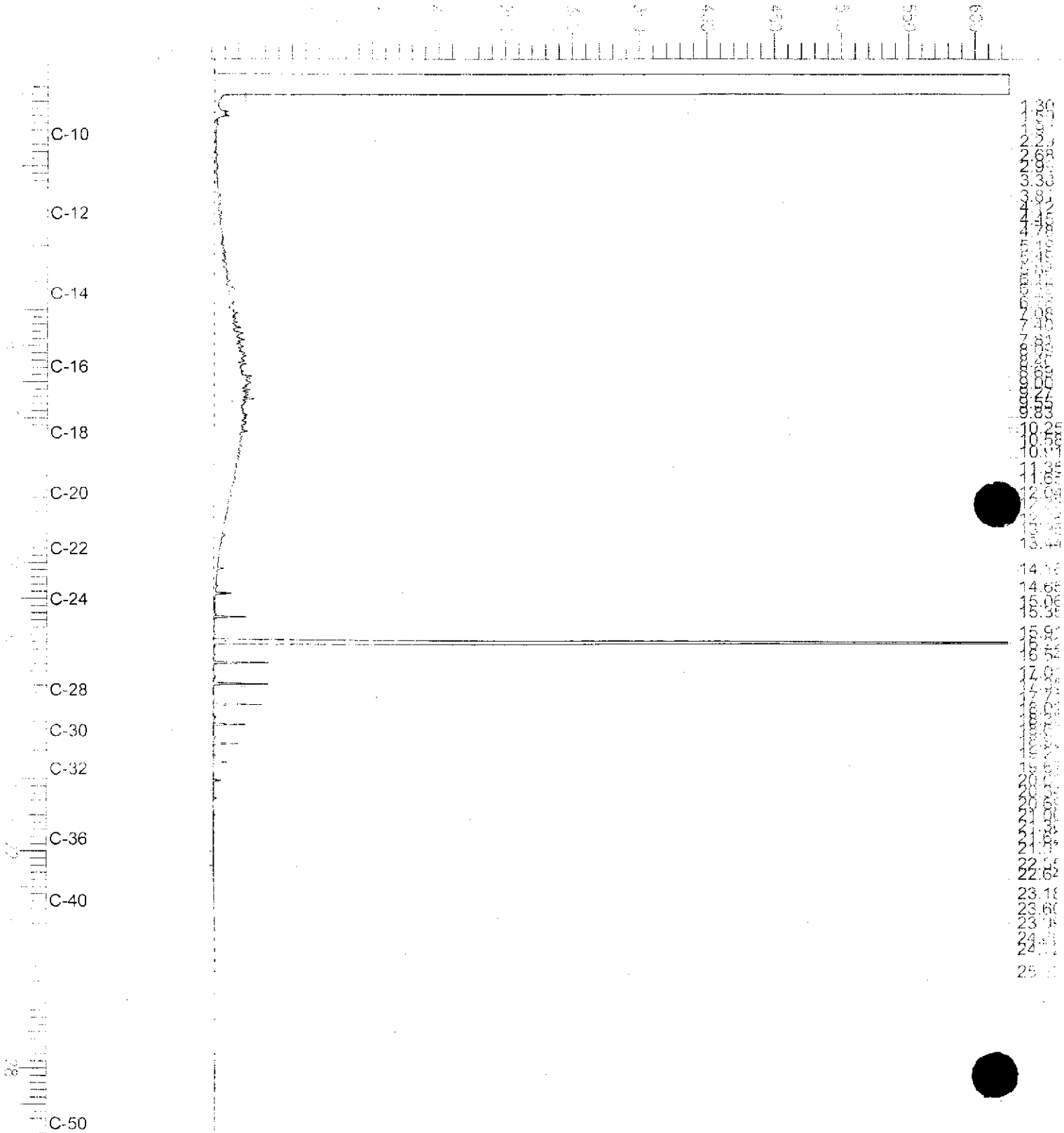
End Time : 31.91 min  
Plot Offset: -20 mV

Sample #: 58780  
Date : 10/11/2000 12:15 PM  
Time of Injection: 10/11/2000 01:35 AM  
Low Point : -20.44 mV  
Plot Scale: 646.1 mV

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MW-5

Response [mV]







# Chromatogram

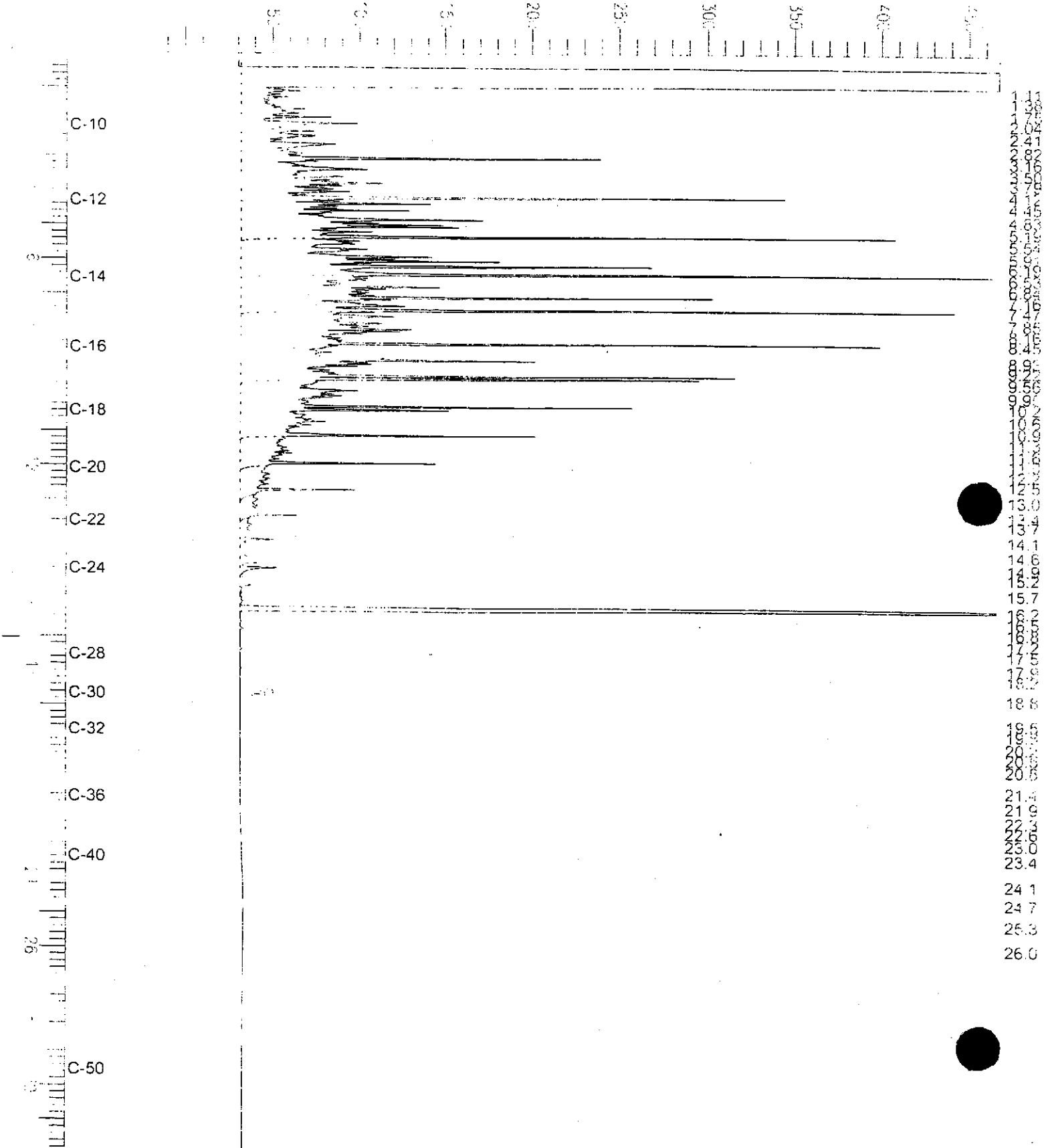
Sample Name : ccv,00ws9775,dsl  
FileName : G:\GC13\CHEM\254B001.RAW  
Method : PTFE.P22.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

End Time : 31.91 min  
Plot Offset: -14 mV

Sample #: Page 1 of 1  
Date : 10/10/2000 11:17 AM  
Time of Injection: 10/10/2000 10:12 AM  
Low Point : -14.47 mV High Point : 467.14 mV  
Plot Scale: 481.6 mV

## Diesel Standard

Response [mV]



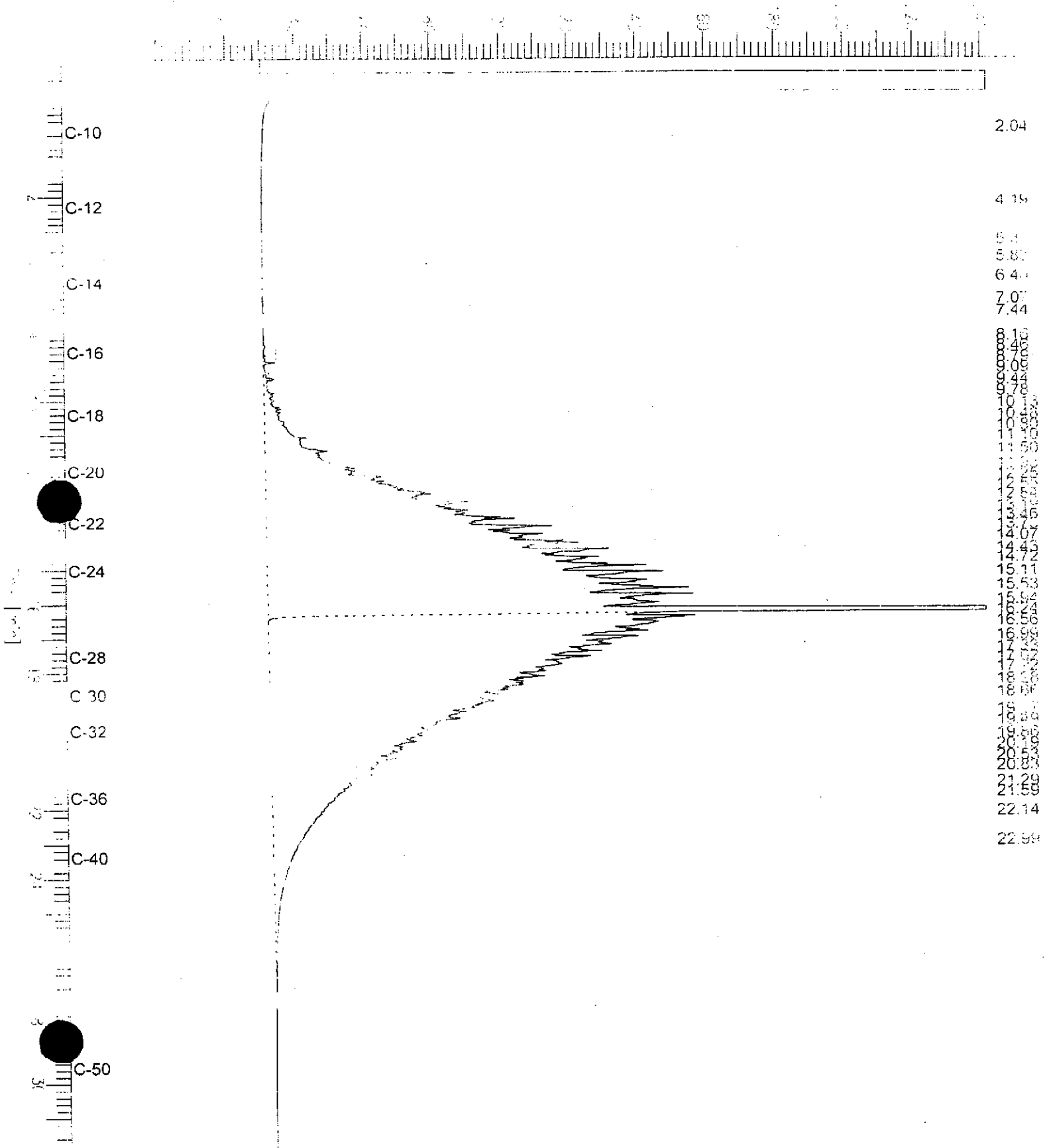
# Chromatogram

Sample Name : CCV,00WS96.5,MO  
FileName : G:\GC13\CHBA\284B002.RAW  
Method : BTEH283.MTH  
Start Time : 0.01 min End Time : 31.91 min  
Inlet Pressure : 0.0 Plot Offset: -0 mV

Sample #: Page 1 of 1  
Date : 10/10/2000 11:43 AM  
Time of Injection: 10/10/2000 10:51 AM  
Low Point : -0.31 mV High Point : 241.72 mV  
Plot Scale: 242.0 mV

## Motor Oil Standard

Response [mV]



**Total Extractable Hydrocarbons**

Lab #:	147942	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Batch#:	58780
Units:	ug/L	Prepared:	10/09/00
Diln Fac:	1.000	Analyzed:	10/10/00

Type: BS Lab ID: QC127043

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,339	1,586	68	45-110

Surrogate	%REC	Limits
Hexacosane	97	44-121

Type: BSD Lab ID: QC127044

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,339	1,336	57	45-110	17	22

Surrogate	%REC	Limits
Hexacosane	81	44-121

## Purgeable Organics by GC/MS

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133,009	Analysis:	EPA 8260B
Field ID:	SCIMW-30	Batch#:	58766
Lab ID:	147942-001	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	7.4	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
1,1-Dichloroethene	ND	0.50
1,1-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	REC	Limits
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	101	80-110
Bromofluorobenzene	113	80-115



## Purgeable Organics by GC/MS

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-7	Batch#:	58796
Lab ID:	147942-007	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/10/00
Diln Fac:	5.000		

Analyte	Result	RL
Chloromethane	ND	5.0
Vinyl Chloride	590	2.5
Bromomethane	ND	5.0
Chloroethane	790	5.0
Trichlorofluoromethane	ND	2.5
Acetone	50	50
Freon 113	ND	25
1,1-Dichloroethene	41	2.5
Methylene Chloride	ND	50
Carbon Disulfide	ND	2.5
MTBE	ND	2.5
trans-1,2-Dichloroethene	77	2.5
Vinyl Acetate	ND	50
1,1-Dichloroethane	380	2.5
2-Butanone	ND	50
cis-1,2-Dichloroethene	830	2.5
Chloroform	ND	2.5
1,1,1-Trichloroethane	810	2.5
Carbon Tetrachloride	ND	2.5
1,2-Dichloroethane	3.5	2.5
Benzene	850	2.5
Trichloroethene	73	2.5
1,2-Dichloropropane	ND	2.5
Bromodichloromethane	ND	2.5
4-Methyl-2-Pentanone	ND	50
cis-1,3-Dichloropropene	ND	2.5
Toluene	370	2.5
trans-1,3-Dichloropropene	ND	2.5
1,1,2-Trichloroethane	ND	2.5
2-Hexanone	ND	50
Tetrachloroethene	2.9	2.5
Dibromochloromethane	ND	2.5
Chlorobenzene	ND	2.5
Ethylbenzene	ND	2.5
m,p-Xylenes	5.5	2.5
o-Xylene	8.8	2.5
Styrene	ND	2.5
Bromoform	ND	5.0
1,1,2,2-Tetrachloroethane	ND	2.5

Surrogate	REC	Limits
1,2-Dichloroethane-d4	96	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	105	80-115

**Purgeable Organics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-33	Batch#:	58766
Lab ID:	147942-008	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	1.1	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	2.5	0.50
1,2-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	0.74	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	180	0.50
Ethylbenzene	0.68	0.50
m,p-Xylenes	13	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	REC	Limits
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	109	80-115



## Purgeable Organics by GC/MS

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-26	Batch#:	58766
Lab ID:	147942-013	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Trichloroethene	ND	0.50
1,2-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	REC	Limits
1,2-Dichloroethane-d4	102	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	110	80-115



**Purgeable Organics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC126995	Batch#:	58766
Matrix:	Water	Analyzed:	10/09/00
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
1,2-Dichloroethene	ND	0.50
1,1-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	UREC	Limits
1,2-Dichloroethane-d4	102	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	114	80-115



## Purgeable Organics by GC/MS

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127105	Batch#:	58796
Matrix:	Water	Analyzed:	10/10/00
Units:	ug/L		

Analyte	Result	RL
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.50
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.50
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.50
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.50
MTBE	ND	0.50
trans-1,2-Dichloroethene	ND	0.50
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.50
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.50
Chloroform	ND	0.50
1,1,1-Trichloroethane	ND	0.50
Carbon Tetrachloride	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Trichloroethene	ND	0.50
1,2-Dichloropropane	ND	0.50
Bromodichloromethane	ND	0.50
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.50
Toluene	ND	0.50
trans-1,3-Dichloropropene	ND	0.50
1,1,2-Trichloroethane	ND	0.50
2-Hexanone	ND	10
Tetrachloroethene	ND	0.50
Dibromochloromethane	ND	0.50
Chlorobenzene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Styrene	ND	0.50
Bromoform	ND	1.0
1,1,2,2-Tetrachloroethane	ND	0.50

Surrogate	REC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	104	80-115

## Purgeable Organics by GC/MS

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	58766
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Type: BS Lab ID: QC126993

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	53.98	108	74-132
Benzene	50.00	49.14	98	80-116
Trichloroethene	50.00	51.70	103	80-119
Toluene	50.00	48.04	96	80-120
Chlorobenzene	50.00	49.74	99	80-117

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	78-123
Toluene-d8	97	80-110
Bromofluorobenzene	110	80-115

Type: BSD Lab ID: QC126994

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	50.85	102	74-132	6	20
Benzene	50.00	46.97	94	80-116	5	20
Trichloroethene	50.00	48.95	98	80-119	5	20
Toluene	50.00	47.30	95	80-120	2	20
Chlorobenzene	50.00	49.07	98	80-117	1	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	108	80-115

## Purgeable Organics by GC/MS

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	58796
Units:	ug/L	Analyzed:	10/10/00
Diln Fac:	1.000		

Type: BS Lab ID: QC127103

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	51.20	102	74-132
Benzene	50.00	47.66	95	80-116
Trichloroethene	50.00	49.84	100	80-119
Toluene	50.00	47.22	94	80-120
Chlorobenzene	50.00	51.17	102	80-117

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	100	80-115

Type: BSD Lab ID: QC127104

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	50.19	100	74-132	2	20
Benzene	50.00	46.70	93	80-116	2	20
Trichloroethene	50.00	46.68	93	80-119	7	20
Toluene	50.00	47.20	94	80-120	0	20
Chlorobenzene	50.00	49.46	99	80-117	3	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	102	80-115

**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	58766
Lab ID:	147942-002	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	1.3	0.5

Surrogate	REC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	111	80-115

**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-21	Batch#:	58766
Lab ID:	147942-004	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	NRSC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	112	80-115

**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	58766
Lab ID:	147942-009	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	VREC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	108	80-115



**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-29	Batch#:	58766
Lab ID:	147942-011	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	UREC	Limits
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	108	80-115



**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Field ID:	SCIMW-34	Batch#:	58766
Lab ID:	147942-012	Sampled:	10/06/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	VREC	Limits
1,2-Dichloroethane-d4	100	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	113	80-115

**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC126995	Batch#:	58766
Matrix:	Water	Analyzed:	10/09/00
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	REC	Limits
1,2-Dichloroethane-d4	102	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	114	80-115

**Purgeable Aromatics by GC/MS**

Lab #:	147942	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	EPA 5030
Project#:	133.009	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	58766
Units:	ug/L	Analyzed:	10/09/00
Diln Fac:	1.000		

Type: BS Lab ID: QC126993

Analyte	Spiked	Result	IREC	Limits
MTBE	50.00	46.54	93	49-144

Surrogate	IREC	Limits
1,2-Dichloroethane-d4	97	78-123
Toluene-d8	97	80-110
Bromofluorobenzene	110	80-115

Type: BSD Lab ID: QC126994

Analyte	Spiked	Result	IREC	Limits	RPD	Lia
MTBE	50.00	48.57	97	49-144	4	21

Surrogate	IREC	Limits
1,2-Dichloroethane-d4	101	78-123
Toluene-d8	98	80-110
Bromofluorobenzene	108	80-115



## California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009		
Field ID:	SCIMW-28	Diln Fac:	1.000
Lab ID:	147942-005	Sampled:	10/06/00
Matrix:	Filtrate	Received:	10/06/00
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Analysis
Antimony	ND	60	58791	10/09/00	10/13/00	EPA 6010B
Arsenic	36	5.0	58791	10/09/00	10/12/00	EPA 6010B
Barium	22	10	58791	10/09/00	10/12/00	EPA 6010B
Beryllium	ND	2.0	58791	10/09/00	10/12/00	EPA 6010B
Cadmium	ND	5.0	58791	10/09/00	10/12/00	EPA 6010B
Chromium	ND	10	58791	10/09/00	10/12/00	EPA 6010B
Cobalt	ND	20	58791	10/09/00	10/12/00	EPA 6010B
Copper	ND	10	58791	10/09/00	10/12/00	EPA 6010B
Lead	ND	3.0	58791	10/09/00	10/12/00	EPA 6010B
Mercury	ND	0.20	58895	10/13/00	10/13/00	EPA 7470
Molybdenum	ND	20	58791	10/09/00	10/12/00	EPA 6010B
Nickel	ND	20	58791	10/09/00	10/12/00	EPA 6010B
Selenium	ND	5.0	58791	10/09/00	10/12/00	EPA 6010B
Silver	ND	5.0	58791	10/09/00	10/12/00	EPA 6010B
Thallium	ND	5.0	58791	10/09/00	10/12/00	EPA 6010B
Vanadium	16	10	58791	10/09/00	10/12/00	EPA 6010B
Zinc	ND	20	58791	10/09/00	10/12/00	EPA 6010B

## California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127077	Batch#:	58791
Matrix:	Filtrate	Prepared:	10/09/00
Units:	ug/L		

Analyte	Result	RL	Analyzed
Antimony	ND	60	10/13/00
Arsenic	ND	5.0	10/12/00
Barium	ND	10	10/12/00
Beryllium	ND	2.0	10/12/00
Cadmium	ND	5.0	10/12/00
Chromium	ND	10	10/12/00
Cobalt	ND	20	10/12/00
Copper	ND	10	10/12/00
Lead	ND	3.0	10/12/00
Molybdenum	ND	20	10/12/00
Nickel	ND	20	10/12/00
Selenium	ND	5.0	10/12/00
Silver	ND	5.0	10/12/00
Thallium	ND	5.0	10/12/00
Vanadium	ND	10	10/12/00
Zinc	ND	20	10/12/00



California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 7470
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	58895
Lab ID:	QC127489	Prepared:	10/13/00
Matrix:	Water	Analyzed:	10/13/00
Units:	ug/L		

Result	RL
ND	0.20



## California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Matrix:	Filtrate	Batch#:	58791
Units:	ug/L	Prepared:	10/09/00
Diln Fac:	1.000		

Type: BS Lab ID: QC127078

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	500.0	446.0	89	75-123	10/13/00
Arsenic	100.0	109.0	109	80-120	10/12/00
Barium	2,000	2,040	102	80-116	10/12/00
Beryllium	50.00	52.60	105	80-116	10/12/00
Cadmium	50.00	51.30	103	80-126	10/12/00
Chromium	2,000	2,030	102	80-113	10/12/00
Cobalt	500.0	479.0	96	80-112	10/12/00
Copper	250.0	250.0	100	80-114	10/12/00
Lead	100.0	103.0	103	78-120	10/12/00
Molybdenum	400.0	412.0	103	80-114	10/12/00
Nickel	500.0	506.0	101	80-116	10/12/00
Selenium	100.0	102.0	102	79-120	10/12/00
Silver	50.00	60.00	120	80-120	10/12/00
Thallium	100.0	103.0	103	80-119	10/12/00
Vanadium	500.0	511.0	102	80-111	10/12/00
Zinc	500.0	517.0	103	72-126	10/12/00

Type: BSD Lab ID: QC127079

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	500.0	509.0	102	75-123	13	21	10/13/00
Arsenic	100.0	107.0	107	80-120	2	20	10/12/00
Barium	2,000	2,040	102	80-116	0	21	10/12/00
Beryllium	50.00	52.60	105	80-116	0	20	10/12/00
Cadmium	50.00	51.70	103	80-126	1	20	10/12/00
Chromium	2,000	2,030	102	80-113	0	21	10/12/00
Cobalt	500.0	479.0	96	80-112	0	25	10/12/00
Copper	250.0	251.0	100	80-114	0	24	10/12/00
Lead	100.0	103.0	103	78-120	0	20	10/12/00
Molybdenum	400.0	413.0	103	80-114	0	22	10/12/00
Nickel	500.0	506.0	101	80-116	0	23	10/12/00
Selenium	100.0	103.0	103	79-120	1	20	10/12/00
Silver	50.00	60.50	121 *	80-120	1	26	10/12/00
Thallium	100.0	103.0	103	80-119	0	20	10/12/00
Vanadium	500.0	511.0	102	80-111	0	20	10/12/00
Zinc	500.0	519.0	104	72-126	0	26	10/12/00

California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 7470
Analyte:	Mercury	Batch#:	58895
Matrix:	Water	Prepared:	10/13/00
Units:	ug/L	Analyzed:	10/13/00
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC127490	5.000	4.920	98	80-116		
BSD	QC127491	5.000	4.620	92	80-116	6	20



## California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	58791
MSS Lab ID:	147955-001	Sampled:	10/09/00
Lab ID:	QC127080	Received:	10/09/00
Matrix:	Filtrate	Prepared:	10/09/00
Units:	ug/L		

Analyte	MSS Result	Result	RL	RPD	Lim	Analyzed
Antimony	<60.00	ND	60	NC	29	10/13/00
Arsenic	33.30	32.40	5.0	3	42	10/12/00
Barium	64.70	65.50	10	1	20	10/12/00
Beryllium	<2.000	ND	2.0	NC	20	10/12/00
Cadmium	<5.000	ND	5.0	NC	25	10/12/00
Chromium	<10.00	ND	10	NC	20	10/12/00
Cobalt	<20.00	ND	20	NC	20	10/12/00
Copper	<10.00	ND	10	NC	20	10/12/00
Lead	<3.000	ND	3.0	NC	29	10/12/00
Molybdenum	<20.00	ND	20	NC	20	10/12/00
Nickel	<20.00	ND	20	NC	20	10/12/00
Selenium	<5.000	ND	5.0	NC	40	10/12/00
Silver	<5.000	ND	5.0	NC	30	10/12/00
Thallium	<5.000	ND	5.0	NC	41	10/13/00
Vanadium	<10.00	ND	10	NC	41	10/12/00
Zinc	120.0	120.0	20	0	33	10/12/00

NC = Not Calculated

ND = Not Detected

RL = Reporting Limit

RPD = Relative Percent Difference

## California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SSPIKE	Batch#:	58791
MSS Lab ID:	147955-001	Sampled:	10/09/00
Lab ID:	QC127081	Received:	10/09/00
Matrix:	Filtrate	Prepared:	10/09/00
Units:	ug/L		

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	2.280	500.0	517.0	103	64-128	10/13/00
Arsenic	33.30	100.0	144.0	111	65-131	10/12/00
Barium	64.70	2,000	2,150	104	75-120	10/12/00
Beryllium	0.1200	50.00	53.50	107	71-124	10/12/00
Cadmium	0.1890	50.00	51.70	103	70-127	10/12/00
Chromium	1.890	2,000	2,010	100	70-124	10/12/00
Cobalt	2.840	500.0	479.0	95	73-122	10/12/00
Copper	1.300	250.0	259.0	103	74-122	10/12/00
Lead	1.440	100.0	104.0	103	66-128	10/12/00
Molybdenum	4.100	400.0	415.0	103	72-122	10/12/00
Nickel	11.70	500.0	510.0	100	70-126	10/12/00
Selenium	3.020	100.0	117.0	114	65-132	10/12/00
Silver	2.120	50.00	35.30	66 *	72-125	10/12/00
Thallium	3.900	100.0	109.0	105	58-134	10/12/00
Vanadium	0.4980	500.0	512.0	102	58-134	10/12/00
Zinc	120.0	500.0	656.0	107	69-129	10/12/00

\* = Value outside of QC limits; see narrative

California Title 26 Metals

Lab #:	147942	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 7470
Analyte:	Mercury	Batch#:	58895
Field ID:	ZZZZZZZZZZ	Sampled:	10/10/00
MSS Lab ID:	147988-001	Received:	10/11/00
Matrix:	Water	Prepared:	10/13/00
Units:	ug/L	Analyzed:	10/13/00
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC127492	0.08400	5.000	4.920	97	80-114		
MSD	QC127493		5.000	4.780	94	80-114	3	22

RPD= Relative Percent Difference

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

A N A L Y T I C A L   R E P O R T

Prepared for:

Subsurface Consultants  
3736 Mt. Diablo Blvd.  
Suite 200  
Lafayette, CA 94549

Date: 25-OCT-00  
Lab Job Number: 148079  
Project ID: 133.009  
Location: KOT/9th Ave.Terminal

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:   
Project Manager

Reviewed by:   
Operations Manager

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### Total Extractable Hydrocarbons

Lab #:	148079	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630A
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Field ID:	MW-2	Batch#:	58940
Matrix:	Water	Sampled:	10/13/00
Units:	ug/L	Received:	10/13/00
Diln Fac:	1.000	Prepared:	10/16/00

Type: SAMPLE Analyzed: 10/18/00  
 Lab ID: 148079-001

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	95	44-121

Type: BLANK Analyzed: 10/17/00  
 Lab ID: QC127673

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	94	44-121



Total Extractable Hydrocarbons

Lab #:	148079	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630A
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Batch#:	58940
Units:	ug/L	Prepared:	10/16/00
Diln Fac:	1.000		

Type: BS Analyzed: 10/17/00  
 Lab ID: QC127674

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,339	1,515	65	45-110

Surrogate	%REC	Limits
Hexacosane	92	44-121

Type: BSD Analyzed: 10/18/00  
 Lab ID: QC127675

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,339	1,563	67	45-110	3	22

Surrogate	%REC	Limits
Hexacosane	96	44-121



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A N A L Y T I C A L   R E P O R T

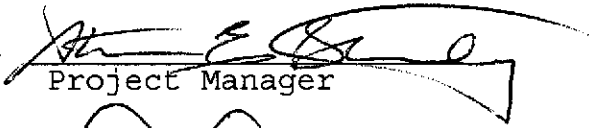
Prepared for:

Subsurface Consultants  
3736 Mt. Diablo Blvd.  
Suite 200  
Lafayette, CA 94549

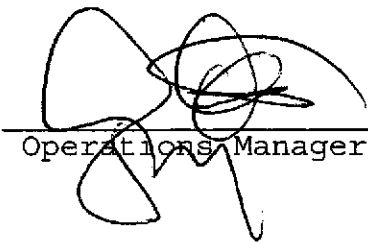
Date: 23-OCT-00  
Lab Job Number: 147974  
Project ID: 133.009  
Location: KOT/9th Ave. Terminal

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

This package may be reproduced only in its entirety.





Curtis & Tompkins, Ltd.

Laboratory Number: **147974**

Receipt Date: **10/10/00**

Client: **Subsurface Consultants, Inc.**

Project Name: **9<sup>th</sup> Ave. Terminal**

### **CASE NARRATIVE**

This hardcopy data package contains sample results and batch QC results for four water samples received from the above referenced project. The samples were received cold and intact.

**Total Extractable Hydrocarbons:** The hexacosane surrogate was not spiked into the blank spike duplicate during the extraction process. The associated blank spike analyte recovery was acceptable. No other analytical problems were encountered.

**Metals:** The matrix spike recoveries for barium, cadmium, cobalt, nickel, and thallium were outside acceptance limits. The associated blank spike recoveries were acceptable for all target elements. No other analytical problems were encountered.







# Chromatogram

Sample Name : 147974-004sg,58844  
FileName : G:\GC11\CHA\287A022.RAW  
Method : ATEH265.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

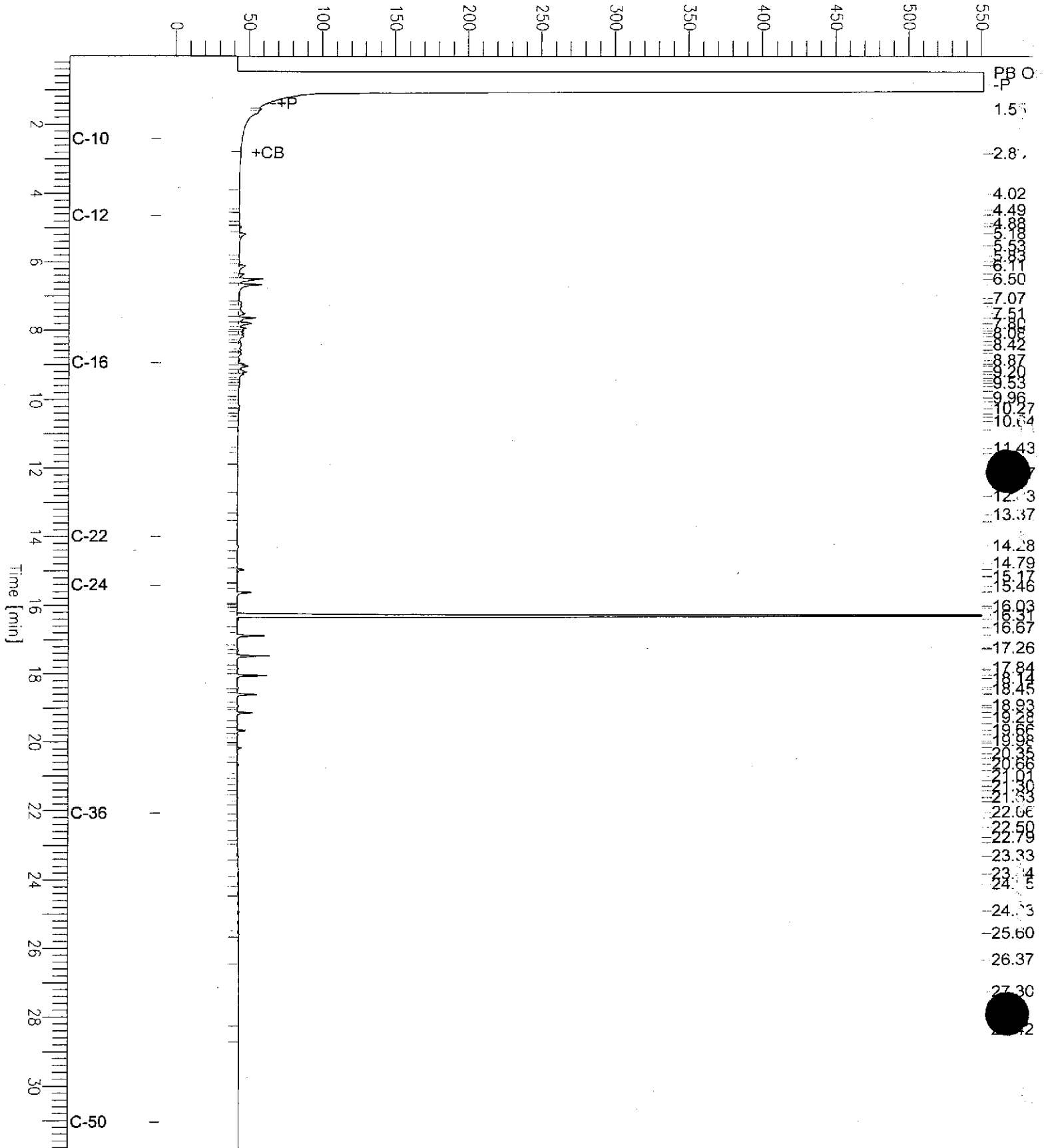
End Time : 31.91 min  
Plot Offset: -10 mV

Sample #: 58844  
Date : 10/15/00 01:11 PM  
Time of Injection: 10/14/00 12:21 AM  
Low Point : -9.83 mV  
High Point : 551.40 mV  
Plot Scale: 561.2 mV

Page 1 of 1

SCIMW-23

Response [mV]



# Chromatogram

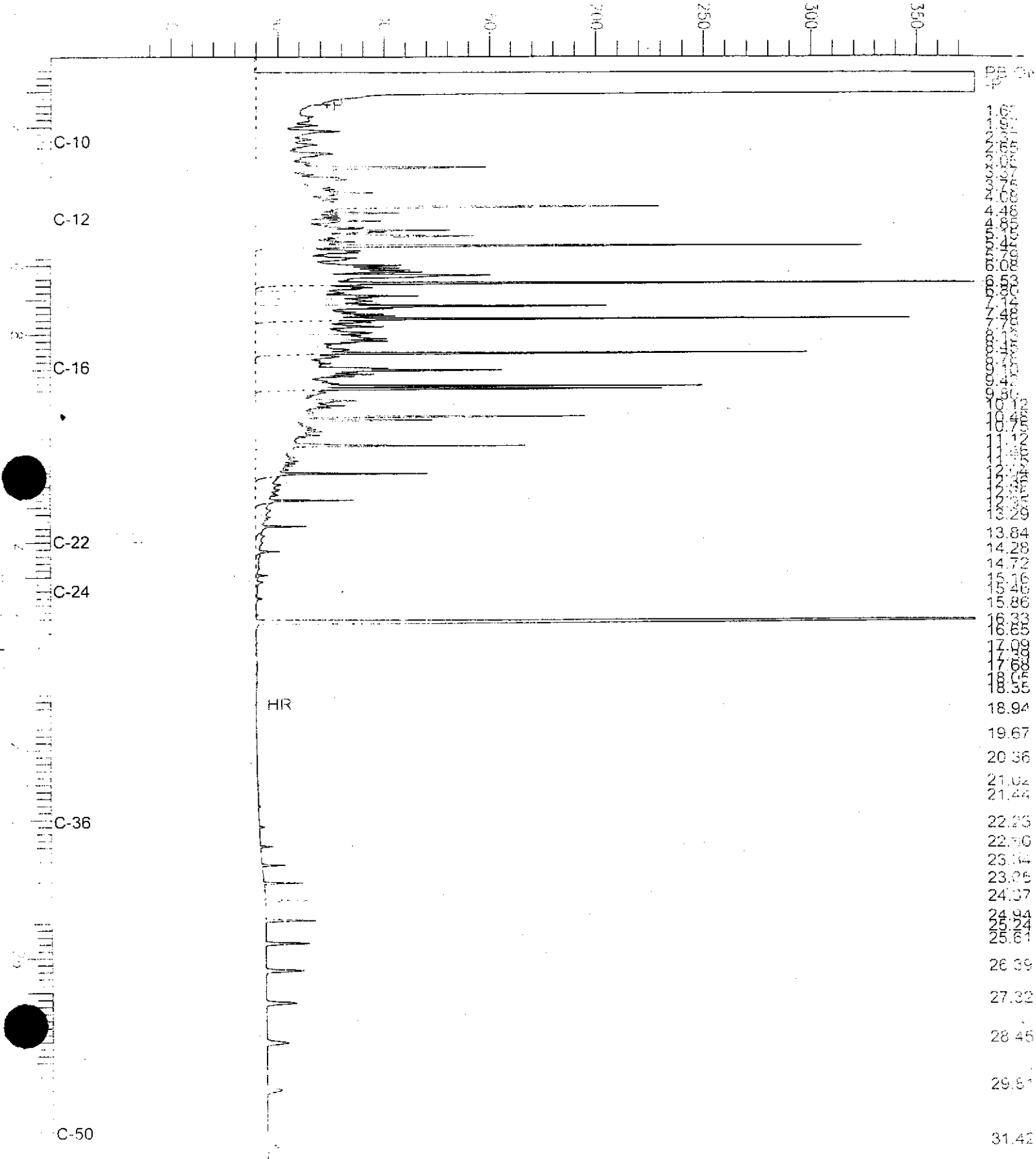
Sample Name : ccv,00ws9775,ds1  
FileName : G:\GC11\CHA\285A002.RAW  
Method : ATEH265.MTH  
Start Time : 0.01 min  
Factor : 0.0

End Time : 31.91 min  
Plot Offset: -13 mV

Sample #: 500mg/l  
Date : 10/12/00 08:43 AM  
Time of Injection: 10/11/00 07:35 PM  
Low Point : -12.68 mV  
Plot Scale: 390.0 mV  
High Point : 377.34 mV

Page 1 of 1

*Diesel Standard*



# Chromatogram

Sample Name : ccv,00ws9673.mo  
Name : G:\GC11\CHAN\265A003.RAW  
Method : ATEH265.MTH  
Start Time : 0.01 min  
Scale Factor: 0.0

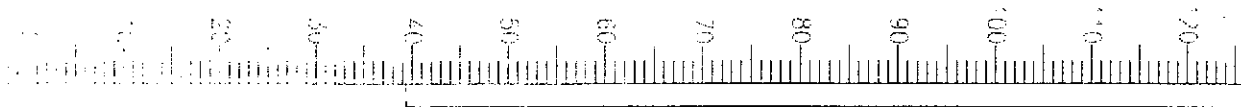
End Time : 31.91 min  
Plot Offset: -3 mV

Sample #: 500mg/l  
Date : 10/12/00 08:43 AM  
Time of Injection: 10/11/00 08:15 PM  
Low Point : -2.72 mV  
Plot Scale: 128.5 mV  
High Point : 125.76 mV

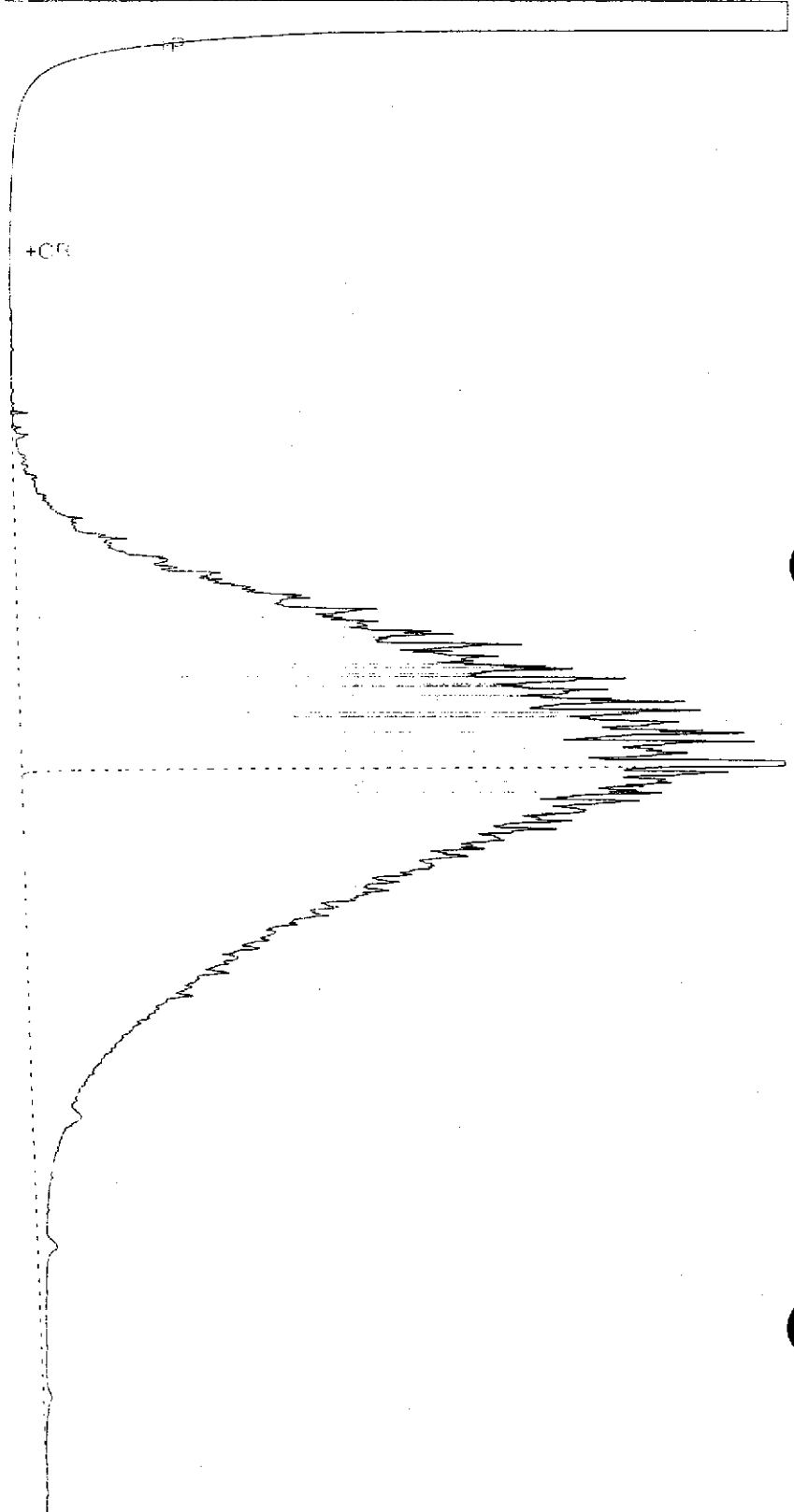
Page 1 of 1

*Motor Oil Standard*

Response [mV]



C-10  
C-12  
C-16  
C-22  
C-24  
C-36  
C-50



7.09  
7.71  
8.55  
8.99  
9.27  
9.70  
10.01  
10.37  
10.73  
11.09  
11.45  
11.81  
12.17  
12.53  
12.89  
13.25  
13.61  
13.97  
14.33  
14.69  
15.05  
15.41  
15.77  
16.13  
16.49  
16.85  
17.21  
17.57  
17.93  
18.29  
18.65  
19.01  
19.37  
19.73  
20.09  
20.45  
20.81  
21.17  
21.53  
21.89  
22.25  
22.61  
22.97  
23.33  
23.69  
24.05  
24.41  
24.77  
25.13  
25.49  
25.85  
26.21  
26.57  
26.93  
27.29  
27.65  
28.01  
28.37  
28.73  
29.09  
29.45  
31.91



Total Extractable Hydrocarbons

Lab #:	147974	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8015M
Matrix:	Water	Batch#:	58844
Units:	ug/L	Prepared:	10/11/00
Diln Fac:	1.000	Analyzed:	10/12/00

Type: BS Lab ID: QC127284

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,339	1,586	68	45-110

Surrogate	%REC	Limits
Hexacosane	92	44-121

Type: BSD Lab ID: QC127285

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,339	1,386	59	45-110	13	22

Surrogate	%REC	Limits
Hexacosane	0 *	44-121

\* = Value outside of QC limits; see narrative

RPD= Relative Percent Difference



## California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009		
Field ID:	SCIMW-2	Diln Fac:	1.000
Lab ID:	147974-002	Sampled:	10/10/00
Matrix:	Filtrate	Received:	10/10/00
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Analysis
Antimony	ND	60	58819	10/10/00	10/11/00	EPA 6010B
Arsenic	7.2	5.0	58819	10/10/00	10/12/00	EPA 6010B
Barium	230	10	58819	10/10/00	10/11/00	EPA 6010B
Beryllium	ND	2.0	58819	10/10/00	10/11/00	EPA 6010B
Cadmium	ND	5.0	58819	10/10/00	10/11/00	EPA 6010B
Chromium	ND	10	58819	10/10/00	10/11/00	EPA 6010B
Cobalt	ND	20	58819	10/10/00	10/11/00	EPA 6010B
Copper	ND	10	58819	10/10/00	10/11/00	EPA 6010B
Lead	ND	3.0	58819	10/10/00	10/11/00	EPA 6010B
Mercury	ND	0.20	58895	10/13/00	10/13/00	EPA 7470
Molybdenum	ND	20	58819	10/10/00	10/11/00	EPA 6010B
Nickel	ND	20	58819	10/10/00	10/11/00	EPA 6010B
Selenium	ND	5.0	58819	10/10/00	10/11/00	EPA 6010B
Silver	ND	5.0	58819	10/10/00	10/11/00	EPA 6010B
Thallium	ND	5.0	58819	10/10/00	10/11/00	EPA 6010B
Vanadium	ND	10	58819	10/10/00	10/11/00	EPA 6010B
Zinc	ND	20	58819	10/10/00	10/11/00	EPA 6010B



California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127203	Batch#:	58819
Matrix:	Filtrate	Prepared:	10/10/00
Units:	ug/L	Analyzed:	10/11/00

Analyte	Result	RL
Antimony	ND	60
Arsenic	ND	5.0
Barium	ND	10
Beryllium	ND	2.0
Cadmium	ND	5.0
Chromium	ND	10
Cobalt	ND	20
Copper	ND	10
Lead	ND	3.0
Molybdenum	ND	20
Nickel	ND	20
Selenium	ND	5.0
Silver	ND	5.0
Lithium	ND	5.0
Vanadium	ND	10
Zinc	ND	20



California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 7470
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	58895
Lab ID:	QC127489	Prepared:	10/13/00
Matrix:	Water	Analyzed:	10/13/00
Units:	ug/L		

Result	RL
ND	0.20



## California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Matrix:	Filtrate	Batch#:	58819
Units:	ug/L	Prepared:	10/10/00
Diln Fac:	1.000		

Type: BS

Lab ID: QC127204

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	500.0	439.0	88	75-123	10/12/00
Arsenic	100.0	104.0	104	80-120	10/11/00
Barium	2,000	1,980	99	80-116	10/11/00
Beryllium	50.00	52.10	104	80-116	10/11/00
Cadmium	50.00	49.60	99	80-126	10/11/00
Chromium	2,000	2,010	101	80-113	10/11/00
Cobalt	500.0	472.0	94	80-112	10/11/00
Copper	250.0	246.0	98	80-114	10/11/00
Lead	100.0	100.0	100	78-120	10/11/00
Molybdenum	400.0	404.0	101	80-114	10/11/00
Nickel	500.0	495.0	99	80-116	10/11/00
Selenium	100.0	98.50	99	79-120	10/11/00
Silver	50.00	49.70	99	80-120	10/11/00
Thallium	100.0	97.30	97	80-119	10/11/00
Vanadium	500.0	504.0	101	80-111	10/11/00
Zinc	500.0	506.0	101	72-126	10/11/00

ID: BSD  
QC127205

Analyzed: 10/11/00

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	498.0	100	75-123	21	21
Arsenic	100.0	106.0	106	80-120	2	20
Barium	2,000	1,990	100	80-116	1	21
Beryllium	50.00	52.40	105	80-116	1	20
Cadmium	50.00	49.90	100	80-126	1	20
Chromium	2,000	2,020	101	80-113	0	21
Cobalt	500.0	475.0	95	80-112	1	25
Copper	250.0	248.0	99	80-114	1	24
Lead	100.0	100.0	100	78-120	0	20
Molybdenum	400.0	410.0	103	80-114	1	22
Nickel	500.0	498.0	100	80-116	1	23
Selenium	100.0	103.0	103	79-120	4	20
Silver	50.00	51.00	102	80-120	3	26
Thallium	100.0	99.50	100	80-119	2	20
Vanadium	500.0	507.0	101	80-111	1	20
Zinc	500.0	508.0	102	72-126	0	26

## California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 7470
Analyte:	Mercury	Batch#:	58895
Matrix:	Water	Prepared:	10/13/00
Units:	ug/L	Analyzed:	10/13/00
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC127490	5.000	4.920	98	80-116		
BSD	QC127491	5.000	4.620	92	80-116	6	20

## California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Field ID:	SCIMW-2	Diln Fac:	1.000
Type:	SDUP	Batch#:	58819
MSS Lab ID:	147974-002	Sampled:	10/10/00
Lab ID:	QC127206	Received:	10/10/00
Matrix:	Filtrate	Prepared:	10/10/00
Units:	ug/L	Analyzed:	10/11/00

Analyte	MSS Result	Result	RL	RPD	Lim
Antimony	<60.00	ND	60	NC	29
Arsenic	7.200	ND	5.0	NC	42
Barium	227.0	221.0	10	3	20
Beryllium	<2.000	ND	2.0	NC	20
Cadmium	<5.000	ND	5.0	NC	25
Chromium	<10.00	ND	10	NC	20
Cobalt	<20.00	ND	20	NC	20
Copper	<10.00	ND	10	NC	20
Lead	<3.000	ND	3.0	NC	29
Molybdenum	<20.00	ND	20	NC	20
Nickel	<20.00	ND	20	NC	20
Platinum	<5.000	ND	5.0	NC	40
Silver	<5.000	ND	5.0	NC	30
Thallium	<5.000	ND	5.0	NC	41
Vanadium	<10.00	ND	10	NC	41
Zinc	<20.00	ND	20	NC	33

NC = Not Calculated

ND = Not Detected

RL = Reporting Limit

RPD = Relative Percent Difference



## California Title 26 Metals

Lab #:	147974	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Field ID:	SCIMW-2	Diln Fac:	1.000
Type:	SSPIKE	Batch#:	58819
MSS Lab ID:	147974-002	Sampled:	10/10/00
Lab ID:	QC127207	Received:	10/10/00
Matrix:	Filtrate	Prepared:	10/10/00
Units:	ug/L		

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	40.70	500.0	362.0	64	64-128	10/12/00
Arsenic	2.140	100.0	100.0	98	65-131	10/11/00
Barium	227.0	2,000	1,610	69 *	75-120	10/11/00
Beryllium	0.7020	50.00	38.90	76	71-124	10/11/00
Cadmium	0.4310	50.00	34.30	68 *	70-127	10/11/00
Chromium	1.660	2,000	1,410	70	70-124	10/11/00
Cobalt	1.060	500.0	337.0	67 *	73-122	10/11/00
Copper	ND	250.0	205.0	82	74-122	10/11/00
Lead	<0.9200	100.0	71.20	71	66-128	10/11/00
Molybdenum	2.740	400.0	299.0	74	72-122	10/11/00
Nickel	2.540	500.0	338.0	67 *	70-126	10/11/00
Selenium	2.030	100.0	96.80	95	65-132	10/11/00
Silver	1.360	50.00	44.00	85	72-125	10/11/00
Thallium	ND	100.0	34.70	35 *	58-134	10/11/00
Vanadium	1.990	500.0	365.0	73	58-134	10/11/00
Zinc	2.010	500.0	414.0	82	69-129	10/11/00

\* = Value outside of QC limits; see narrative

ND = Not Detected

**California Title 26 Metals**

Lab #:	147974	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 7470
Analyte:	Mercury	Batch#:	58895
Field ID:	ZZZZZZZZZZ	Sampled:	10/10/00
MSS Lab ID:	147988-001	Received:	10/11/00
Matrix:	Water	Prepared:	10/13/00
Units:	ug/L	Analyzed:	10/13/00
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC127492	0.08400	5.000	4.920	97	80-114		
MSD	QC127493		5.000	4.780	94	80-114	3	22

RPD= Relative Percent Difference

Page 1 of 1





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

A N A L Y T I C A L   R E P O R T

Prepared for:

Subsurface Consultants  
3736 Mt. Diablo Blvd.  
Suite 200  
Lafayette, CA 94549

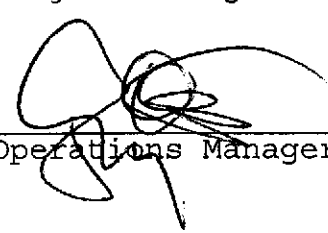
Date: 23-OCT-00  
Lab Job Number: 147919  
Project ID: 133.009  
Location: KOT/9th Ave.Terminal

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: **147919**  
Client: **Subsurface Consultants, Inc.**  
Project Name: **9<sup>th</sup> Ave. Terminals**

Receipt Date: **10/06/00**

### **CASE NARRATIVE**

This hardcopy data package contains sample results and batch QC results for five water samples received from the above referenced project. The samples were received cold and intact.

**Total Extractable Hydrocarbons:** No analytical problems were encountered.

**Volatile Organic Compounds:** No analytical problems were encountered.

**Metals:** The matrix spike recoveries for cadmium and nickel were outside acceptance limits. The associated blank spike recoveries were acceptable for all target elements. No other analytical problems were encountered.

**Organochlorine Pesticides/PCBs:** Calscience Environmental Laboratories, Inc. in Garden Grove, California performed the analysis. Please see the Calscience case narrative.

**CHAIN OF CUSTODY FORM**

147919

PAGE 1 OF 1

PROJECT NAME: 9th Avenue Terminals  
 JOB NUMBER: 133-009  
 PROJECT CONTACT: E. Silverman  
 SAMPLED BY: E. Silverman

LAB: Curtis & Tompkins  
 TURNAROUND: Standard  
 REQUESTED BY: E. Silverman

**ANALYSIS REQUESTED**

VOA	VOA (8270)	Heavy Metals (Vanadium)	As per Emily CW 10/6/00
LITER			
PINT			
TUBE			
HCL			
H <sub>2</sub> SO <sub>4</sub>			
HNO <sub>3</sub>			
ICE			
NONE			
MONTH	DAY	YEAR	TIME
10	05	00	11:30
10	05	00	15:45
10	05	00	10:30
10	05	00	16:20
10	05	00	14:00

Notes: VOA, AC BEX (8015), VOA (8270) (880), Heavy Metals (880), PNAS (8270), Heavy Metals (Vanadium) (#22 sat), cd, Cr, Ni, Zn, As per Emily CW 10/6/00

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS				METHOD PRESERVED					SAMPLING DATE				NOTES
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ICE	NONE	MONTH	DAY	YEAR	TIME	
147919 -1	SCIMW-7	X					X						X	X	10	05	00	11:30	
-2	SCIMW-9H	X					X						X	X	10	05	00	15:45	
-3	SCIMW-24	X					X						X	X	10	05	00	10:30	
-4	SCIMW-13	X					X						X	X	10	05	00	16:20	
-5	MW-3	X					X						X	X	10	05	00	14:00	

CHAIN OF CUSTODY RECORD			
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
<i>[Signature]</i>	10/5/00 8:30	<i>[Signature]</i>	10/6/00 11:45

COMMENTS & NOTES:  
 ① Using Sigel Cleanwax.  
 ② Phase filter.  
 SCIMW-24 received 1 poly - logged in for Filtered  
 Added PNAS to SCIMW-24 per E. Silverman 10/10/00  
 #26 met CW 10/6/00

**SCI** Subsurface Consultants, Inc.  
 171 - 12th Street, Suite 202, Oakland, CA 94607  
 (510) 268-0461 - FAX: (510) 268-0137  
 3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549  
 (925) 298-7960 - (925) 299-7970

samples rec'd on ice

**Subject: Additional Analyses**

**Date:** Tue, 10 Oct 2000 08:47:46 -0700

**From:** "Emily Silverman" <esilverman@SUBSURFACECONSULTANTS.COM>

**To:** <steve@ctberk.com>

Hi Steve -

Welcome back! I submitted a groundwater sample SCIMW-24 which was collected on October 4. It was requested, but I would also like it to be analyzed for PNAs. I should have submitted enough sample. If there is a problem, please let me know. These were received in your lab on October 5.

Thanks very much.



# Chromatogram

Sample Name : 147812-015mg.8780  
FileName : G:\GC13\CHH2-4B011.RAW  
Method : RTEH2O2.MTH  
Start Time : 01:00 min  
File Factor: 0.0

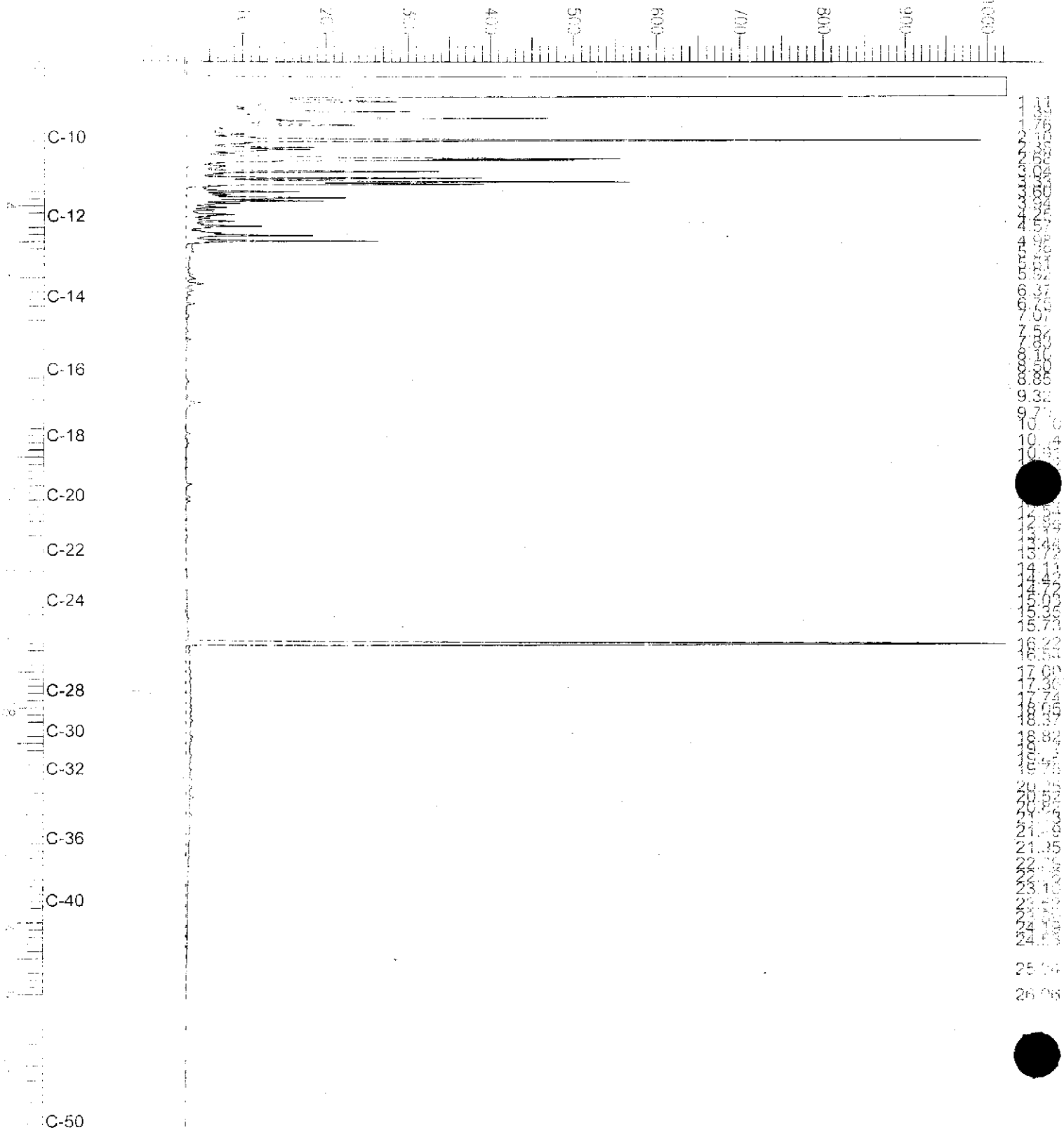
End Time : 31.90 min  
Plot Offset: -23 mV

Sample #: 58780  
Date : 10/11/2000 11:44 AM  
Time of Injection: 10/10/2000 05:47 PM  
Low Point : -22.60 mV  
Plot Scale: 1046.6 mV  
High Point : 1024.00 mV

Page 1 of 1

SCIMW-24

Response [mV]



1024.00  
1000.00  
900.00  
800.00  
700.00  
600.00  
500.00  
400.00  
300.00  
200.00  
100.00  
0.00  
-100.00  
-200.00  
-300.00  
-400.00  
-500.00  
-600.00  
-700.00  
-800.00  
-900.00  
-1000.00  
-1100.00  
-1200.00  
-1300.00  
-1400.00  
-1500.00  
-1600.00  
-1700.00  
-1800.00  
-1900.00  
-2000.00  
-2100.00  
-2200.00  
-2300.00  
-2400.00  
-2500.00  
-2600.00  
-2700.00  
-2800.00  
-2900.00  
-3000.00  
-3100.00  
-3200.00  
-3300.00  
-3400.00  
-3500.00  
-3600.00  
-3700.00  
-3800.00  
-3900.00  
-4000.00  
-4100.00  
-4200.00  
-4300.00  
-4400.00  
-4500.00  
-4600.00  
-4700.00  
-4800.00  
-4900.00  
-5000.00  
-5100.00  
-5200.00  
-5300.00  
-5400.00  
-5500.00  
-5600.00  
-5700.00  
-5800.00  
-5900.00  
-6000.00  
-6100.00  
-6200.00  
-6300.00  
-6400.00  
-6500.00  
-6600.00  
-6700.00  
-6800.00  
-6900.00  
-7000.00  
-7100.00  
-7200.00  
-7300.00  
-7400.00  
-7500.00  
-7600.00  
-7700.00  
-7800.00  
-7900.00  
-8000.00  
-8100.00  
-8200.00  
-8300.00  
-8400.00  
-8500.00  
-8600.00  
-8700.00  
-8800.00  
-8900.00  
-9000.00  
-9100.00  
-9200.00  
-9300.00  
-9400.00  
-9500.00  
-9600.00  
-9700.00  
-9800.00  
-9900.00  
-10000.00

### Total Extractable Hydrocarbons

Lab #:	147919	Prep:	EPA 3520
Client:	Subsurface Consultants	Cleanup Method:	EPA 3630C
Project#:	133.009	Analysis:	EPA 8015M
Location:	KOT/9th Ave. Terminal		
Matrix:	Water	Sampled:	10/05/00
Units:	ug/L	Received:	10/06/00
Diln Fac:	1.000	Prepared:	10/09/00
Batch#:	58780	Analyzed:	10/10/00

Field ID: SCIMW-13                      Lab ID: 147919-004  
 Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	400 H	50
Motor Oil C24-C36	1,500	300

Surrogate	%REC	Limits
Hexacosane	97	44-121

Field ID: MW-3                              Lab ID: 147919-005  
 Type: SAMPLE

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	84	44-121

Type: BLANK                                      Lab ID: QC127042

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	94	44-121

H = Heavier hydrocarbons contributed to the quantitation  
 L = Lighter hydrocarbons contributed to the quantitation  
 Y = Sample exhibits fuel pattern which does not resemble standard  
 ND = Not Detected  
 RL = Reporting Limit  
 Page 2 of 2

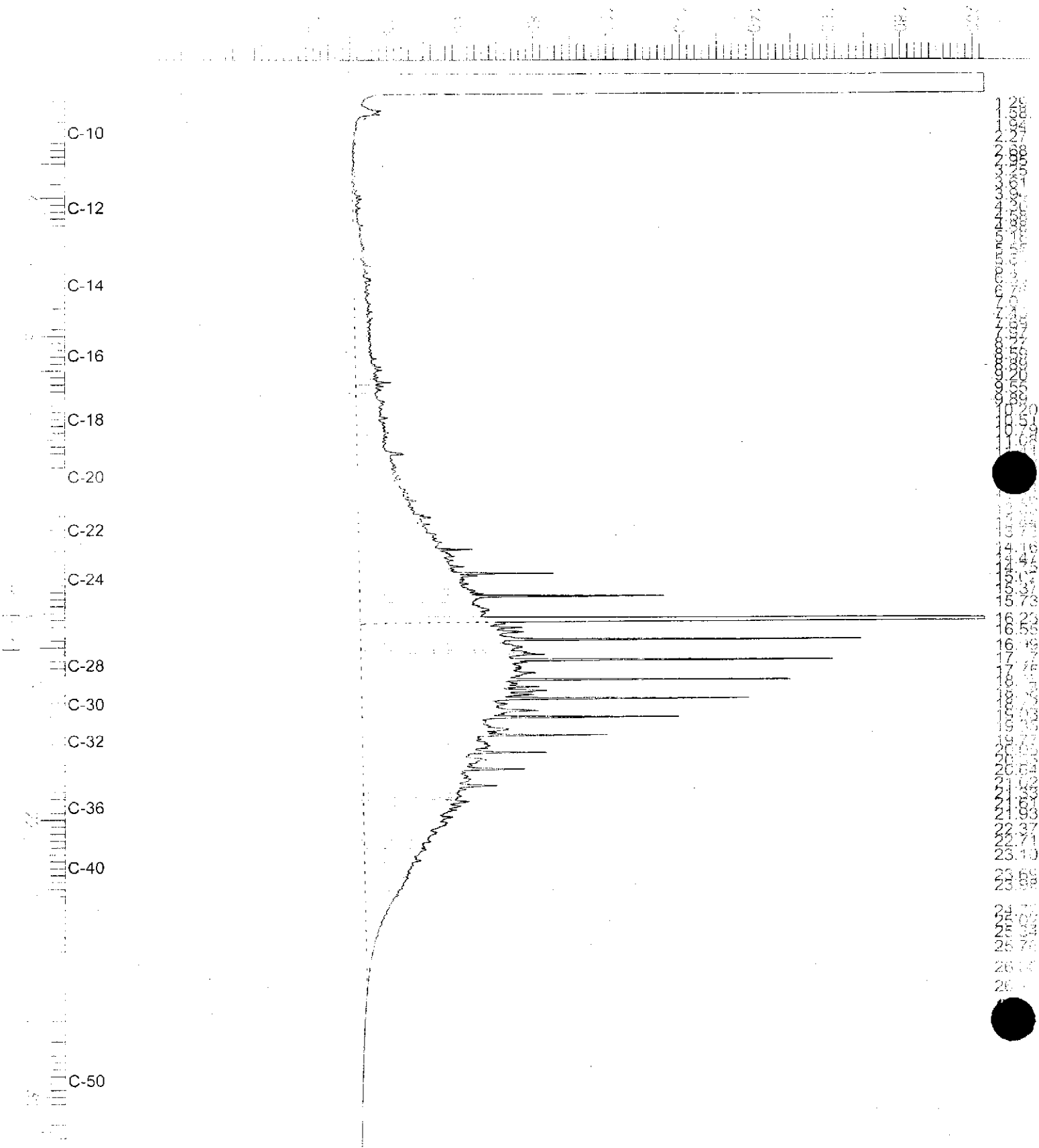
# Chromatogram

Sample Name : 147919-004sq,58780  
File Name : G:\GC13\CHB\284B012.RAW  
Method : BTEH283.MTH  
Start Time : 0.01 min  
Scale Factor : 0.0

Sample #: 58780  
Date : 10/11/2000 11:50 AM  
Time of Injection: 10/10/2000 06:26 PM  
End Time : 31.91 min  
Low Point : -22.72 mV  
High Point : 203.21 mV  
Plot Offset: -23 mV  
Plot Scale: 225.9 mV

## SC1MW-13

Response [mV]





# Chromatogram

Sample Name : ccv,00ws9775,dsl

Sample #:

Page 1 of 1

FileName : G:\GC13\CHBA\264B001.RAW

Date : 10/10/2000 11:17 AM

Method : PTFE,MTU

Time of Injection: 10/10/2000 10:12 AM

Start Time : 0.01 min

End Time : 31.91 min

Low Point : -14.47 mV

High Point : 467.14 mV

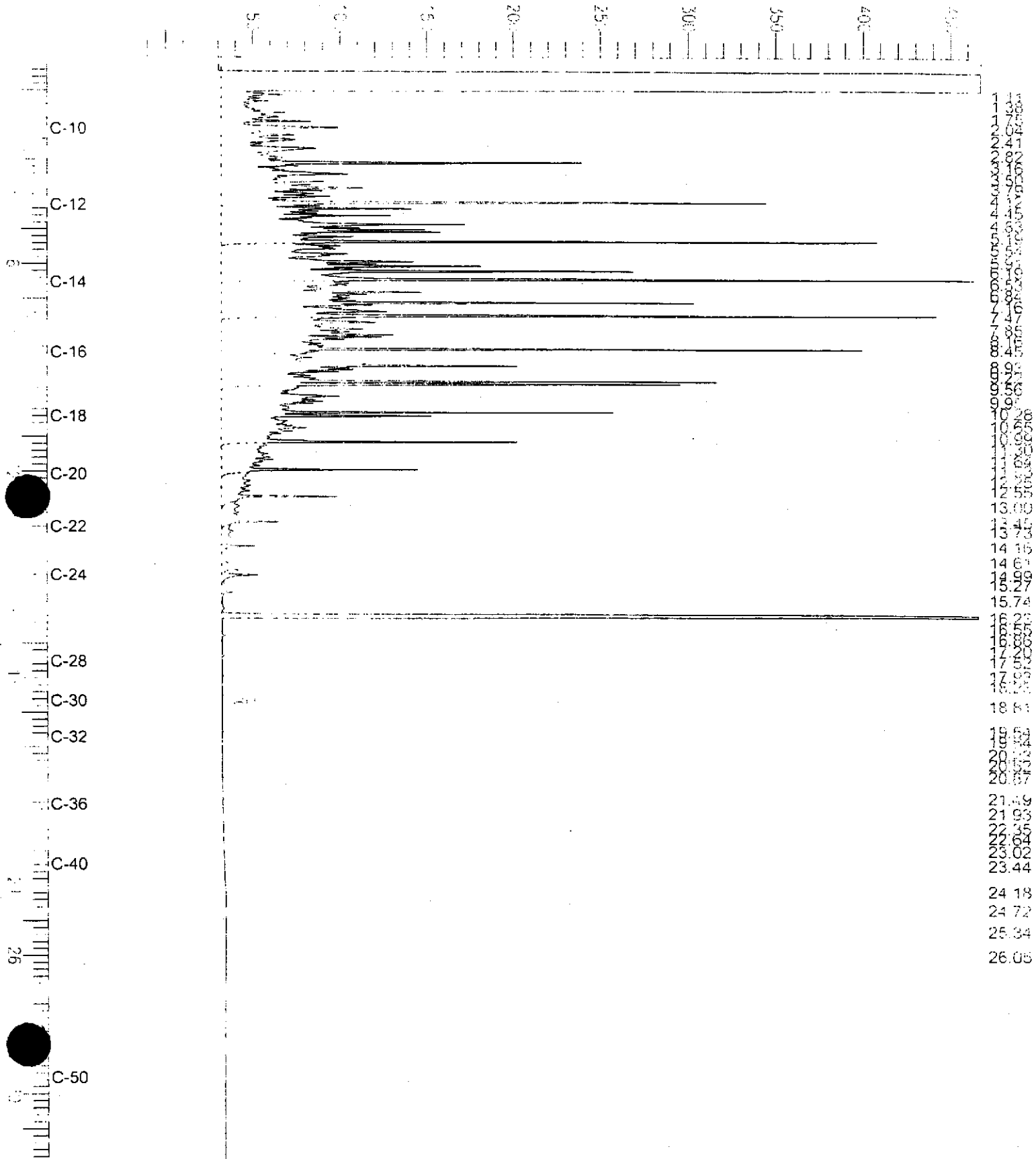
Scale Factor: 0.0

Plot Offset: -14 mV

Plot Scale: 481.6 mV

## Diesel Standard

Response [mV]



# Chromatogram

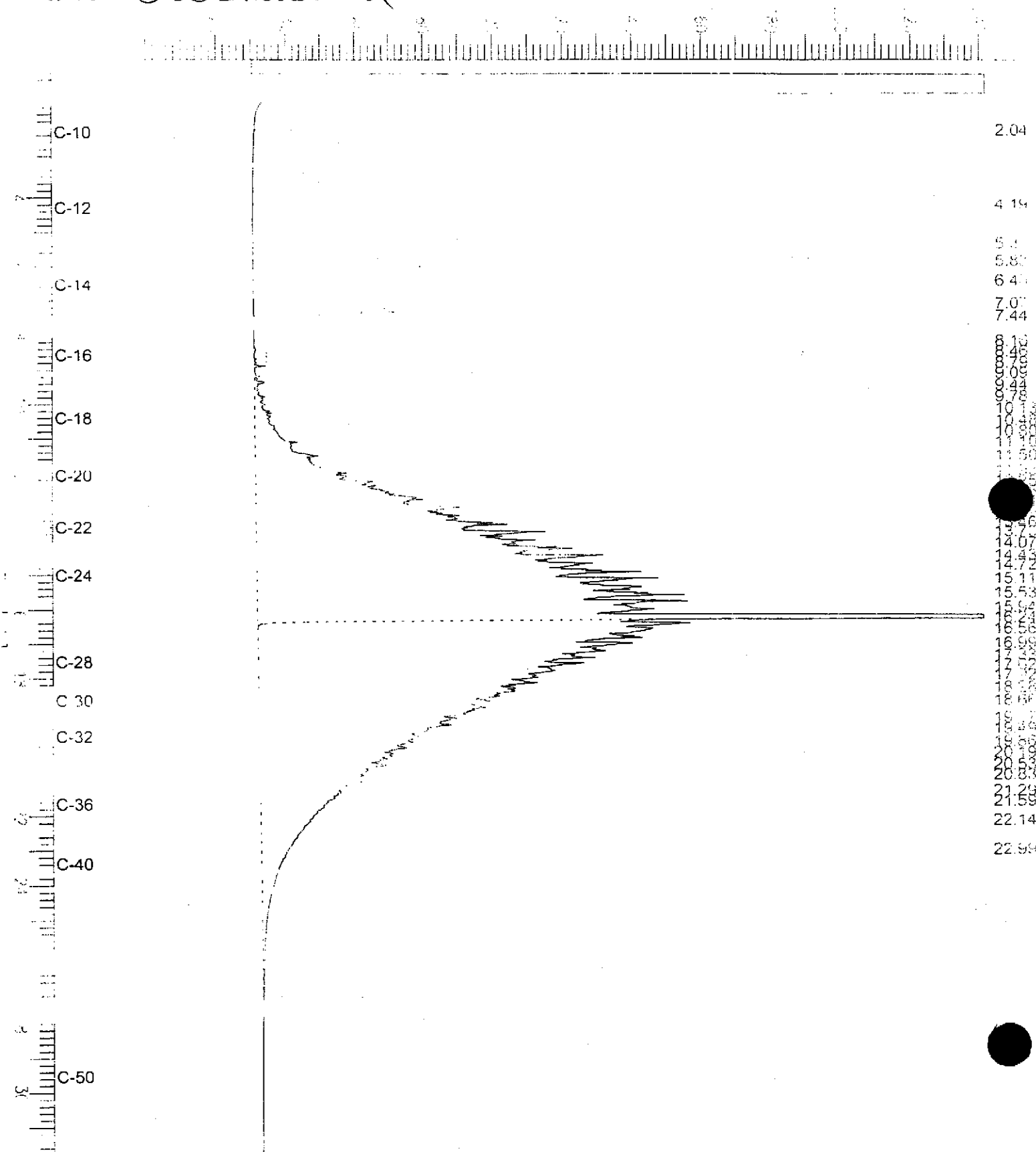
Sample Name : GC13\CHB\284B002.RAW  
File Name : BTEH283.MTH  
Injection Time : 0.01 min  
Injection Volume Factor : 0.0

End Time : 31.91 min  
Plot Offset : -0 mV

Sample # :  
Date : 10/10/2000 11:43 AM  
Time of Injection: 10/10/2000 10:51 AM  
Low Point : -0.31 mV  
High Point : 241.72 mV  
Plot Scale: 242.0 mV

*Motor Oil Standard*

Response [mV]





**Polynuclear Aromatics by GC/MS**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8270C
Field ID:	SCIMW-34	Batch#:	58740
Lab ID:	147919-002	Sampled:	10/05/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Prepared:	10/06/00
Diln Fac:	1.000	Analyzed:	10/09/00

Analyte	Result	RL
Naphthalene	ND	9.5
Acenaphthylene	ND	9.5
Acenaphthene	ND	9.5
Fluorene	ND	9.5
Phenanthrene	ND	9.5
Anthracene	ND	9.5
Fluoranthene	ND	9.5
Pyrene	ND	9.5
Benzo(a)anthracene	ND	9.5
Chrysene	ND	9.5
Benzo(b)fluoranthene	ND	9.5
Benzo(k)fluoranthene	ND	9.5
Benzo(a)pyrene	ND	9.5
Indeno(1,2,3-cd)pyrene	ND	9.5
Dibenz(a,h)anthracene	ND	9.5
Benzo(g,h,i)perylene	ND	9.5

Surrogate	IRBC	Limits
Nitrobenzene-d5	80	34-126
2-Fluorobiphenyl	86	30-121
Terphenyl-d14	44	15-142

**Polynuclear Aromatics by GC/MS**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8270C
Field ID:	SCIMW-24	Batch#:	58878
Lab ID:	147919-003	Sampled:	10/05/00
Matrix:	Water	Received:	10/06/00
Units:	ug/L	Prepared:	10/12/00
Diln Fac:	1.000	Analyzed:	10/14/00

Analyte	Result	RL
Naphthalene	67	9.5
Acenaphthylene	ND	9.5
Acenaphthene	ND	9.5
Fluorene	ND	9.5
Phenanthrene	ND	9.5
Anthracene	ND	9.5
Fluoranthene	ND	9.5
Pyrene	ND	9.5
Benzo(a)anthracene	ND	9.5
Chrysene	ND	9.5
Benzo(b)fluoranthene	ND	9.5
Benzo(k)fluoranthene	ND	9.5
Benzo(a)pyrene	ND	9.5
Indeno(1,2,3-cd)pyrene	ND	9.5
Dibenz(a,h)anthracene	ND	9.5
Benzo(g,h,i)perylene	ND	9.5

Surrogate	IRGC	Limits
Nitrobenzene-d5	83	34-126
2-Fluorobiphenyl	90	30-121
Terphenyl-d14	59	15-142

**Polynuclear Aromatics by GC/MS**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC126886	Batch#:	58740
Matrix:	Water	Prepared:	10/06/00
Units:	ug/L	Analyzed:	10/09/00

Analyte	Result	RL
Naphthalene	ND	10
Acenaphthylene	ND	10
Acenaphthene	ND	10
Fluorene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Benzo(a)anthracene	ND	10
Chrysene	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%REC	Limits
Nitrobenzene-d5	86	34-126
2-Fluorobiphenyl	81	30-121
Terphenyl-d14	85	15-142

**Polynuclear Aromatics by GC/MS**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127422	Batch#:	58878
Matrix:	Water	Prepared:	10/12/00
Units:	ug/L	Analyzed:	10/13/00

Analyte	Result	RL
Naphthalene	ND	10
Acenaphthylene	ND	10
Acenaphthene	ND	10
Fluorene	ND	10
Phenanthrene	ND	10
Anthracene	ND	10
Fluoranthene	ND	10
Pyrene	ND	10
Benzo(a)anthracene	ND	10
Chrysene	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	IREC	Limits
Nitrobenzene-d5	87	34-126
2-Fluorobiphenyl	83	30-121
Terphenyl-d14	88	15-142



**Polynuclear Aromatics by GC/MS**

Lab #:	147919	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	58740
Units:	ug/L	Prepared:	10/06/00
Diln Fac:	1.000	Analyzed:	10/10/00

Type: BS Lab ID: QC126887

Analyte	Spiked	Result	WREC	Limits
Acenaphthene	50.00	48.68	97	42-113
Pyrene	50.00	40.01	80	42-116

Surrogate	WREC	Limits
Nitrobenzene-d5	89	34-126
2-Fluorobiphenyl	87	30-121
Terphenyl-d14	82	15-142

Type: BSD Lab ID: QC126888

Analyte	Spiked	Result	WREC	Limits	RPD	Lim
Acenaphthene	50.00	46.01	92	42-113	6	20
Pyrene	50.00	37.76	76	42-116	6	20

Surrogate	WREC	Limits
Nitrobenzene-d5	83	34-126
2-Fluorobiphenyl	82	30-121
Terphenyl-d14	78	15-142



**Polynuclear Aromatics by GC/MS**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	EPA 3520
Project#:	133.009	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	58878
Units:	ug/L	Prepared:	10/12/00
Diln Fac:	1.000	Analyzed:	10/13/00

Type: BS Lab ID: QC127423

Analyte	Spiked	Result	%REC	Limits
Acenaphthene	50.00	45.26	91	42-113
Pyrene	50.00	42.32	85	42-116

Surrogate	%REC	Limits
Nitrobenzene-d5	86	34-126
2-Fluorobiphenyl	88	30-121
Terphenyl-d14	90	15-142

Type: BSD Lab ID: QC127424

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Acenaphthene	50.00	40.33	81	42-113	12	20
Pyrene	50.00	38.11	76	42-116	10	20

Surrogate	%REC	Limits
Nitrobenzene-d5	73	34-126
2-Fluorobiphenyl	77	30-121
Terphenyl-d14	81	15-142

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133,009	Analysis:	EPA 6010B
Field ID:	SCIMW-34	Sampled:	10/05/00
Matrix:	Filtrate	Received:	10/06/00
Units:	ug/L	Prepared:	10/10/00
Diln Fac:	1.000	Analyzed:	10/11/00
Batch#:	58819		

Type: SAMPLE Lab ID: 147919-002

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	10
Nickel	24	20
Zinc	ND	20

Type: BLANK Lab ID: QC127188

Analyte	Result
Cadmium	NA
Chromium	NA
Nickel	NA
Zinc	NA

Type: BLANK Lab ID: QC127203

Analyte	Result	RL
Cadmium	ND	5.0
Chromium	ND	10
Nickel	ND	20
Zinc	ND	20

**Curtis & Tompkins Laboratories Analytical Report**

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Matrix:	Filtrate	Batch#:	58819
Units:	ug/L	Prepared:	10/10/00
Diln Fac:	1.000	Analyzed:	10/11/00

Type: BS Lab ID: QC127204

Analyte	Spiked	Result	%REC	Limits
Cadmium	50.00	49.60	99	80-126
Chromium	2,000	2,010	101	80-113
Nickel	500.0	495.0	99	80-116
Zinc	500.0	506.0	101	72-126

Type: BSD Lab ID: QC127205

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Cadmium	50.00	49.90	100	80-126	1	20
Chromium	2,000	2,020	101	80-113	0	21
Nickel	500.0	498.0	100	80-116	1	23
Zinc	500.0	508.0	102	72-126	0	26

## Curtis &amp; Tompkins Laboratories Analytical Report

Lab #:	147919	Location:	KOT/9th Ave.Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Field ID:	SCIMW-2	Diln Fac:	1.000
Type:	SDUP	Batch#:	58819
MSS Lab ID:	147974-002	Sampled:	10/10/00
Lab ID:	QC127206	Received:	10/10/00
Matrix:	Filtrate	Prepared:	10/10/00
Units:	ug/L	Analyzed:	10/11/00

Analyte	MSS Result	Result	RL	RPD	Lim
Cadmium	<5.000	ND	5.0	NC	25
Chromium	<10.00	ND	10	NC	20
Nickel	<20.00	ND	20	NC	20
Zinc	<20.00	ND	20	NC	33



Curtis & Tompkins Laboratories Analytical Report

Lab #:	147919	Location:	KOT/9th Ave. Terminal
Client:	Subsurface Consultants	Prep:	METHOD
Project#:	133.009	Analysis:	EPA 6010B
Field ID:	SCIMW-2	Diln Fac:	1.000
Type:	SSPIKE	Batch#:	58819
MSS Lab ID:	147974-002	Sampled:	10/10/00
Lab ID:	QC127207	Received:	10/10/00
Matrix:	Filtrate	Prepared:	10/10/00
Units:	ug/L	Analyzed:	10/11/00

Analyte	MSS Result	Spiked	Result	%REC	Limits
Cadmium	0.4310	50.00	34.30	68 *	70-127
Chromium	1.660	2,000	1,410	70	70-124
Nickel	2.540	500.0	338.0	67 *	70-126
Zinc	2.010	500.0	414.0	82	69-129

\* = Value outside of QC limits; see narrative

**Calscience**  
**Environmental**  
**Laboratories, Inc.**

October 11, 2000

Steve Stanley  
Curtis & Tompkins, Ltd.  
2323 Fifth Street  
Berkeley, CA 94710

Subject: **Calscience Work Order No.:** 00-10-0338  
**Client Reference:** 147919

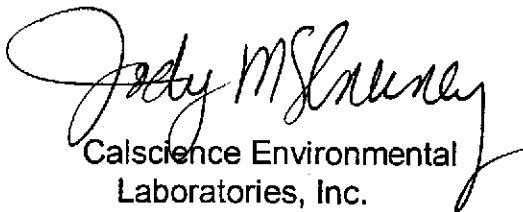
Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/10/00 and analyzed in accordance with the attached chain-of-custody.

The results in this analytical report are limited to the samples tested and any reproduction of this report must be made in its entirety.

If you have any questions regarding this report, require sampling supplies or field services, or information on our analytical services, please feel free to call me at (714) 895-5494.

Sincerely,

  
Calscience Environmental  
Laboratories, Inc.  
Jody McInerney  
Project Manager

  
William H. Christensen  
Quality Assurance Manager

**ANALYTICAL REPORT**

Curtis & Tompkins, Ltd.  
2323 Fifth Street  
Berkeley, CA 94710

Date Received: 10/10/00  
Work Order No: 00-10-0338  
Preparation: EPA 3510B  
Method: EPA 8081A/8082

Project: 147919

Page 1 of 1

Client Sample Number:	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
SCIMW-7	00-10-0338-1	10/05/00	Aqueous	10/10/00	10/10/00	0010109

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Alpha-BHC	ND	0.095	0.95		ug/L	4,4'-DDT	ND	0.095	0.95		ug/L
Gamma-BHC	ND	0.095	0.95		ug/L	Endosulfan Sulfate	ND	0.095	0.95		ug/L
Beta-BHC	ND	0.095	0.95		ug/L	Methoxychlor	ND	0.095	0.95		ug/L
Heptachlor	ND	0.095	0.95		ug/L	Chlordane	ND	0.95	0.95		ug/L
Delta-BHC	ND	0.095	0.95		ug/L	Toxaphene	ND	1.9	0.95		ug/L
Aldrin	ND	0.095	0.95		ug/L	Aroclor-1016	ND	0.95	0.95		ug/L
Heptachlor Epoxide	ND	0.095	0.95		ug/L	Aroclor-1221	ND	0.95	0.95		ug/L
Endosulfan I	ND	0.095	0.95		ug/L	Aroclor-1232	ND	0.95	0.95		ug/L
Dieldrin	ND	0.095	0.95		ug/L	Aroclor-1242	ND	0.95	0.95		ug/L
4,4'-DDE	ND	0.095	0.95		ug/L	Aroclor-1248	ND	0.95	0.95		ug/L
Endrin	ND	0.095	0.95		ug/L	Aroclor-1254	ND	0.95	0.95		ug/L
Endrin Aldehyde	ND	0.095	0.95		ug/L	Aroclor-1260	ND	0.95	0.95		ug/L
Endosulfan II	ND	0.095	0.95		ug/L	Aroclor-1262	ND	0.95	0.95		ug/L
						Endrin Ketone	ND	0.095	0.95		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	66	50-135		2,4,5,6-Tetrachloro-m-Xylene	80	50-135	

Method Blank	Lab Sample Number:	Date Collected:	Matrix:	Date Prepared:	Date Analyzed:	QC Batch ID:
	095-01-015-770	N/A	Aqueous	10/10/00	10/10/00	0010109

Parameter	Result	RL	DF	Qual	Units	Parameter	Result	RL	DF	Qual	Units
Alpha-BHC	ND	0.095	0.95		ug/L	4,4'-DDT	ND	0.095	0.95		ug/L
Gamma-BHC	ND	0.095	0.95		ug/L	Endosulfan Sulfate	ND	0.095	0.95		ug/L
Beta-BHC	ND	0.095	0.95		ug/L	Methoxychlor	ND	0.095	0.95		ug/L
Heptachlor	ND	0.095	0.95		ug/L	Chlordane	ND	0.95	0.95		ug/L
Delta-BHC	ND	0.095	0.95		ug/L	Toxaphene	ND	1.9	0.95		ug/L
Aldrin	ND	0.095	0.95		ug/L	Aroclor-1016	ND	0.95	0.95		ug/L
Heptachlor Epoxide	ND	0.095	0.95		ug/L	Aroclor-1221	ND	0.95	0.95		ug/L
Endosulfan I	ND	0.095	0.95		ug/L	Aroclor-1232	ND	0.95	0.95		ug/L
Dieldrin	ND	0.095	0.95		ug/L	Aroclor-1242	ND	0.95	0.95		ug/L
4,4'-DDE	ND	0.095	0.95		ug/L	Aroclor-1248	ND	0.95	0.95		ug/L
Endrin	ND	0.095	0.95		ug/L	Aroclor-1254	ND	0.95	0.95		ug/L
Endrin Aldehyde	ND	0.095	0.95		ug/L	Aroclor-1260	ND	0.95	0.95		ug/L
4,4'-DDD	ND	0.095	0.95		ug/L	Aroclor-1262	ND	0.95	0.95		ug/L
Endosulfan II	ND	0.095	0.95		ug/L	Endrin Ketone	ND	0.095	0.95		ug/L

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	91	50-135		2,4,5,6-Tetrachloro-m-Xylene	55	50-135	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

**Quality Control - LCS/LCS Duplicate**

Curtis & Tompkins, Ltd.  
2323 Fifth Street  
Berkeley, CA 94710

Date Received: 10/10/00  
Work Order No: 00-10-0338  
Preparation: EPA 3510B  
Method: EPA 8081A/8082

Project: 147919

LCS Sample Number	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-015-770	Aqueous	GC 16	10/10/00	10/10/00	0010109

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gamma-BHC	76	76	50-135	1	0-25	
Heptachlor	86	84	50-135	3	0-25	
Endosulfan I	90	88	50-135	3	0-25	
Dieldrin	91	87	50-135	4	0-25	
Endrin	96	92	50-135	5	0-25	
4,4'-DDT	86	79	50-135	8	0-25	
Aroclor-1260	100	99	50-135	1	0-25	



Work Order Number: 00-10-0338

---

<u>Qualifier</u>	<u>Definition</u>
ND	Not detected at indicated reporting limit.

0338

Curtis & Tompkins, Ltd.  
Analytical Laboratories, Since 1878  
2323 Fifth Street  
Berkeley, CA 94710  
(510)486-0900 ph  
(510)486-0532 fx

Project Number: 147919

Subcontract Lab:

Cal Science  
7440 Lincoln Way  
Garden Grove, CA 92641-1432  
(714) 895-5494

Please send report to: Steve Stanley

Turnaround Time: Ove 10/12

Report Level: II

Sample ID	Date Sampled	Matrix	Analysis	C&T Lab #
SCIMW-7	05-OCT-00	Water	8080	147919-001

\*\*\*Please report using Sample ID instead of C&T Lab #.

Notes:

RELINQUISHED BY:	RECEIVED BY:
<i>Ben Smith</i> 10-9-00	<i>SP</i> 10-10-00 1030
Date/Time	Date/Time
Date/Time	Date/Time

C.O.

Signature on this form constitutes a firm Purchase Order for the services requested above.