SCI Subsurface Consultants, Inc.

March 29, 1999
SCI 133.009

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Groundwater Monitoring Report
December 1998 Event
Ninth Avenue Terminal
Oakland, California

Dear Mr. Chan:

This letter transmits the results of the December 1998 groundwater monitoring event conducted at the above-referenced site by Subsurface Consultants, Inc. (SCI). The location of the site is shown on Plate 1. Previous site characterization studies indicate that soil and groundwater throughout the Ninth Avenue Terminal area have been impacted by petroleum hydrocarbons as well as other potentially hazardous chemicals and metals. Monitoring is being performed on a quarterly basis in general accordance with SCI's Work Plan dated August 5, 1998, as approved by Alameda County Health Care Services Agency (ACHCSA) in their letter dated September 18, 1998. The groundwater monitoring program is outlined in the attached Table 1.

GROUNDWATER MONITORING

On December 7 through 17, and on December 28, 1998, an annual groundwater monitoring event was performed. This monitoring event included obtaining samples from 10 of the 42 on-site wells. As requested by ACHCSA, redox potential (Eh) and dissolved oxygen (DO) readings were obtained. Monitoring was performed in accordance with EPA protocols and industry standards of practice.

Prior to sampling, the selected wells were checked for the presence of free floating product using a steel tape coated with petroleum sensitive paste and the depth to groundwater below top of casing was measured in all site wells with an electric well sounder. Free floating product was detected in wells MW-4 and MW-6 during this event. The free product was removed, placed in 55-gallon drums and stored on-site for later transport and disposal by a licensed hazardous waste hauler to be retained by the Port. Due to the presence of free product, these wells were not purged or sampled. All equipment used during the event was thoroughly decontaminated between each use.

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Disposable bailers were used for purging. The pH, specific conductance, and temperature of the purged water were measured after each well volume was removed. The wells were considered purged when these environmental parameters had stabilized. A minimum of three well volumes of water were purged from each well. A Well Sampling Form was completed for each well sampled during the event. Water generated during purging was placed into 55-gallon steel drums, labeled, and stored on-site. Integrated Waste Management, a licensed hazardous waste hauler, removed the purge water under manifest, on December 14, 1998. Well Sampling Forms and purge water manifests are included in Appendix A.

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 ice filled chests and remained iced until delivery to the analytical laboratory. The laboratory conducted all requested filtering. Chain-of-custody records accompanied the samples to the laboratory.

ANALYTICAL TESTING

The chemical testing program for this event included analyses for TVH, TEH, BTEX, PNAs, chlorinated pesticides, and heavy metals[1]. The program also includes (1) screening selected samples for environmental parameters (pH, Eh, DO, TDS, and DOC)[2] and (2) analyzing both filtered and unfiltered samples for PNAs to provide adequate data for the evaluation of potential ecological risks.

Analytical testing was performed by Curtis & Tompkins, Ltd., a State of California Department of Health Services certified analytical laboratory, and by CytoCulture International, an environmental microbiology testing laboratory.

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[1] TVH = Total Volatile Hydrocarbons by EPA Method 5030/8015M
BTEX = Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 5030/8021B
TEH = Total Extractable Hydrocarbons by EPA Method 3520/8015M
PNA = Polynuclear Aromatic Hydrocarbons by EPA Method 3520/8270B
Chlorinated Pesticides by EPA Method 3520/8080
Heavy Metals and Lead by EPA 6010/7000 series

[2] pH by Standard Methods (SM) 4500-H+B
Eh = Redox Potential by SM 2580B
DO = Dissolved Oxygen by SM 4500-OG
TDS = Total Dissolved Solids by EPA 160.1
DOC = Dissolved Organic Carbon by EPA 415.2

Analytical test results are presented in Tables 2 through 8. These tables are comprehensive as they present all data generated for site wells to date. Analytical test reports and chain-of-custody forms are included in Appendix B.

DISCUSSION

Groundwater Elevation and Flow Patterns

The approximate groundwater elevation contours, based on water levels measured on December 7, 1998, are presented on Plate 2. Groundwater elevation contour patterns have remained relatively consistent throughout SCI's studies. A summary of groundwater elevation data is presented in Table 9.

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 acts as an inhibitor to a direct connection between groundwater beneath the site and surface waters of the Inner Harbor Channel. The contours also indicate that groundwater migrates to the open shorelines around the bulkhead wall.

The tidal fluctuation during this event was approximately 3 feet. Wells located along the Clinton and Brooklyn Basin shorelines are tidally influenced, while interior wells and those adjacent to the concrete bulkhead are not. Groundwater level measurements were obtained from tidally influenced wells first to minimize the potential discrepancies in elevation.

Analytical Data

Ecological parameters, as summarized in Table 2, are being documented to assist in trends analysis. TDS values which range between 3,190 ppm and 27,300 ppm for perimeter wells indicate water is brackish to saline[3]. Several shoreline wells are currently analyzed for DO, Eh, and pH both in the field and by the laboratory. In general, the measurements obtained during field sampling and during laboratory testing are analogous.

As summarized in Table 3, TEH, TVH, BTEX, and pesticide concentrations for this event are similar to those detected during the previous event. No samples were analyzed for PCBs during this event. TEH is one of the primary constituents of concern at the site and concentrations in several "source" areas remain high. However, several wells which have been monitored to

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[3] Todd, D. K., Groundwater Hydrology, Second Edition, John Wiley & Sons, New York: brackish water - 1,000 to 10,000 ppm; saline water - 10,000 to 100,000 ppm

characterize downgradient or shoreline impacts and which have had 3 or 4 sampling events of non-detect or very low concentrations include the following: SCIMW-5, SCIMW-6, SCIMW-11, SCIMW-12, and SCIMW-35. Additionally, TVH/BTEX concentrations in well SCIMW-11 have been non-detect for the last four sampling events with the exception of a detection of TVH at 51 parts per billion during this event. Chlorinated pesticide analyses were conducted for samples collected from wells SCIMW-6 and SCIMW-23. Pesticide concentrations for both wells have been non-detect for the most recent two events; well SCIMW-6 has been non-detect for chlorinated pesticides in the 3 testing rounds conducted.

PNA and heavy metal concentrations for this event, as presented in Tables 6 and 7, respectively, are similar to those detected previously. To date, both filtered and unfiltered groundwater samples from several shoreline wells have been submitted for PNA analysis to characterize the dissolved fraction of PNA's in groundwater. The chemicals in the dissolved fraction are more likely to be transported by groundwater through the soil matrix to a point of potential exposure. A review of the data indicates the results are mostly non-detect, and no appreciable difference is observed between filtered and unfiltered samples. Samples from wells SCIMW-2, SCIMW-6 and SCIMW-11 were submitted for analysis of heavy metals. All wells sampled for heavy metals have detected relatively low concentrations of Barium. Barium is the only metal detected in SCIMW-11 during the last two sampling events. Wells SCIMW-2 and SCIMW-6 also detected the presence of arsenic and zinc, and copper and zinc, respectively, during this event.

No samples were analyzed for VOC, SVOC, cyanide, nitrate nor phosphorus during this event. Tables 4, 7, and 8 are presented herein to keep the entirety of analytical data for the monitoring program intact.

RECOMMENDED MODIFICATIONS TO THE SAMPLING PROGRAM

Based on a review of analytical data generated to date, SCI recommends the following modifications to the sampling program. These proposed modifications are also shown in Table 1.

- **DO, Eh, and pH**: Discontinue laboratory testing for these parameters in all wells (SCIMW-2, SCIMW-6, SCIMW-11, SCIMW-12, SCIMW-14, SCIMW-23, SCIMW-24, and SCIMW-34). Continue to collect measurements during field sampling activities.
- **PNA's - unfiltered samples**: Discontinue testing for all wells (SCIMW-2, SCIMW-6, SCIMW-11, SCIMW-14, and SCIMW-34).
- **PNA's - filtered samples**: Discontinue testing for all wells except SCIMW-24. (Discontinue in wells SCIMW-2, SCIMW-3, SCIMW-6, SCIMW-8, SCIMW-11, SCIMW-13, SCIMW-14, SCIMW-15, SCIMW-28, SCIMW-33 and SCIMW-34).

- **TEH**: Reduce sampling frequency from quarterly to semi-annually for wells SCIMW-5, SCIMW-6, SCIMW-11, SCIMW-12, and SCIMW-35.
- **TVH**: Discontinue testing for wells MW-5 and SCIMW-11.
- **BTEX**: Discontinue testing for well SCIMW-11.
- **Pesticides**: Reduce sampling frequency from quarterly to semi-annually for wells SCIMW-6 and SCIMW-23.
- **PCBs**: Discontinue testing for well SCIMW-28.
- **Heavy Metals**: Reduce sampling frequency from quarterly to semi-annually for well SCIMW-11.

All other aspects of the monitoring program will remain as outlined in Table 1.

ONGOING MONITORING

The next sampling event will be performed following review of the proposed program modifications by the ACHCSA. Results of the quarterly event will be presented in a written report.

Please review the data in this report and prepare a letter commenting on the requested modifications to the monitoring program. If you have any questions, please call either of the undersigned at (925) 299-7960.

Yours very truly,

Subsurface Consultants, Inc.

Meg Mendoza
Project Engineer

Jeriann Alexander
Civil Engineer 40469 (exp. 3/31/03)
Registered Environmental Assessor 03130 (exp. 6/30/99)

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

Illustrations:
- Plate 1 - Vicinity Map
- Plate 2 - Groundwater Surface Elevation Contours

Appendices:
- A - Well Sampling Forms and Purge Water Manifests
- B - Analytical Test Reports and Chain-of-Custody Records

Copies:
- Ms. Michele Heffes, Deputy Port Attorney
- Mr. Dale Klettke, Port of Oakland - Environmental Health and Safety Compliance
- Mr. Jonathan Redding, Fitzgerald, Abbott & Beardsley LLP
- Mr. Leroy Griffin, City of Oakland Fire Department
- Mr. Rich Hiett, Regional Water Quality Control Board
- Ms. Anne-Marie Collins, Zurich American Insurance Group
- Mr. James Tull, JSA Environmental

Table 1
Groundwater Monitoring Program and Proposed Modifications
Ninth Avenue Terminal, Port of Oakland
September 1998 Through June 1999

Monitoring Well ID	TVH (EPA 8015m/ 8020)	BTEX (EPA 8015m/ 8020)	TEHd, mo (8015m; w/ silica gel clean-up)	VOCs (EPA 8260/ 8240 list)	~~PNAs (EPA 8270; Not Filtered)~~	PNAs (EPA 8270; Filtered)	Pesticides (EPA 8080)	PCBs (EPA 8080)	Heavy Metals Filtered (EPA 6010/ 7000; Filtered)	Lead (EPA 6010/ 7000; Filtered)	pH (~~EPA 9040/ 9045/ 150.1~~; field)	Eh (field)	TDS (EPA 160.1)	Dissolved Organic Carbon (EPA 9060)	Dissolved Oxygen (field)	Water Levels	Free Product Removal
MW-1			A									A			A	Q	
MW-2			A									A			A	Q	
MW-3			A									A			A	Q	
MW-4	A	A	A									A			A	Q	Q
MW-5	~~SA~~	SA	SA									SA			SA	Q	
MW-6	SA	SA	SA									SA			SA	Q	Q
MW-7																Q	
SCIMW-1			A									A			A	Q	
SCIMW-2			Q		~~Q~~	~~Q~~			Q		Q	Q	Q	Q	Q	Q	
SCIMW-3			A			~~A~~						A			A	Q	
SCIMW-4			A									A			A	Q	
SCIMW-5			~~Q~~ SA									Q			Q	Q	
SCIMW-6			~~Q~~ SA		~~Q~~	~~Q~~	~~Q~~		Q		Q	Q	Q	Q	Q	Q	
SCIMW-7			A	SA			SA					SA			SA	Q	
SCIMW-8			A			~~A~~						A			A	Q	
SCIMW-9			A			~~A~~						A			A	Q	
SCIMW-10			A									A			A	Q	
SCIMW-11	~~Q~~	~~Q~~	~~Q~~ SA		~~Q~~	~~Q~~			~~Q~~ SA		Q	Q	Q	Q	Q	Q	
SCIMW-12			~~Q~~ SA								Q	Q	Q	Q	Q	Q	

Table 1
Groundwater Monitoring Program and Proposed Modifications
Ninth Avenue Terminal, Port of Oakland
September 1998 Through June 1999

Monitoring Well ID	TVH (EPA 8015m/ 8020)	BTEX (EPA 8015m/ 8020)	TEHd, mo (8015m; w/ silica gel clean-up)	VOCs (EPA 8260/ 8240 list)	~~PNAs (EPA 8270; Not Filtered)~~	PNAs (EPA 8270; Filtered)	Pesticides (EPA 8080)	PCBs (EPA 8080)	Heavy Metals Filtered (EPA 6010/ 7000; Filtered)	Lead (EPA 6010/ 7000; Filtered)	pH (~~EPA 9040/ 9045/ 150.1~~; field)	Eh (field)	TDS (EPA 160.1)	Dissolved Organic Carbon (EPA 9060)	Dissolved Oxygen (field)	Water Levels	Free Product Removal
SCIMW-13			A			~~A~~						A			A	Q	
SCIMW-14			SA		~~A~~	~~A~~					Q	Q	Q	Q	Q	Q	
SCIMW-15			SA			~~A~~						SA			SA	Q	
SCIMW-16			A									A			A	Q	
SCIMW-17			A									A			A	Q	
SCIMW-18			A									A			A	Q	
SCIMW-19			A									A			A	Q	
SCIMW-20			A							A		A			A	Q	
SCIMW-21			A								A	A			A	Q	
SCIMW-22			A	SA								SA			SA	Q	
SCIMW-23			Q				~~Q~~				Q	Q	Q	Q	Q	Q	
SCIMW-24	Q	Q	Q			SA				Q	Q	Q	Q	Q	Q	Q	
SCIMW-25																Q	
SCIMW-26			A									A			A	Q	
SCIMW-27			A									A			A	Q	
SCIMW-28			A			~~A~~		~~A~~	SA			SA			SA	Q	
SCIMW-29																Q	
SCIMW-30			A	SA								SA			SA	Q	
SCIMW-31D				SA								SA			SA	Q	

Table 1
Groundwater Monitoring Program and Proposed Modifications
Ninth Avenue Terminal, Port of Oakland
September 1998 Through June 1999

Monitoring Well ID	TVH (EPA 8015m/ 8020)	BTEX (EPA 8015m/ 8020)	TEHd, mo (8015m; w/ silica gel clean-up)	VOCs (EPA 8260/ 8240 list)	~~PNAs (EPA 8270; Not Filtered)~~	PNAs (EPA 8270; Filtered)	Pesticides (EPA 8080)	PCBs (EPA 8080)	Heavy Metals Filtered (EPA 6010/ 7000; Filtered)	Lead (EPA 6010/ 7000; Filtered)	pH (~~EPA 9040/ 9045/ 150.1~~; field)	Eh (field)	TDS (EPA 160.1)	Dissolved Organic Carbon (EPA 9060)	Dissolved Oxygen (field)	Water Levels	Free Product Removal
SCIMW-32			A	SA								SA			SA	Q	
SCIMW-33			A	SA		~~A~~	A					SA			SA	Q	
SCIMW-34	Q	Q	Q		~~Q~~	~~Q~~				Q	Q	Q	Q	Q	Q	Q	
SCIMW-35			~~Q~~ SA									Q			Q	Q	

Notes:

Q = Quarterly - conducted each quarter

SA = Semi-Annually - conducted during the first and third quarterly events

A = Annually - conducted during the first quarter only

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
ECOLOGICAL PARAMETER RESULTS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	pH field	pH laboratory	Eh field, before purge (mV)	Eh field, before sampling (mV)	Eh laboratory (mV)	TOTAL DISSOLVED SOLIDS (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN field, before purge (mg/L)	DISSOLVED OXYGEN field, before sampling (mg/L)	DISSOLVED OXYGEN laboratory (mg/L)
MW-1	SCI	F	9/25/98	4.68	6.85	--	--	--	--	--	--	--	--	--	--
MW-2	SCI	F	9/23/98	5.29	6.74	--	-53	--	--	--	--	--	0.1	--	--
MW-3	SCI	F	9/29/98	5.83	7.51	--	--	--	--	--	--	--	--	--	--
MW-5	SCI	F	9/23/98	6.40	6.75	--	-71	--	--	--	--	--	0.1	--	--
SCIMW-1	SCI	E/H	9/22/98	5.02	6.99	--	-129	--	--	--	--	--	0.3	--	--
SCIMW-2	SCI	N	9/18/98	4.07	7.13	5.8	43	--	-31	12,600	4.4	--	0.1	1.5	1.2
SCIMW-2	SCI	N	12/10/98	3.52	6.95	6.6	97	42	63	6,180	5.4	--	1.6	1.9	2.6
SCIMW-3	SCI	I/J	9/18/98	4.29	6.81	--	-154	--	--	--	--	--	0.1	--	--
SCIMW-4	SCI	L	9/22/98	6.20	6.83	--	-127	--	--	--	--	--	0.2	--	--
SCIMW-5	SCI	M	9/17/98	5.78	6.75	--	--	--	--	--	--	--	--	--	--
SCIMW-5	SCI	M	12/17/98	5.64	6.81	--	131	--	--	--	--	--	2.4	0.80	--
SCIMW-6	SCI	C	9/23/98	4.38	7.02	6.2	270	--	223	24,800	--	<1.0	4.1	6.2	2.6
SCIMW-6	SCI	C	12/10/98	3.91	7.19	6.7	42	125	189	21,600	<1.0	--	7.5	3.3	4.3
SCIMW-7	SCI	P/Q	9/17/98	5.74	6.78	--	-155	--	--	--	--	--	0.1	--	--
SCIMW-8	SCI	I	9/18/98	7.25	6.70	--	-146	--	--	--	--	--	0.2	--	--
SCIMW-9	SCI	I	9/21/98	6.64	6.67	--	-127	--	--	--	--	--	0.2	--	--
SCIMW-10	SCI	J	9/18/98	7.64	6.92	--	-257	--	--	--	--	--	0.1	--	--
SCIMW-11	SCI	N	9/23/98	4.72	7.01	6.5	-158	--	123	7,260	--	6.3	0.2	2.1	3.5
SCIMW-11	SCI	N	12/10/98	3.32	7.12	6.8	-55	-124	-29	7,600	7.3	--	1.5	1.4	3.3
SCIMW-12	SCI	O	9/18/98	4.14	7.13	6.0	25	--	132	24,700	<1.0	--	4.2	3.7	5.0
SCIMW-12	SCI	O	12/11/98	3.73	7.10	6.5	53	48	252	27,300	<1.0	--	--	--	5.4
SCIMW-13	SCI	J	9/18/98	7.42	6.78	--	-280	--	--	--	--	--	0.1	--	--
SCIMW-14	SCI	I/J	9/18/98	5.48	6.75	6.1	-116	--	140	3,190	23	--	0.2	1.4	2.7
SCIMW-14	SCI	I/J	12/11/98	5.91	7.00	6.8	42	-81	100	5,600	14	--	--	--	4.2
SCIMW-15	SCI	I/J	9/21/98	5.17	6.79	--	-147	--	--	--	--	--	0.1	--	--
SCIMW-16	SCI	R	9/21/98	7.04	5.46	--	-160	--	--	--	--	--	0.1	--	--
SCIMW-17	SCI	R	9/21/98	6.94	5.13	--	-122	--	--	--	--	--	0.1	--	--
SCIMW-18	SCI	L	9/24/98	7.23	6.67	--	--	--	--	--	--	--	--	--	--

TABLE 2
ECOLOGICAL PARAMETER RESULTS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	pH field	pH laboratory	Eh field, before purge (mV)	Eh field, before sampling (mV)	Eh laboratory (mV)	TOTAL DISSOLVED SOLIDS (mg/L)	DISSOLVED ORGANIC CARBON (mg/L)	TOTAL ORGANIC CARBON (mg/L)	DISSOLVED OXYGEN field, before purge (mg/L)	DISSOLVED OXYGEN field, before sampling (mg/L)	DISSOLVED OXYGEN laboratory (mg/L)
SCIMW-19	SCI	R	9/18/98	6.38	6.79	--	-138	--	--	--	--	--	0.1	--	--
SCIMW-20	SCI	H/Q	9/21/98	6.79	6.85	--	-86	--	--	--	--	--	0.2	--	--
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	--	--	--	--	--	0.2	--	--
SCIMW-22	SCI	P	5/6/97	8.22	--	6.8	--	--	--	--	--	--	--	--	--
SCIMW-22	SCI	P	9/22/98	7.24	6.58	--	-138	--	--	--	--	--	0.2	--	--
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	9,940	8.3	--	--	0.4	1.2
SCIMW-23	SCI	B	12/11/98	6.39	6.74	6.4	-63	40	29	--	--	--	1.7	--	3.3
SCIMW-24	SCI	N	9/18/98	4.96	6.38	6.3	-158	--	-52	1,850	29	--	0.1	1.0	1.9
SCIMW-24	SCI	N	12/11/98	5.79	6.80	6.6	117	-101	-21	13,200	27	--	1.2	3.0	3.7
SCIMW-26	SCI	H	9/22/98	7.41	6.54	--	-94	--	--	--	--	--	0.1	--	--
SCIMW-27	SCI	E/H	9/22/98	6.58	6.85	--	-52	--	--	--	--	--	0.1	--	--
SCIMW-28	SCI	Q	9/23/98	7.83	6.85	--	--	--	--	--	--	--	--	--	--
SCIMW-30	SCI	P	9/21/98	7.63	6.58	--	-132	--	--	--	--	--	0.1	--	--
SCIMW-31D	SCI	P	9/21/98	4.34	5.07	--	-20	--	--	--	--	--	0.2	--	--
SCIMW-32	SCI	I/P	9/21/98	7.71	5.11	--	-101	--	--	--	--	--	0.1	--	--
SCIMW-33	SCI	I/J	9/21/98	7.15	4.98	--	-194	--	--	--	--	--	0.1	--	--
SCIMW-34	SCI	R	9/24/98	4.87	6.87	6.3	--	--	-15	15,000	12	--	--	1.4	3.3
SCIMW-34	SCI	R	12/11/98	4.91	6.78	6.5	-110	-61	118	6,520	11	--	2.3	4.7	5.2
SCIMW-35	SCI	R	9/23/98	4.74	6.76	--	125	--	--	--	--	--	3.1	--	--
SCIMW-35	SCI	R	12/11/98	5.15	6.88	--	41	-7	--	--	--	--	1.8	4.9	--

Notes:
Eh = Redox potential or oxidizing-reduction potential
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 3
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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)	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	--	--	--	--	--	--
203-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	4,500yhl	2,100yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-1	SCI	F	9/25/98	4.68	--	--	<47	<280	--	--	--	--	--	--	--	--	--	--
MW-2	Uribe	F	4/4/94	5.31	--	<50	1800	--	<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-3	Uribe	F	4/4/94	5.95	--	<50	690	--	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--
203-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	--	--	--	--	--	--
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	--	--	--	--	--	--

TABLE 3
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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)	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	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	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--
MW-4	Uribe	F	4/4/94	7.78	--	6,200	410,000	--	140	47	20	310	--	--	--	--	--	--
MW-4	Clayton	F	7/24/95	8.33	--	2,400	21,000	--	140	34	74	40	--	--	--	--	--	--
MW-4	SCI	F	5/24/96	9.02	--	690y	37,000	2,800yl	44	18	<2.5	7.7	--	--	--	--	--	--
MW-4	SCI	F	9/4/96	7.33	--	1,000h	240,000	26,000yl	100	5.2	<0.5	7.2	--	--	--	--	--	--
MW-4	SCI	F	12/3/96	8.76	--	1,500yh	13,000	2,000yl	120	33	0.9	22	--	--	--	--	--	--
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	0.7	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	--	--	--	--	--	--
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-6	Clayton	F	4/10/95	7.74	--	1,300	10,000	--	4.4	0.7	<0.3	0.8	--	--	--	--	--	--
MW-6	SCI	F	5/24/96	7.71	--	280,000yh	240,000	5,500yl	<250	<250	<250	<250	--	--	--	--	--	--
MW-6	SCI	F	9/5/96	6.67	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	--	4,700yh	140,000	7,300yl	19	<10	11	<10	--	--	--	--	--	--
MW-6	SCI	F/H	5/6/97	7.04	330,000	440yh	620,000	24,000yl	2.4	<0.5	0.51	0.61	--	--	--	--	--	--
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

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

PRIVILEGED AND CONFIDENTIAL

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)	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-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	--	--	--	--	--	--
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-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-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
XB Dup of SCIMW-3	SCI	I/J	9/5/96	6.67	--	--	--	--	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--
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-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-5	SCI	M	9/3/96	4.63	<5,000	<50	<50	<250	<5.0	<5.0	<5.0	<5.0	--	--	--	--	<1.0	ND
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-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, 28/1998 (a)	3.91	--	--	<47	<280	--	--	--	--	<0.1	<0.1	<0.1	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

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CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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)	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-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-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-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-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-11	SCI	N	8/28/96	3.83	<5,000	<50	400yhl	<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-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-13	SCI	J	8/29/96	7.21	<5,000	<50	5,400yh	2,100yl	<5.0	<5.0	<5.0	<5.0	--	--	--	--	<1.0	ND
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-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-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	--	--	--	--	--	--

TABLE 3
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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)	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-15	SCI	I/J	9/21/98	5.17	--	--	<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
XA Dup of SCIMW-16	SCI	R	8/30/96	6.81	--	--	--	--	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--
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-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-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-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	--	--	<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	--	--	--	--	--	--
SCIMW-20	SCI	H/Q	9/22/98	6.79	--	--	<50	<300	--	--	--	--	--	--	--	--	--	--
SCIMW-21	SCI	D	5/6/97	7.44	<5,000	<50	670h	860yhl	<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-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	2,700yhl	<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-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-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	--	--	--	--	--	--

TABLE 3
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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)	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-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-27	SCI	E/H	5/6/97	6.45	<5,000	<50	3,400	1,800yl	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
SCIMW-27	SCI	E/H	9/22/98	6.58	--	--	<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-29	SCI	H	5/20/97	7.48	<5,000	<50	150	<300	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
SCIMW-30	SCI	P	10/20/97	7.53	<5,000	<50	530yh	830yhl	<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-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-32	SCI	I/P	10/20/97	7.73	<5,000	<50	1,000yh	990yl	<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-33	SCI	I/J	10/20/97	6.89	<5,000	780	5,700yh	1,600yhl	3.2	12	<0.5	30.7	1.8	0.3	0.11	ND	<0.47	ND
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-34	SCI	R	10/20/97	4.88	<5,000	<50	5,200yh	3,600yhl	<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	60ylh	<300	150	28	1.0	6.5	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--

TVH = Total Volatile Hydrocarbons
TEH = Total Extractable Hydrocarbons
DDD = Dichlorodiphenyldichloroethane
DDE = Dichlorodiphenyldichloroethene
DDT = Dichlorodiphenyltrichloroethene
PCBs = Polychlorinated Biphenyls
*** = Also detected 0.05ug/L Heptachlor epoxide B
(a) = Additional sample was collected on Dec 28, 1998 for the TEH analysis.

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 4
VOLATILE ORGANIC CONCENTRATIONS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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 EXCL. BTEX*
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-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

TABLE 4
VOLATILE ORGANIC CONCENTRATIONS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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 EXCL. BTEX*
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
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

TABLE 4
VOLATILE ORGANIC CONCENTRATIONS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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 EXCL. BTEX*
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-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-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-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-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
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-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 presented in Table 5
MEK = Methylethylketone
µg/L = micrograms per liter or parts per billion
<10 = Compound not detected at or above stated reporting limit

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 5
SEMI-VOLATILE ORGANIC CONCENTRATIONS (except PNA's)
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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 5
SEMI-VOLATILE ORGANIC CONCENTRATIONS (except PNA's)
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

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	NL	<9.5	<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

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
POLYNUCLEAR AROMATIC CONCENTRATIONS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	Acenaphthene (µg/L)		Acenaphthylene (µg/L)		Anthracene (µg/L)		Benzo(a) Anthracene (µg/L)		Chrysene (µg/L)		Benzo(b, k) Fluoranthene (µg/L)		Benzo(g,h,i) Perlene (µg/L)		Benzo(a) Pyrene (µg/L)		Indeno (1,2,3-cd) pyrene (µg/L)		Dibenz(a,h) Anthracene (µg/L)		Fluoranthene (µg/L)		Fluorene (µg/L)		Naphthalene (µg/L)		Phenanthrene (µg/L)		Pyrene (µg/L)	
					Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
MW-5	SCI	F	1/20/97	8.38	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
MW-6	SCI	F	9/5/96	6.67	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--	<470	--
MW-7	SCI	M	9/5/96	5.48	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
MW-7	SCI	M	1/17/97	6.48	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-1	SCI	E/H	5/24/96	5.09	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-1	SCI	E/H	9/6/96	4.39	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-1	SCI	E/H	1/22/97	5.29	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-2	SCI	N	5/23/96	4.04	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-2	SCI	N	9/4/96	3.38	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-2	SCI	N	1/17/97	3.82	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-2	SCI	N	9/18/98	4.07	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7	<9.7
SCIMW-2	SCI	N	12/10/98	3.52	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8	<10	<9.8
SCIMW-3	SCI	I/J	5/23/96	7.22	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-3	SCI	I/J	9/5/96	6.67	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-3	SCI	I/J	1/20/97	6.46	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-3	SCI	I/J	9/18/98	4.29	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11
SCIMW-4	SCI	L	8/26/96	5.50	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-4	SCI	L	1/22/97	8.43	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-5	SCI	M	9/3/96	4.63	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-5	SCI	M	1/20/97	6.12	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-6	SCI	C	8/28/96	4.69	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-6	SCI	C	1/22/97	4.68	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-6	SCI	C	9/23/98	4.38	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5	<9.5
SCIMW-6	SCI	C	12/10/98	3.91	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9	<9.4	<9.9
SCIMW-7	SCI	P/Q	9/6/96	3.31+	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-7	SCI	P/Q	1/20/97	7.32	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	<19	--	28	--	<19	--	<19	--
SCIMW-8	SCI	I	8/26/96	7.11	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-8	SCI	I	1/21/97	7.70	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-8	SCI	I	9/18/98	7.25	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11
SCIMW-9	SCI	I	8/29/96	6.40	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-9	SCI	I	1/23/97	6.66	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-9	SCI	I	9/22/98	6.64	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7
SCIMW-10	SCI	J	8/26/96	7.95	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-10	SCI	J	1/23/97	7.87	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-11	SCI	N	8/28/96	3.83	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-11	SCI	N	1/17/97	4.32	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-11	SCI	N	9/23/98	4.72	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6	<9.6

TABLE 6
POLYNUCLEAR AROMATIC CONCENTRATIONS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	Acenaphthene (µg/L)		Acenaphthylene (µg/L)		Anthracene (µg/L)		Benzo(a) Anthracene (µg/L)		Chrysene (µg/L)		Benzo(b, k) Fluoranthene (µg/L)		Benzo(g,h,i) Perlene (µg/L)		Benzo(a) Pyrene (µg/L)		Indeno (1,2,3-cd) pyrene (µg/L)		Dibenz(a,h) Anthracene (µg/L)		Fluoranthene (µg/L)		Fluorene (µg/L)		Naphthalene (µg/L)		Phenanthrene (µg/L)		Pyrene (µg/L)	
					Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
SCIMW-11	SCI	N	12/10/98	3.32	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11	<9.4	<11
SCIMW-12	SCI	O	8/29/96	4.09	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-12	SCI	O	1/17/97	4.53	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-13	SCI	J	8/29/96	7.21	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-13	SCI	J	1/23/97	6.93	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-13	SCI	J	9/18/98	7.42	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11	--	<11
SCIMW-14	SCI	I/J	8/29/96	5.36	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-14	SCI	I/J	1/21/97	5.64	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-14	SCI	I/J	9/18/98	5.48	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8	<9.8
SCIMW-15	SCI	I/J	8/29/96	4.85	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-15	SCI	I/J	1/17/97	5.01	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-15	SCI	I/J	9/21/98	5.17	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5
SCIMW-16	SCI	R	8/30/96	6.81	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-16	SCI	R	1/22/97	7.03	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-17	SCI	R	8/29/96	6.55	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-17	SCI	R	1/22/97	7.67	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-18	SCI	L	9/6/96	5.22+	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-18	SCI	L	1/20/97	6.98	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-19	SCI	R	8/30/96	6.16	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-19	SCI	R	1/21/97	7.42	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-20	SCI	H/Q	9/3/96	7.03	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-20	SCI	H/Q	1/20/97	7.67	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-22	SCI	P	5/6/97	8.22	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-24	SCI	N	5/6/97	4.44	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	70	--	5.9J	--	<9.4	--
SCIMW-24	SCI	N	9/18/98	4.96	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7	--	<9.7
SCIMW-28	SCI	Q	9/25/98	7.83	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5	--	<9.5
SCIMW-33	SCI	I/J	10/6/98	7.15	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6	--	<9.6
SCIMW-34	SCI	R	10/20/97	4.88	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--
SCIMW-34	SCI	R	9/24/98	4.87	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
SCIMW-34	SCI	R	12/11/98	4.91	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4	<9.6	<9.4
SCIMW-35	SCI	R	10/20/97	4.87	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--	<9.4	--

Notes:
a: 2-Methylnaphthalene detected at 410J µg/L in MW-6
b: 2-Methylnaphthalene detected at 6.0J µg/L in SCIMW-2
c: 2-Methylnaphthalene detected at 24 µg/L in SCIMW-24
µg/L = micrograms per Liter or parts per billion
J = Estimated value
-- = Not tested
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 7
HEAVY METAL CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLL-IUM (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)	MOLYB-DENUM (µg/L)	NICKEL (µg/L)	POTAS-SIUM (µg/L)	SELE-NIUM (µg/L)	SILVER (µg/L)	THAL-LIUM (µg/L)	VANA-DIUM (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	360	<2.0	<5.0	<10	--	<20	<10	<3.0	<0.20	<20	<20	--	<5.0	<5.0	<5.0	<10	49
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
SCIMW-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
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

TABLE 7
HEAVY METAL CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLL-IUM (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)	MOLYB-DENUM (µg/L)	NICKEL (µg/L)	POTAS-SIUM (µg/L)	SELE-NIUM (µg/L)	SILVER (µg/L)	THAL-LIUM (µg/L)	VANA-DIUM (µg/L)	ZINC (µg/L)
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-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-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
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

TABLE 7
HEAVY METAL CONCENTRATIONS IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

SAMPLE DESIGNATION	CONSULTANT	DESCRIPTION	SITE REF AREA	SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (feet)	ANTIMONY (µg/L)	ARSENIC (µg/L)	BARIUM (µg/L)	BERYLL-IUM (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)	MOLYB-DENUM (µg/L)	NICKEL (µg/L)	POTAS-SIUM (µg/L)	SELE-NIUM (µg/L)	SILVER (µg/L)	THAL-LIUM (µg/L)	VANA-DIUM (µg/L)	ZINC (µg/L)
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	41
SCIMW-20	SCI	Filtered	H/Q	10/7/98	6.79	--	--	--	--	--	--	--	--	--	<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-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-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	--	--	--	--	--	--	--	--	--

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 8
CYANIDE, NITRATE AND PHOSPHORUS CONCENTRATIONS
IN GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

SAMPLE DESIGNATION	CONSULTANT	SITE REF AREA	DATE SAMPLED	GROUNDWATER ELEVATION Port of Oak. Datum (FEET)	CYANIDE (µg/L)	NITRATE/ NITRITE-N (µg/L)	TOTAL PHOS-PHORUS (µg/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:
µg/L = micrograms per liter or parts per billion
-- = Not tested
<10 = Compound not detected at or above stated reporting limit
Groundwater measurements presented are those collected on the first day of

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
MW-1	**TOC Elevation = 9.99**						
9/20/93	5.20	4.79	none	1/16/97	4.37	5.62	none
12/1/93	5.15	4.84	none	2/28/97	4.00	5.99	none
3/31/94	4.09	5.90	none	3/26/97	4.80	5.19	none
6/2/94	4.82	5.17	none	5/5/97	5.02	4.97	none
9/30/94	5.63	4.36	none	6/27/97	5.12	4.87	none
12/22/94	5.00	4.99	none	7/23/97	5.20	4.79	none
4/10/95	4.94	5.05	none	8/25/97	5.20	4.79	none
7/24/95	5.02	4.97	none	9/25/97	5.28	4.71	none
11/10/95	5.52	4.47	none	10/30/97	5.40	4.59	none
2/20/96	4.49	5.50	none	12/3/97	5.07	4.92	none
5/23/96	5.04	4.95	none	12/30/97	5.13	4.86	none
6/28/96	5.13	4.86	none	1/28/98	4.95	5.04	none
7/29/96	5.21	4.78	none	3/11/98	4.75	5.24	none
9/3/96	5.37	4.62	none	3/30/98	4.82	5.17	none
9/9/96	5.65	4.34	none	4/27/98	4.92	5.07	none
9/18/96	5.35	4.64	none	6/1/98	4.97	5.02	none
9/23/96	5.36	4.63	none	6/26/98	5.05	4.94	none
9/30/96	5.39	4.60	none	9/17/98	5.31	4.68	none
10/28/96	5.09	4.90	none	12/7/98	5.23	4.76	none
12/2/96	4.80	5.19	none				
12/30/96	4.25	5.74	none				
MW-2	**TOC Elevation = 10.32**						
9/20/93	4.40	5.92	none	1/16/97	3.99	6.33	none
12/1/93	4.75	5.57	none	2/28/97	3.88	6.44	none
3/31/94	5.01	5.31	none	3/26/97	3.83	6.49	none
6/2/94	4.61	5.71	none	5/5/97	3.85	6.47	none
9/30/94	4.93	5.39	none	6/27/97	3.77	6.55	none
12/22/94	4.43	5.89	none	7/23/97	3.88	6.44	none
4/10/95	4.03	6.29	none	8/25/97	3.88	6.44	none
7/24/95	4.41	5.91	none	9/25/97	3.95	6.37	none
11/10/95	4.59	5.73	none	10/30/97	5.32	5.00	none
2/20/96	3.81	6.51	none	12/3/97	4.98	5.34	none
5/23/96	4.41	5.91	none	12/30/97	4.95	5.37	none
6/28/96	3.81	6.51	none	1/28/98	4.96	5.36	none
7/29/96	3.81	6.51	none	3/11/98	5.02	5.30	none
9/3/96	3.98	6.34	none	3/30/98	4.45	5.87	none
9/9/96	4.00	6.32	none	4/27/98	4.62	5.70	none
9/18/96	4.08	6.24	none	6/1/98	5.15	5.17	none
9/23/96	4.08	6.24	none	6/26/98	4.77	5.55	none
9/30/96	4.08	6.24	none	9/17/98	5.03	5.29	none
10/28/96	4.34	5.98	none	12/7/98	4.96	5.36	none
12/2/96	4.30	6.02	none				
12/30/96	3.92	6.40	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
MW-3	TOC Elevation = 10.18						
9/20/93	15.20	-5.02+	none	3/26/97	4.76	5.42	none
12/1/93	5.70	4.48	none	5/5/97	4.69	5.49	none
3/31/94	4.23	5.95	none	6/27/97	4.51	5.67	none
6/2/94	3.86	6.32	none	7/23/97	4.58	5.60	none
9/30/94	5.44	4.74	none	8/25/97	4.62	5.56	none
12/22/94	4.87	5.31	none	9/25/97	4.53	5.65	none
4/10/95	7.64	2.54+	none	10/30/97	4.70	5.48	none
7/24/95	3.62	6.56	none	12/3/97	4.10	6.08	none
11/10/95	5.11	5.07	none	12/30/97	4.59	5.59	none
2/20/96	4.14	6.04	none	1/28/98	4.59	5.59	none
5/23/96	4.49	5.69	none	3/11/98	4.48	5.70	none
6/28/96	--	--	--	3/30/98	4.31	5.87	none
7/29/96	4.64	5.54	none	4/27/98	4.26	5.92	none
9/3/96	4.48	5.70	none	6/1/98	3.92	6.26	none
9/18/96	6.42	3.76+	none	6/26/98	--	--	--
9/23/96	6.06	4.12	none	9/17/98	4.35	5.83	none
9/30/96	5.18	5.00	none	12/7/98	3.56	6.62	none
10/28/96	4.83	5.35	none				
12/2/96	4.84	5.34	none				
12/30/96	4.84	5.34	none				
1/16/97	4.73	5.45	none				
3/5/97	4.69	5.49	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
MW-4	TOC Elevation = 11.98						
9/20/93	5.80	6.18	8.04	2/28/97	3.78	8.20	trace
12/1/93	4.10	7.88	trace	3/26/97	3.90	8.08	trace
3/31/94	4.20	7.78	6.96	5/5/97	3.92	8.06	0.13
6/2/94	3.88	8.10	6.00	6/27/97	4.11	7.87	0.50
9/30/94	5.80	6.18	12.00	7/23/97	4.30	7.68	trace
12/22/94	3.47	8.51	10.08	8/25/97	3.55	8.43	trace
4/10/95	3.80	8.18	0.00	9/25/97	3.91	8.07	trace
5/16/95	3.07	8.91	NA	10/30/97	4.98	7.00	0.13
7/24/95	3.65	8.33	0.00	12/3/97	3.60	8.38	0.50
11/10/95	NA	NA	0.00	12/30/97	3.52	8.46	trace
2/20/96	NA	NA	NA	1/28/98	3.02	8.96	0.63
5/23/96	2.96	9.02	0.00	3/11/98	3.28	8.70	trace
6/28/96	3.93	8.05	2.38	3/30/98	3.29	8.69	trace
7/29/96	5.09	6.89	0.50	4/27/98	3.55	8.43	0.25
9/3/96	4.65	7.33	0.25	6/1/98	3.02	8.96	0.19
9/9/96	5.15	6.83	0.50	6/26/98	3.75	8.23	trace
9/18/96	5.45	6.53	0.13	9/17/98	4.45	7.53	0.25
9/23/96	4.80	7.18	0.38	12/7/98	3.35	8.63	0.38
9/30/96	4.88	7.10	0.06				
10/28/96	5.12	6.86	0.25				
12/2/96	3.22	8.76	2.00				
12/30/96	2.94	9.04	0.25				
1/16/97	3.22	8.76	trace				
MW-5	TOC Elevation = 11.84						
4/10/95	4.64	7.20	none	6/27/97	5.45	6.39	none
7/24/95	5.24	6.60	none	7/23/97	5.39	6.45	none
11/10/95	5.38	6.46	none	8/25/97	5.18	6.66	none
2/20/96	2.69	9.15	none	9/25/97	5.40	6.44	none
5/23/96	2.67	9.17	none	10/30/97	5.45	6.39	none
6/28/96	5.29	6.55	none	12/3/97	2.42	9.42	none
7/29/96	5.35	6.49	none	12/30/97	5.04	6.80	none
9/3/96	5.44	6.40	none	1/28/98	2.79	9.05	none
9/9/96	5.45	6.39	none	3/11/98	4.54	7.30	none
9/18/96	5.51	6.33	none	3/30/98	4.60	7.24	none
9/23/96	5.51	6.33	none	4/27/98	5.18	6.66	none
9/30/96	5.49	6.35	none	6/1/98	3.17	8.67	none
10/28/96	5.56	6.28	none	6/26/98	5.31	6.53	none
12/2/96	4.64	7.20	none	9/17/98	5.44	6.40	none
12/30/96	2.42	9.42	none	12/7/98	3.79	8.05	none
1/16/97	3.46	8.38	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				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
MW-6	**TOC Elevation = 11.86**						
4/10/95	4.12	7.74	12.00	6/27/97	4.82	7.04	0.50
7/24/95	5.19	6.67	13.20	7/23/97	--	--	--
11/10/95	NA	NA	NA	8/25/97	4.50	7.36	trace
2/20/96	NA	NA	NA	9/25/97	3.94	7.92	7.25
5/23/96	NA	NA	4.50	10/30/97	5.06	6.80	2.00
6/28/96	4.89	6.97	3.00	12/3/97	4.88	6.98	7.00
7/29/96	5.00	6.86	1.00	12/30/97	4.53	7.33+	0.25
9/3/96	5.19	6.67	0.50	1/28/98	4.47	7.39	0.38
9/9/96	5.29	6.57	trace	3/11/98	4.35	7.51	trace
9/18/96	5.34	6.52	trace	3/30/98	4.45	7.41	trace
9/23/96	5.17	6.69	0.13	4/27/98	4.83	7.03	2.00
9/30/96	5.10	6.76	0.13	6/1/98	4.54	7.32	1.50
10/28/96	5.23	6.63	0.13	6/26/98	5.02	6.84	3.00
12/2/96	3.96	7.90	1.00	9/17/98	5.24	6.62	4.00
12/30/96	4.55	7.31	0.33	12/7/98	3.83	8.03	1.75
1/16/97	4.23	7.63	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				
MW-7	**TOC Elevation = 10.13**						
4/10/95	4.41	5.72	none	6/27/97	3.71	6.42	none
7/24/95	3.72	6.41	none	7/23/97	--	--	--
11/10/95	4.78	5.35	none	8/25/97	3.73	6.40	none
2/20/96	4.13	6.00	none	9/25/97	3.75	6.38	none
5/23/96	4.69	5.44	none	10/30/97	3.88	6.25	none
6/28/96	3.81	6.32	none	12/3/97	3.58	6.55	none
7/29/96	4.32	5.81	none	12/30/97	3.67	6.46	none
9/3/96	4.65	5.48	none	1/28/98	3.48	6.65	none
9/9/96	4.79	5.34	none	3/11/98	3.64	6.49	none
9/18/96	4.45	5.68	none	3/30/98	3.65	6.48	none
9/23/96	4.28	5.85	none	4/27/98	3.26	6.87	none
9/30/96	4.18	5.95	none	6/1/98	3.67	6.46	none
10/28/96	4.48	5.65	none	6/26/98	3.63	6.50	none
12/2/96	4.88	5.25	none	9/17/98	3.75	6.38	none
12/30/96	3.62	6.51	none	12/7/98	3.82	6.31	none
1/16/97	3.65	6.48	none				
2/28/97	3.71	6.42	none				
3/26/97	3.71	6.42	none				
5/5/97	3.80	6.33	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-1	TOC Elevation = 10.37						
5/23/96	5.28	5.09	none	8/25/97	5.41	4.96	none
6/28/96	5.75	4.62	none	9/25/97	5.60	4.77	none
7/29/96	5.81	4.56	none	10/30/97	5.79	4.58	none
9/3/96	5.98	4.39	none	12/3/97	4.80	5.57	none
9/9/96	6.04	4.33	none	12/30/97	4.94	5.43	none
9/18/96	6.04	4.33	none	1/28/98	4.59	5.78	none
9/23/96	6.07	4.30	none	3/11/98	4.70	5.67	none
9/30/96	6.00	4.37	none	3/30/98	4.62	5.75	none
10/28/96	6.10	4.27	none	4/27/98	4.84	5.53	none
12/2/96	5.52	4.85	none	6/1/98	4.61	5.76	none
12/30/96	4.66	5.71	none	6/26/98	4.94	5.43	none
1/16/97	5.08	5.29	none	9/17/98	5.35	5.02	none
2/28/97	5.38	4.99	none	12/7/98	4.81	5.56	none
3/26/97	5.54	4.83	none				
5/5/97	5.86	4.51	none				
6/27/97	5.76	4.61	none				
7/23/97	5.59	4.78	none				
SCIMW-2	TOC Elevation = 9.92				Tidally Influenced		
5/23/96	5.88	4.04	none	8/25/97	5.90	4.02	none
6/28/96	7.33	2.59	none	9/25/97	3.81	6.11	none
7/29/96	7.43	2.49	none	10/30/97	3.32	6.60	none
9/3/96	6.54	3.38	none	12/3/97	3.54	6.38	none
9/9/96	4.67	5.25	none	12/30/97	3.60	6.32	none
9/18/96	6.50	3.42	none	1/28/98	2.42	7.50	none
9/23/96	3.78	6.14	none	3/11/98	3.33	6.59	none
9/30/96	6.18	3.74	none	3/30/98	7.08	2.84	none
10/28/96	3.72	6.20	none	4/27/98	7.36	2.56	none
12/2/96	6.60	3.32	none	6/1/98	5.78	4.14	none
12/30/96	4.57	5.35	none	6/26/98	7.02	2.90	none
1/16/97	6.10	3.82	none	9/17/98	5.85	4.07	none
2/28/97	7.04	2.88	none	12/7/98	6.40	3.52	none
3/26/97	6.59	3.33	none				
5/5/97	7.03	2.89	none				
6/27/97	6.50	3.42	none				
7/23/97	7.23	2.69	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-3	**TOC Elevation = 11.87**				**Tidally Influenced**		
5/23/96	4.65	7.22	none	8/25/97	5.10	6.77	none
6/28/96	4.86	7.01	none	9/25/97	5.14	6.73	none
7/29/96	5.03	6.84	none	10/30/97	5.55	6.32	none
9/3/96	5.20	6.67	none	12/3/97	5.30	6.57	none
9/9/96	5.28	6.59	none	12/30/97	5.13	6.74	none
9/18/96	5.24	6.63	none	1/28/98	4.71	7.16	none
9/23/96	5.26	6.61	none	3/11/98	--	--	--
9/30/96	5.31	6.56	none	3/30/98	4.13	7.74	none
10/17/96	5.43	6.44	none	4/27/98	4.02	7.85	none
10/28/96	5.58	6.29	none	6/1/98	4.30	7.57	none
12/2/96	5.78	6.09	none	6/26/98	4.11	7.76	none
12/30/96	5.49	6.38	none	9/17/98	7.58	4.29	none
1/16/97	5.41	6.46	none	12/7/98	5.56	6.31	none
2/28/97	5.27	6.60	none				
3/26/97	4.98	6.89	none				
5/5/97	4.93	6.94	none				
6/27/97	4.83	7.04	none				
7/23/97	4.94	6.93	none				
SCIMW-4	**TOC Elevation = 10.03**						
9/9/96	4.53	5.50	none	10/30/97	4.03	6.00	none
9/18/96	4.54	5.49	none	12/3/97	2.25	7.78	none
9/23/96	4.32	5.71	none	12/30/97	2.77	7.26	none
9/30/96	4.37	5.66	none	1/28/98	2.95	7.08	none
10/28/96	3.75	6.28	none	3/11/98	1.95	8.08	none
12/2/96	2.09	7.94	none	3/30/98	2.13	7.90	none
12/30/96	1.00	9.03	none	4/27/98	2.45	7.58	none
1/16/97	1.60	8.43	none	6/1/98	2.03	8.00	none
2/28/97	2.16	7.87	none	6/26/98	2.95	7.08	none
3/26/97	2.68	7.35	none	9/17/98	3.83	6.20	none
5/5/97	3.21	6.82	none	12/7/98	1.95	8.08	none
6/27/97	3.13	6.90	none				
7/23/97	3.65	6.38	none				
8/25/97	3.41	6.62	none				
9/25/97	3.90	6.13	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-5	TOC Elevation = 10.19				Tidally Influenced		
9/9/96	5.56	4.63	none	10/30/97	4.37	5.82	none
9/18/96	4.68	5.51	none	12/3/97	4.21	5.98	none
9/23/96	4.42	5.77	none	12/30/97	4.20	5.99	none
9/30/96	4.44	5.75	none	1/28/98	2.55	7.64	none
10/28/96	4.40	5.79	none	3/11/98	4.38	5.81	none
12/2/96	4.95	5.24	none	3/30/98	3.95	6.24	none
12/30/96	4.21	5.98	none	4/27/98	3.86	6.33	none
1/16/97	4.07	6.12	none	6/1/98	4.66	5.53	none
2/28/97	4.74	5.45	none	6/26/98	3.90	6.29	none
3/26/97	4.53	5.66	none	9/17/98	4.41	5.78	none
5/5/97	4.49	5.70	none	12/7/98	4.55	5.64	none
6/27/97	4.63	5.56	none				
7/23/97	4.74	5.45	none				
8/25/97	4.40	5.79	none				
9/25/97	4.26	5.93	none				
SCIMW-6	TOC Elevation = 10.55				Tidally Influenced		
9/9/96	5.86	4.69	none	10/30/97	5.37	5.18	none
9/18/96	6.54	4.01	none	12/3/97	5.29	5.26	none
9/23/96	5.47	5.08	none	12/30/97	5.42	5.13	none
9/30/96	6.44	4.11	none	1/28/98	3.56	6.99	none
10/28/96	5.93	4.62	none	3/11/98	5.11	5.44	none
12/2/96	7.04	3.51	none	3/30/98	6.46	4.09	none
12/30/96	5.60	4.95	none	4/27/98	6.64	3.91	none
1/16/97	5.87	4.68	none	6/1/98	6.04	4.51	none
2/28/97	7.00	3.55	none	6/26/98	6.23	4.32	none
3/26/97	6.54	4.01	none	9/17/98	6.17	4.38	none
5/5/97	6.72	3.83	none	12/7/98	6.64	3.91	none
6/27/97	6.65	3.90	none				
7/23/97	6.60	3.95	none				
8/25/97	6.15	4.40	none				
9/25/97	5.11	5.44	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-7	**TOC Elevation = 12.26**						
9/9/96	8.95	3.31+	none	10/30/97	5.30	6.96	none
9/18/96	6.87	5.39	none	12/3/97	4.85	7.41	none
9/23/96	6.95	5.31	none	12/30/97	4.83	7.43	none
9/30/96	7.04	5.22	none	1/28/98	4.65	7.61	none
10/28/96	7.40	4.86	none	3/11/98	4.72	7.54	none
12/2/96	4.95	7.31	none	3/30/98	4.77	7.49	none
12/30/96	4.73	7.53	none	4/27/98	4.85	7.41	none
1/16/97	4.94	7.32	none	6/1/98	4.70	7.56	none
2/28/97	4.85	7.41	none	6/26/98	4.97	7.29	none
3/26/97	4.94	7.32	none	9/17/98	6.52	5.74	none
5/5/97	5.13	7.13	none	12/7/98	4.52	7.74	none
6/27/97	5.86	6.40	none				
7/23/97	6.25	6.01	none				
8/25/97	5.94	6.32	none				
9/25/97	5.93	6.33	none				
SCIMW-8	**TOC Elevation = 12.81**						
9/9/96	5.70	7.11	none	10/30/97	5.61	7.20	none
9/18/96	5.81	7.00	none	12/3/97	5.09	7.72	none
9/23/96	5.79	7.02	none	12/30/97	4.19	8.62	none
9/30/96	5.89	6.92	none	1/28/98	--	--	--
10/17/96	5.95	6.86	none	3/11/98	--	--	--
10/28/96	6.13	6.68	none	3/30/98	--	--	--
12/2/96	5.39	7.42	none	4/27/98	5.06	7.75	none
12/30/96	4.98	7.83	none	6/1/98	4.18	8.63	none
1/16/97	5.11	7.70	none	6/26/98	5.17	7.64	none
2/28/97	5.42	7.39	none	9/17/98	5.56	7.25	none
3/26/97	5.39	7.42	none	12/7/98	5.17	7.64	none
5/5/97	5.40	7.41	none				
6/27/97	5.45	7.36	none				
7/23/97	--	--	--				
8/25/97	5.21	7.60	none				
9/25/97	5.49	7.32	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-9	**TOC Elevation = 11.32**						
9/9/96	4.92	6.40	none	10/30/97	4.90	6.42	none
9/18/96	4.94	6.38	none	12/3/97	--	--	--
9/23/96	4.94	6.38	none	12/30/97	4.60	6.72	none
9/30/96	4.92	6.40	none	1/28/98	4.40	6.92	none
10/17/96	4.97	6.35	none	3/11/98	4.11	7.21	none
10/28/96	5.07	6.25	none	3/30/98	4.38	6.94	none
12/2/96	4.71	6.61	none	4/27/98	4.35	6.97	none
12/30/96	4.51	6.81	none	6/1/98	4.08	7.24	none
1/16/97	4.66	6.66	none	6/26/98	4.42	6.90	none
3/26/97	4.60	6.72	none	9/17/98	4.68	6.64	none
5/5/97	4.65	6.67	none	12/7/98	4.52	6.80	none
6/27/97	4.71	6.61	none				
7/23/97	4.77	6.55	none				
8/25/97	4.72	6.60	none				
9/25/97	--	--	--				
SCIMW-10	**TOC Elevation = 12.56**						
9/9/96	4.61	7.95	none	8/25/97	6.07	6.49	none
9/18/96	4.87	7.69	none	9/25/97	5.90	6.66	none
9/23/96	4.81	7.75	none	10/30/97	6.60	5.96	none
9/30/96	4.91	7.65	none	12/3/97	--	--	--
10/17/96	5.03	7.53	none	12/30/97	6.10	6.46	none
10/28/96	5.31	7.25	none	1/28/98	4.97	7.59	none
12/2/96	5.15	7.41	none	3/11/98	--	--	--
12/30/96	4.60	7.96	none	3/30/98	5.36	7.20	none
1/16/97	4.69	7.87	none	4/27/98	5.21	7.35	none
2/28/97	4.47	8.09	none	6/1/98	5.18	7.38	none
3/26/97	4.33	8.23	none	6/26/98	5.17	7.39	none
5/5/97	4.21	8.35	none	9/17/98	4.92	7.64	none
6/27/97	5.71	6.85	none	12/7/98	6.07	6.49	none
7/23/97	5.96	6.60	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-11	**TOC Elevation = 9.49**				**Tidally Influenced**		
9/9/96	5.66	3.83	none	10/30/97	3.81	5.68	none
9/18/96	6.39	3.10	none	12/3/97	4.85	4.64	none
9/23/96	4.12	5.37	none	12/30/97	1.63	7.86	none
9/30/96	6.24	3.25	none	1/28/98	3.64	5.85	none
10/28/96	5.46	4.03	none	3/11/98	3.37	6.12	none
12/2/96	6.03	3.46	none	3/30/98	7.02	2.47	none
12/30/96	3.56	5.93	none	4/27/98	7.33	2.16	none
1/16/97	5.17	4.32	none	6/1/98	--	--	--
2/28/97	6.60	2.89	none	6/26/98	--	--	--
3/26/97	6.85	2.64	none	9/23/98	4.77	4.72	none
5/5/97	6.94	2.55	none	12/7/98	6.17	3.32	none
6/27/97	5.94	3.55	none				
7/23/97	7.18	2.31	none				
8/25/97	5.04	4.45	none				
9/25/97	3.31	6.18	none				
SCIMW-12	**TOC Elevation = 10.94**				**Tidally Influenced**		
9/9/96	6.85	4.09	none	9/25/97	4.69	6.25	none
9/18/96	7.24	3.70	none	10/30/97	5.24	5.70	none
9/23/96	5.59	5.35	none	12/3/97	6.53	4.41	none
9/30/96	7.26	3.68	none	12/30/97	2.90	8.04	none
10/28/96	7.00	3.94	none	1/28/98	5.11	5.83	none
12/2/96	7.31	3.63	none	3/11/98	4.83	6.11	none
12/30/96	5.12	5.82	none	3/30/98	7.22	3.72	none
1/16/97	6.41	4.53	none	4/27/98	7.23	3.71	none
2/28/97	7.19	3.75	none	6/1/98	7.00	3.94	none
3/26/97	7.24	3.70	none	6/1/98	7.20	3.74	none
5/5/97	7.26	3.68	none	9/17/98	6.80	4.14	none
6/27/97	7.09	3.85	none	12/7/98	7.21	3.73	none
7/23/97	7.24	3.70	none				
8/25/97	6.61	4.33	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-13	TOC Elevation = 12.56						
9/9/96	5.35	7.21	none	10/30/97	5.75	6.81	none
9/18/96	5.47	7.09	none	12/3/97	5.55	7.01	none
9/23/96	5.51	7.05	none	12/30/97	5.43	7.13	none
9/30/96	4.94	7.62	none	1/28/98	5.08	7.48	none
10/17/96	5.70	6.86	none	3/11/98	4.46	8.10	none
10/28/96	5.86	6.70	none	3/30/98	4.42	8.14	none
12/2/96	5.91	6.65	none	4/27/98	4.22	8.34	none
12/30/96	5.70	6.86	none	6/1/98	4.24	8.32	none
1/16/97	5.63	6.93	none	6/26/98	4.25	8.31	none
2/28/97	5.31	7.25	none	9/17/98	5.14	7.42	none
3/26/97	5.14	7.42	trace	12/7/98	5.78	6.78	none
5/5/97	4.99	7.57	none				
6/27/97	4.92	7.64	none				
7/23/97	--	--	--				
8/25/97	--	--	--				
9/25/97	5.14	7.42	none				
SCIMW-14	TOC Elevation = 13.64						
9/9/96	8.28	5.36	none	10/30/97	8.17	5.47	none
9/18/96	8.50	5.14	none	12/3/97	7.58	6.06	none
9/23/96	8.18	5.46	none	12/30/97	7.52	6.12	none
9/30/96	8.41	5.23	none	1/28/98	7.19	6.45	none
10/28/96	8.43	5.21	none	3/11/98	7.21	6.43	none
12/2/96	8.56	5.08	none	3/30/98	7.41	6.23	none
12/30/96	7.89	5.75	none	4/27/98	7.99	5.65	none
1/16/97	8.00	5.64	none	6/1/98	7.59	6.05	none
2/28/97	8.48	5.16	none	6/26/98	8.07	5.57	none
3/26/97	8.34	5.30	none	9/17/98	8.16	5.48	none
5/5/97	8.30	5.34	none	12/7/98	7.73	5.91	none
6/27/97	8.20	5.44	none				
7/23/97	8.30	5.34	none				
8/25/97	8.09	5.55	none				
9/25/97	7.81	5.83	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-15	**TOC Elevation = 13.45**						
9/9/96	8.60	4.85	none	10/30/97	--	--	--
9/18/96	8.61	4.84	none	12/3/97	8.21	5.24	none
9/23/96	8.62	4.83	none	12/30/97	8.23	5.22	none
9/30/96	8.51	4.94	none	1/28/98	8.14	5.31	none
10/28/96	8.72	4.73	none	3/11/98	--	--	--
12/2/96	8.91	4.54	none	3/30/98	--	--	--
12/30/96	8.36	5.09	none	4/27/98	--	--	--
1/16/97	8.44	5.01	none	6/1/98	8.11	5.34	none
2/28/97	8.54	4.91	none	6/26/98	8.00	5.45	none
3/26/97	8.57	4.88	none	9/17/98	8.28	5.17	none
5/5/97	8.73	4.72	none	12/7/98	8.63	4.82	none
6/27/97	8.42	5.03	none				
7/23/97	8.28	5.17	none				
8/25/97	8.31	5.14	none				
9/25/97	8.32	5.13	none				
SCIMW-16	**TOC Elevation = 10.40**						
9/9/96	3.59	6.81	none	10/30/97	3.19	7.21	none
9/18/96	3.46	6.94	none	12/3/97	3.22	7.18	none
9/23/96	3.44	6.96	none	12/30/97	--	--	--
9/30/96	3.44	6.96	none	1/28/98	--	--	--
10/28/96	4.39	6.01	none	3/11/98	3.23	7.17	none
12/2/96	3.64	6.76	none	3/30/98	3.24	7.16	none
12/30/96	3.19	7.21	none	4/27/98	3.26	7.14	none
1/16/97	3.37	7.03	none	6/1/98	3.10	7.30	none
2/28/97	3.47	6.93	none	6/26/98	3.07	7.33	none
3/26/97	3.39	7.01	none	9/17/98	3.36	7.04	none
5/5/97	3.27	7.13	none	12/7/98	3.83	6.57	none
6/27/97	3.27	7.13	none				
7/23/97	3.39	7.01	none				
8/25/97	3.11	7.29	none				
9/25/97	3.35	7.05	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-17	**TOC Elevation = 10.14**						
9/9/96	3.59	6.55	none	10/30/97	3.17	6.97	none
9/18/96	2.83	7.31	none	12/3/97	4.94	5.20+	none
9/23/96	2.96	7.18	none	12/30/97	2.67	7.47	none
9/30/96	3.00	7.14	none	1/28/98	2.25	7.89	none
10/28/96	3.04	7.10	none	3/11/98	2.25	7.89	none
12/2/96	2.86	7.28	none	3/30/98	2.35	7.79	none
12/30/96	0.18	9.96	none	4/27/98	2.36	7.78	none
1/16/97	2.47	7.67	none	6/1/98	2.27	7.87	none
2/28/97	2.63	7.51	none	6/26/98	4.51	5.63	none
3/26/97	2.51	7.63	none	9/17/98	3.20	6.94	none
5/5/97	2.63	7.51	none	12/7/98	3.66	6.48	none
6/27/97	1.87	8.27	none				
7/23/97	5.61	4.53+	none				
8/25/97	3.65	6.49	none				
9/25/97	5.50	4.64+	none				
SCIMW-18	**TOC Elevation = 10.81**						
9/9/96	5.59	5.22+	none	10/30/97	3.97	6.84	none
9/18/96	3.86	6.95	none	12/3/97	3.85	6.96	none
9/23/96	3.82	6.99	none	12/30/97	3.83	6.98	none
9/30/96	3.85	6.96	none	1/28/98	3.57	7.24	none
10/17/96	4.00	6.81	none	3/11/98	3.40	7.41	none
10/28/96	4.18	6.63	none	3/30/98	3.36	7.45	none
12/2/96	4.06	6.75	none	4/27/98	3.15	7.66	none
12/30/96	3.60	7.21	none	6/1/98	3.09	7.72	none
1/16/97	3.83	6.98	none	6/26/98	3.15	7.66	none
2/28/97	3.56	7.25	none	9/17/98	3.58	7.23	none
3/26/97	4.70	6.11	none	12/7/98	4.01	6.80	none
5/5/97	3.36	7.45	none				
6/27/97	3.17	7.64	none				
7/23/97	3.42	7.39	none				
8/25/97	3.49	7.32	none				
9/25/97	3.42	7.39	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-19	**TOC Elevation = 10.46**						
9/9/96	4.30	6.16	none	10/30/97	4.12	6.34	none
9/18/96	4.36	6.10	none	12/3/97	3.11	7.35	none
9/23/96	4.32	6.14	none	12/30/97	3.52	6.94	none
9/30/96	4.23	6.23	none	1/28/98	2.91	7.55	none
10/28/96	4.45	6.01	none	3/11/98	3.08	7.38	none
12/2/96	3.54	6.92	none	3/30/98	3.16	7.30	none
12/30/96	2.59	7.87	none	4/27/98	3.38	7.08	none
1/16/97	3.04	7.42	none	6/1/98	3.00	7.46	none
2/28/97	3.69	6.77	none	6/26/98	3.58	6.88	none
3/26/97	3.69	6.77	none	9/17/98	4.08	6.38	none
5/5/97	3.82	6.64	none	12/7/98	3.24	7.22	none
6/27/97	3.94	6.52	none				
7/23/97	3.89	6.57	none				
8/25/97	3.78	6.68	none				
9/25/97	4.02	6.44	none				
SCIMW-20	**TOC Elevation = 9.11**						
9/9/96	2.08	7.03	none	10/30/97	2.02	7.09	none
9/18/96	2.27	6.84	none	12/3/97	1.38	7.73	none
9/23/96	2.26	6.85	none	12/30/97	1.61	7.50	none
9/30/96	2.34	6.77	none	1/28/98	1.30	7.81	none
10/28/96	2.68	6.43	none	3/11/98	1.35	7.76	none
12/2/96	1.45	7.66	none	3/30/98	1.43	7.68	none
12/30/96	1.12	7.99	none	4/27/98	1.51	7.60	none
1/16/97	1.44	7.67	none	6/1/98	1.29	7.82	none
2/28/97	1.60	7.51	none	6/26/98	1.76	7.35	none
3/26/97	1.54	7.57	none	9/17/98	2.32	6.79	none
5/5/97	1.65	7.46	none	12/7/98	1.71	7.40	none
6/27/97	1.92	7.19	none				
7/23/97	2.05	7.06	none				
8/25/97	1.62	7.49	none				
9/25/97	1.88	7.23	none				
SCIMW-21	**TOC Elevation = 9.67**						
5/5/97	2.23	7.44	none	3/11/98	1.27	8.40	none
6/27/97	2.40	7.27	none	3/30/98	1.35	8.32	none
7/23/97	2.75	6.92	none	4/27/98	1.41	8.26	none
8/25/97	2.87	6.80	none	6/1/98	1.16	8.51	none
9/25/97	3.00	6.67	none	6/26/98	1.76	7.91	none
10/30/97	3.16	6.51	none	9/17/98	2.13	7.54	none
12/3/97	2.21	7.46	none	12/7/98	1.71	7.96	none
12/30/97	2.11	7.56	none				
1/28/98	1.67	8.00	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-22	**TOC Elevation = 12.00**						
5/5/97	3.78	8.22	none	3/30/98	3.87	8.13	none
6/27/97	4.10	7.90	none	4/27/98	4.21	7.79	none
7/23/97	4.34	7.66	none	6/1/98	3.59	8.41	none
8/25/97	4.04	7.96	none	6/26/98	4.21	7.79	none
9/25/97	4.31	7.69	none	9/17/98	4.76	7.24	none
10/30/97	4.39	7.61	none	12/7/98	3.93	8.07	none
12/3/97	4.05	7.95	none				
12/30/97	4.48	7.52	none				
1/28/98	4.03	7.97	none				
3/11/98	4.07	7.93	none				
SCIMW-23	**TOC Elevation = 9.74**				**Slight Tidal Influence**		
5/5/97	4.19	5.55	none	3/30/98	3.35	6.39	none
6/27/97	4.10	5.64	none	4/27/98	--	--	--
7/23/97	4.43	5.31	none	6/1/98	--	--	--
8/25/97	4.37	5.37	none	6/26/98	--	--	--
9/25/97	--	--	--	9/17/98	4.28	5.46	none
10/30/97	4.27	5.47	none	12/10/98	3.35	6.39	none
12/3/97	3.24	6.50	none				
12/30/97	3.52	6.22	none				
1/28/98	3.02	6.72	none				
3/11/98	3.32	6.42	none				
SCIMW-24	**TOC Elevation = 9.74**				**Slight Tidal Influence**		
5/5/97	5.30	4.44	none	3/30/98	4.23	5.51	none
6/27/97	4.85	4.89	none	4/27/98	4.55	5.19	none
7/23/97	4.79	4.95	none	6/1/98	3.96	5.78	none
8/25/97	4.28	5.46	none	6/26/98	4.21	5.53	none
9/25/97	4.45	5.29	none	9/17/98	4.78	4.96	none
10/30/97	4.67	5.07	none	12/7/98	3.95	5.79	none
12/3/97	3.63	6.11	none				
12/30/97	3.58	6.16	none				
1/28/98	3.58	6.16	none				
3/11/98	--	--	--				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-25	**TOC Elevation = 8.30**						
5/5/97	1.00	7.30	none	3/30/98	0.65	7.65	none
6/27/97	2.11	6.19	none	4/27/98	0.73	7.57	none
7/23/97	1.94	6.36	none	6/1/98	0.55	7.75	none
8/25/97	1.53	6.77	none	6/26/98	0.75	7.55	none
9/25/97	1.46	6.84	none	9/17/98	1.11	7.19	none
10/30/97	1.08	7.22	none	12/7/98	0.86	7.44	none
12/3/97	0.87	7.43	none				
12/30/97	0.83	7.47	none				
1/28/98	0.70	7.60	none				
3/11/98	0.50	7.80	none				
SCIMW-26	**TOC Elevation = 11.33**						
5/5/97	3.18	8.15	none	3/30/98	4.13	7.20	none
6/27/97	3.31	8.02	none	4/27/98	3.93	7.40	none
7/23/97	3.46	7.87	none	6/1/98	3.56	7.77	none
8/25/97	3.21	8.12	none	6/26/98	3.65	7.68	none
9/25/97	3.42	7.91	none	9/17/98	3.92	7.41	none
10/30/97	3.56	7.77	none	12/7/98	3.25	8.08	none
12/3/97	2.55	8.78	none				
12/30/97	3.25	8.08	none				
1/28/98	2.93	8.40	none				
3/11/98	3.98	7.35	none				
SCIMW-27	**TOC Elevation = 11.43**						
5/5/97	4.98	6.45	none	3/30/98	4.71	6.72	none
6/27/97	4.85	6.58	none	4/27/98	4.53	6.90	none
7/23/97	4.80	6.63	none	6/1/98	4.74	6.69	none
8/25/97	4.81	6.62	none	6/26/98	4.74	6.69	none
9/25/97	4.85	6.58	none	9/17/98	4.85	6.58	none
10/30/97	4.91	6.52	none	12/7/98	4.77	6.66	none
12/3/97	4.74	6.69	none				
12/30/97	4.75	6.68	none				
1/28/98	4.37	7.06	none				
3/11/98	4.70	6.73	none				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-28	**TOC Elevation = 13.30**						
5/5/97	4.96	8.34	none	3/30/98	4.27	9.03	none
6/27/97	5.12	8.18	none	4/27/98	4.41	8.89	none
7/23/97	--	--	--	6/1/98	4.25	9.05	none
8/25/97	5.04	8.26	none	6/26/98	4.70	8.60	none
9/25/97	5.23	8.07	none	9/17/98	5.47	7.83	none
10/30/97	5.39	7.91	none	12/7/98	4.64	8.66	none
12/3/97	4.47	8.83	none				
12/30/97	4.72	8.58	none				
1/28/98	4.16	9.14	none				
3/11/98	4.20	9.10	none				
SCIMW-29	**TOC Elevation = 13.18**						
5/15/97	5.70	7.48	none	3/30/98	5.37	7.81	none
6/27/97	5.58	7.60	none	4/27/98	5.48	7.70	none
7/23/97	5.63	7.55	none	6/1/98	5.26	7.92	none
8/25/97	5.56	7.62	none	6/26/98	5.50	7.68	none
9/25/97	5.61	7.57	none	9/17/98	5.67	7.51	none
10/30/97	5.63	7.55	none	12/7/98	5.24	7.94	none
12/3/97	5.23	7.95	none				
12/30/97	5.52	7.66	none				
1/28/98	5.29	7.89	none				
3/11/98	5.37	7.81	none				
SCIMW-30	**TOC Elevation = 12.34**						
10/30/97	4.81	7.53	none	12/7/98	4.39	7.95	none
12/3/97	3.99	8.35	none				
12/30/97	4.26	8.08	none				
1/28/98	3.75	8.59	none				
3/11/98	3.81	8.53	none				
3/30/98	4.21	8.13	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				

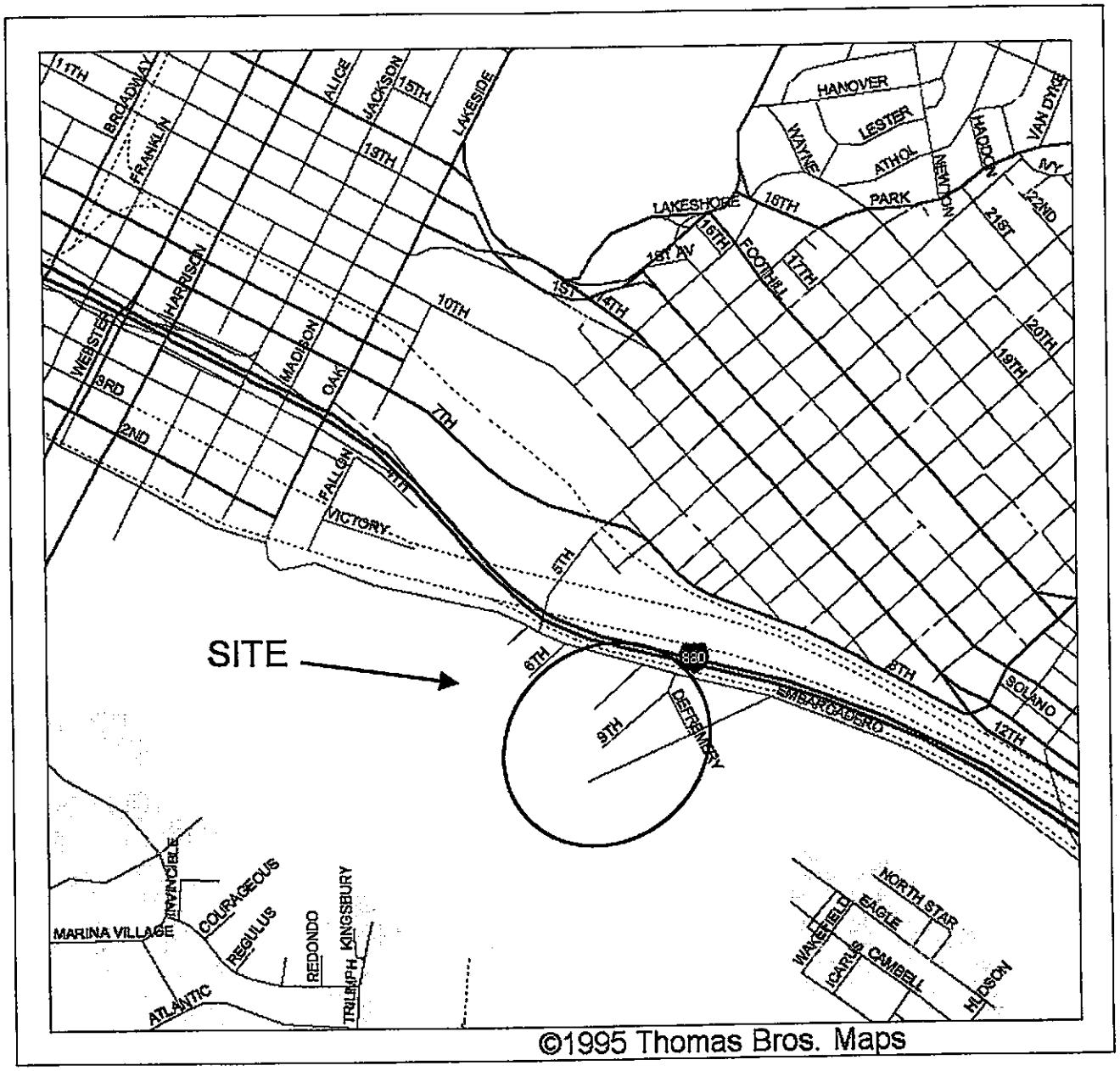
TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-31D	TOC Elevation = 11.92			Extends into Merrit Sand Formation below estuarine deposits. Displays confined aquifer characteristics.			
10/30/97	7.69	4.23	none	12/7/98	7.90	4.02	none
12/3/97	7.58	4.34	none				
12/30/97	7.47	4.45	none				
1/28/98	7.37	4.55	none				
3/11/98	7.20	4.72	none				
3/30/98	7.35	4.57	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				
SCIMW-32	TOC Elevation = 12.75						
10/30/97	5.02	7.73	none	12/7/98	4.51	8.24	none
12/3/97	4.50	8.25	none				
12/30/97	4.59	8.16	none				
1/28/98	--	--	--				
3/11/98	4.17	8.58	none				
3/30/98	4.39	8.36	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				
SCIMW-33	TOC Elevation = 11.47						
10/30/97	4.58	6.89	none	12/7/98	4.21	7.26	none
12/3/97	4.11	7.36	none				
12/30/97	4.07	7.40	none				
1/28/98	4.03	7.44	none				
3/11/98	4.02	7.45	none				
3/30/98	4.00	7.47	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				

TABLE 9
SUMMARY OF GROUNDWATER ELEVATION DATA
NINTH AVENUE TERMINAL STUDY AREA

DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)	DATE	GROUND WATER DEPTH (FEET)	GROUND WATER ELEVATION	PRODUCT THICKNESS (INCHES)
SCIMW-34	**TOC Elevation = 10.93**				**Tidally Influenced**		
10/30/97	6.05	4.88	none	12/7/98	6.02	4.91	none
12/3/97	5.48	5.45	none				
12/30/97	5.43	5.50	none				
1/28/98	5.30	5.63	none				
3/11/98	6.01	4.92	none				
3/30/98	5.82	5.11	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				
SCIMW-35	**TOC Elevation = 10.10**				**Tidally Influenced**		
10/30/97	5.23	4.87	none	12/7/98	4.95	5.15	none
12/3/97	4.06	6.04	none				
12/30/97	4.01	6.09	none				
1/28/98	4.30	5.80	none				
3/11/98	4.98	5.12	none				
3/30/98	4.90	5.20	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				
Oil Filled Manhole	**TOC Elevation = 12.39**			**Hydraulically connected to Bay water. Tidally Influenced.**			
12/30/96	6.22	6.17	trace	1/28/98	6.00	6.39	trace
1/16/97	8.00	4.39	0.01	3/11/98	5.92	6.47	trace
2/28/97	8.42	3.97	0.01	3/30/98	8.33	4.06	trace
3/26/97	8.42	3.97	trace	4/27/98	8.50	3.89	trace
5/5/97	8.51	3.88	0.06	6/1/98	8.33	4.06	trace
6/27/97	8.42	3.97	trace	6/26/98	8.42	3.97	trace
7/23/97	8.42	3.97	trace	9/17/98	8.42	3.97	trace
8/25/97	7.67	4.72	trace	12/7/98	8.33	4.06	trace
9/25/97	6.17	6.22	trace				
10/30/97	6.42	5.97	0.00				
12/3/97	8.08	4.31	0.00				
12/30/97	4.50	7.89	trace				

Notes:
All elevations presented reference the Port of Oakland datum
-- = Inaccessible
NA = Data not available
+ = Elevation is probably not static



N

APPROXIMATE SCALE (feet)

0 1,400 2,800

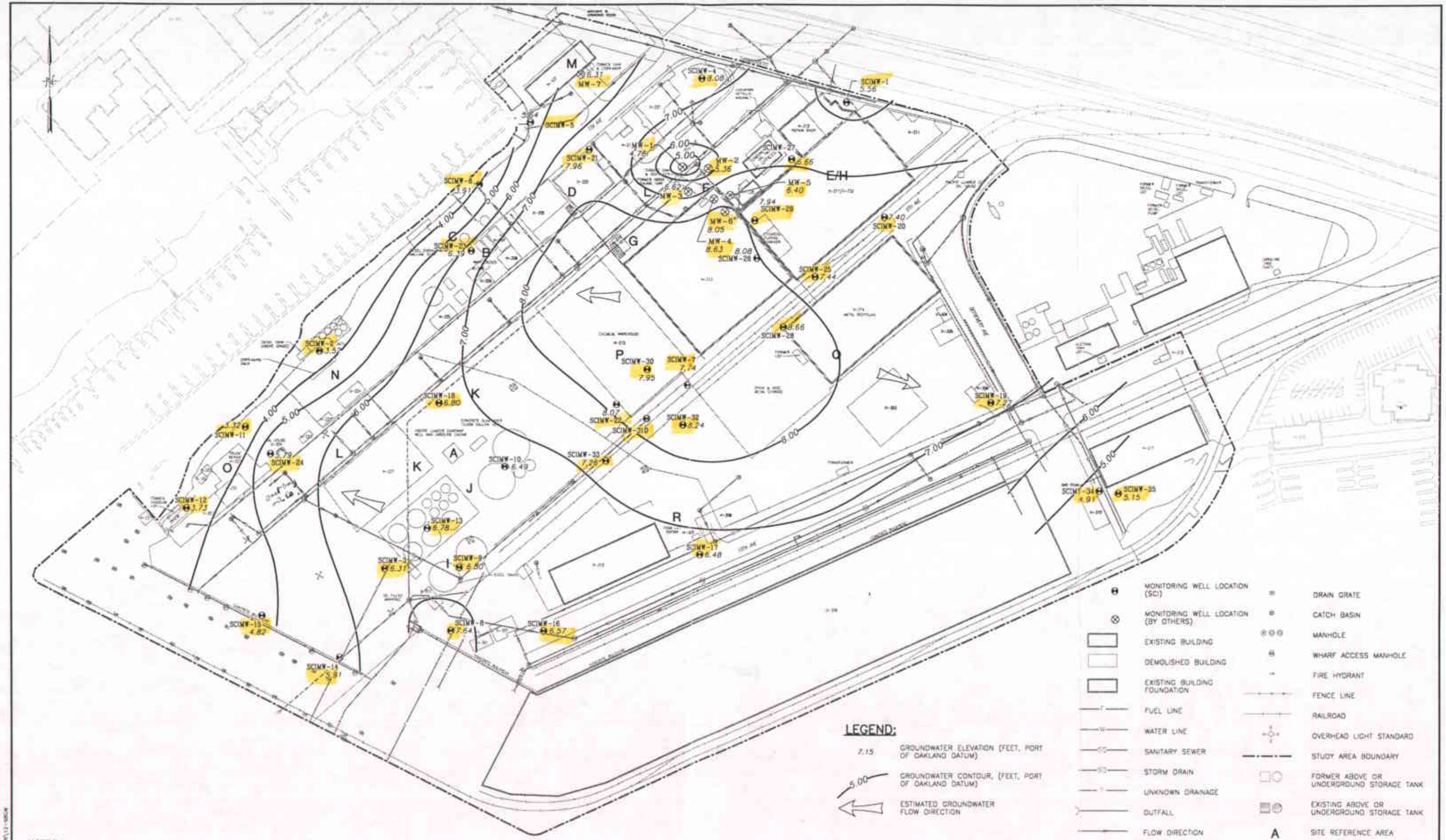
SITE VICINITY MAP

Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

NINTH AVENUE TERMINAL STUDY AREA
OAKLAND, CALIFORNIA

JOB NUMBER	DATE	APPROVED
133.009	3/1/99	

PLATE 1



LEGEND:

7.15 GROUNDWATER ELEVATION (FEET, PORT OF OAKLAND DATUM)

5.00 GROUNDWATER CONTOUR, (FEET, PORT OF OAKLAND DATUM)

ESTIMATED GROUNDWATER FLOW DIRECTION

NOTES:

1. UTILITY SURVEY WAS PREPARED BY AN WEST 5-22-96

REFERENCE DRAWINGS

BASE MAP BY
PORT OF OAKLAND
DATED 2-22-96

SCALE
75 0 75 150 FEET

DESIGNED BY	
DRAWN BY	RDP/DJP
CHECKED BY	
APPROVED BY	
DATE	3/99

Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers
171 12th Street • Suite 200
Oakland, California 94607
(510) 299-7960
FAX (510) 299-7970

NINTH AVENUE TERMINAL
PORT OF OAKLAND
GROUNDWATER ELEVATION CONTOURS DECEMBER 1998

SCALE	AS SHOWN
PROJECT NO.	133.009
PLATE NO.	–
OF	2

GROUNDWATER DEPTHS

Project Name: 9th Ave. / K.O.T.

Job No.: 133.009

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments
MW-1	12/7/98	1235	5.23	
MW-2		1245	4.96	new lock
MW-3		1240	3.56	
MW-4		1300	3'4¼"	Top of Product = 3'4⅛" Product Thickness = ⅛" 5/8" in skimmer " Bailed = ½ liter
MW-5		1255	3.79	
MW-6		1325	3'10"	Top of Product = 3'8¼" Product Thickness = ¾" Skimmer cable broken (skimmer irretrievable) bailed
MW-7		0835	3.82	
SCI MW-1		1200	4.81	
SCI MW-2		0855	6.40	
SCI MW-3		1105	5.56	
SCI MW-4		0830	1.95	
SCI MW-5		0840	4.55	
SCI MW-6		0845	6.64	
SCI MW-7		1050	4.52	
SCI MW-8		1005	5.17	
SCI MW-9		1010	4.52	
SCI MW-10		1030	6.07	
SCI MW-11		0900	6.17	
SCI MW-12		0910	7.21	
SCI MW-13		1020	5.78	
SCI MW-14		0920	7.73	
SCI MW-15		0915	8.63	
SCI MW-16		1115	3.83	
SCI MW-17		1120	3.66	
SCI MW-18		1025	4.01	
SCI MW-19		1035	3.24	
SCI MW-20		1135	1.71	

GROUNDWATER DEPTHS

Project Name: 9th Ave / K.O.T.

Job No.: 133.009

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments
SC1MW-21	12/7/98	1210	1.71	
SC1MW-22		1205	3.93	
SC1MW-23				inaccessable
SC1MW-24		0905	3.95	
SC1MW-25		1130	.86	
SC1MW-26		1230	3.25	
SC1MW-27		1205	4.77	
SC1MW-28		1140	4.64	
SC1MW-29		1150	5.24	
SC1MW-30		1220	4.39	
SC1MW-31D		1055	7.90	
SC1MW-32		1045	4.51	
SC1MW-33		1100	4.21	
SC1MW-34		0930	6.02	
SC1MW-35		0925	4.95	
Manhole	↓	1110	8'4"	no visible layer in bailer - smeared on outside
				* Bailed 3 gallons from MW-4 of total liquid before visible layer disappeared.

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal
Well Number: SCI MW-2
Job No.: 133.009.3B
Well Casing Diameter: 2.0 inch
Sampled By: John Wolfe
Date: 12/10/98 1200
TOC Elevation: _____
Weather: Sunny Warm

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 6.53 feet
Feet of Water in Well 11.97 feet
Depth to Groundwater When 80% Recovered 8.92 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.95 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method Teflon Bailer

FIELD MEASUREMENTS

Good Recharge

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	6.38	16.89	6821/8069 SP		Brown/Turbid Sheen/HC odor
2	6.77	16.92	7438/8712		
4	6.92	17.13	7738/9046		
6	6.95	17.26	7568/8898		

Total Gallons Purged 6 gallons
Depth to Groundwater Before Sampling (below TOC) 6.82 feet
Sampling Method Teflon Bailer
Containers Used _____ 40 ml _____ liter _____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal
Well Number: SCI MW-5
Job No.: 133.009.38
Well Casing Diameter: 2.0 inch
Sampled By: John Wolfe
Date: 12/10/98
TOC Elevation: _____
Weather: Sunny warm

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 4.83 feet
Feet of Water in Well 13.67 feet
Depth to Groundwater When 80% Recovered 7.56 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.23 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product None
Purge Method Teflon bailer

FIELD MEASUREMENTS

Very slow recharge

Gallons Removed	pH	Temp (°C)	Conductivity (~~micromhos/cm~~ SP)	Salinity S%	Comments
2	6.80	16.65	29587/35223		Clear / no odor
4	6.71	17.02	30548/35959		"
6	6.70	17.63	32620/37827		"
8	6.75	17.76	34384/39992		"
10	6.81	17.75	35438/41228		slight marshodor

Total Gallons Purged 10 gallons
Depth to Groundwater Before Sampling (below TOC) 7.25 feet
Sampling Method Teflon bailer
Containers Used _____ 40 ml _____ liter _____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal
Well Number: SC1 MW-6
Job No.: 133.009.3B
Well Casing Diameter: 2.0 inch
Sampled By: John Wolfe
Date: 12/10/98
TOC Elevation: _____
Weather: Sunny, clear

Depth to Casing Bottom (below TOC) 19.5 feet
Depth to Groundwater (below TOC) 6.78 feet
Feet of Water in Well = 12.72 feet
Depth to Groundwater When 80% Recovered 6.98 14.08 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.07 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product _____
Purge Method Teflon bailer

FIELD MEASUREMENTS

Good Recharge

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.08	15.81	24743/29930 SE		Slightly turbid no odor
3	7.11	16.36	25445/30479		
5	7.17	16.09	25319/30374		
7	7.16	16.12	25730/30750		
9	7.19	16.22	25622/30636		

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 6.90 feet
Sampling Method Teflon bailer
Containers Used _____ 40 ml _____ liter _____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal
Well Number: SCI MW-11
Job No.: 133.009.3B
Well Casing Diameter: 2 inch
Sampled By: John Wolfe
Date: 12/10/98 1345
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 6.32 feet
Feet of Water in Well 11.68 feet
Depth to Groundwater When 80% Recovered feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.90 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product None
Purge Method Teflon bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.24	18.46	9506/10882 SP		Slightly Turbid orange-brown w/ organic growth
4	7.12	18.19	9558/11102		"
6	7.07	18.11	9488/10859		Slight HC odor
8	7.12	18.59	9650/10989		"

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 7.35 feet
Sampling Method Teflon bailer
Containers Used ____ 40 ml ____ liter ____ pint

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal

Well Number: SCI MW-12

Job No.: 133.009.3B

Well Casing Diameter: 2.0 inch

Sampled By: John Wolfe

Date: 12/7/98

TOC Elevation:

Weather: Clear

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 7.11 feet

Feet of Water in Well ~~10.89~~ 10.89 feet

Depth to Groundwater When 80% Recovered 9.28 feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.77 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product none

Purge Method

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (~~micromhos/cm~~) SP	Salinity S%	Comments
[illegible]	7.02	14.2[illegible]	25976/32731		Brown. Turbid
2	7.16	12.97	26140/334[illegible]		↓
4	7.19	14.04	[illegible]/32961		
6	7.10	[illegible]	26227/32571		

Total Gallons Purged 6 gallons

Depth to Groundwater Before Sampling (below TOC) 8.10 feet

Sampling Method

Containers Used ______ 40 ml ______ liter ______ pint

Subsurface Consultants | JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal

Well Number: SCI MW-14

Job No.: 133.009.3B

Well Casing Diameter: 2.0 inch

Sampled By: John Wolfe

Date: 12/11/98

TOC Elevation: ______

Weather: ______

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 8.53 feet

Feet of Water in Well 9.47 feet

Depth to Groundwater When 80% Recovered 10.42 feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.54 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder (circled) / Other

Free Product none

Purge Method Teflon baile

FIELD MEASUREMENTS

mon Recovery

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.33	17.4	[illegible]		No odor Clear Slight Green tint
2	7.46	17.22	[illegible]		↓
3	7.37	17.42	1417/[illegible]		✓
4	7.27	17.[illegible]	[illegible]		[illegible]
5	[illegible]	1[illegible]	[illegible]		✓

Total Gallons Purged ______ gallons

Depth to Groundwater Before Sampling (below TOC) 9.02 feet

Sampling Method [illegible]

Containers Used ______ 40 ml ______ liter ______ pint

Subsurface Consultants	JOB NUMBER	DATE	APPROVED	PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal

Well Number: SC1 MW-23

Job No.: 133.009.3B

Well Casing Diameter: _____ inch

Sampled By: John Wolfe

Date: 12/10/98 0940

TOC Elevation: _____

Weather: _____

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 3.35 feet

Feet of Water in Well 14.65 feet

Depth to Groundwater When 80% Recovered 6.28 feet

Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.39 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method Teflon bailer

V. SLOW Recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	6.36	18.48	13428/15474		marsh odor, slightly turbid
3	6.39	18.07	13423/15481		"
5	6.58	18.62	16307/18330		"
7	6.63	19.63	23602/26239		clearing some
8	6.74	19.43	27879/31[illegible]		"

Total Gallons Purged 8 gallons

Depth to Groundwater Before Sampling (below TOC) 2.34 feet

Sampling Method Teflon bailer

Containers Used _____ 40 ml _____ liter _____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal

Well Number: SCI MW-24

Job No.: 133.009.3B

Well Casing Diameter: 2.0 inch

Sampled By: John Wolfe

Date: 12/11/98

TOC Elevation:

Weather:

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 4.22 feet

Feet of Water in Well 13.78 feet

Depth to Groundwater When 80% Recovered [illegible] feet

Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.2[illegible] 2.24 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product none

Purge Method Teflon bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (~~micromhos~~/cm)	Salinity S%	Comments
					Good recharge
2	6.64	19.44	34[illegible] / [illegible]		V Strong Gasoline Gray Slightly Turbid
4	6.85	18.90	348[illegible]		w/ Sheen
6	6.90	18.22	[illegible]		Moderate Sediment
8	[illegible]	[illegible]	[illegible]		↓

Total Gallons Purged 8 gallons

Depth to Groundwater Before Sampling (below TOC) 5.61 feet

Sampling Method Teflon bailer

Containers Used ____ 40 ml ____ liter ____ pint

Subsurface Consultants

JOB NUMBER	DATE	APPROVED	PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal
Well Number: SCI MW-34
Job No.: 133.009.3B
Well Casing Diameter: 2.0 inch
Sampled By: John Wolfe
Date: 12/ 198
TOC Elevation: _____
Weather: _____

Depth to Casing Bottom (below TOC) 15.00 feet
Depth to Groundwater (below TOC) 6.42 feet
Feet of Water in Well 8.58 feet
Depth to Groundwater When 80% Recovered 8.13 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.4 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product None
Purge Method Teflon bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°C)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.30	15.75	15636 / 18833 (SI)		clear slight HC odor
2	7.03	15.91	16463 / 19694		
3	6.98	16.23	17357 / 22796		increase in odor
4	6.94	16.83	17464 / 21107		
5	6.78	16.67	18791 / 22367		

Total Gallons Purged 5 gallons
Depth to Groundwater Before Sampling (below TOC) 8.2 feet
Sampling Method Teflon bailer
Containers Used _____ 40 ml _____ liter _____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Avenue Terminal
Well Number: SCI MW-35
Job No.: 133.009.3B
Well Casing Diameter: 2.0 inch
Sampled By: John Wolfe
Date: 12/11/98
TOC Elevation: _____
Weather: clear

Depth to Casing Bottom (below TOC) 14.50 feet
Depth to Groundwater (below TOC) 5.48 feet
Feet of Water in Well 9.02 feet
Depth to Groundwater When 80% Recovered 7.28 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 1.47 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method Teflon bailer

FIELD MEASUREMENTS

FAIR Recharge

Gallons Removed	pH	Temp (°c)	Conductivity (micrombos/cm)	Salinity S%	Comments
1	7.15	16.22	17474/ 20277 SP		Slightly turbid, Yellow
2	6.85	17.68	17509/20172		pos organic growth
3	6.76	17.59	18759/21555		
4	7.01	17.85	20159/23175		
5	6.88	17.86	20212/23155		Grayish

Total Gallons Purged 5 gallons
Depth to Groundwater Before Sampling (below TOC) 7.01 feet
Sampling Method Teflon bailer
Containers Used _____ 40 ml / 1 liter / _____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Ave Terminal
Well Number: SCI MW-2
Job No.: 133.009
Well Casing Diameter: 2 inch
Sampled By: John Wolf
Date: 12/28/98
TOC Elevation:
Weather: Overcast

Depth to Casing Bottom (below TOC) 18.5 feet
Depth to Groundwater (below TOC) 6.83 feet
Feet of Water in Well 11.65 feet
Depth to Groundwater When 80% Recovered 9.18 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.90 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product
Purge Method

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1					Dk Grayish brown color, Turbid
2					Sheen + Strong HC odor

Total Gallons Purged 2 gallons
Depth to Groundwater Before Sampling (below TOC) 7.51 feet
Sampling Method Teflon bailer
Containers Used ____ 40 ml; 2 liter; ____ pint

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: 9th Ave Terminal
Well Number: SCI MW-6
Job No.: 133.009
Well Casing Diameter: 2 inch
Sampled By: DTW
Date: 12/28/98
TOC Elevation: _____
Weather: Clear

Depth to Casing Bottom (below TOC) 19.5 feet
Depth to Groundwater (below TOC) 6.90 feet
Feet of Water in Well 12.60 feet
Depth to Groundwater When 80% Recovered 9.42 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.05 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product _____
Purge Method Teflon bailer

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
1					Brown Turbid w/ Slight HC odor
2					

Total Gallons Purged 2.5 gallons
Depth to Groundwater Before Sampling (below TOC) 7.02 feet
Sampling Method Teflon bailer
Containers Used _____ (40 ml) 2L Amber (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

CytoCulture
ENVIRONMENTAL
BIOTECHNOLOGY
CytoCulture International, Inc. 1986

Client: Subsurface Consultants
Contact: Meg Mendoza
3736 Mt Diablo Blvd. Suite 200
Lafayette, CA 94549

December 11, 1998 Cyto ID#: 98-99
Fax: (925)-299-7970 **Phone:** (925) 299-7960
Project Description: Port of Oakland
Project #: 133.009

SAMPLES: 3 water samples were received on 12/10/98. The samples were assayed on 12/10/98, and stored at 4°C for any follow up work.

DO, pH, and Redox Potential — should be run in field.

ANALYSIS REQUEST: Analyses for pH, Dissolved oxygen (DO) and Redox Potential (ORP) for water samples.

PROTOCOLS: pH was measured by Standard Methods: SM 4500-H+B
Redox Potential was measured by Standard Methods: SM 2580B
Dissolved Oxygen was measured by Standard Methods: SM 4500-OG
All measurements were performed on 12/10/98.

Client Sample	Sample Date	pH	DO (mg/L)	ORP (mV)
SCI MW-2	12/10/98	6.6	2.6	+63
SCI MW-6	12/10/98	6.7	4.3	+189
SCI MW-11	12/10/98	6.8	3.3	-29

Sean P. Bushart, Ph.D.
Environmental Microbiologist
Laboratory Services

Randall von Wedel, Ph.D.
Principal Biochemist and
Director of Research

Vox 510·233·0102 Fax 510·233·3777 Email: Cyto@CytoCulture.com
249 Tewksbury Avenue Point Richmond California 94801-3829 USA

CHAIN OF CUSTODY FORM

PAGE ____ OF ____

PROJECT NAME: 9th Avenue Terminal, Oakland CA

JOB NUMBER: 133.009 LAB: Cytoculture

PROJECT CONTACT: Meg Mendoza TURNAROUND: N

SAMPLED BY: Jenn Wolfe REQUESTED BY: Meg Mendoza

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS					METHOD PRESERVED					SAMPLING DATE				NOTES	ANALYSIS REQUESTED		
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE	1L Poly	HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME		PH	DO	ORP
	SCI MW-2	X										X				X		12	10	98	1030		X	X	X
	SCI MW-6	X										X				X		12	10	98	1115		X	X	X
	SCI MW-11	X										X				X		12	10	98	1430		X	X	X
	SCI MW-12																								
	SCI MW-14																								
	SCI MW-23																								
	SCI MW-24																								
	SCI MW-34																								

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
J Wolfe	12/10/98 1345		12/10 1345
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

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) 299-7960 - (925) 299-7970

Cyto Culture
ENVIRONMENTAL
BIOTECHNOLOGY
CytoCulture International, Inc. 1986

Client: Subsurface Consultants
Contact: Meg Mendoza
3736 Mt Diablo Blvd. Suite 200
Lafayette, CA 94549

December 16, 1998 Cyto ID#: 98-100
Fax: (925)-299-7970 **Phone:** (925) 299-7960
Project Description: Port of Oakland
Project #: 133.009

SAMPLES: 5 water samples were received on 12/11/98. The samples were assayed on 12/11/98, and stored at 4°C for any follow up work.

DO, pH, and Redox Potential

ANALYSIS REQUEST: Analyses for pH, Dissolved oxygen (DO) and Redox Potential (ORP) for water samples.

PROTOCOLS: pH was measured by Standard Methods: SM 4500-H+B
Redox Potential was measured by Standard Methods: SM 2580B
Dissolved Oxygen was measured by Standard Methods: SM 4500-OG
All measurements were performed on 12/11/98.

Client Sample	Sample Date	pH	DO (mg/L)	ORP (mV)
SCI MW-12	12/11/98	6.5	5.4	+252
SCI MW-14	12/11/98	6.8	4.2	+100
SCI MW-23	12/11/98	6.4	3.3	+29
SCI MW-24	12/11/98	6.6	3.7	-21
SCI MW-34	12/11/98	6.5	5.2	+118

Sean P. Bushart, Ph.D.
Environmental Microbiologist
Laboratory Services

Randall von Wedel, Ph.D.
Principal Biochemist and
Director of Research

Vox 510·233·0102 Fax 510·233·3777 Email: Cyto@CytoCulture.com
249 Tewksbury Avenue Point Richmond California 94801·3829 USA

CHAIN OF CUSTODY FORM

PAGE ____ OF ____

PROJECT NAME: 9th Avenue Terminal
JOB NUMBER: 133.009
PROJECT CONTACT: Meg Mendoza
SAMPLED BY: John Wolfe
LAB: Cytoculture
TURNAROUND: N
REQUESTED BY: Meg Mendoza

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	1L Poly	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: PH	DO	ORP
	SCI MW-2	X								X						12	1	98	1130		X	X	X
	SCI MW-6	X								X									1230		X	X	X
	SCI MW-11	X								X									1300		X	X	X
	SCI MW-12	X								X									1100		X	X	X
	SCI MW-14	X								X									1200		X	X	X
	SCI MW-23	X								X													
	SCI MW-24	X								X													
	SCI MW-34	X								X													

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
John Wolfe	12/11/97 1530		12/11/97 1530
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

Subsurface Consultants, Inc.
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(925) 299-7960 - (925) 299-7970

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

ANALYTICAL REPORT

Prepared for:

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

Date: 09-FEB-99
Lab Job Number: 137084
Project ID: 133.009
Location: KOT/9th Ave.Terminal

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

Laboratory Number: **137084**
Client: **Subsurface Consultants, Inc.**
Project #: **133.009**

Receipt Date: **12/10/98**

CASE NARRATIVE

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

Total Extractable Hydrocarbons: The hexacosane surrogate recovery for samples SCI MW-2 (137084-001) and SCI MW-6 (137084-002) were outside acceptance limits. Insufficient sample remained for re-extraction. Additional sample was submitted under separate chain of custody. The surrogate recoveries have been flagged and the results have been reported. No other analytical problems were encountered.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "*Return Receipt Requested*" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

B. Chan #3335

Richard Denney, Esq.
Western Tube & Conduit
130 N. Brand Blvd., 4th Floor
Glendale CA 91203

4a. Article Number

P 143 588 394

4b. Service Type

☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

10-27-97

5. Received By: *(Print Name)*

6. Signature: *(Addressee or Agent)*

X

8. Addressee's Address *(Only if requested and fee is paid)*

PS Form **3811**, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.

134084

CHAIN OF CUSTODY FORM

PROJECT NAME: 9th Avenue Terminal, Oakland CA

JOB NUMBER: 133.009 TASK 3B

LAB: Curtis & Tompkins

PROJECT CONTACT: Meg Mendez

TURNAROUND: N

SAMPLED BY: John Wolfe

REQUESTED BY: Meg Mendez

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR	CONTAINERS: VOA	LITER	PINT	TUBE	2 [illegible]	METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TEH w/ silica	PNA (8270) - 800	PNA filtered by 8270	Heavy Metals	TDS	DOC - Filtrate TOC	TVH/BTEX	8080 (Pesticides)	LEAD	
-1	SCI MW-2	X				X	X			X						12	10	98	1230		X	X	X	X	X	X				7
	SCI MW-5																↓				/									
-2	SCI MW-6	X				X	X			X							↓		1115		X	X	X	X	X	X		X		8
-3	SCI MW-11	X				X	X			X									1430		X	X	X	X	X	X	X			10
	SCI MW-12																				/				/	/				
	SCI MW-14																								/	/				
	SCI MW-23																				/							/		
	SCI MW-24																				/				/	/	/		/	
	SCI MW-34																				/	/	/		/	/	/		/	
	SCI MW-35																				/									

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
John Wolfe	12/10/98 1600	J. GUERRERO	12-10-98 1600
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

Fix and Filter metals + Lead in lab. Also Filter DOC

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) 299-7960 - (925) 299-7970

VGG

Corrective Action Report

Curtis & Tompkins, Ltd.

Analysis: TEH (silica gel) **Job#:** 137084

Batch#: 45236 **Client:** Subsurface

Problem/ Nonconformance:

__ Hold Time	Samples # 1+3 fail low @ 29% & 19% for surrg.	Initial & Date: 12/14/98
__ QC Limits	Sample # 2 fails % REC of surrg high @ 161%.	Analyst MLF
__ Contamination		GL KAH 12/16/98
X Other		

Impact:

✓ Data Quality	Possible low bias in sample results for #1	Initial & Date:
__ Cost	" high " " " " for #2	GL
__ TAT		PM
__ # of redo's		QA
__ Other		

Immediate Solution:

__ Reanalyze	Re-Silica gel + Re-Run.	Initial & Date:
__ Re-extract:	#3 passes after Re-SG.	GL
new login:	Samples # 1 + 2 still fail	PM
	- Re-extract → no sample remains	QA TKM 12/21
new batch#:	for re-extraction	
✓ Narrate		
__ Educate Client		

Resolution:

__ Train Analyst	→ No way to check for matrix effect due to	Initial & Date:
__ Revise SOP	lack of sample. Ask client to submit	Analyst
(attach revision)	an extra sample when silica gel clean up	GL
__ Single Incident	are requested.	PM
✓ Educate Client		QA TKM 12/21
__ None Required		OpM

CAR#: _____

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137084-003	SCI MW-11	45308	12/10/98	12/17/98	12/17/98	

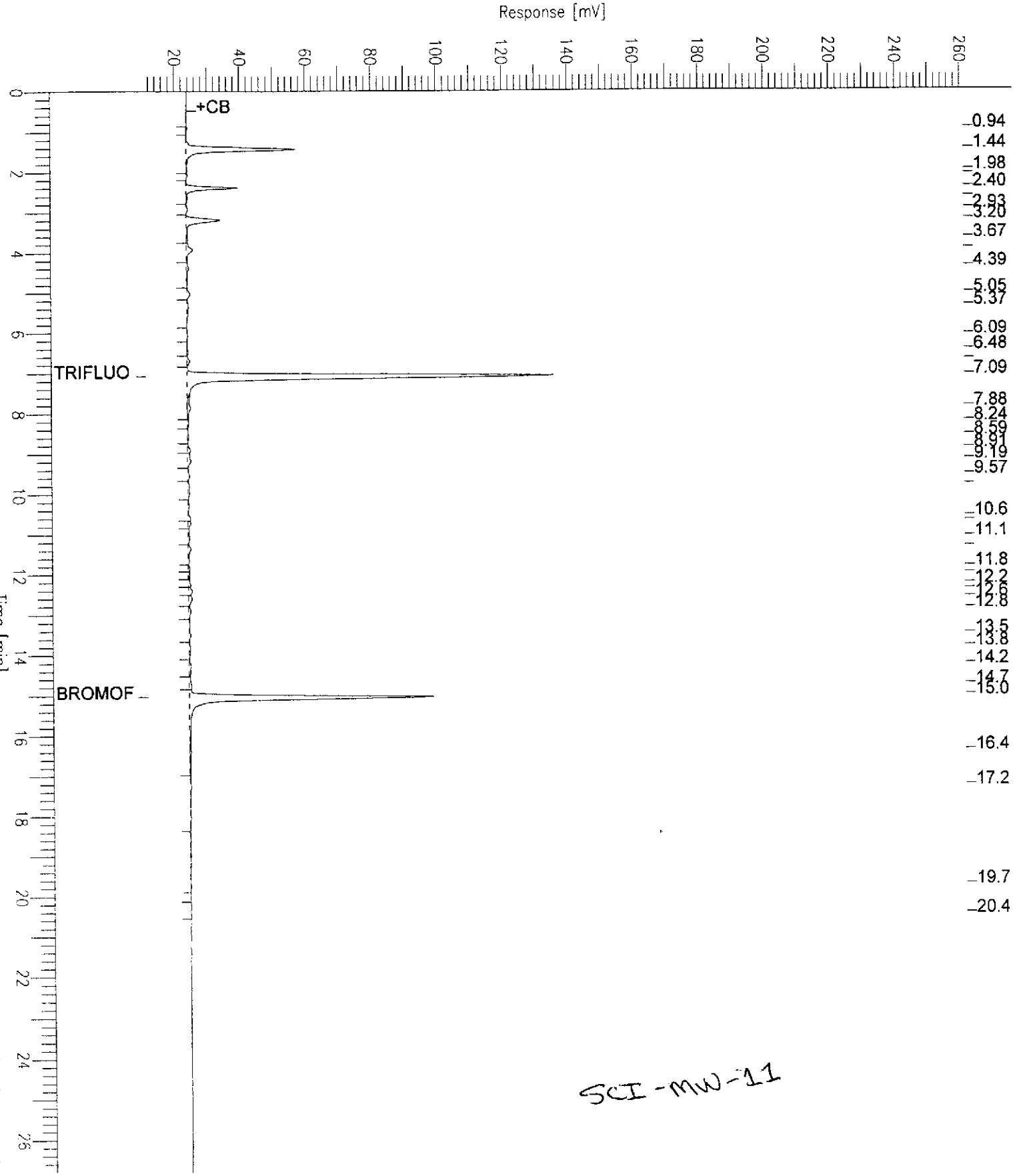
Matrix: Water

Analyte	Units	137084-003
Diln Fac:		1
Gasoline C7-C12	ug/L	51
Surrogate		
Trifluorotoluene	%REC	103
Bromofluorobenzene	%REC	125

GC05 'G' File TVH

Sample Name : RR,137084-003,45308,
FileName : G:\GC05\DATA\351G006.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 11 mV

Sample #: Page 1 of 1
Date : 12/17/98 05:33 PM
Time of Injection: 12/17/98 05:06 PM
Low Point : 11.08 mV High Point : 261.08 mV
Plot Scale: 250.0 mV



SCI-MW-11

Lab #: 137084

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 45308
Units: ug/L
Diln Fac: 1

Prep Date: 12/17/98
Analysis Date: 12/17/98

LCS Lab ID: QC87157

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2211	2000	111	80-119

Surrogate	%Rec	Limits
Trifluorotoluene	125	59-162
Bromofluorobenzene	116	59-162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 5030
Location:	KOT/9th Ave.Terminal		

METHOD BLANK

Matrix:	Water	Prep Date:	12/17/98
Batch#:	45308	Analysis Date:	12/17/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC87159

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	90	59-162
Bromofluorobenzene	106	59-162

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 137127-001
Matrix: Water
Batch#: 45308
Units: ug/L
Diln Fac: 1

Sample Date: 12/09/98
Received Date: 12/10/98
Prep Date: 12/17/98
Analysis Date: 12/17/98

MS Lab ID: QC87160

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	161.8	2453	115	71-131

Surrogate	%Rec	Limits
Trifluorotoluene	143	59-162
Bromofluorobenzene	136	59-162

MSD Lab ID: QC87161

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2518	118	71-131	3	26

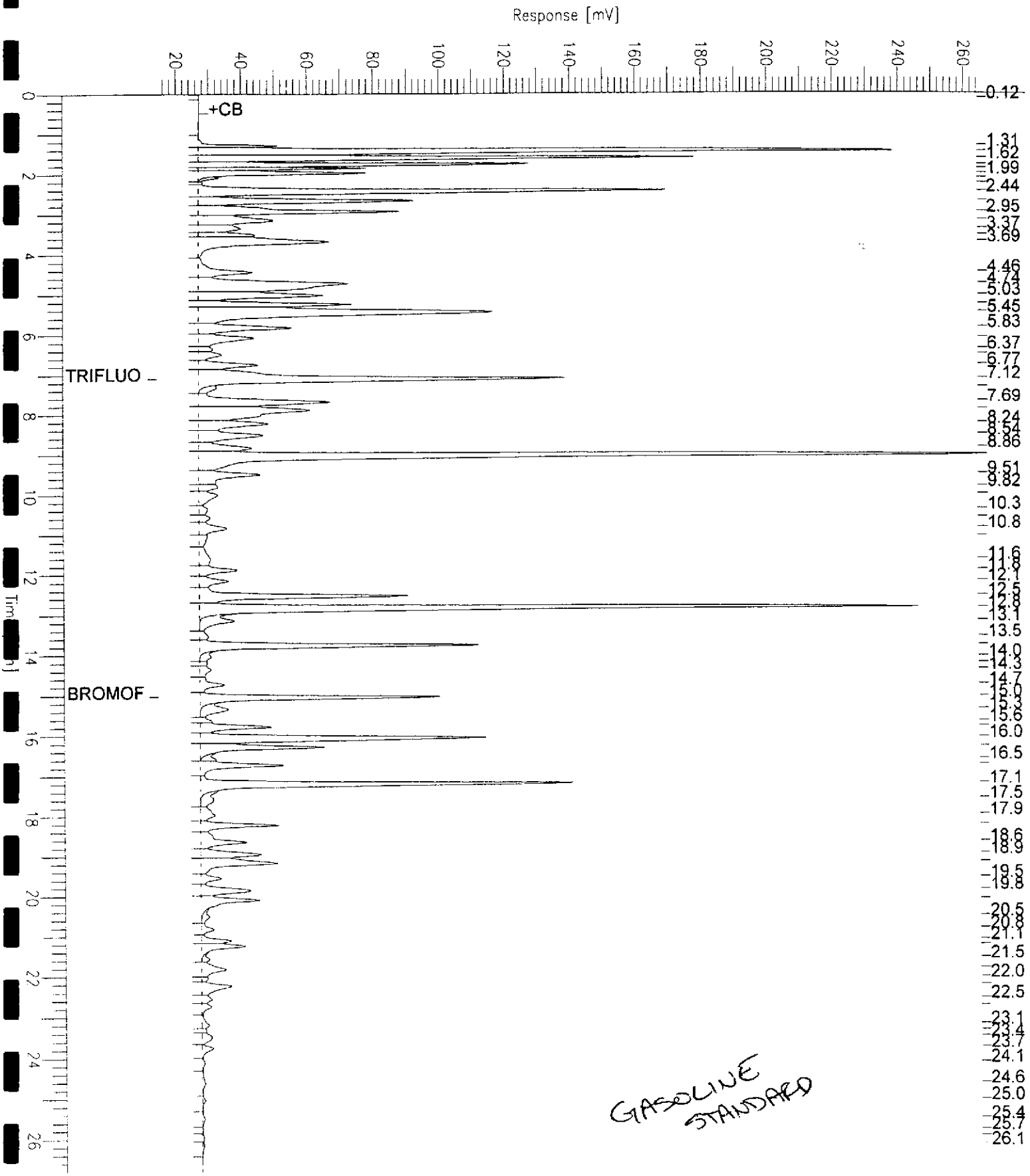
Surrogate	%Rec	Limits
Trifluorotoluene	137	59-162
Bromofluorobenzene	128	59-162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

GC05 'G' File TVH

Sample Name : CCV/LCS,QC87157,98WS6788,45308,
FileName : G:\GC05\DATA\351G002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 14 mV

Sample #: GAS Page 1 of 1
Date : 12/17/98 02:11 PM
Time of Injection: 12/17/98 01:44 PM
Low Point : 14.22 mV High Point : 264.22 mV
Plot Scale: 250.0 mV



GASOLINE STANDARD

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137084-003	SCI MW-11	45308	12/10/98	12/17/98	12/17/98	

Matrix: Water

Analyte	Units	137084-003
Diln Fac:		1
Benzene	ug/L	<0.5
Toluene	ug/L	<0.5
Ethylbenzene	ug/L	<0.5
m,p-Xylenes	ug/L	<0.5
o-Xylene	ug/L	<0.5
Surrogate		
Trifluorotoluene	%REC	96
Bromofluorobenzene	%REC	115

BTXE

Client: Subsurface Consultants	Analysis Method: EPA 8021B
Project#: 133.009	Prep Method: EPA 5030
Location: KOT/9th Ave.Terminal	

METHOD BLANK

Matrix: Water	Prep Date: 12/17/98
Batch#: 45308	Analysis Date: 12/17/98
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC87159

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	82	53-124
Bromofluorobenzene	99	41-142

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 45308
Units: ug/L
Diln Fac: 1

Prep Date: 12/17/98
Analysis Date: 12/17/98

LCS Lab ID: QC87158

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	16.86	20	84	69-109
Toluene	18.28	20	91	72-116
Ethylbenzene	18.98	20	95	67-120
m,p-Xylenes	38.46	40	96	69-117
o-Xylene	19.53	20	98	75-122

Surrogate	%Rec	Limits
Trifluorotoluene	94	53-124
Bromofluorobenzene	116	41-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

VGG

Corrective Action Report

Curtis & Tompkins, Ltd.

Analysis: TEH (silica gel) **Job#:** 137084

Batch#: 45236 **Client:** Subsurface

Problem/ Nonconformance:

_ Hold Time	Samples # 1-3 fail low @ 29% & 19% for surrg.	Initial & Date: 12/14/98
_ QC Limits	sample # 2 fails % REC of su. g high @ 161%.	Analyst MKH
_ Contamination		GL KAH 12/16/98
X Other		

Impact:

✓ Data Quality	Possible low bias in sample results for #1	Initial & Date:
_ Cost	" high " " " " for #2	GL
_ TAT		PM
_ # of redo's		QA
_ Other		

Immediate Solution:

_ Reanalyze	Re-Silica gel + Re-Run.	Initial & Date:
_ Re-extract:	#3 passes after Re-SG.	GL
new login:	Samples # 1 + 2 still fail	PM
	- Re-extract → no sample remains	QA
new batch#:	for re-extraction	
✓ Narrate		
_ Educate Client		

Resolution:

_ Train Analyst	→ No way to check for matrix effect due to	Initial & Date:
_ Revise SOP	lack of sample. Ask client to submit	Analyst
(attach revision)	an extra sample when silica gel clean up	GL
_ Single Incident	are requested.	PM
✓ Educate Client		QA
_ None Required		OpM

CAR#: _____

Curtis & Tompkins Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137084-001	SCI MW-2	45236	12/10/98	12/14/98	12/15/98	
137084-002	SCI MW-6	45236	12/10/98	12/14/98	12/16/98	
137084-003	SCI MW-11	45236	12/10/98	12/14/98	12/16/98	

Matrix: Water

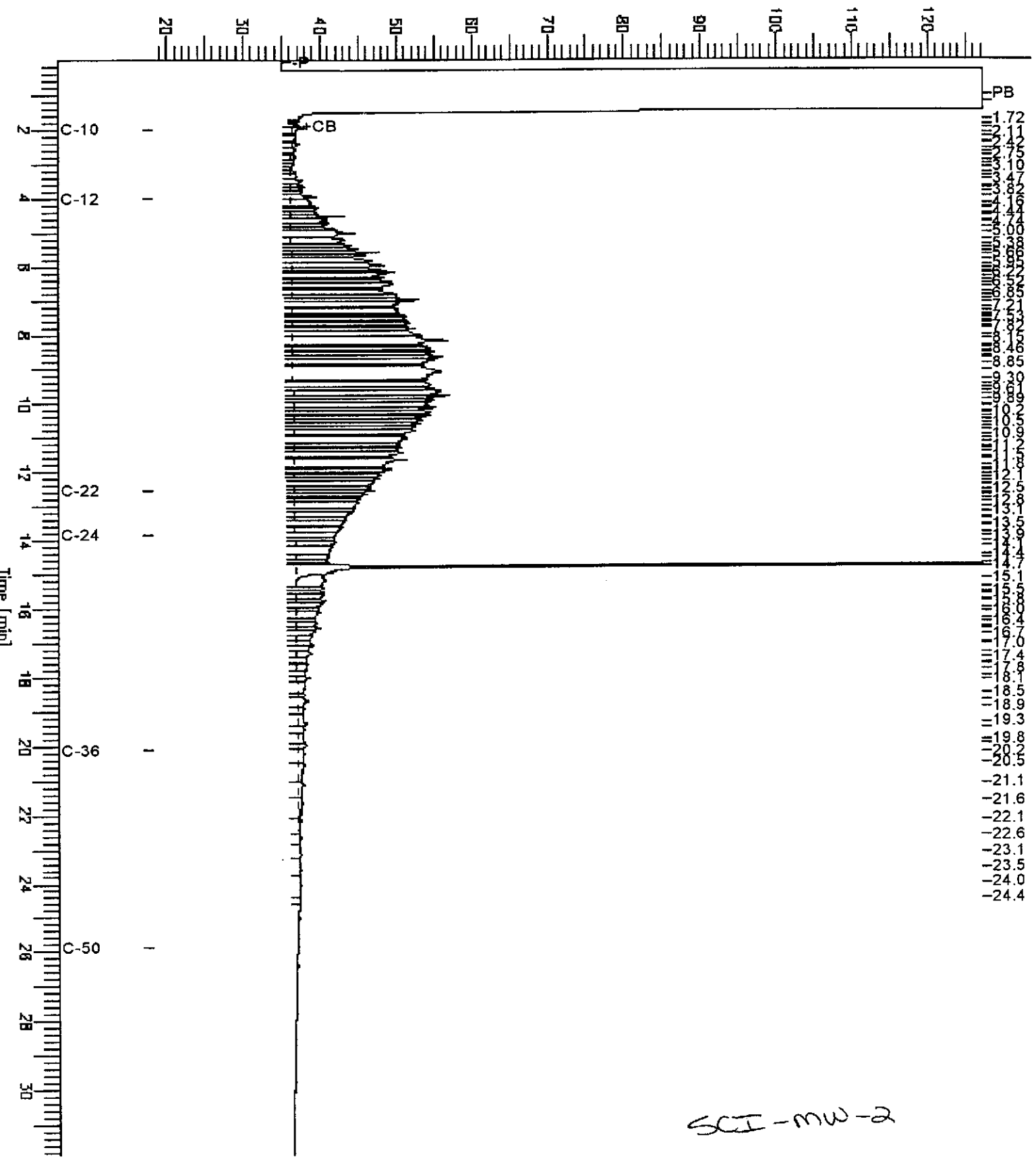
Analyte	Units	137084-001		137084-002		137084-003
Diln Fac:		1		1		1
Diesel C12-C22	ug/L	1200	H	<49		<59
Motor Oil C24-C36	ug/L	<290		<290		<350
Surrogate						
Hexacosane	%REC	29	*	161	*	70

* Values outside of QC limits
H: Heavier hydrocarbons than indicated standard

GC15 Channel B TEH

Sample Name : 137084-001,45236,SG
FileName : C:\GC15\CHB\348B050.RAW
Method : B338TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 18 mV

Sample #: 45236 Page 1 of 1
Date : 12/16/98 08:28 AM
Time of Injection: 12/15/98 11:34 PM
Low Point : 18.12 mV High Point : 127.34 mV
Plot Scale: 109.2 mV



SCI-MW-2

Lab #: 137084

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

METHOD BLANK

Matrix:	Water	Prep Date:	12/14/98
Batch#:	45236	Analysis Date:	12/15/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC86882

Analyte	Result
Diesel C12-C22	<50
Motor Oil C24-C36	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	87	53-136

Lab #: 137084

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45236
Units: ug/L
Diln Fac: 1

Prep Date: 12/14/98
Analysis Date: 12/15/98

BS Lab ID: QC86883

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1598	65	58-110

Surrogate	%Rec	Limits
Hexacosane	89	53-136

BSD Lab ID: QC86884

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1710	69	58-110	7	21

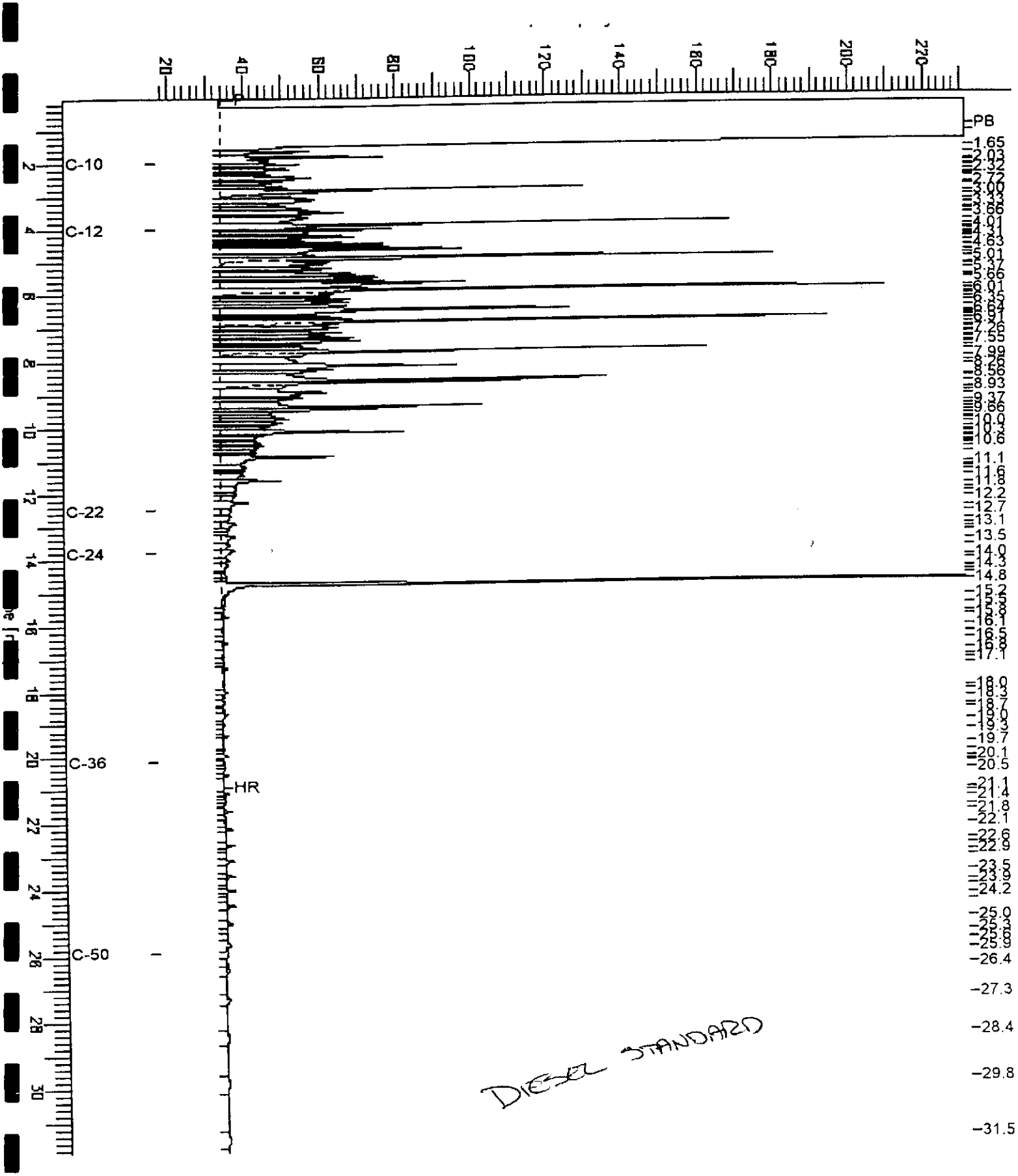
Surrogate	%Rec	Limits
Hexacosane	89	53-136

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

GC15 Channel B TEH

Sample Name : CCV,98WS6771,DS
FileName : C:\GC15\CHB\348B001.RAW
Method : B338TEH.MTH
Start Time : 0.05 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 17 mV

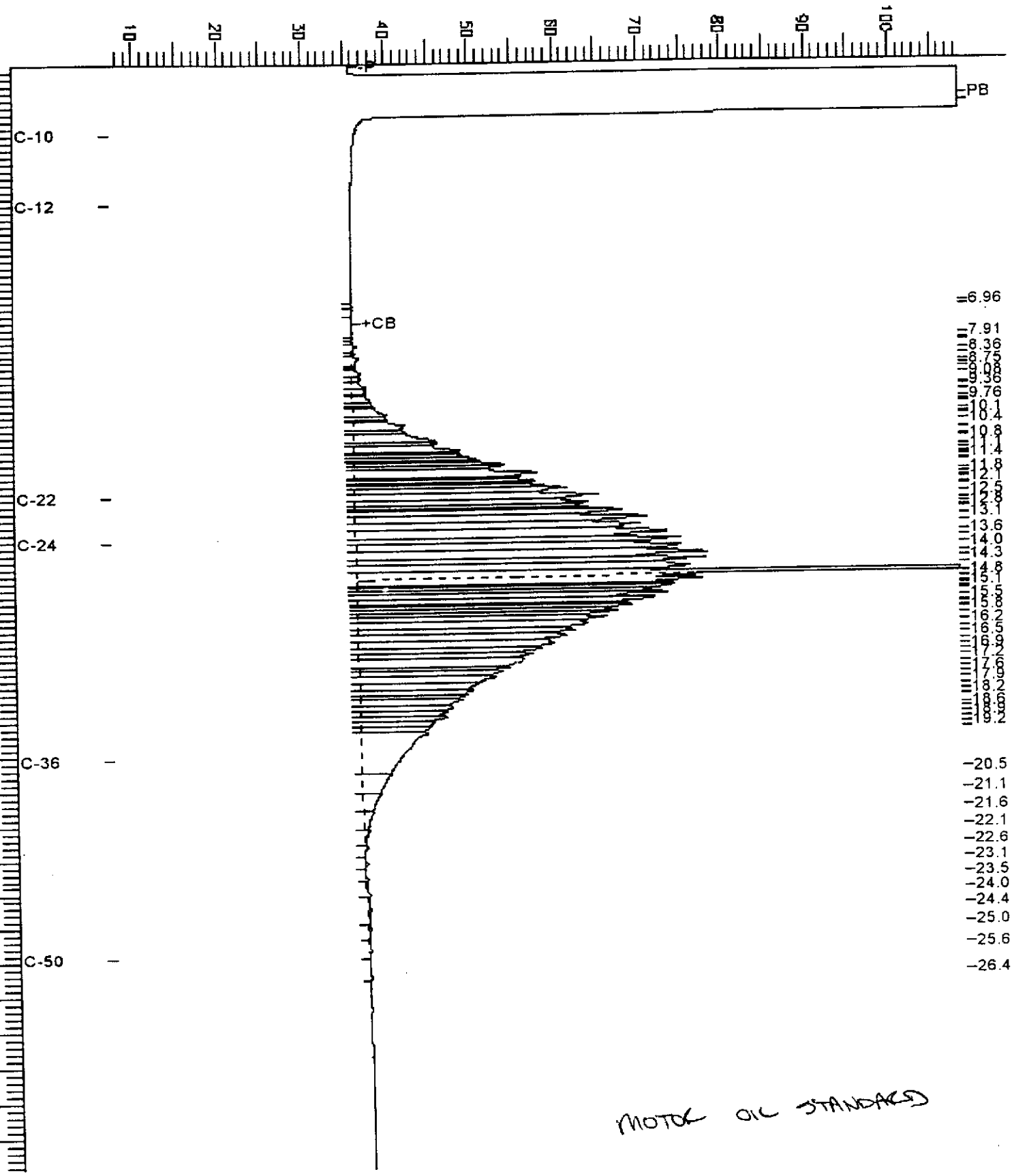
Sample #: 500MG/L Page 1 of 1
Date : 12/14/98 10:45 AM
Time of Injection: 12/14/98 10:10 AM
Low Point : 16.63 mV High Point : 231.46 mV
Plot Scale: 214.8 mV



GC15 Channel B TEH

Sample Name : CCV,98WS6739,MO
FileName : C:\GC15\CHB\348B015.RAW
Method : B338TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 7 mV

Sample #: 500MG/L Page 1 of 1
Date : 12/15/98 07:51 AM
Time of Injection: 12/14/98 09:42 PM
Low Point : 7.13 mV High Point : 108.51 mV
Plot Scale: 101.4 mV



MOTOR OIL STANDARD

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-2	Sampled:	12/10/98
Lab ID:	137084-001	Received:	12/10/98
Matrix:	Water	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/18/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
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,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	%Recovery	Recovery Limits
Nitrobenzene-d5	80	36-115
2-Fluorobiphenyl	32*	36-113
Terphenyl-d14	9*	17-115

* Values outside of QC limits

Curtis & Tompkins Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-6	Sampled:	12/10/98
Lab ID:	137084-002	Received:	12/10/98
Matrix:	Water	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/18/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	9.4
Acenaphthylene	ND	9.4
Acenaphthene	ND	9.4
Fluorene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
Benzo(b,k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	71	36-115
2-Fluorobiphenyl	76	36-113
Terphenyl-d14	67	17-115

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-11	Sampled:	12/10/98
Lab ID:	137084-003	Received:	12/10/98
Matrix:	Water	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/18/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	9.4
Acenaphthylene	ND	9.4
Acenaphthene	ND	9.4
Fluorene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
Benzo(b,k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	69	36-115
2-Fluorobiphenyl	69	36-113
Terphenyl-d14	45	17-115

Lab #: 137084

BATCH QC REPORT

Curtis & Tompkins Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

MB Lab ID: QC87111

Analyte	Result	Reporting Limit
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,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	Recovery Limits
Nitrobenzene-d5	74	36-115
2-Fluorobiphenyl	74	36-113
Terphenyl-d14	74	17-115

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

BS Lab ID: QC87112

Analyte	Spike Added	BS	%Rec #	Limits
Acenaphthene	50	33.66	67	50-110
Pyrene	50	38.49	77	43-110
Surrogate	**%Rec**	**Limits**		
Nitrobenzene-d5	71	36-115		
2-Fluorobiphenyl	73	36-113		
Terphenyl-d14	82	17-115		

BSD Lab ID: QC87113

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Acenaphthene	50	32.57	65	50-110	3	18
Pyrene	50	36.17	72	43-110	6	19
Surrogate	**%Rec**	**Limits**				
Nitrobenzene-d5	70	36-115				
2-Fluorobiphenyl	71	36-113				
Terphenyl-d14	76	17-115				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-2	Sampled:	12/10/98
Lab ID:	137084-001	Received:	12/10/98
Matrix:	Filtrate	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/18/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	9.8
Acenaphthylene	ND	9.8
Acenaphthene	ND	9.8
Fluorene	ND	9.8
Phenanthrene	ND	9.8
Anthracene	ND	9.8
Fluoranthene	ND	9.8
Pyrene	ND	9.8
Benzo(a)anthracene	ND	9.8
Chrysene	ND	9.8
Benzo(b,k)fluoranthene	ND	9.8
Benzo(a)pyrene	ND	9.8
Indeno(1,2,3-cd)pyrene	ND	9.8
Dibenz(a,h)anthracene	ND	9.8
Benzo(g,h,i)perylene	ND	9.8

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	81	36-115
2-Fluorobiphenyl	84	36-113
Terphenyl-d14	55	17-115

Curtis & Tompkins Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-6	Sampled:	12/10/98
Lab ID:	137084-002	Received:	12/10/98
Matrix:	Filtrate	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/18/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	9.9
Acenaphthylene	ND	9.9
Acenaphthene	ND	9.9
Fluorene	ND	9.9
Phenanthrene	ND	9.9
Anthracene	ND	9.9
Fluoranthene	ND	9.9
Pyrene	ND	9.9
Benzo(a)anthracene	ND	9.9
Chrysene	ND	9.9
Benzo(b,k)fluoranthene	ND	9.9
Benzo(a)pyrene	ND	9.9
Indeno(1,2,3-cd)pyrene	ND	9.9
Dibenz(a,h)anthracene	ND	9.9
Benzo(g,h,i)perylene	ND	9.9

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	76	36-115
2-Fluorobiphenyl	78	36-113
Terphenyl-d14	45	17-115

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-11	Sampled:	12/10/98
Lab ID:	137084-003	Received:	12/10/98
Matrix:	Filtrate	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/18/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	11
Acenaphthylene	ND	11
Acenaphthene	ND	11
Fluorene	ND	11
Phenanthrene	ND	11
Anthracene	ND	11
Fluoranthene	ND	11
Pyrene	ND	11
Benzo(a)anthracene	ND	11
Chrysene	ND	11
Benzo(b,k)fluoranthene	ND	11
Benzo(a)pyrene	ND	11
Indeno(1,2,3-cd)pyrene	ND	11
Dibenz(a,h)anthracene	ND	11
Benzo(g,h,i)perylene	ND	11

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	68	36-115
2-Fluorobiphenyl	69	36-113
Terphenyl-d14	41	17-115

Lab #: 137084

BATCH QC REPORT

Curtis & Tompkins Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

MB Lab ID: QC87111

Analyte	Result	Reporting Limit
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,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	Recovery Limits
Nitrobenzene-d5	74	36-115
2-Fluorobiphenyl	74	36-113
Terphenyl-d14	74	17-115

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

BS Lab ID: QC87112

Analyte	Spike Added	BS	%Rec #	Limits
Acenaphthene	50	33.66	67	50-110
Pyrene	50	38.49	77	43-110
Surrogate	**%Rec**	**Limits**		
Nitrobenzene-d5	71	36-115		
2-Fluorobiphenyl	73	36-113		
Terphenyl-d14	82	17-115		

BSD Lab ID: QC87113

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Acenaphthene	50	32.57	65	50-110	3	18
Pyrene	50	36.17	72	43-110	6	19
Surrogate	**%Rec**	**Limits**				
Nitrobenzene-d5	70	36-115				
2-Fluorobiphenyl	71	36-113				
Terphenyl-d14	76	17-115				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

Curtis & Tompkins, Ltd.

SAMPLE ID: SCI MW-2
LAB ID: 137084-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.009
LOCATION: KOT/9th Ave.Terminal
MATRIX: Filtrate

DATE SAMPLED: 12/10/98
DATE RECEIVED: 12/10/98
DATE REPORTED: 12/31/98

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	45227	EPA 6010A	12/29/98
Arsenic	9.6	5.0	1	45227	EPA 6010A	12/29/98
Barium	360	10	1	45227	EPA 6010A	12/29/98
Beryllium	ND	2.0	1	45227	EPA 6010A	12/29/98
Cadmium	ND	5.0	1	45227	EPA 6010A	12/29/98
Chromium (total)	ND	10	1	45227	EPA 6010A	12/29/98
Cobalt	ND	20	1	45227	EPA 6010A	12/29/98
Copper	ND	10	1	45227	EPA 6010A	12/29/98
Lead	ND	3.0	1	45227	EPA 6010A	12/29/98
Mercury	ND	0.20	1	45235	EPA 7470	12/15/98
Molybdenum	ND	20	1	45227	EPA 6010A	12/29/98
Nickel	ND	20	1	45227	EPA 6010A	12/29/98
Selenium	ND	5.0	1	45227	EPA 6010A	12/29/98
Silver	ND	5.0	1	45227	EPA 6010A	12/29/98
Thallium	ND	5.0	1	45227	EPA 6010A	12/29/98
Vanadium	ND	10	1	45227	EPA 6010A	12/29/98
Zinc	49	20	1	45227	EPA 6010A	12/29/98

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCI MW-6
LAB ID: 137084-002
CLIENT: Subsurface Consultants
PROJECT ID: 133.009
LOCATION: KOT/9th Ave.Terminal
MATRIX: Filtrate

DATE SAMPLED: 12/10/98
DATE RECEIVED: 12/10/98
DATE REPORTED: 12/31/98

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	45227	EPA 6010A	12/29/98
Arsenic	ND	5.0	1	45227	EPA 6010A	12/29/98
Barium	48	10	1	45227	EPA 6010A	12/29/98
Beryllium	ND	2.0	1	45227	EPA 6010A	12/29/98
Cadmium	ND	5.0	1	45227	EPA 6010A	12/29/98
Chromium (total)	ND	10	1	45227	EPA 6010A	12/29/98
Cobalt	ND	20	1	45227	EPA 6010A	12/29/98
Copper	75	10	1	45227	EPA 6010A	12/29/98
Lead	ND	3.0	1	45227	EPA 6010A	12/29/98
Mercury	ND	0.20	1	45235	EPA 7470	12/15/98
Molybdenum	ND	20	1	45227	EPA 6010A	12/29/98
Nickel	ND	20	1	45227	EPA 6010A	12/29/98
Selenium	ND	5.0	1	45227	EPA 6010A	12/29/98
Silver	ND	5.0	1	45227	EPA 6010A	12/29/98
Thallium	ND	5.0	1	45227	EPA 6010A	12/29/98
Vanadium	ND	10	1	45227	EPA 6010A	12/29/98
Zinc	74	20	1	45227	EPA 6010A	12/29/98

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: SCI MW-11
LAB ID: 137084-003
CLIENT: Subsurface Consultants
PROJECT ID: 133.009
LOCATION: KOT/9th Ave.Terminal
MATRIX: Filtrate

DATE SAMPLED: 12/10/98
DATE RECEIVED: 12/10/98
DATE REPORTED: 12/31/98

California TITLE 26 Metals

Compound	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	1	45227	EPA 6010A	12/29/98
Arsenic	ND	5.0	1	45227	EPA 6010A	12/29/98
Barium	250	10	1	45227	EPA 6010A	12/29/98
Beryllium	ND	2.0	1	45227	EPA 6010A	12/29/98
Cadmium	ND	5.0	1	45227	EPA 6010A	12/29/98
Chromium (total)	ND	10	1	45227	EPA 6010A	12/29/98
Cobalt	ND	20	1	45227	EPA 6010A	12/29/98
Copper	ND	10	1	45227	EPA 6010A	12/29/98
Lead	ND	3.0	1	45227	EPA 6010A	12/29/98
Mercury	ND	0.20	1	45235	EPA 7470	12/15/98
Molybdenum	ND	20	1	45227	EPA 6010A	12/29/98
Nickel	ND	20	1	45227	EPA 6010A	12/29/98
Selenium	ND	5.0	1	45227	EPA 6010A	12/29/98
Silver	ND	5.0	1	45227	EPA 6010A	12/29/98
Thallium	ND	5.0	1	45227	EPA 6010A	12/29/98
Vanadium	ND	10	1	45227	EPA 6010A	12/29/98
Zinc	ND	20	1	45227	EPA 6010A	12/29/98

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137084

DATE REPORTED: 12/31/98

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Antimony	ND	60	ug/L	1	45227	EPA 6010A	12/29/98
Arsenic	ND	5	ug/L	1	45227	EPA 6010A	12/29/98
Barium	ND	10	ug/L	1	45227	EPA 6010A	12/29/98
Beryllium	ND	2	ug/L	1	45227	EPA 6010A	12/29/98
Cadmium	ND	5	ug/L	1	45227	EPA 6010A	12/29/98
Chromium (total)	ND	10	ug/L	1	45227	EPA 6010A	12/29/98
Cobalt	ND	20	ug/L	1	45227	EPA 6010A	12/29/98
Copper	ND	10	ug/L	1	45227	EPA 6010A	12/29/98
Lead	ND	3	ug/L	1	45227	EPA 6010A	12/29/98
Mercury	ND	0.2	ug/L	1	45235	EPA 7470	12/15/98
Molybdenum	ND	20	ug/L	1	45227	EPA 6010A	12/29/98
Nickel	ND	20	ug/L	1	45227	EPA 6010A	12/29/98
Selenium	ND	5	ug/L	1	45227	EPA 6010A	12/29/98
Silver	ND	5	ug/L	1	45227	EPA 6010A	12/29/98
Thallium	ND	5	ug/L	1	45227	EPA 6010A	12/29/98
Vanadium	ND	10	ug/L	1	45227	EPA 6010A	12/29/98
Zinc	ND	20	ug/L	1	45227	EPA 6010A	12/29/98

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137084

DATE REPORTED: 12/31/98

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS% Rec.	BSD% Rec.	Rec. Limits	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	500	445	528	ug/L	89	106	80-120	17	35	45227	EPA 6010A	12/29/98
Arsenic	2000	2120	2060	ug/L	106	103	80-120	3	35	45227	EPA 6010A	12/29/98
Barium	2000	2090	2050	ug/L	105	103	80-120	2	35	45227	EPA 6010A	12/29/98
Beryllium	50	51.5	50.3	ug/L	103	101	80-120	2	35	45227	EPA 6010A	12/29/98
Cadmium	50	53	52.9	ug/L	106	106	80-120	0	35	45227	EPA 6010A	12/29/98
Chromium (total)	200	200	195	ug/L	100	98	80-120	3	35	45227	EPA 6010A	12/29/98
Cobalt	500	495	485	ug/L	99	97	80-120	2	35	45227	EPA 6010A	12/29/98
Copper	250	253	247	ug/L	101	99	80-120	2	35	45227	EPA 6010A	12/29/98
Lead	500	510	504	ug/L	102	101	80-120	1	35	45227	EPA 6010A	12/29/98
Mercury	5	4.993	4.986	ug/L	100	100	80-120	0	35	45235	EPA 7470	12/15/98
Molybdenum	400	402	396	ug/L	101	99	80-120	2	35	45227	EPA 6010A	12/29/98
Nickel	500	511	501	ug/L	102	100	80-120	2	35	45227	EPA 6010A	12/29/98
Selenium	2000	2350	2310	ug/L	118	116	80-120	2	35	45227	EPA 6010A	12/29/98
Silver	100	105	104	ug/L	105	104	80-120	1	35	45227	EPA 6010A	12/29/98
Thallium	2000	2440	2380	ug/L	122*	119	80-120	3	35	45227	EPA 6010A	12/29/98
Vanadium	500	506	494	ug/L	101	99	80-120	2	35	45227	EPA 6010A	12/29/98
Zinc	500	508	496	ug/L	102	99	80-120	2	35	45227	EPA 6010A	12/29/98

* = Out of Limits

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137084

DATE REPORTED: 12/31/98

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Antimony	137053-001	<60.000	<60.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Arsenic	137053-001	12.2	12.6	ug/L	3	20	45227	EPA 6010A	12/29/98
Barium	137053-001	135	135	ug/L	0	20	45227	EPA 6010A	12/29/98
Beryllium	137053-001	<2.000	<2.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Cadmium	137053-001	<5.000	<5.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Chromium (total)	137053-001	<10.000	<10.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Cobalt	137053-001	<20.000	<20.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Copper	137053-001	<10.000	<10.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Lead	137053-001	<3.000	<3.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Mercury	137084-003	<0.200	<0.200	ug/L	NC	20	45235	EPA 7470	12/15/98
Mercury	137100-012	<0.200	<0.200	ug/L	NC	20	45235	EPA 7470	12/15/98
Molybdenum	137053-001	24.7	20.5	ug/L	19	20	45227	EPA 6010A	12/29/98
Nickel	137053-001	<20.000	<20.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Selenium	137053-001	<5.000	<5.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Silver	137053-001	<5.000	<5.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Thallium	137053-001	<5.000	<5.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Vanadium	137053-001	<10.000	<10.000	ug/L	NC	20	45227	EPA 6010A	12/29/98
Zinc	137053-001	24.9	36.6	ug/L	38*	20	45227	EPA 6010A	12/29/98

* = Out of Limits
NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137084

DATE REPORTED: 12/31/98

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Antimony	500	137053-001	<60.000	505	ug/L	101	65-135	45227	EPA 6010A	12/29/98
Arsenic	2000	137053-001	12.2	2000	ug/L	99	65-135	45227	EPA 6010A	12/29/98
Barium	2000	137053-001	135	2180	ug/L	102	65-135	45227	EPA 6010A	12/29/98
Beryllium	50	137053-001	<2.000	48.1	ug/L	96	65-135	45227	EPA 6010A	12/29/98
Cadmium	50	137053-001	<5.000	50.6	ug/L	101	65-135	45227	EPA 6010A	12/29/98
Chromium (total)	200	137053-001	<10.000	186	ug/L	93	65-135	45227	EPA 6010A	12/29/98
Cobalt	500	137053-001	<20.000	451	ug/L	90	65-135	45227	EPA 6010A	12/29/98
Copper	250	137053-001	<10.000	256	ug/L	102	65-135	45227	EPA 6010A	12/29/98
Lead	500	137053-001	<3.000	477	ug/L	95	65-135	45227	EPA 6010A	12/29/98
Mercury	5	137100-012	<0.200	4.797	ug/L	96	65-135	45235	EPA 7470	12/15/98
Mercury	5	137084-003	<0.200	4.942	ug/L	99	65-135	45235	EPA 7470	12/15/98
Molybdenum	400	137053-001	24.7	396	ug/L	93	65-135	45227	EPA 6010A	12/29/98
Nickel	500	137053-001	<20.000	485	ug/L	97	65-135	45227	EPA 6010A	12/29/98
Selenium	2000	137053-001	<5.000	2270	ug/L	114	65-135	45227	EPA 6010A	12/29/98
Silver	100	137053-001	<5.000	27.7	ug/L	28*	65-135	45227	EPA 6010A	12/29/98
Thallium	2000	137053-001	<5.000	2250	ug/L	113	65-135	45227	EPA 6010A	12/29/98
Vanadium	500	137053-001	<10.000	480	ug/L	96	65-135	45227	EPA 6010A	12/29/98
Zinc	500	137053-001	24.9	602	ug/L	115	65-135	45227	EPA 6010A	12/29/98

* = Out of Limits

Lab#: 137084
Page 1 of 1

Curtis & Tompkins, Ltd.

Dissolved Organic Carbon (DOC)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 415.2
Prep Method: EPA 415.2

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
137084-001	SCI MW-2	45262	10-DEC-98	15-DEC-98	-
137084-002	SCI MW-6	45262	10-DEC-98	15-DEC-98	-
137084-003	SCI MW-11	45262	10-DEC-98	15-DEC-98	-
QC86992	Method Blank	45262	-	15-DEC-98	-

Analyte: Dissolved Organic Carbon **Matrix:** Water **Units:** mg/L

Sample #	Client ID		Result	Reporting Limit	Dilution Factor
137084-001	SCI MW-2		5.4	1.0	1
137084-002	SCI MW-6		ND	1.0	1
137084-003	SCI MW-11		7.3	1.0	1
QC86992	Method Blank	ND		1.0	1

ND = None Detected at or above Reporting Limit

Lab#: 137084
Page 1 of 1

Curtis & Tompkins, Ltd.

Dissolved Organic Carbon (DOC)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 415.2
Prep Method: EPA 415.2

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC86993	Lab Control Sample	45262	-	15-DEC-98	-

Analyte: Dissolved Organic Carbon **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Spike Amt.	Result	%Recovery	Limits
QC86993	Lab Control Sample	10.00	10.10	101	80-120

Curtis & Tompkins, Ltd.

Dissolved Organic Carbon (DOC)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 415.2
Prep Method: EPA 415.2

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC86994	MS of 137084-001	45262	10-DEC-98	15-DEC-98	-
QC86995	MSD of 137084-001	45262	10-DEC-98	15-DEC-98	-

Analyte: Dissolved Organic Carbon **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC86994	MS of 137084-001	10.00	15.30	99	75-125		
QC86995	MSD of 137084-001	10.00	15.40	100	75-125	1	35
137084-001	SCI MW-2		5.400				

Curtis & Tompkins, Ltd.

Total Dissolved Solids (TDS)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 160.1
Prep Method: EPA 160.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
137084-001	SCI MW-2	45295	10-DEC-98	16-DEC-98	-
137084-002	SCI MW-6	45295	10-DEC-98	16-DEC-98	-
137084-003	SCI MW-11	45295	10-DEC-98	16-DEC-98	-

Analyte: Total Dissolved Solids **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Result	Reporting Limit	Dilution Factor
137084-001	SCI MW-2	6180	20	2
137084-002	SCI MW-6	21600	100	10
137084-003	SCI MW-11	7600	25	2.5

Curtis & Tompkins, Ltd.

Total Dissolved Solids (TDS)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 160.1
Prep Method: EPA 160.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC87118	SDUP of 137048-001	45295	10-DEC-98	16-DEC-98	-

Analyte: Total Dissolved Solids **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Result	%RPD	Limit
QC87118	SDUP of 137048-001	270.0	2	25
137048-001	ZZZZZZZZ	266.0		

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: 09-FEB-99
Lab Job Number: 137093
Project ID: 133.009
Location: KOT/9th Ave.Terminal

Reviewed by: [signature]

Reviewed by: [signature]

1370(?)

PAGE ___ OF ___

CHAIN OF CUSTODY FORM

PROJECT NAME: 9th Avenue Terminal, Oakland CA

JOB NUMBER: 133.009 TASK 3B

LAB: Curtis & Tompkins

PROJECT CONTACT: Meg Mendoza

TURNAROUND: N

SAMPLED BY: John Wolfe

REQUESTED BY: Meg Mendoza

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE	Poly		METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TEH d (mo / silica gel)	PNA (8270)	PNA Filtered by 8270	Heavy Metals	TDS	DOC	TVH/BTEX	8080 (Pesticides)	LEAD		
	~~SCI MW-2~~																						/	/	/	/	/	/					
	~~SCI MW-5~~																						/										
	~~SCI MW-6~~																						/	/	/	/	/	/	/				
~~1w~~	~~SCI MW-11~~	X						X	X			X					X					~~1130~~		/	/	/	/	/	/	/				
1	SCI MW-12	X						X	X			X					X		12	11	98	1130		X				X	X					4
2	SCI MW-14	X						X	X			X					X					1230						X	X					3
3	SCI MW-23	X						X	X			X					X					1300		X							X			2
4	SCI MW-24	X						X	X			X					X					1100		X				X	/	X		X		7
5	SCI MW-34	X						X	X			X					X					1200		X	X	X		X	X	X		X		1
6	SCI MW-35							X	X			X					X		↓	↓	↓	1000		X										1

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
John Wolfe	12/11/98 1512	[signature]	12/11/98 1512

COMMENTS & NOTES:

Fix and Filter metals + Lead in lab. Also Filter DOC

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) 299-7960 - (925) 299-7970

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137093-004	SCI MW-24	45308	12/11/98	12/17/98	12/17/98	
137093-005	SCI MW-34	45308	12/11/98	12/17/98	12/17/98	

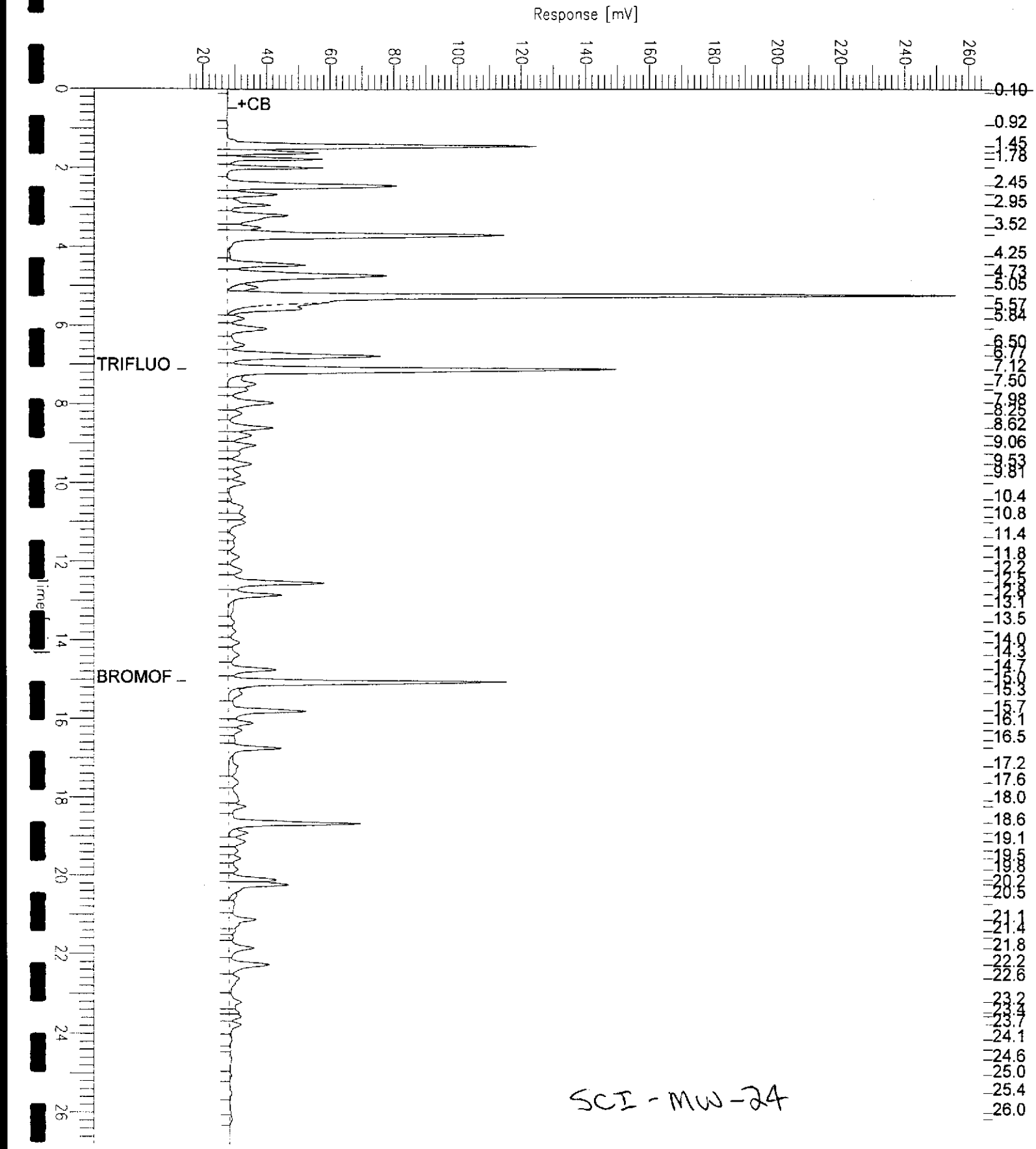
Matrix: Water

Analyte	Units	137093-004	137093-005
Diln Fac:		10	1
Gasoline C7-C12	ug/L	8300	290
Surrogate			
Trifluorotoluene	%REC	113	99
Bromofluorobenzene	%REC	136	127

GC05 'G' File TVH

Sample Name : RR,D,137093-004,45308,
FileName : G:\GC05\DATA\351G013.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 15 mV

Sample #: Page 1 of 1
Date : 12/17/98 10:25 PM
Time of Injection: 12/17/98 09:58 PM
Low Point : 15.09 mV High Point : 265.09 mV
Plot Scale: 250.0 mV

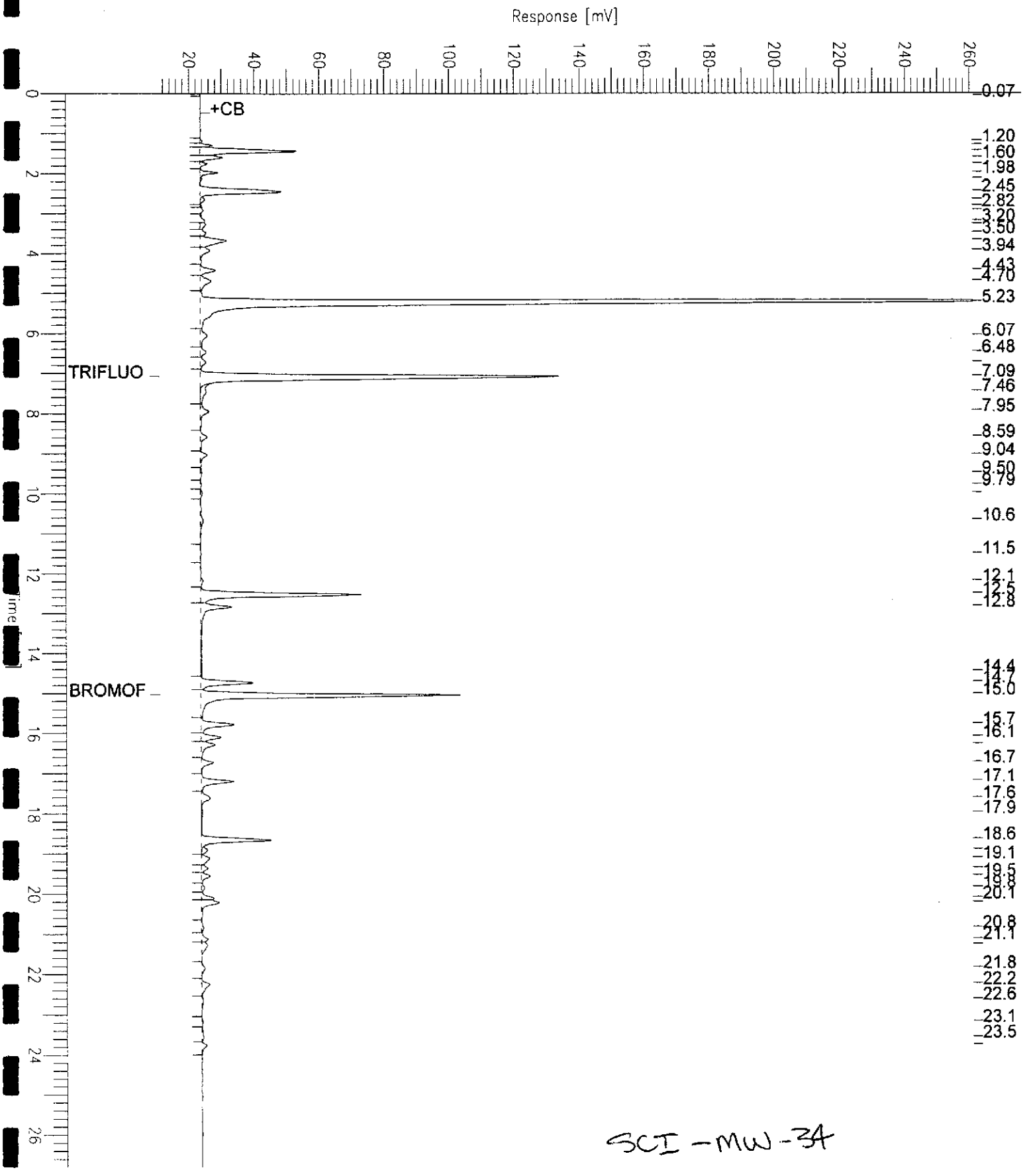


SCI - MW - 24

GC05 'G' File TVH

Sample Name : RR,137093-005,45308,
leName : G:\GC05\DATA\351G008.raw
thod : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 11 mV

Sample #: Page 1 of 1
Date : 12/17/98 07:14 PM
Time of Injection: 12/17/98 06:46 PM
Low Point : 10.91 mV High Point : 260.91 mV
Plot Scale: 250.0 mV



SCI-MW-34

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants	Analysis Method: EPA 8015M
Project#: 133.009	Prep Method: EPA 5030
Location: KOT/9th Ave.Terminal	

METHOD BLANK

Matrix: Water	Prep Date: 12/17/98
Batch#: 45308	Analysis Date: 12/17/98
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC87159

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	90	59-162
Bromofluorobenzene	106	59-162

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 5030
Location:	KOT/9th Ave.Terminal		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	12/17/98
Batch#:	45308	Analysis Date:	12/17/98
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC87157

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2211	2000	111	80-119

Surrogate	%Rec	Limits
Trifluorotoluene	125	59-162
Bromofluorobenzene	116	59-162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 137127-001
Matrix: Water
Batch#: 45308
Units: ug/L
Diln Fac: 1

Sample Date: 12/09/98
Received Date: 12/10/98
Prep Date: 12/17/98
Analysis Date: 12/17/98

MS Lab ID: QC87160

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	161.8	2453	115	71-131

Surrogate	%Rec	Limits
Trifluorotoluene	143	59-162
Bromofluorobenzene	136	59-162

MSD Lab ID: QC87161

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2518	118	71-131	3	26

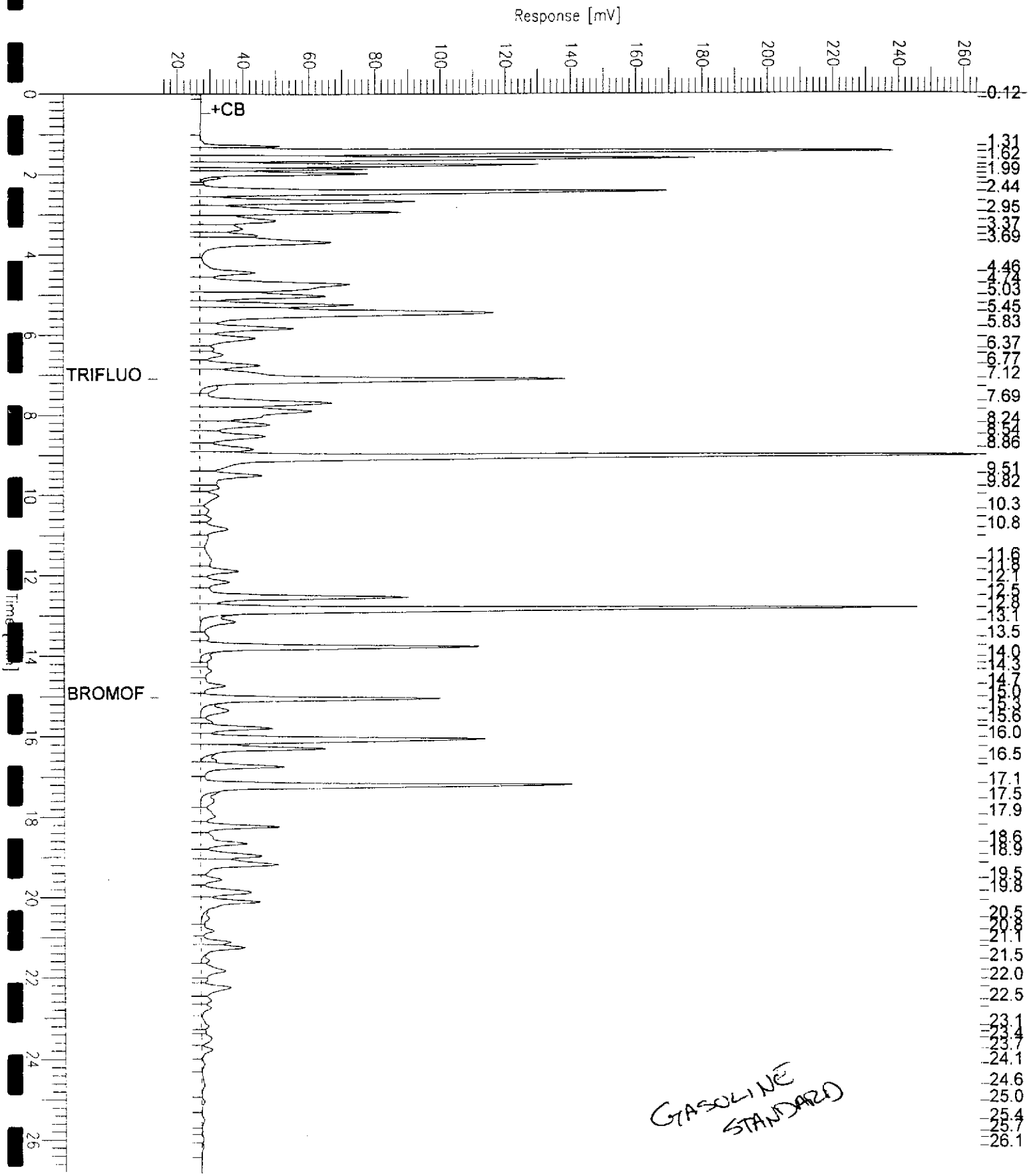
Surrogate	%Rec	Limits
Trifluorotoluene	137	59-162
Bromofluorobenzene	128	59-162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

GC05 'G' File TVH

Sample Name : CCV/LCS,QC87157,98WS6788,45308,
FileName : G:\GC05\DATA\351G002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 14 mV

Sample #: GAS Page 1 of 1
Date : 12/17/98 02:11 PM
Time of Injection: 12/17/98 01:44 PM
Low Point : 14.22 mV High Point : 264.22 mV
Plot Scale: 250.0 mV



GASOLINE STANDARD

BTXE

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137093-004	SCI MW-24	45308	12/11/98	12/17/98	12/17/98	
137093-005	SCI MW-34	45308	12/11/98	12/17/98	12/17/98	

Matrix: Water

Analyte	Units	137093-004	137093-005
Diln Fac:		10	1
Benzene	ug/L	1200	150
Toluene	ug/L	56	1
Ethylbenzene	ug/L	180	28
m,p-Xylenes	ug/L	100	6.5
o-Xylene	ug/L	11	<0.5
Surrogate			
Trifluorotoluene	%REC	96	94
Bromofluorobenzene	%REC	122	122

Curtis & Tompkins, Ltd.

BTXE

Client:	Subsurface Consultants	Analysis Method:	EPA 8021B
Project#:	133.009	Prep Method:	EPA 5030
Location:	KOT/9th Ave.Terminal		

METHOD BLANK

Matrix:	Water	Prep Date:	12/17/98
Batch#:	45308	Analysis Date:	12/17/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC87159

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	82	53-124
Bromofluorobenzene	99	41-142

Lab #: 137093 BATCH QC REPORT Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 45308
Units: ug/L
Diln Fac: 1

Prep Date: 12/17/98
Analysis Date: 12/17/98

LCS Lab ID: QC87158

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	16.86	20	84	69-109
Toluene	18.28	20	91	72-116
Ethylbenzene	18.98	20	95	67-120
m,p-Xylenes	38.46	40	96	69-117
o-Xylene	19.53	20	98	75-122

Surrogate	%Rec	Limits
Trifluorotoluene	94	53-124
Bromofluorobenzene	116	41-142

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137093-001	SCI MW-12	45324	12/11/98	12/17/98	12/22/98	
137093-003	SCI MW-23	45324	12/11/98	12/17/98	12/23/98	
137093-004	SCI MW-24	45324	12/11/98	12/17/98	12/22/98	
137093-005	SCI MW-34	45324	12/11/98	12/17/98	12/22/98	

Matrix: Water

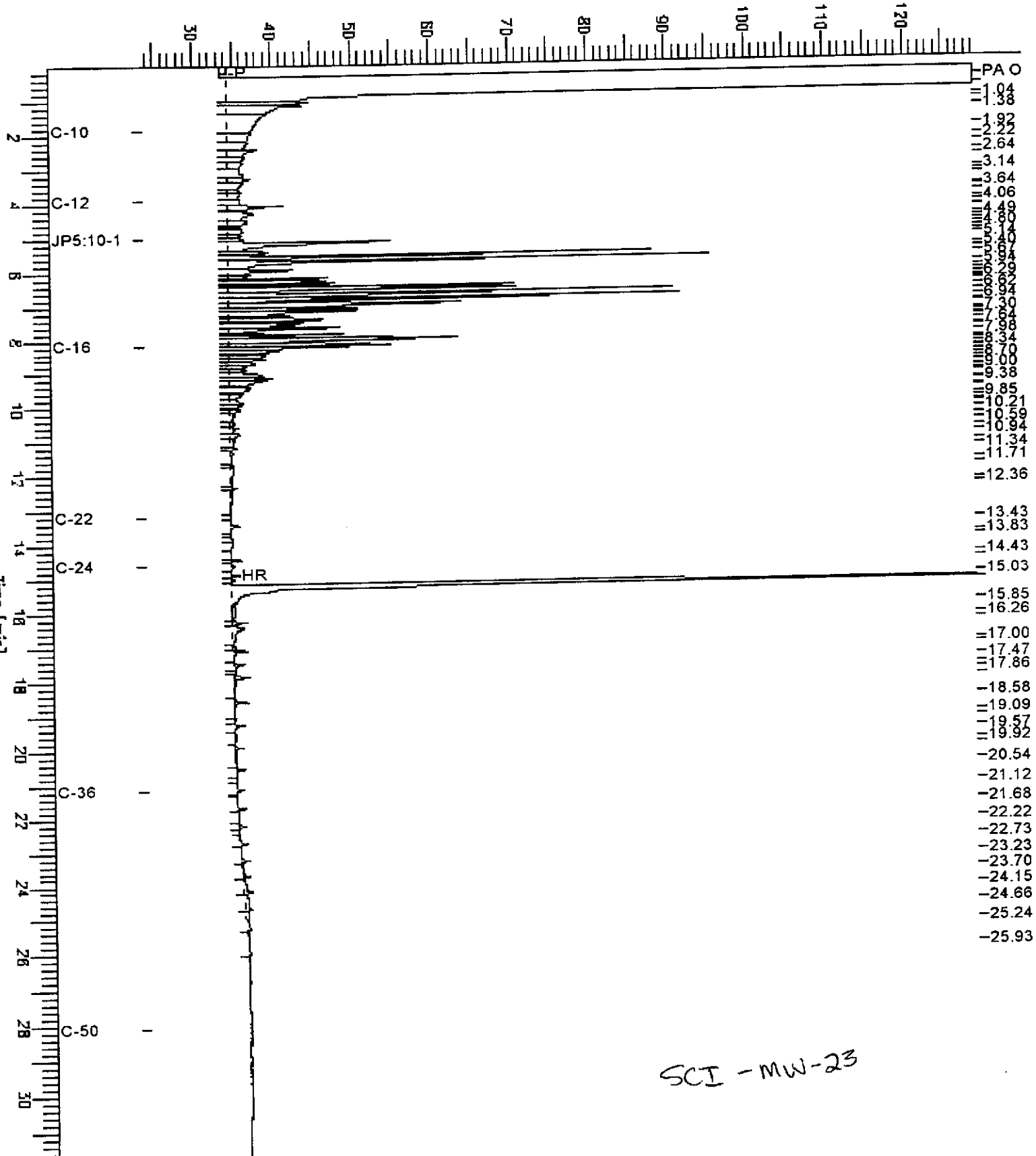
Analyte	Units	137093-001	137093-003	137093-004	137093-005
Diln Fac:		1	1	1	1
Diesel C10-C24	ug/L	<50	260 YH	800 YL	60 YLH
Motor Oil C24-C36	ug/L	<300	<300	<300	<300
Surrogate					
Hexacosane	%REC	99	84	97	94

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

Chromatogram

Sample Name : 137093-003,45324,re-sg
FileName : G:\GC13\CHB\357B005.RAW
Method : BTEH352.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 24 mV

Sample #: 45324 Page 1 of 1
Date : 12/29/98 12:55 PM
Time of Injection: 12/23/98 08:31 AM
Low Point : 23.58 mV High Point : 129.20 mV
Plot Scale: 105.6 mV

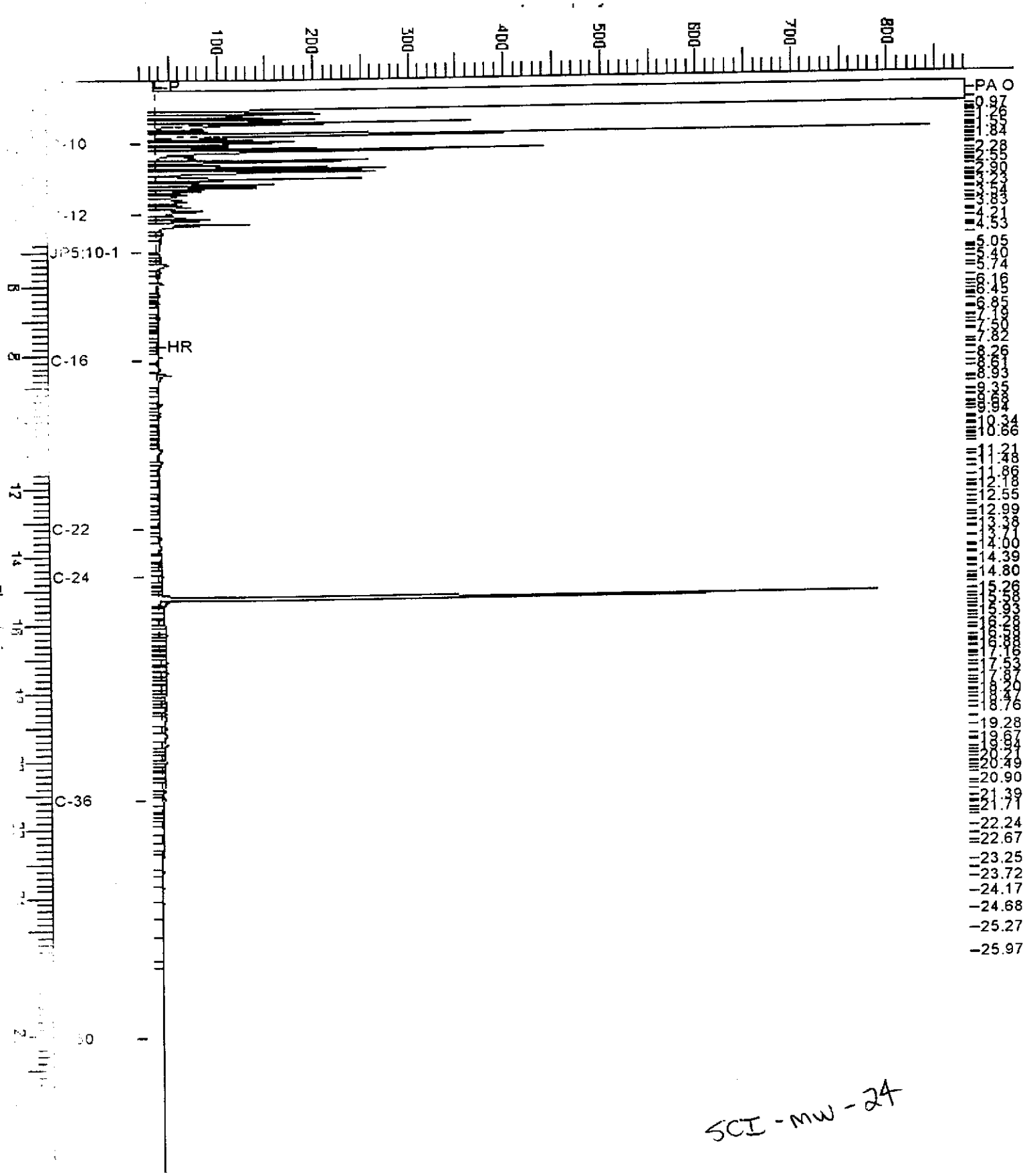


SCI - MW-23

Chromatogram

me : 137093-004,45324,sg
: G:\GC13\CHB\355B033.RAW
: BTEH352.MTH
e : 0.01 min End Time : 31.91 min
tor: 0.0 Plot Offset: 20 mV

Sample #: 45324
Date : 12/23/98 07:25 AM
Time of Injection: 12/22/98 01:29 AM
Low Point : 19.60 mV High Point : 882.61 mV
Plot Scale: 863.0 mV

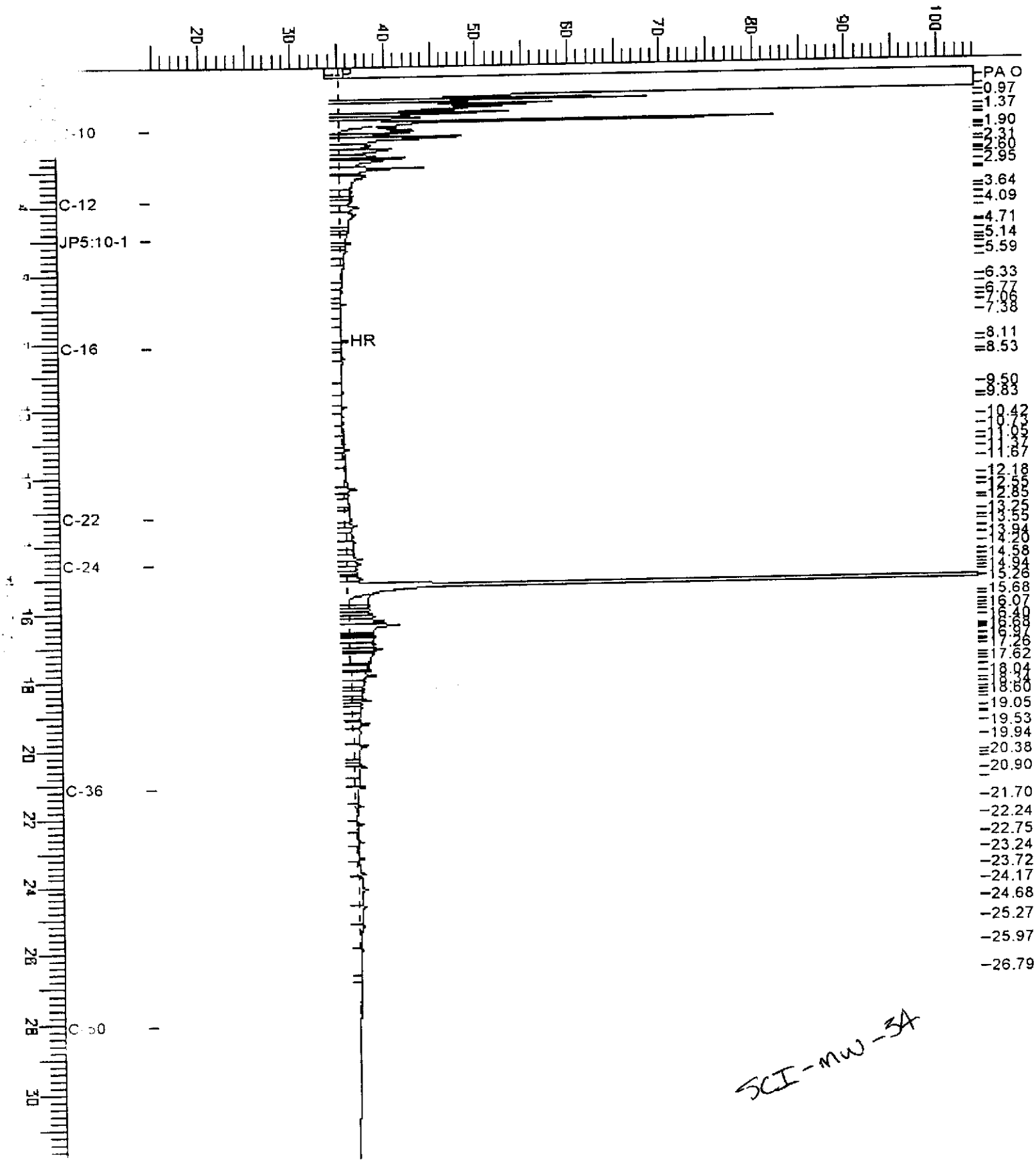


SCI - MW - 24

Chromatogram

: 137093-005,45324,sg
: G:\GC13\CHB\355B034.RAW
: BTEH352.MTH
: 0.01 min End Time : 31.91 min
: 0.0 Plot Offset: 15 mV

Sample #: 45324
Date : 12/23/98 07:28 AM
Time of Injection: 12/22/98 02:10 AM
Low Point : 14.58 mV High Point : 104.21 mV
Plot Scale: 89.6 mV



SCI-MW-3A

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137093-006	SCI MW-35	45324	12/11/98	12/17/98	12/22/98	

Matrix: Water

Analyte	Units	137093-006
Diln Fac:		1
Diesel C10-C24	ug/L	<50
Motor Oil C24-C36	ug/L	<300
Surrogate		
Hexacosane	%REC	107

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

METHOD BLANK

Matrix:	Water	Prep Date:	12/17/98
Batch#:	45324	Analysis Date:	12/22/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC87232

Analyte	Result
Diesel C10-C24	<50
Motor Oil C24-C36	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	110	53-136

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix:	Water	Prep Date:	12/17/98
Batch#:	45324	Analysis Date:	12/22/98
Units:	ug/L		
Diln Fac:	1		

BS Lab ID: QC87233

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C10-C24	2475	1708	69		60-140

Surrogate	%Rec	Limits
Hexacosane	105	53-136

BSD Lab ID: QC87234

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C10-C24	2475	1562	63		60-140	9		35

Surrogate	%Rec	Limits
Hexacosane	99	53-136

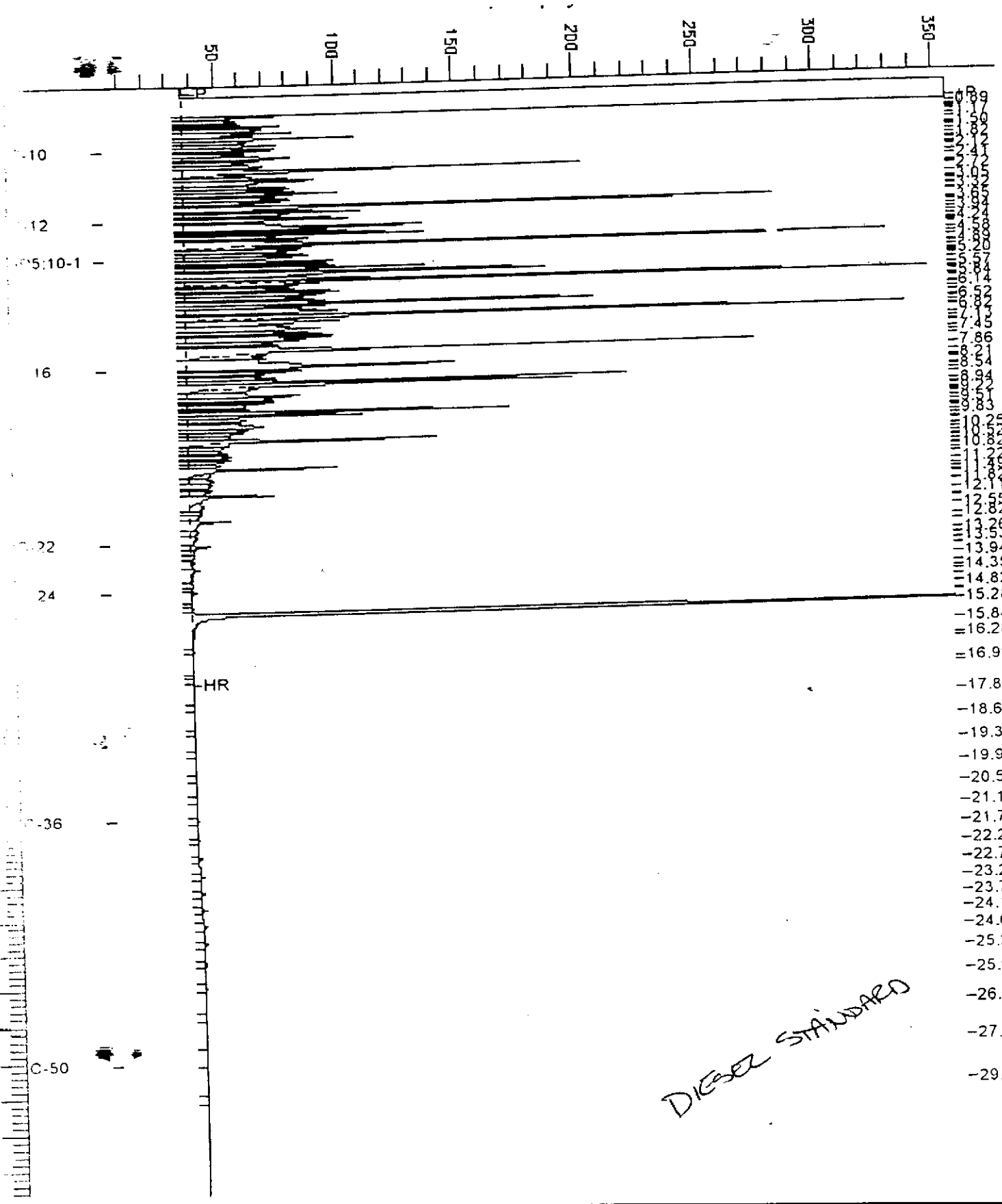
Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Chromatogram

,98ws6771,ds
:\GC13\CHB\355B002.RAW
EH352.MTH
.01 min
0.0

End Time : 31.91 min
Plot Offset: 3 mV

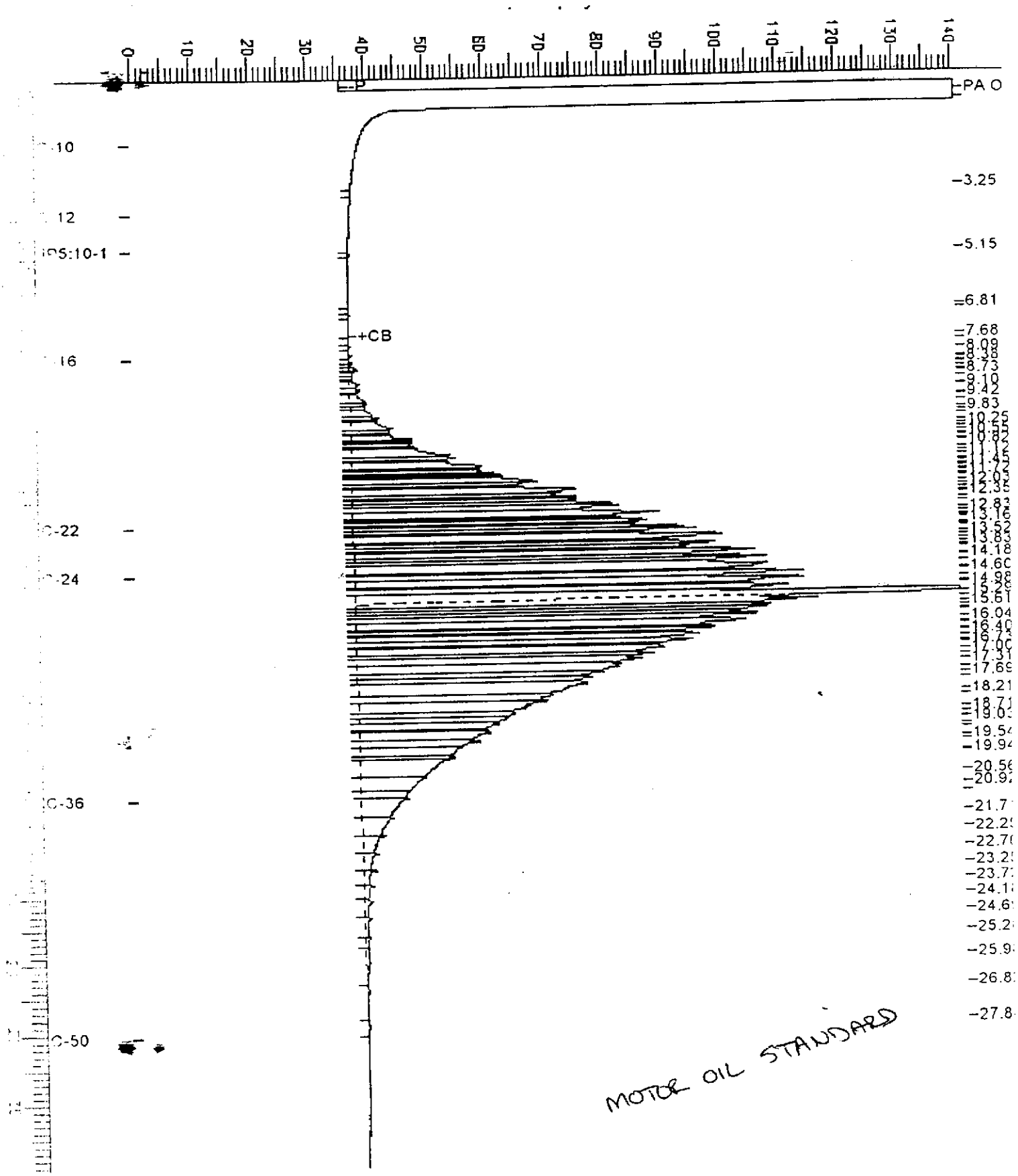
Sample #: 500mg/1
Date : 12/21/98 11:18 AM
Time of Injection: 12/20/98 10:12 PM
Low Point : 3.06 mV
High Point : 356.00 mV
Plot Scale: 352.9 mV



Chromatogram

:ov,98ws6739,mo
:\GC13\CHB\355B003.RAW
:BTEH352.MTH
:0.01 min End Time : 31.91 min
: 0.0 Plot Offset: -0 mV

Sample #: 500mg/l
Date : 12/21/98 11:22 AM
Time of Injection: 12/20/98 10:53 PM
Low Point : -0.46 mV High Point : 140.59 mV
Plot Scale: 141.1 mV



MOTOR OIL STANDARD

Curtis & Tompkins, Ltd.

Organochlorine Pesticides and PCBs

Client:	Subsurface Consultants	Analysis Method:	EPA 8080
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		
Field ID:	SCI MW-23	Sampled:	12/11/98
Lab ID:	137093-003	Received:	12/11/98
Matrix:	Water	Extracted:	12/15/98
Batch#:	45269	Analyzed:	12/24/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Recovery	Recovery Limits
TCMX	112	31-121
Decachlorobiphenyl	13*	30-145

* Values outside of QC limits

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins Ltd.

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8080
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 45269
Units: ug/L
Diln Fac: 1

Prep Date: 12/15/98
Analysis Date: 01/22/99

MB Lab ID: QC87016

Analyte	Result	Reporting Limit
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide B	ND	0.05
Heptachlor epoxide A	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND	0.1
Chlordane	ND	0.5
Methoxychlor	ND	0.5
Toxaphene	ND	1.0
Aroclor-1016	ND	0.5
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.5
Aroclor-1242	ND	0.5
Aroclor-1248	ND	0.5
Aroclor-1254	ND	0.5
Aroclor-1260	ND	0.5

Surrogate	%Rec	Recovery Limits
TCMX	79	31-121
Decachlorobiphenyl	70	30-145

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins Ltd.

EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8080
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45269
Units: ug/L
Diln Fac: 1

Prep Date: 12/15/98
Analysis Date: 01/22/99

BS Lab ID: QC87017

Analyte	Spike Added	BS	%Rec #	Limits
gamma-BHC	0.5	0.65	130	62-131
Heptachlor	0.5	0.52	104	57-118
Aldrin	0.5	0.57	114	57-118
Dieldrin	0.5	0.46	92	62-123
Endrin	0.5	0.62	124	48-138
4,4'-DDT	0.5	0.44	88	56-121

Surrogate	%Rec	Limits
TCMX	86	31-121
Decachlorobiphenyl	87	30-145

BSD Lab ID: QC87018

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
gamma-BHC	0.5	0.65	130	62-131	0	28
Heptachlor	0.5	0.52	104	57-118	0	26
Aldrin	0.5	0.57	114	57-118	0	27
Dieldrin	0.5	0.46	92	62-123	0	24
Endrin	0.5	0.61	122	48-138	2	27
4,4'-DDT	0.5	0.46	92	56-121	4	26

Surrogate	%Rec	Limits
TCMX	89	31-121
Decachlorobiphenyl	86	30-145

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-34	Sampled:	12/11/98
Lab ID:	137093-005	Received:	12/11/98
Matrix:	Water	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/21/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	9.6
Acenaphthylene	ND	9.6
Acenaphthene	ND	9.6
Fluorene	ND	9.6
Phenanthrene	ND	9.6
Anthracene	ND	9.6
Fluoranthene	ND	9.6
Pyrene	ND	9.6
Benzo(a)anthracene	ND	9.6
Chrysene	ND	9.6
Benzo(b,k)fluoranthene	ND	9.6
Benzo(a)pyrene	ND	9.6
Indeno(1,2,3-cd)pyrene	ND	9.6
Dibenz(a,h)anthracene	ND	9.6
Benzo(g,h,i)perylene	ND	9.6

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	72	36-115
2-Fluorobiphenyl	68	36-113
Terphenyl-d14	28	17-115

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client:	Subsurface Consultants	Analysis Method:	EPA 8270B
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

Field ID:	SCI MW-34	Sampled:	12/11/98
Lab ID:	137093-005	Received:	12/11/98
Matrix:	Filtrate	Extracted:	12/16/98
Batch#:	45293	Analyzed:	12/21/98
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Naphthalene	ND	9.4
Acenaphthylene	ND	9.4
Acenaphthene	ND	9.4
Fluorene	ND	9.4
Phenanthrene	ND	9.4
Anthracene	ND	9.4
Fluoranthene	ND	9.4
Pyrene	ND	9.4
Benzo(a)anthracene	ND	9.4
Chrysene	ND	9.4
Benzo(b,k)fluoranthene	ND	9.4
Benzo(a)pyrene	ND	9.4
Indeno(1,2,3-cd)pyrene	ND	9.4
Dibenz(a,h)anthracene	ND	9.4
Benzo(g,h,i)perylene	ND	9.4

Surrogate	%Recovery	Recovery Limits
Nitrobenzene-d5	73	36-115
2-Fluorobiphenyl	77	36-113
Terphenyl-d14	38	17-115

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

MB Lab ID: QC87111

Analyte	Result	Reporting Limit
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,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	Recovery Limits
Nitrobenzene-d5	74	36-115
2-Fluorobiphenyl	74	36-113
Terphenyl-d14	74	17-115

Lab #: 137093

BATCH QC REPORT

Curtis & Tompkins Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

MB Lab ID: QC87111

Analyte	Result	Reporting Limit
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,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	Recovery Limits
Nitrobenzene-d5	74	36-115
2-Fluorobiphenyl	74	36-113
Terphenyl-d14	74	17-115

Curtis & Tompkins, Ltd.

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

BS Lab ID: QC87112

Analyte	Spike Added	BS	%Rec #	Limits
Acenaphthene	50	33.66	67	50-110
Pyrene	50	38.49	77	43-110

Surrogate	%Rec	Limits
Nitrobenzene-d5	71	36-115
2-Fluorobiphenyl	73	36-113
Terphenyl-d14	82	17-115

BSD Lab ID: QC87113

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Acenaphthene	50	32.57	65	50-110	3	18
Pyrene	50	36.17	72	43-110	6	19

Surrogate	%Rec	Limits
Nitrobenzene-d5	70	36-115
2-Fluorobiphenyl	71	36-113
Terphenyl-d14	76	17-115

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

Polynuclear Aromatic Hydrocarbons by GC/MS

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8270B
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45293
Units: ug/L
Diln Fac: 1

Prep Date: 12/16/98
Analysis Date: 12/18/98

BS Lab ID: QC87112

Analyte	Spike Added	BS	%Rec #	Limits
Acenaphthene	50	33.66	67	50-110
Pyrene	50	38.49	77	43-110

Surrogate	%Rec	Limits
Nitrobenzene-d5	71	36-115
2-Fluorobiphenyl	73	36-113
Terphenyl-d14	82	17-115

BSD Lab ID: QC87113

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Acenaphthene	50	32.57	65	50-110	3	18
Pyrene	50	36.17	72	43-110	6	19

Surrogate	%Rec	Limits
Nitrobenzene-d5	70	36-115
2-Fluorobiphenyl	71	36-113
Terphenyl-d14	76	17-115

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

CLIENT: Subsurface Consultants
PROJECT ID: 133.009
LOCATION: KOT/9th Ave.Terminal
MATRIX: Filtrate

DATE REPORTED: 02/05/99

Metals Analytical Report

Lead

Sample ID	Lab ID	Sample Date	Receive Date	Result (ug/L)	Reporting Limit (ug/L)	IDF	QC Batch	Method	Analysis Date
SCI MW-24	137093-004	12/11/98	12/11/98	ND	3.0	1	45287	EPA 6010A	12/31/98
SCI MW-34	137093-005	12/11/98	12/11/98	ND	3.0	1	45287	EPA 6010A	12/31/98

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137093

DATE REPORTED: 02/05/99

BATCH QC REPORT
PREP BLANK

Compound	Result	Reporting Limit	Units	IDF	QC Batch	Method	Analysis Date
Lead	ND	3	ug/L	1	45287	EPA 6010A	12/31/98

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137093

DATE REPORTED: 02/05/99

BATCH QC REPORT
BLANK SPIKE / BLANK SPIKE DUPLICATE

Compound	Spike Amount	BS Result	BSD Result	Units	BS% Rec.	BSD% Rec.	Rec. Limits	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	500	499	496	ug/L	100	99	80-120	1	35	45287	EPA 6010A	12/31/98

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137093

DATE REPORTED: 02/05/99

BATCH QC REPORT
SAMPLE DUPLICATE

Compound	Sample	Sample Result	Duplicate Result	Units	RPD %	RPD Limit	QC Batch	Method	Analysis Date
Lead	137104-001	<3.000	<3.000	ug/L	NC	20	45287	EPA 6010A	12/31/98

NC = Not Calculable

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 137093

DATE REPORTED: 02/05/99

BATCH QC REPORT
SAMPLE SPIKE

Compound	Spike Amount	Sample	Sample Result	Spike Result	Units	Percent Rec.	Rec. Limit	QC Batch	Method	Analysis Date
Lead	500	137104-001	<3.000	467	ug/L	93	65-135	45287	EPA 6010A	12/31/98

Lab#: 137093
Page 1 of 1

Curtis & Tompkins, Ltd.

Dissolved Organic Carbon (DOC)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 415.2
Prep Method: EPA 415.2

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
137093-001	SCI MW-12	45262	11-DEC-98	15-DEC-98	-
137093-002	SCI MW-14	45262	11-DEC-98	15-DEC-98	-
137093-004	SCI MW-24	45262	11-DEC-98	15-DEC-98	-
137093-005	SCI MW-34	45262	11-DEC-98	15-DEC-98	-
QC86992	Method Blank	45262	-	15-DEC-98	-

Analyte: Dissolved Organic Carbon **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Result	Reporting Limit	Dilution Factor
137093-001	SCI MW-12	ND	1.0	1
137093-002	SCI MW-14	14	1.0	1
137093-004	SCI MW-24	27	1.0	1
137093-005	SCI MW-34	11	1.0	1
QC86992	Method Blank	ND	1.0	1

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Dissolved Organic Carbon (DOC)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 415.2
Prep Method: EPA 415.2

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC86993	Lab Control Sample	45262	-	15-DEC-98	-

Analyte: Dissolved Organic Carbon **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Spike Amt.	Result	%Recovery	Limits
QC86993	Lab Control Sample	10.00	10.10	101	80-120

Lab#: 137093
Page 1 of 1

Curtis & Tompkins, Ltd.

Dissolved Organic Carbon (DOC)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 415.2
Prep Method: EPA 415.2

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC86994	MS of 137084-001	45262	10-DEC-98	15-DEC-98	-
QC86995	MSD of 137084-001	45262	10-DEC-98	15-DEC-98	-

Analyte: Dissolved Organic Carbon **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC86994	MS of 137084-001	10.00	15.30	99	75-125		
QC86995	MSD of 137084-001	10.00	15.40	100	75-125	1	35
137084-001	ZZZZZZZZ		5.400				

Lab#: 137093
Page 1 of 1

Curtis & Tompkins, Ltd.

Total Dissolved Solids (TDS)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 160.1
Prep Method: EPA 160.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
137093-001	SCI MW-12	45349	11-DEC-98	18-DEC-98	-
137093-002	SCI MW-14	45349	11-DEC-98	18-DEC-98	-
137093-004	SCI MW-24	45349	11-DEC-98	18-DEC-98	-
137093-005	SCI MW-34	45349	11-DEC-98	18-DEC-98	-
QC87335	Method Blank	45349	-	18-DEC-98	-

Analyte: Total Dissolved Solids **Matrix:** Water **Units:** mg/L

Sample #	Client ID		Result	Reporting Limit	Dilution Factor
137093-001	SCI MW-12		27300	100	10
137093-002	SCI MW-14		5600	100	10
137093-004	SCI MW-24		13200	100	10
137093-005	SCI MW-34		6520	100	10
QC87335	Method Blank	ND		10	10

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Total Dissolved Solids (TDS)

Client: Subsurface Consultants
Project #: 133.009
Location : KOT/9th Ave.Terminal

Analysis Method: EPA 160.1
Prep Method: EPA 160.1

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC87725	SDUP of 136845-001	45349	30-NOV-98	18-DEC-98	-

Analyte: Total Dissolved Solids **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Result	%RPD	Limit
QC87725	SDUP of 136845-001	1140	5	25
136845-001	ZZZZZZZZ	1200		

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

ANALYTICAL REPORT

Prepared for:

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

Date: 04-JAN-99
Lab Job Number: 137195
Project ID: 133.009
Location: KOT/9th Ave.Terminal

Reviewed by: _____

Reviewed by: _____

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137195-001	SCIMW-5	45351	12/17/98	12/18/98	12/23/98	

Matrix: Water

Analyte	Units	137195-001
Diln Fac:		1
Diesel C10-C24	ug/L	<50
Motor Oil C24-C36	ug/L	<300
Surrogate		
Hexacosane	%REC	93

Lab #: 137195

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

METHOD BLANK

Matrix:	Water	Prep Date:	12/18/98
Batch#:	45351	Analysis Date:	12/23/98
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC87338

Analyte	Result
Diesel C10-C24	<50
Motor Oil C24-C36	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	96	53-136

Lab #: 137195

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Subsurface Consultants	Analysis Method:	EPA 8015M
Project#:	133.009	Prep Method:	EPA 3520
Location:	KOT/9th Ave.Terminal		

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix:	Water	Prep Date:	12/18/98
Batch#:	45351	Analysis Date:	12/23/98
Units:	ug/L		
Diln Fac:	1		

BS Lab ID: QC87339

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C10-C24	2475	1707	69		58-110

Surrogate	%Rec	Limits
Hexacosane	88	53-136

BSD Lab ID: QC87340

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C10-C24	2475	1598	65		58-110	7		21

Surrogate	%Rec	Limits
Hexacosane	86	53-136

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Curtis & Tompkins, Ltd.

Lab #: 137195

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

LABORATORY CONTROL SAMPLE

Matrix: Filtrate
Batch#: 45351
Units: ug/L
Diln Fac: 1

Prep Date: 12/18/98
Analysis Date: 12/21/98

LCS Lab ID: QC87341

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C10-C24	122.3	2475	5 *	58-110

Surrogate	%Rec	Limits
Hexacosane	3*	53-136

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 1 out of 1 outside limits

CHAIN OF CUSTODY FORM

137195

PAGE 1 OF 1

PROJECT NAME: 9th Ave Terminal

JOB NUMBER: 133.0049 LAB: CT

PROJECT CONTACT: Meg Mendoza TURNAROUND: N

SAMPLED BY: John Wolfe REQUESTED BY: Meg Mendoza

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE				NOTES	ANALYSIS REQUESTED
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE			HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME		
-1	SCIMW-5	X							X								X		12	17	98	1230		X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
John Wolfe	12/17/98 1300	[signature]	12/17/98 1300
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

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) 299-7960 - (925) 299-7970

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

ANALYTICAL REPORT

Prepared for:

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

Date: 13-JAN-99
Lab Job Number: 137321
Project ID: 133.009
Location: KOT/9th Ave.Terminal

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
137321-001	SCI MW-2	45566	12/28/98	01/04/99	01/12/99	
137321-002	SCI MW-6	45566	12/28/98	01/04/99	01/08/99	

Matrix: Water

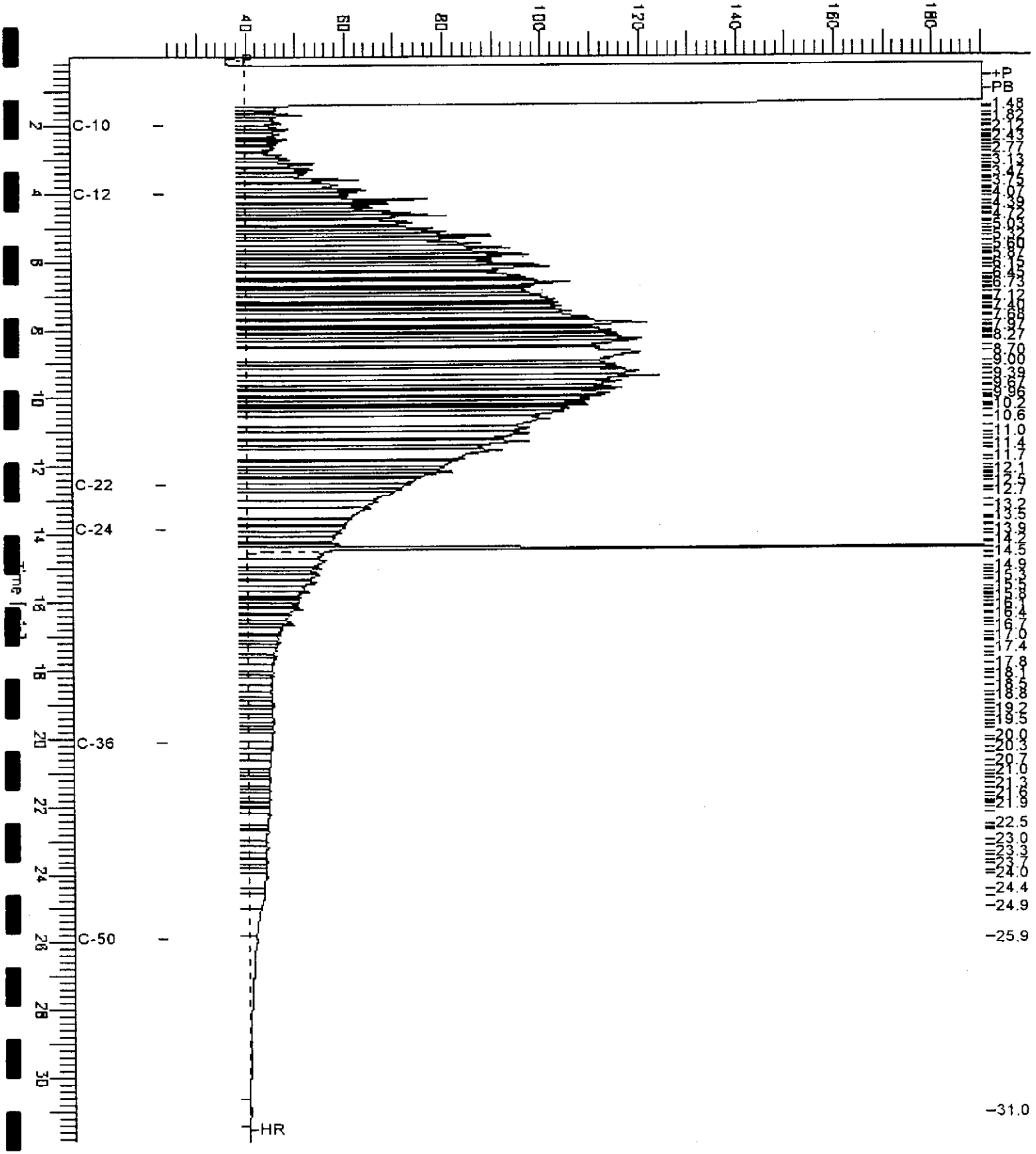
Analyte	Units	137321-001		137321-002
Diln Fac:		1		1
Diesel C10-C24	ug/L	5400	H	<47
Motor Oil C24-C36	ug/L	930	YL	<280
Surrogate				
Hexacosane	%REC	65		58

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

GC15 Channel B TEH

Sample Name : 137321-001,45566,SG
FileName : C:\GC15\CHB\011B013.RAW
Method : B004TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 23 mV

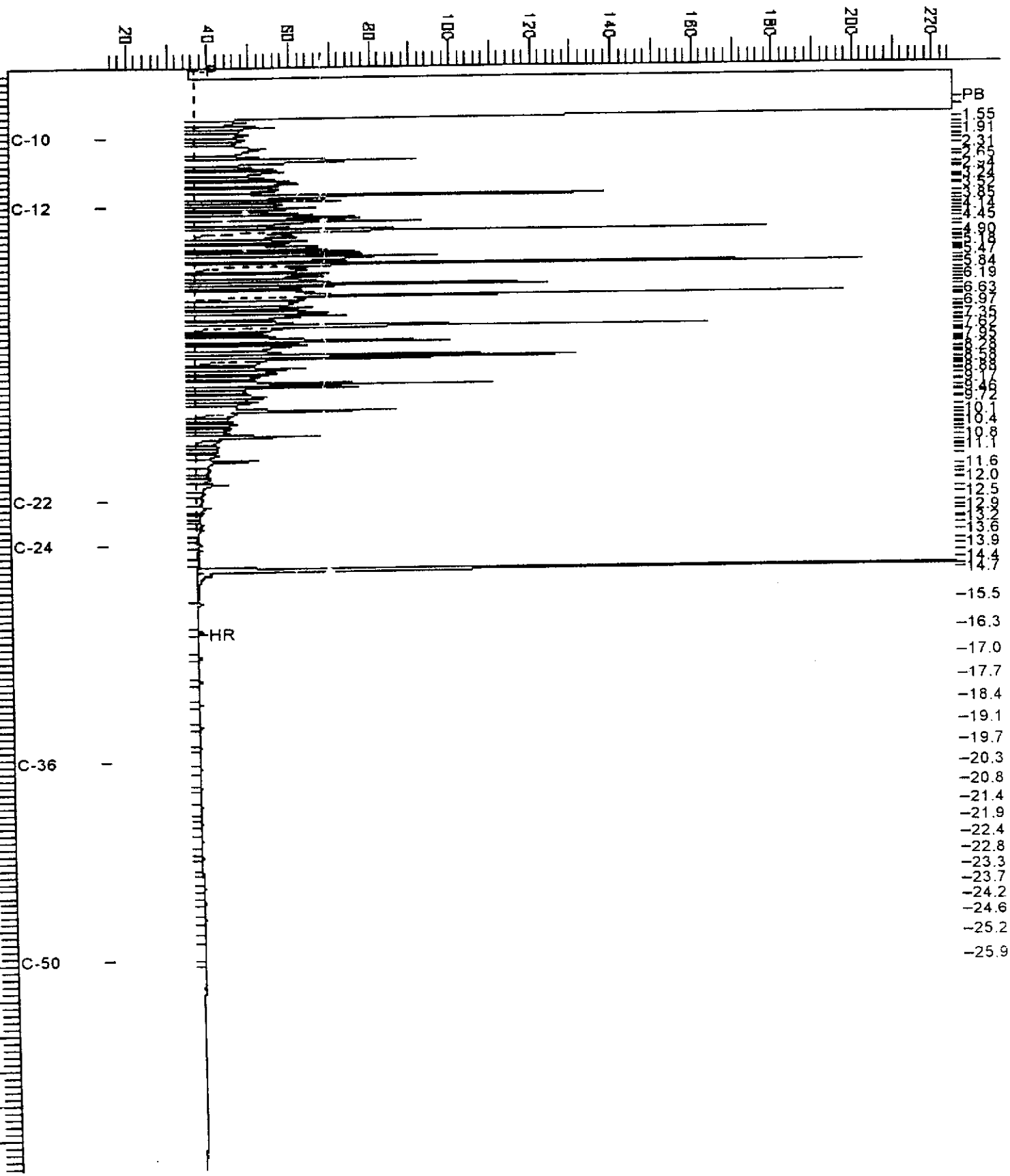
Sample #: 45566 Page 1 of 1
Date : 1/12/99 09:59 AM
Time of Injection: 1/12/99 01:38 AM
Low Point : 22.96 mV High Point : 190.45 mV
Plot Scale: 167.5 mV



GC15 Channel B TEH

Sample Name : CCV,98WS6771,DS
FileName : C:\GC15\CHB\004B038.RAW
Method : B004TEH.MTH
Start Time : 0.01 min End Time 31.31 min
Scale Factor: 0.0 Plot Offset: 15 mV

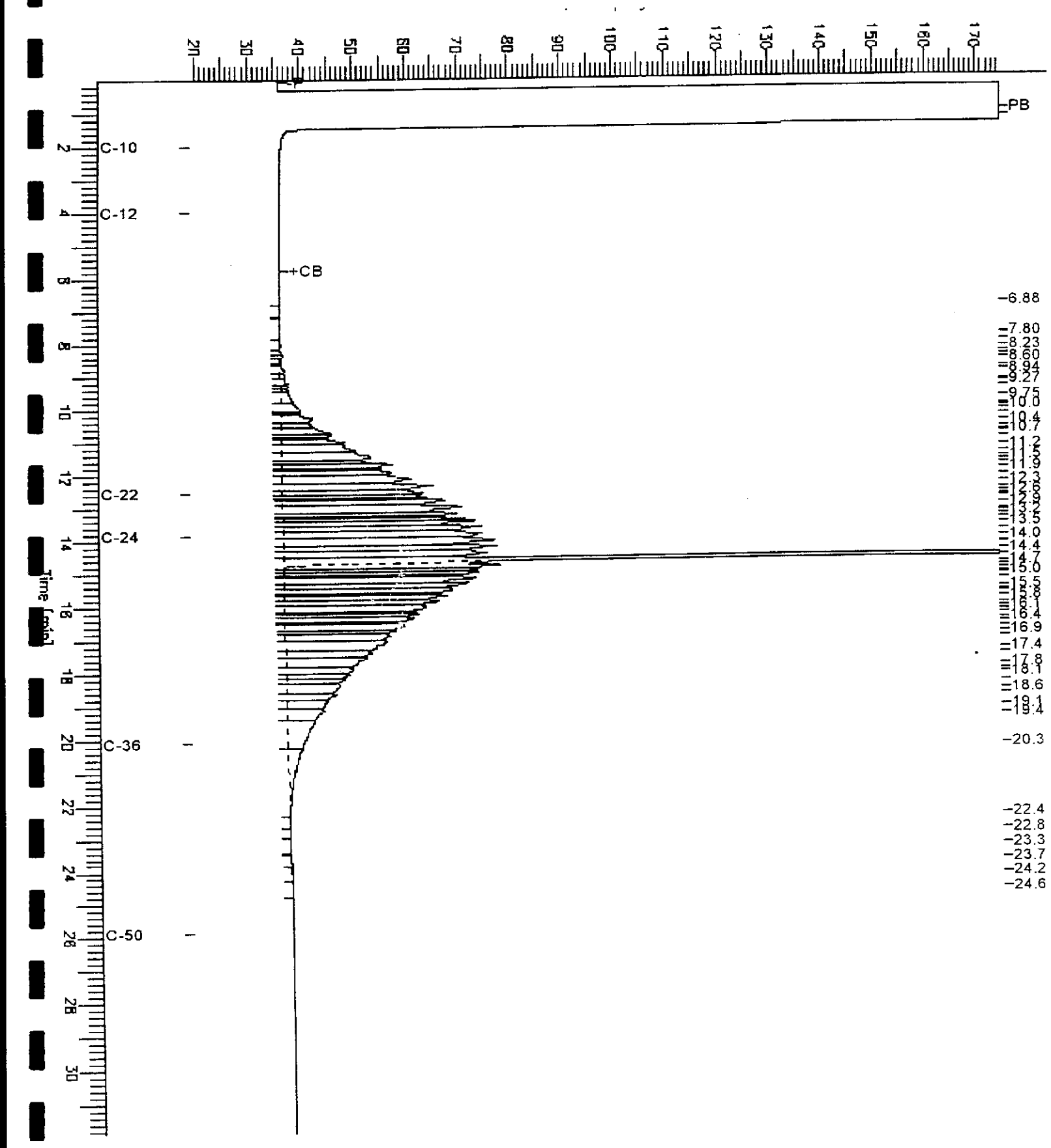
Sample #: 500MG/L Page 1 of 1
Date : 1/6/99 10:05 AM
Time of Injection: 1/5/99 8:13 PM
Low Point : 14.70 mV High Point : 225.14 mV
Plot Scale: 210.4 mV



GC15 Channel B TEH

Sample Name : CCV,98WS6739,MO
FileName : C:\GC15\CHB\004_007.RAW
Method : B004TEH.MTH
Start Time : 0.01 min End Time : 31.01 min
Scale Factor: 0.0 Plot Offset: 19 mV

Sample #: 500MG/L
Date : 1/5/99 10:35 AM
Time of Injection: 1/4/99 09:10 PM
Low Point : 19.03 mV High Point : 174.77 mV
Plot Scale: 155.7 mV



Lab #: 137321

BATCH QC REPORT

Curtis & Tompkins Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 45566
Units: ug/L
Diln Fac: 1

Prep Date: 01/04/99
Analysis Date: 01/07/99

MB Lab ID: QC88201

Analyte	Result
Diesel C10-C24	<50
Motor Oil C24-C36	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	87	53-136

Lab #: 137321

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.009
Location: KOT/9th Ave.Terminal

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 45566
Units: ug/L
Diln Fac: 1

Prep Date: 01/04/99
Analysis Date: 01/12/99

BS Lab ID: QC88202

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C10-C24	2475	1621	67	58-110

Surrogate	%Rec	Limits
Hexacosane	92	53-136

BSD Lab ID: QC88203

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	2475	1735	70	58-110	5	21

Surrogate	%Rec	Limits
Hexacosane	90	53-136

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

137321

PAGE 1 OF 1

CHAIN OF CUSTODY FORM

PROJECT NAME: 9th Ave Terminal

JOB NUMBER: 133.009 LAB: C+T

PROJECT CONTACT: Meg Mendoza TURNAROUND: N

SAMPLED BY: John Wolfe REQUESTED BY: Meg Mendoza

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TEH d/o w/silica gel
-1	SCI MW-2	X							2								X		12	28	98	1400		X
-2	SCI MW-6	X							2								X		12	28	98	1400		X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
John Wolfe	12/28/98 1415	Traz Bobia	12/28/98 1415
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES:

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