

A Report Prepared for

East Bay Municipal Utility District
Special District No. 1
P.O. Box 24055
Oakland, California 94623

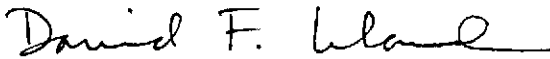
~~REPORT~~ REPORT OF SYSTEM MONITORING:
APRIL 1 THROUGH 15, 1988
DEWATERING EFFLUENT TREATMENT SYSTEM
CHINATOWN REDEVELOPMENT PROJECT AREA
OAKLAND, CALIFORNIA

HLA Job No. 9382,018.02

Submitted on behalf of:

City of Oakland Redevelopment Agency
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by



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April 20, 1988

TABLE OF CONTENTS

LIST OF TABLES.....	iii
I INTRODUCTION.....	1
II TREATMENT SYSTEM OPERATION.....	2
III TREATMENT SYSTEM MONITORING.....	4
A. Sample Collection and Analysis.....	4
B. Discharge Limit Exceedences.....	4
IV RESULTS.....	5
V RECALCULATION OF BREAKTHROUGH TIME.....	7
VI HAZARDOUS WASTE SHIPMENTS AND AERATION OF STOCKPILED SOILS.....	8
VII ACTIVITIES PLANNED: APRIL 16 through 30, 1988.....	9

TABLES

Appendix

LABORATORY ANALYTICAL RESULTS FOR TREATMENT SYSTEM
SAMPLES

DISTRIBUTION

LIST OF TABLES

Table 1	Treatment System Water Analysis: Influent Samples
Table 2	Treatment System Water Analysis: Intermediate Samples
Table 3	Treatment System Water Analysis: Effluent Samples
Table 4	Treatment System Water Analysis: Blank Samples

I INTRODUCTION

This report discusses the operation and monitoring of the dewatering effluent treatment system at 10th and Webster streets, Oakland, California, between April 1 and 15, 1988. The system is treating water produced during ground-water dewatering of the block bounded by 10th, 11th, and Webster, and Franklin streets in conjunction with excavation and construction in progress at the site. It is designed to remove petroleum hydrocarbons from dewatering effluent before the effluent is discharged to the sanitary sewer.

This report has been prepared by Harding Lawson Associates (HLA) and is submitted in compliance with the Temporary Wastewater Discharge Permit issued by the East Bay Municipal Utility District (EBMUD) to the City of Oakland Redevelopment Agency (Agency) in response to the Agency's Wastewater Discharge Permit Application dated February 1, 1988.

II TREATMENT SYSTEM OPERATION

The dewatering effluent treatment system was installed March 8, 1988, and has been in continuous operation since March 14. Water is treated by pumping it through four carbon contactors arranged in pairs. Organic compounds in the influent are adsorbed on the carbon. Each pair of contactors is arranged in parallel, and together constitute a module; the two modules are arranged in series. The system is configured so that water from the dewatering wells may be pumped through either module first. The system also comprises a holding tank, pumps, filters, piping, and instrumentation. Four water sampling ports - one influent, two intermediate, and one effluent - enable water samples to be collected at significant stages of the treatment process. The intermediate ports are located between the two modules so the effectiveness of the first pair of contactors in reducing influent concentrations can be monitored. Depending on the configuration of modules, only one of these ports is intermediate in the system at any one time.

From March 31 to April 15, total discharge of the system was 453,100 gallons, based on readings of the flow totalizing meter located in the discharge line. Average flow for this period was 21.0 gpm, with daily average flows ranging from 12.4 to 33.1 gpm.

To prevent channeling of water through the carbon, and resulting potential for insufficient carbon contact times and contact volumes, the first module of the system, comprising Vessels 1 and 2, was backwashed April 4, 8, and 15. On April 4, backflow was initiated in Vessel 1 at 90 gpm and was continued for 5 minutes. In Vessel 2, backflow was initiated at 65 gpm. This flow rate was maintained for 3 minutes, at which point flow dropped to 20 gpm, and the procedure was stopped.

On April 8, Vessel 1 was backwashed at 90 gpm for 5 minutes and at 60 gpm for 5 minutes. Vessel 2 was backwashed at 60 gpm for 3 minutes, after which the flow rate declined and the procedure was stopped. Backflow was reinitiated at 60 gpm and was maintained for 10 minutes.

On April 15, Vessel 1 was backwashed at 90 gpm for 5 minutes. Vessel 2 was backwashed at 65 gpm for 5 minutes.

During the backwash process, all effluent valves were closed. Backwash water was collected in Tank T1, and then was treated by passing it through the system prior to discharge.

The second module, comprising Vessels 3 and 4, was not backwashed during this period.

III TREATMENT SYSTEM MONITORING

A. Sample Collection and Analysis

Samples of treatment system water were collected daily during this reporting period from the influent, intermediate, and effluent sampling ports. Quality Assurance/Quality Control samples consisting of daily trip blanks and weekly duplicates of effluent samples were also collected.

All treatment system samples collected during this period were analyzed by WESCO Laboratories, Novato, California, for total petroleum hydrocarbons (TPH) as gasoline by EPA Test Method 8015 and for volatile organic compounds by EPA Test Method 602. Effluent samples and trip blanks were also analyzed for organic priority pollutants by EPA Test Methods 624 and 625.

Results of analyses of samples collected March 29 through April 15 are summarized in Tables 1 through 4. Tabulated values for April 3 through April 15 are based on verbal reports from WESCO, and are subject to revision pending receipt of written reports, which will be included in an appendix to a subsequent treatment system monitoring report.

Laboratory reports for treatment system samples collected March 20 through April 2 are presented in the Appendix. Laboratory reports of EPA Test Method 624 analyses of samples collected March 12 through 15 are also included.

B. Discharge Limit Exceedences

There were no exceedences of permitted effluent discharge limits during this reporting period.

IV RESULTS

Results of influent, intermediate, and effluent sample analyses for TPH and benzene, toluene, ethylbenzene, and xylenes (BTEX) indicate that on most days the treatment system removed these constituents to detection levels. No detectable levels of benzene, ethylbenzene, or xylenes have been found in effluent samples during this reporting period. Toluene was detected at levels of 1.0 parts per billion (ppb) or less on April 9, 10, 11, and 13.

Results of EPA Test Method 624 analyses indicate that on most days the treatment system removed 624/625 constituents to detection levels. Methylene chloride was detected at 15.4 ppb on April 2 in the effluent sample, although it was not detected in the duplicate effluent sample collected that day.

Methylene chloride and toluene have been detected sporadically in the trip blank. Methylene chloride was detected on April 1, 2, 3, and 8 at 5.1, 9.1, 16.0, and 2.4 ppb, respectively. Toluene was detected by EPA Test Method 602 analysis on April 1 and 10 at 0.7 and 1.3 ppb, respectively. Toluene was also detected by EPA Test Method 624 analysis on April 1, 2, and 3 at 0.5, 0.6, and 0.8 ppb, respectively.

Effluent sample detection of methylene chloride on April 2 and of toluene on April 10 corresponds to detection of these compounds in the trip blank for those days, and appears to be the result of sample contamination.

Laboratory analytical procedures appear to have resulted in the apparent detection of BTEX in intermediate, effluent, and blank samples between March 16 and 31. High BTEX levels in the influent samples may have carried over to the later samples; it is possible that the analytical equipment retains a memory of contaminants detected in the influent sample, resulting in detectable BTEX levels in subsequent

analyses. These Laboratory procedures have been modified to analyze intermediate, effluent, and blank samples prior to analyzing the influent samples.

Channeling in the carbon beds is a second possible explanation for the detection of BTEX in samples analyzed March 16 through 31. Channeling has been addressed by backwashing the system on a regular basis, as discussed in Section II.

V RECALCULATION OF BREAKTHROUGH TIME

Estimated breakthrough time for the carbon modules has been recalculated based on actual influent water quality and flow rates. These calculations indicate that breakthrough is highly unlikely at this stage of system operation. Breakthrough for the first carbon module is conservatively estimated at 1,143 days (3.1 years). This estimate was developed as follows. In Appendix A of HLA's *Dewatering Effluent Treatment System Plan*, two cases of influent water quality were considered. Actual treatment system influent water concentrations for BTEX have been less than the values assumed for Case #2. Specifically, BTEX concentrations in the influent between March 12 and April 15 have averaged 152, 132, 10.7 and 102 ppb, respectively. Influent values assumed for BTEX in Case #2 are 500, 290, 450 and 100 ppb respectively. Therefore, as a conservative assumption, values assumed in Case #2 were used to recalculate breakthrough times.

For the design values used in Case #2, carbon consumption at breakthrough is estimated to be 42.6 lbs/day. For each module, consisting of two vessels containing 3,000 lbs of carbon per vessel, breakthrough would occur in approximately 141 days at the design flow rate of 150 gallons per minute (gpm).

Actual flow rates from March 12 through April 15 averaged 18.5 gpm. Thus, estimated time to breakthrough of the first module is 1,143 days, which exceeds the operational period of the system.

VI HAZARDOUS WASTE SHIPMENTS AND AERATION OF STOCKPILED SOILS

No hazardous wastes have been removed from the site during this reporting period.

During this reporting period, soils exhibiting evidence of the presence of petroleum hydrocarbons unearthed in the northeastern corner of the site have been aerated and restockpiled. Samples of these soils have been collected and submitted to WESCO for analysis to confirm aeration of hydrocarbons. At the present time, approximately 2,000 yd³ are stockpiled on site.

Activities associated with these soils are being conducted with the permission of the Bay Area Air Quality Management District (BAAQMD) and in accordance with BAAQMD regulations, in particular Regulation 8-40.

VII ACTIVITIES PLANNED: APRIL 16 - 30, 1988

Normal operations, maintenance, and monitoring are planned for April 16 through 30, 1988.

TABLES

TABLE 1. TREATMENT SYSTEM WATER ANALYSIS: INFLUENT SAMPLES

HLA SAMPLE ID #	88122101	88122201	88122301	88122401	88122501	88122601	88132701	88132801	88132901
DATE	03/21	03/22	03/23	03/24	03/25	03/26	03/27	03/28	03/29
TEST METHOD/ COMPOUNDS									
EPA 602									
Benzene	380	360	78	101	106	290	120	290	190
Toluene	390	380	99	107	102	170	110	270	190
Chlorobenzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Ethylbenzene	19	22	16	8	4	18	3	11	17
Xylenes	220	280	122	122	85	81	60	150	150
All other 602 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
TPH									
Gasoline	1900	2300	2163	1500	722	1600	1100	1600	2000
Diesel	ND < 10000	ND < 10000	ND < 10000	ND < 10000	ND < 10000	ND < 10000	ND < 10000	ND < 10000	NT

 ND - Not detected at stated detection limit.

NT - Not tested.

All results reported in parts per billion (ppb).

TABLE 1. TREATMENT SYSTEM WATER ANALYSIS: INFLUENT SAMPLES

HLA SAMPLE ID #	88133001	88133101	88130101	88130201	88130301	88140401	88140502	88140602	88140701
DATE	03/30	03/31	04/01	04/02	04/03	04/04	04/05	04/06	04/07
TEST METHOD/ COMPOUNDS									
EPA 602									
Benzene	260	250	63	73	50	34	34	3.7	50
Toluene	220	190	53	62	44	32	39	1.2	53
Chlorobenzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	22.5	ND < 0.2	ND < 0.2
Ethylbenzene	19	6.2	3.7	7	2.5	1.2	ND < 0.2	ND < 0.2	1.2
Xylenes	160	54	32	60	33	4.3	16	1.2	16
All other 602 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
TPH									
Gasoline	1700	1100	981	890	348	320	489	54	1087
Diesel	NT	NT	NT	NT	NT	NT	NT	NT	NT

ND - Not detected at stated detection limit.

NT - Not tested.

All results reported in parts per billion (ppb).

TABLE 2. TREATMENT SYSTEM WATER ANALYSIS: INTERMEDIATE SAMPLES

HLA SAMPLE ID #	DATE	88132902	88133002	881331030	88130102	88130202	88130302	88140402	88140501	88140601
		03/29	03/30	03/31	04/01	04/02	04/03	04/04	04/05	04/06
TEST METHOD/COMPOUNDS										
EPA 602										
Benzene		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	0.3	ND < 0.2	ND < 0.2	ND < 0.2
Toluene		6.0	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	3.0	1.1	0.9	ND < 0.2
Ethylbenzene		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
All other 602 compounds		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
TPH										
Gasoline		ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
Diesel		NT	NT	NT	NT	NT	NT	NT	NT	NT

ND - Not detected at stated detection limit.

NT - Not tested.

All results reported in parts per billion (ppb).

TABLE 2. TREATMENT SYSTEM WATER ANALYSIS: INTERMEDIATE SAMPLES

HLA SAMPLE ID #	DATE	88140702	88140802	88140902	88141002	88151101	88151201	88151301	88151403	88152102
		04/07	04/08	04/09	04/10	04/11	04/12	04/13	04/14	04/15
TEST METHOD/COMPOUNDS										
EPA 602										
Benzene		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Toluene		ND < 0.2	1.0	2.6	5.6	4.0	10.0	ND < 0.2	2.3	2.5
Ethylbenzene		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes		ND < 0.2	ND < 0.2	ND < 0.2	0.5	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
All other 602 compounds		ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
TPH		ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
Gasoline		NT	NT	NT	NT	NT	NT	NT	NT	NT
Diesel		NT	NT	NT	NT	NT	NT	NT	NT	NT

ND - Not detected at stated detection limit.

NT - Not tested.

All results reported in parts per billion (ppb).

TABLE 3. TREATMENT SYSTEM WATER ANALYSIS: EFFLUENT SAMPLES

HLA SAMPLE ID #	88122903	88123003	88123103	88130103	88130204	88130303	88140403	88140504	88140604
DATE	03/29	03/30	03/31	04/01	04/02	04/03	04/04	04/05	04/06
TOTAL FLOW (THOUSAND GALLONS)	15.4	405.9	466.9	414.5	538.4	570.3	594.5	630.0	655.8
AVERAGE FLOW (GPM)	15.4	15.4	42.4	33.1	16.6	22.2	16.8	24.6	17.9

TEST METHOD/COMPOUNDS

EPA 602

Benzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Toluene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Ethylbenzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
All other 602 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2

TPH

Gasoline	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
Diesel	NT	NT	NT	NT	NT	NT	NT	NT	NT

EPA 624

Toluene	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Methylene Chloride	1.0	ND < 0.5	ND < 0.5	ND < 0.5	15.4	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
All other compounds	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5

EPA 625

All compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND
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ND - Not detected at stated detection limit.

NT - Not Tested.

NA - Analytic results not yet available.

All results reported in parts per billion (ppb).

TABLE 3. TREATMENT SYSTEM WATER ANALYSIS: EFFLUENT SAMPLES

HLA SAMPLE ID #	88140703	88140803	88140903	88141003	88151103	88151203	88151304	88151401	88151503
DATE	04/07	04/08	04/09	04/10	04/11	04/12	04/13	04/14	04/15
TOTAL FLOW (THOUSAND GALLONS)	673.6	-	762.6	788.2	808.1	-	870.2	896.6	920.0
AVERAGE FLOW (GPM)	12.4	30.9	30.9	17.8	13.8	21.6	21.6	18.3	16.2

TEST METHOD/COMPOUNDS

EPA 602

Benzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Toluene	ND < 0.2	ND < 0.2	0.7	0.2	1.0	ND < 0.2	1.0	ND < 0.2	ND < 0.2
Ethylbenzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
All other 602 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2

TPH

Gasoline	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
Diesel	NT	NT	NT	NT	NT	NT	NT	NT	NT

EPA 624

Toluene	ND < 0.5	ND < 0.5	ND < 0.5	1.3	0.7	NA	NA	NA	NA
Methylene Chloride	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	NA	NA	NA	NA
All other compounds	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	NA	NA	NA	NA

EPA 625

All compounds	MD	MD	MD	MD	MD	MD	MD	MD	MD
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ND - Not detected at stated detection limit.

NT - Not Tested.

NA - Analytic results not yet available.

All results reported in parts per billion (ppb).

TABLE 4. TREATMENT SYSTEM WATER ANALYSIS: BLANK SAMPLES

HLA SAMPLE ID #	88122903	88133004	88133104	88130104	88130203	88130304	88140404	88140503	88140603
DATE	03/29	03/30	03/31	04/01	04/02	04/03	04/04	04/05	04/06
TEST METHOD/COMPOUNDS									
EPA 602									
Benzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Toluene	ND < 0.2	ND < 0.2	ND < 0.2	0.7	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Ethylbenzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
ALL other 602 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
TPH									
Gasoline	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
Diesel	NT	NT	NT	NT	NT	NT	NT	NT	NT
EPA 624									
Toluene	ND < 0.5	ND < 0.5	ND < 0.5	0.5	0.6	0.8	ND	ND	ND
Methylene Chloride	1.2	ND < 0.5	14.4	5.1	9.1	16	ND	ND	ND
ALL other compounds	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
EPA 625									
ALL compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND - Not detected at stated detection level.

NT - Not Tested.

NA - Analytic results not yet available.

All results reported in parts per billion (ppb).

TABLE 4. TREATMENT SYSTEM WATER ANALYSIS: BLANK SAMPLES

HLA SAMPLE ID #	88140704	88140804	88140904	88141004	88151104	88151204	88151303	88151402	88151504
DATE	04/07	04/08	04/09	04/10	04/11	04/12	04/13	04/14	04/15
TEST METHOD/COMPOUNDS									
EPA 602									
Benzene	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Toluene	ND < 0.2	ND < 0.2	ND < 0.2	1.3	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Ethylbenzene	ND < 0.2	ND < 0.2	ND < 0.2	0.3	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes	ND < 0.2	ND < 0.2	ND < 0.2	2.0	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
All other 602 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
TPH									
Gasoline	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
Diesel	NT	NT	NT	NT	NT	NT	NT	NT	NT
EPA 624									
Toluene	ND	ND	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Methylene Chloride	ND	2.4	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
All other compounds	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
EPA 625									
All compounds	ND	ND	ND	ND	ND	NA	NA	NA	NA

 ND - Not detected at stated detection level.

NT - Not Tested.

NA - Analytic results not yet available.

All results reported in parts per billion (ppb).

Appendix

**LABORATORY ANALYTICAL RESULTS
FOR TREATMENT SYSTEM SAMPLES**



April 15, 1988

Mr. David Leland
Harding Lawson Associates
200 Rush Landing Rd.
Novato, CA 94947

re: Oakland Chinatown, RUSH 624 analyses.

Dear David,
Enclosed are 10 reports for the EPA 624 analyses requested on samples received from March 12 through March 15, 1988 from the Oakland Chinatown site. As was agreed to prior to the beginning of this project, the initial "RUSH" 624 analyses were performed by Anatec Laboratories in Santa Rosa. The original reports from Anatec Laboratories are enclosed. These reports do not include Harding Lawson's field identification of the samples, so I am providing a summary of the laboratory IDs to use as a cross reference.

<u>ANATEC LAB NO.</u>	<u>HARDING LAWSON ID</u>	<u>WESCO LAB NO.</u>
6525	8810-1101	8-2245
6526	8810-1103	8-2253
6527	8810-1104	8-2261
6528	8810-1105	8-2269
6529	8811-1303	8-2277
6530	8811-1304	8-2282
6546	8811-1403	8-2298
6547	8811-1404	8-2303
6636	8811-1503	8-2334
6637	8811-1504	8-2339

If you have any further questions regarding these samples, please feel free to call.

Sincerely,

Michelle Casey

Michelle Casey
Sample Control Supervisor



TABLE 1. SUMMARIZED RESULTS FOR ANALYSIS BY EPA METHOD 624

Analyte	MDL ^b (ug/L)	Descriptor, Lab No. & Results (ug/L) ^a					
		8-2245 (6525)	8-2253 (6526)	8-2261 (6527)	8-2269 (6528)	8-2277 (6529)	8-2282 (6530)
Benzene	4.4	510	ND ^c	ND	ND	ND	ND
Bromodichloromethane	2.2	ND	ND	ND	ND	ND	ND
Bromoform	4.7	ND	ND	ND	ND	ND	ND
Bromomethane	5.0	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	2.8	ND	ND	ND	ND	ND	ND
Chlorobenzene	6.0	14	ND	ND	ND	ND	ND
Chloroethane	5.0	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	7.0	ND	ND	ND	ND	ND	ND
Chloroform	1.6	ND	ND	ND	ND	ND	ND
Chloromethane	5.0	ND	ND	ND	ND	ND	ND
Dibromochloromethane	3.1	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	6.0	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	6.0	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	6.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	4.7	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	2.8	30	ND	ND	ND	ND	ND
1,1-Dichloroethene	2.8	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.6	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	6.0	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5.0	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	5.0	ND	ND	ND	ND	ND	ND
Ethyl benzene	7.2	21	ND	ND	ND	ND	ND
Methylene chloride	2.8	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	6.9	ND	ND	ND	ND	ND	ND
Tetrachloroethene	4.1	ND	ND	ND	ND	ND	ND
Toluene	6.0	320	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	3.8	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5.0	ND	ND	ND	ND	ND	ND
Trichloroethene	1.9	33	ND	ND	ND	ND	ND
Trichlorofluoromethane	5.0	ND	ND	ND	ND	ND	ND
Vinyl chloride	5.0	ND	ND	ND	ND	ND	ND

^aug/L--Data are expressed in units of micrograms analyte per liter sample.^bMDL--Method detection limit.^cND--Not detected at the listed method detection limit.



TABLE 1. SUMMARIZED RESULTS FOR ANALYSIS BY EPA METHOD 624

Analyte	MDL ² (ug/L)	Site Name, Lab No. & Results (ug/L) ¹	
		3/14/88 8-2298 (6546)	1230 8-2303 (6547)
Benzene	4.4	ND ³	ND
Bromodichloromethane	2.2	ND	ND
Bromoform	4.7	ND	ND
Bromomethane	5.0	ND	ND
Carbon tetrachloride	2.8	ND	ND
Chlorobenzene	6.0	ND	ND
Chloroethane	5.0	ND	ND
2-Chloroethylvinyl ether	7.0	ND	ND
Chloroform	1.6	ND	ND
Chloromethane	5.0	ND	ND
Dibromochloromethane	3.1	ND	ND
1,2-Dichlorobenzene	6.0	ND	ND
1,3-Dichlorobenzene	6.0	ND	ND
1,4-Dichlorobenzene	6.0	ND	ND
1,1-Dichloroethane	4.7	ND	ND
1,2-Dichloroethane	2.8	ND	ND
1,1-Dichloroethene	2.8	ND	ND
trans-1,2-Dichloroethene	1.6	ND	ND
1,2-Dichloropropane	6.0	ND	ND
cis-1,3-Dichloropropene	5.0	ND	ND
trans-1,3-Dichloropropene	5.0	ND	ND
Ethyl benzene	7.2	ND	ND
Methylene chloride	2.8	ND	ND
1,1,2,2-Tetrachloroethane	6.9	ND	ND
Tetrachloroethene	4.1	ND	ND
Toluene	6.0	ND	ND
1,1,1-Trichloroethane	3.8	ND	ND
1,1,2-Trichloroethane	5.0	ND	ND
Trichloroethene	1.9	ND	ND
Trichlorofluoromethane	5.0	ND	ND
Vinyl chloride	5.0	ND	ND

¹ug/L--Data are expressed in units of micrograms analyte per liter sample.

²MDL--Method detection limit.

³ND--Not detected at the listed method detection limit.



Report Date: 04-Jan-80
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: P. Llewellyn
 Submitted by: P. Llewellyn
 Preservatives: none
 Analyst: Attalla
 WESCO JOB #: HLA 0831.13-L
 Analytical Method: 3510/8015

Client Contract/PO: 09382,026.02
 Date Sampled: 20-Mar-88
 Site: City of Oakland, Task 10
 Date Received: 20-Mar-88
 Extract/Digest/Purge
 Date: 21-Mar-88
 Analysis Completion
 Date: 21-Mar-88
 Hold Time: 1 day

=====

MATRIX: WATER

=====

LAB #	CLIENT ID	Diesel (mg/l)	Detection limit(mg/l)
8-2696	1222001	N.D.	1.0
8-2697	1222002	N.D.	1.0
8-2698	1222003	N.D.	1.0
8-2699	1222004	N.D.	1.0

N.D.: Not Detected

 Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: P. Llewellyn
Submitted by: P. Llewellyn
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.13-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09832,026.02
Date Sampled: 20-Mar-88
Site: City of Oakland, Task 10
Date Received: 20-Mar-88
Extract/Digest/Purge
Date: 20-Mar-88
Analysis Completion
Date: 20-Mar-88
Hold Time: 0 days

LAB #: 8-2700

MATRIX: WATER

CLIENT'S ID: 122001

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1600	250

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 105 %

LAB #: 8-2701

MATRIX: WATER


CLIENT'S ID: 122002

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 107 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: P. Llewellyn
Submitted by: P. Llewellyn
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.13-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 20-Mar-88
Site: City of Oakland, Task 10
Date Received: 20-Mar-88
Extract/Digest/Purge
Date: 20-Mar-88
Analysis Completion
Date: 20-Mar-88
Hold Time: 0 days

LAB #: 8-2702
CLIENT'S ID: 122003

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene

101 %

LAB #: 8-2703
CLIENT'S ID: 122004


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene

116 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 04-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: P. Llewellyn
 Submitted by: P. Llewellyn
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.13-L
 Analytical Method: EPA 602

Client Contract/PO: 09832,026.02
 Date Sampled: 20-Mar-88
 Site: City of Oakland, Task 10
 Date Received: 20-Mar-88
 Extract/Digest/Purge
 Date: 20-Mar-88
 Analysis Completion
 Date: 20-Mar-88
 Hold Time: 0 days

=====

LAB #: 8-2700 MATRIX: WATER
 CLIENT'S ID: 122001

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	270	1.0
Toluene-----	330	1.0
Chlorobenzene-----	N.D.	1.0
Ethylbenzene-----	15	1.0
Xylene-----	180	1.0
1,3-Dichlorobenzene-----	N.D.	1.0
1,4-Dichlorobenzene-----	N.D.	1.0
1,2-Dichlorobenzene-----	N.D.	1.0

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 105 %

=====

LAB #: 8-2701 MATRIX: WATER
 CLIENT'S ID: 122002


=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	0.8	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 107 %

N.D.: Not Detected



 Analytical Supervisor

Report Date: 04-Jan-80
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: P. Llewellyn
 Submitted by: P. Llewellyn
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.13-L
 Analytical Method: EPA 602

Client Contract/PO: 09832,026.02
 Date Sampled: 20-Mar-88
 Site: City of Oakland, Task 10
 Date Received: 20-Mar-88
 Extract/Digest/Purge
 Date: 20-Mar-88
 Analysis Completion
 Date: 20-Mar-88
 Hold Time: 0 days

LAB #: 8-2702
 CLIENT'S ID: 122003

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
 Fluorobenzene Percent Recovery
 101 %

LAB #: 8-2703
 CLIENT'S ID: 122004


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	0.4	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
 Fluorobenzene Percent Recovery
 116 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09832,026.02
 Client: Harding Lawson Associates Date Sampled: 20-Mar-88
 Attn: David Leland Site: City of Oakland, Task 10
 Sampled by: P. Llewellyn Date Received: 20-Mar-88
 Submitted by: P. Llewellyn Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.13-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 4 days

LAB # 8-2704 MATRIX: WATER
 CLIENT'S ID 122003

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	2.0	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	95 %
Toluene-d8	102 %
4-Bromofluorobenzene	98 %

N. D.: Not Detected

[Handwritten Signature]
 Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 20-Mar-88
 Attn: David Leland Site: City of Oakland, Task 10
 Sampled by: P. Llewellyn Date Received: 20-Mar-88
 Submitted by: P. Llewellyn Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.13-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 4 days

LAB # 8-2705 MATRIX: WATER
 CLIENT'S ID 122004

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	0.6	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	98 %
Toluene-d8	101 %
4-Bromofluorobenzene	96 %

N. D.: Not Detected

[Signature]
Analytical Supervisor

Report Date:	31-Mar-88	Client Contract/PD:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

LAB # 8-2706

MATRIX: WATER

CLIENT ID: 122003

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	B-2706	MATRIX:	WATER
CLIENT ID:	122003		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	57 %
2-Fluorobiphenyl	68 %
Terphenyl-d14	65 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====
 LAB # 8-2706

MATRIX: WATER

CLIENT ID: 122003
 =====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

 QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	40 %
Phenol-d5	24 %
2,4,6-Tribromophenol	37 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-2706

MATRIX: WATER

CLIENT ID: 122003

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA


Pesticide Surrogate Spike % Recovery

Nitrobenzene-d5	57 %
2-Fluorobiphenyl	68 %
Terphenyl-d14	65 %

N.D.: Not Detected

n.d.: not determined

N.A.: Not Applicable



Analytical Supervisor

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

LAB # 8-2707

MATRIX: WATER

CLIENT ID: 122004

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Fyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-2707

MATRIX: WATER

CLIENT ID: 122004

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery

Nitrobenzene-d5	69 %
2-Fluorobiphenyl	77 %
Terphenyl-d14	62 %

Report Date:	31-Mar-88	Client Contract/PD:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-2707

MATRIX: WATER

CLIENT ID: 122004

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	53 %
Phenol-d5	33 %
2,4,6-Tribromophenol	52 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	20-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 10
Sampled by:	P. Llewellyn	Date Received:	20-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.13-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	B-2707	MATRIX:	WATER
CLIENT ID:	122004		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	69 %
2-Fluorobiphenyl	77 %
Terphenyl-d14	62 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable

[Signature]

Analytical Supervisor

HARDING LAYSON ASSOCIATES



WESCO Laboratories

-6

RECEIVED
 APR 6 1988
 ENVIRONMENTAL SERVICES DIVISION

Report Date: 04-Jan-80
 Client: ~~ENVIRONMENTAL SERVICES~~ Lawson Associates
 Attn: ~~DIVISION~~ David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Attalla
 WESCO JOB #: HLA 0831.15-L
 Analytical Method: 3510/8015

Client Contract/PO: 09832,026.02
 Date Sampled: 21-Mar-88
 Site: City of Oakland, Task 11
 Date Received: 21-Mar-88
 Extract/Digest/Purge
 Date: 21-Mar-88
 Analysis Completion
 Date: 21-Mar-88
 Hold Time: 0 days

MATRIX: WATER

LAB #	CLIENT ID	Diesel (mg/l)	Detection limit(mg/l)
8-2850	122101	N.D.	1.0
8-2851	122102	N.D.	1.0
8-2852	122103	N.D.	1.0
8-2853	122104	N.D.	1.0

N.D.: Not Detected

Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.15-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09832,026.02
Date Sampled: 21-Mar-88
Site: City of Oakland, Task 11
Date Received: 21-Mar-88
Extract/Digest/Purge
Date: 22-Mar-88
Analysis Completion
Date: 22-Mar-88
Hold Time: 1 day

LAB #: 8-2854

MATRIX: WATER

CLIENT'S ID: 122101

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1900	250

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 115 %

LAB #: 8-2855

MATRIX: WATER

CLIENT'S ID: 122102

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 106 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.15-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09832,026.02
Date Sampled: 21-Mar-88
Site: City of Oakland, Task 11
Date Received: 21-Mar-88
Extract/Digest/Purge
Date: 22-Mar-88
Analysis Completion
Date: 22-Mar-88
Hold Time: 1 day

=====
LAB #: 8-2856 MATRIX: WATER
CLIENT'S ID: 122103
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0


QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene 103 %

=====
LAB #: 8-2857 MATRIX: WATER
CLIENT'S ID: 122104
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene 106 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 04-Jan-80
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.15-L
 Analytical Method: EPA 602

Client Contract/PO: 09832,026.02
 Date Sampled: 21-Mar-88
 Site: City of Oakland, Task 11
 Date Received: 21-Mar-88
 Extract/Digest/Purge
 Date: 22-Mar-88
 Analysis Completion
 Date: 22-Mar-88
 Hold Time: 1 day

LAB #: 8-2854

MATRIX: WATER

CLIENT'S ID: 122101

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	380	1.0
Toluene-----	390	1.0
Chlorobenzene-----	N.D.	1.0
Ethylbenzene-----	19	1.0
Xylene-----	220	1.0
1,3-Dichlorobenzene-----	N.D.	1.0
1,4-Dichlorobenzene-----	N.D.	1.0
1,2-Dichlorobenzene-----	N.D.	1.0

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 115 %

LAB #: 8-2855

MATRIX: WATER


CLIENT'S ID: 122102

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	0.5	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	0.4	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 106 %

N.D.: Not Detected



 Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.15-L
Analytical Method: EPA 602

Client Contract/PO: 09832,026.02
Date Sampled: 21-Mar-88
Site: City of Oakland, Task 11
Date Received: 21-Mar-88
Extract/Digest/Purge
Date: 22-Mar-88
Analysis Completion
Date: 22-Mar-88
Hold Time: 1 day

LAB #: 8-2856

MATRIX: WATER

CLIENT'S ID: 122103

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 103 %

LAB #: 8-2857

MATRIX: WATER

CLIENT'S ID: 122104

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 106 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 21-Mar-88
 Attn: David Leland Site: City of Oakland, Task 11
 Sampled by: Tim Walker Date Received: 21-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.15-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 3 days

LAB # 8-2858
 CLIENT'S ID 122103

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	109 %
Toluene-d8	99 %
4-Bromofluorobenzene	95 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 21-Mar-88
 Attn: David Leland Site: City of Oakland, Task 11
 Sampled by: Tim Walker Date Received: 21-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.15-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 3 days

LAB # 8-2860
 CLIENT'S ID 122104


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	112 %
Toluene-d8	98 %
4-Bromofluorobenzene	92 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 31-Mar-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Siegmund/Moezzi
 WESCO JOB #: HLA 0831.15-L
 Analytical Method: EPA 625

Client Contract/PO: 09832,026.02
 Date Sampled: 21-Mar-88
 Site: City of Oakland, Task 11
 Date Received: 21-Mar-88
 Extract/Digest/Purge
 Date: 24-Mar-88
 Analysis Completion
 Date: 25-Mar-88
 Holding Time, Days 3

=====

LAB # 8-2859

MATRIX: WATER

CLIENT ID: 122103

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	21-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 11
Sampled by:	Tim Walker	Date Received:	21-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.15-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-2859	MATRIX:	WATER
CLIENT ID:	122103		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	53 %
2-Fluorobiphenyl	47 %
Terphenyl-d14	68 %

Report Date: 31-Mar-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Siegmund/Moezzi
 WESCO JOB #: HLA 0831.15-L
 Analytical Method: EPA 625

Client Contract/PO: 09832,026.02
 Date Sampled: 21-Mar-88
 Site: City of Oakland, Task 11
 Date Received: 21-Mar-88
 Extract/Digest/Purge
 Date: 24-Mar-88
 Analysis Completion
 Date: 25-Mar-88
 Holding Time, Days 3

=====

LAB #	B-2859	MATRIX:	WATER
CLIENT ID:	122103		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA	
Acid Surrogate Spike % Recovery	
2-Fluorophenol	37 %
Phenol-d5	23 %
2,4,6-Tribromophenol	58 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	21-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 11
Sampled by:	Tim Walker	Date Received:	21-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCD JDB #:	HLA 0831.15-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-2859	MATRIX:	WATER
CLIENT ID:	122103		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	53 %
2-Fluorobiphenyl	47 %
Terphenyl-d14	68 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	21-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 11
Sampled by:	Tim Walker	Date Received:	21-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.15-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # 8-2861

MATRIX: WATER

CLIENT ID: 122104

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl)ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	31-Mar-88	Client Contract/PD:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	21-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 11
Sampled by:	Tim Walker	Date Received:	21-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.15-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-2861	MATRIX:	WATER
CLIENT ID:	122104		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	52 %
2-Fluorobiphenyl	47 %
Terphenyl-d14	67 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	21-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 11
Sampled by:	Tim Walker	Date Received:	21-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.15-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	B-2861	MATRIX:	WATER
CLIENT ID:	122104		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Fentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	43 %
Phenol-d5	29 %
2,4,6-Tribromophenol	52 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	21-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 11
Sampled by:	Tim Walker	Date Received:	21-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.15-L	Date:	25-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # 8-2861

MATRIX: WATER

CLIENT ID:


122104

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	52 %
2-Fluorobiphenyl	47 %
Terphenyl-d14	67 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor



Report Date:	04-Jan-80	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	23-Mar-88
Analyst:	Attalla	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	23-Mar-88
Analytical Method:	3510/8015	Hold Time:	1 day

=====
 MATRIX: WATER
 =====

LAB #	CLIENT ID	Diesel (mg/l)	Detection limit(mg/l)
8-3055	122201	N.D.	1.0
8-3056	122202	N.D.	1.0
8-3057	122203	N.D.	1.0
8-3058	122204	N.D.	1.0

N.D.: Not Detected

 Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.16-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09832,026.02
Date Sampled: 22-Mar-88
Site: City of Oakland, Task 12
Date Received: 22-Mar-88
Extract/Digest/Purge
Date: 22-Mar-88
Analysis Completion
Date: 22-Mar-88
Hold Time: 0 days

LAB #: 8-3059

MATRIX: WATER

CLIENT'S ID: 122201

COMPOUND

RESULT
(ug/l)

Detection
Limit (ug/l)

Gasoline----- 2300

250

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene

123 %

LAB #: 8-3060

MATRIX: WATER

CLIENT'S ID: 122202

COMPOUND

RESULT
(ug/l)

Detection
Limit (ug/l)

Gasoline----- N.D.

50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene

103 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.16-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09832,026.02
Date Sampled: 22-Mar-88
Site: City of Oakland, Task 12
Date Received: 22-Mar-88
Extract/Digest/Purge
Date: 22-Mar-88
Analysis Completion
Date: 22-Mar-88
Hold Time: 0 days

=====
LAB #: 8-3061 MATRIX: WATER
CLIENT'S ID: 122203
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene 99 %

=====
LAB #: 8-3062 MATRIX: WATER
CLIENT'S ID: 122204
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene 84 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 04-Jan-80
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.16-L
 Analytical Method: EPA 602

Client Contract/PO: 09832,026.02
 Date Sampled: 22-Mar-88
 Site: City of Oakland, Task 12
 Date Received: 22-Mar-88
 Extract/Digest/Purge
 Date: 22-Mar-88
 Analysis Completion
 Date: 22-Mar-88
 Hold Time: 0 days

=====
 LAB #: 8-3059 MATRIX: WATER
 CLIENT'S ID: 122201
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	360	1.0
Toluene-----	380	1.0
Chlorobenzene-----	N.D.	1.0
Ethylbenzene-----	22	1.0
Xylene-----	280	1.0
1,3-Dichlorobenzene-----	N.D.	1.0
1,4-Dichlorobenzene-----	N.D.	1.0
1,2-Dichlorobenzene-----	N.D.	1.0

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 123 %

=====
 LAB #: 8-3060 MATRIX: WATER
 CLIENT'S ID: 122202
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	1.2	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 103 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 04-Jan-80
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.16-L
 Analytical Method: EPA 602

Client Contract/PO: 09832,026.02
 Date Sampled: 22-Mar-88
 Site: City of Oakland, Task 12
 Date Received: 22-Mar-88
 Extract/Digest/Purge
 Date: 22-Mar-88
 Analysis Completion
 Date: 22-Mar-88
 Hold Time: 0 days

=====
 LAB #: 8-3061 MATRIX: WATER
 CLIENT'S ID: 122203
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	0.4	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2


 QUALITY CONTROL DATA
 Surrogate Spike Percent Recovery
 Fluorobenzene 99 %

=====
 LAB #: 8-3062 MATRIX: WATER
 CLIENT'S ID: 122204
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

 QUALITY CONTROL DATA
 Surrogate Spike Percent Recovery
 Fluorobenzene 84 %

N.D.: Not Detected



 Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09832,026.02
 Client: Harding Lawson Associates Date Sampled: 22-Mar-88
 Attn: David Leland Site: City of Oakland, Task 12
 Sampled by: Tim Walker Date Received: 22-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.16-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 2 days

=====
 LAB # 8-3063 MATRIX: WATER
 CLIENT'S ID 122203
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA	Percent Recovery
Surrogate Spike	
1,2-Dichloroethane-d4	103 %
Toluene-d8	103 %
4-Bromofluorobenzene	97 %

N. D.: Not Detected

 Analytical Supervisor



Report Date: 04-Jan-80 Client Contract/PO: 09832,026.02
 Client: Harding Lawson Associates Date Sampled: 22-Mar-88
 Attn: David Leland Site: City of Oakland, Task 12
 Sampled by: Tim Walker Date Received: 22-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.16-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 2 days

=====

LAB # 8-3064 MATRIX: WATER
 CLIENT'S ID 122204

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	100 %
Toluene-d8	91 %
4-Bromofluorobenzene	91 %

N. D.: Not Detected

Analytical Supervisor

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	8-3065	MATRIX:	WATER
CLIENT ID:	122203		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl)ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	8-3065	MATRIX:	WATER
CLIENT ID:	122203		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	56 %
2-Fluorobiphenyl	59 %
Terphenyl-d14	75 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	8-3065	MATRIX:	WATER
CLIENT ID:	122203		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	49 %
Phenol-d5	25 %
2,4,6-Tribromophenol	69 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

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LAB #	8-3065	MATRIX:	WATER
CLIENT ID:	122203		


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PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	56 %
2-Fluorobiphenyl	59 %
Terphenyl-d14	75 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	B-3066	MATRIX:	WATER
CLIENT ID:	122204		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB # 8-3066

MATRIX: WATER

CLIENT ID: 122204

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	69 %
2-Fluorobiphenyl	71 %
Terphenyl-d14	68 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB # 8-3066

MATRIX: WATER

CLIENT ID: 122204

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	51 %
Phenol-d5	28 %
2,4,6-Tribromophenol	74 %

Report Date:	31-Mar-88	Client Contract/PO:	09832,026.02
Client:	Harding Lawson Associates	Date Sampled:	22-Mar-88
Attn:	David Leland	Site:	City of Oakland, Task 12
Sampled by:	Tim Walker	Date Received:	22-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.16-L	Date:	28-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	8-3066	MATRIX:	WATER
CLIENT ID:	122204		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	69 %
2-Fluorobiphenyl	71 %
Terphenyl-d14	68 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

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WESCO Laboratories

ENVIRONMENTAL SERVICES
DIVISION

Report Date:	04-Jan-80	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	23-Mar-88
Analyst:	Attalla	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	23-Mar-88
Analytical Method:	3510/8015	Hold Time:	0 days

=====

MATRIX: WATER

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LAB #	CLIENT ID	Diesel (mg/l)	Detection limit(mg/l)
8-3149	122301	N.D.	1.0
8-3150	122302	N.D.	1.0
8-3151	122303	N.D.	1.0
8-3152	122304	N.D.	1.0

N.D.: Not Detected

Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Attalla/Farah
WESCO JOB #: HLA 0831.17-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 23-Mar-88
Site: City of Oakland
Date Received: 23-Mar-88
Extract/Digest/Purge
Date: 23-Mar-88
Analysis Completion
Date: 23-Mar-88
Hold Time: 0 days

LAB #: 8-3153

MATRIX: WATER

CLIENT'S ID: 122301

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 98 %

LAB #: 8-3154

MATRIX: WATER

CLIENT'S ID: 122302

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	2163	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 110 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Attalla/Farah
WESCO JOB #: HLA 0831.17-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 23-Mar-88
Site: City of Oakland
Date Received: 23-Mar-88
Extract/Digest/Purge
Date: 23-Mar-88
Analysis Completion
Date: 23-Mar-88
Hold Time: 0 days

LAB #: 8-3155
CLIENT'S ID: 122303

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene

99 %

LAB #: 8-3156
CLIENT'S ID: 122304


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene

99 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Attalla/Farah
WESCO JOB #: HLA 0831.17-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 23-Mar-88
Site: City of Oakland
Date Received: 23-Mar-88
Extract/Digest/Purge
Date: 23-Mar-88
Analysis Completion
Date: 23-Mar-88
Hold Time: 0 days

LAB #: 8-3153
CLIENT'S ID: 122301

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene
Percent Recovery
98 %

LAB #: 8-3154
CLIENT'S ID: 122302

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	78	0.2
Toluene-----	99	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	16	0.2
Xylene-----	122	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene
Percent Recovery
110 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 04-Jan-80
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Attalla/Farah
WESCO JOB #: HLA 0831.17-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 23-Mar-88
Site: City of Oakland
Date Received: 23-Mar-88
Extract/Digest/Purge
Date: 23-Mar-88
Analysis Completion
Date: 23-Mar-88
Hold Time: 0 days

LAB #: 8-3155

MATRIX: WATER

CLIENT'S ID: 122303

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 99 %

LAB #: 8-3156

MATRIX: WATER


CLIENT'S ID: 122304

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 99 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 23-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 23-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 29-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.17-L Date: 29-Mar-88
 Analytical Method: EPA 624 Hold Tim 6 days

LAB # 8-3157 MATRIX: WATER
 CLIENT'S ID 122301

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	115 %
Toluene-d8	111 %
4-Bromofluorobenzene	101 %

N. D.: Not Detected

Handwritten Signature
 Analytical Supervisor

Report Date: 04-Jan-80 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 23-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 23-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 29-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.17-L Date: 29-Mar-88
 Analytical Method: EPA 624 Hold Tim 6 days

LAB # 8-3158
 CLIENT'S ID 122304

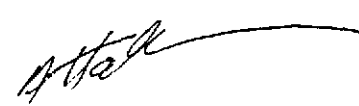
MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	122 %
Toluene-d8	104 %
4-Bromofluorobenzene	105 %

N. D.: Not Detected


 Analytical Supervisor

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-3159

MATRIX: WATER

CLIENT ID: 122301

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3159	MATRIX:	WATER
CLIENT ID:	122301		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA	
Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	66 %
2-Fluorobiphenyl	72 %
Terphenyl-d14	82 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3159	MATRIX:	WATER
CLIENT ID:	122301		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA	
Acid Surrogate Spike % Recovery	
2-Fluorophenol	53 %
Phenol-d5	30 %
2,4,6-Tribromophenol	42 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3159	MATRIX:	WATER
CLIENT ID:	122301		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	66 %
2-Fluorobiphenyl	72 %
Terphenyl-d14	82 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable

Analytical Supervisor

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-3160

MATRIX: WATER

CLIENT ID: 122304

=====

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3160	MATRIX:	WATER
CLIENT ID:	122304		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	48 %
2-Fluorobiphenyl	57 %
Terphenyl-d14	81 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3160	MATRIX:	WATER
CLIENT ID:	122304		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	60 %
Phenol-d5	37 %
2,4,6-Tribromophenol	35 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	23-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	23-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.17-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3160	MATRIX:	WATER
CLIENT ID:	122304		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	48 %
2-Fluorobiphenyl	57 %
Terphenyl-d14	81 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable

Analytical Supervisor



Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	24-Mar-88
Analyst:	Attalla	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	25-Mar-88
Analytical Method:	3510/8015	Hold Time:	0 days

=====

MATRIX: WATER

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LAB #	CLIENT ID	Diesel (mg/l)	Detection limit(mg/l)
8-3210	122401	N.D.	1.0
8-3211	122402	N.D.	1.0
8-3212	122403	N.D.	1.0
8-3213	122404	N.D.	1.0

N.D.: Not Detected

Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: P. Llewellyn
Submitted by: P. Llewellyn
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.18-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 24-Mar-88
Site: City of Oakland
Date Received: 24-Mar-88
Extract/Digest/Purge
Date: 24-Mar-88
Analysis Completion
Date: 24-Mar-88
Hold Time: 0 days

=====
LAB #: 8-3206

MATRIX: WATER

CLIENT'S ID: 122401
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1500	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 79 %

=====
LAB #: 8-3207

MATRIX: WATER

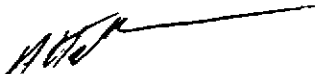
CLIENT'S ID: 122402
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 107 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: P. Llewellyn
Submitted by: P. Llewellyn
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.18-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 24-Mar-88
Site: City of Oakland
Date Received: 24-Mar-88
Extract/Digest/Purge
Date: 24-Mar-88
Analysis Completion
Date: 24-Mar-88
Hold Time: 0 days

LAB #: 8-3208

MATRIX: WATER

CLIENT'S ID: 122403

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 184 %*

LAB #: 8-3209

MATRIX: WATER

CLIENT'S ID: 122404


COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 105 %

N.D.: Not Detected

* : Matrix interference


Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: P. Llewellyn
Submitted by: P. Llewellyn
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.18-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 24-Mar-88
Site: City of Oakland
Date Received: 24-Mar-88
Extract/Digest/Purge
Date: 24-Mar-88
Analysis Completion
Date: 24-Mar-88
Hold Time: 0 days

LAB #: 8-3206
CLIENT'S ID: 122401

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	101	0.2
Toluene-----	107	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	8	0.2
Xylene-----	122	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 79 %

LAB #: 8-3207
CLIENT'S ID: 122402

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 107 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: P. Llewellyn
Submitted by: P. Llewellyn
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.18-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 24-Mar-88
Site: City of Oakland
Date Received: 24-Mar-88
Extract/Digest/Purge
Date: 24-Mar-88
Analysis Completion
Date: 24-Mar-88
Hold Time: 0 days

LAB #: 8-3208

MATRIX: WATER

CLIENT'S ID: 122403

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 184 %*

LAB #: 8-3209

MATRIX: WATER

CLIENT'S ID: 122404

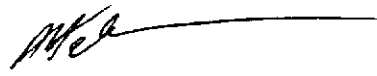
COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 105 %

N.D.: Not Detected

* : Matrix interference


Analytical Supervisor

Report Date: 06-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 24-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: P. Llewellyn Date Received: 24-Mar-88
 Submitted by: P. Llewellyn Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.18-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days


LAB # 8-3216 MATRIX: WATER
 CLIENT'S ID 122403

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	102 %
Toluene-d8	104 %
4-Bromofluorobenzene	100 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 06-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 24-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: P. Llewellyn Date Received: 24-Mar-88
 Submitted by: P. Llewellyn Extract/Digest/Purge
 Preservatives: none Date: 24-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.18-L Date: 24-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days

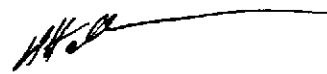
LAB # 8-3217 MATRIX: WATER
 CLIENT'S ID 122404

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	94 %
Toluene-d8	114 %
4-Bromofluorobenzene	100 %

N. D.: Not Detected


 Analytical Supervisor

Report Date:	04-Apr-88	Client Contract/PO09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	F. Llewellyn	Date Received:	24-Mar-88
Submitted by:	F. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # 8-3214

MATRIX: WATER

CLIENT ID: 122403

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	04-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # 8-3214

MATRIX: WATER

CLIENT ID: 122403

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	45 %
2-Fluorobiphenyl	58 %
Terphenyl-d14	72 %

Report Date:	04-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # B-3214

MATRIX: WATER

CLIENT ID: 122403

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	32 %
Phenol-d5	21 %
2,4,6-Tribromophenol	29 %

Report Date:	04-Apr-88	Client Contract/PO09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.1B-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	B-3214	MATRIX:	WATER
CLIENT ID:	122403		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	45 %
2-Fluorobiphenyl	58 %
Terphenyl-d14	72 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable

[Signature]

Analytical Supervisor

Report Date:	04-Apr-88	Client Contract/P0093B2,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

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LAB # 8-3215

MATRIX: WATER

CLIENT ID: 122404

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy) methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	04-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3215	MATRIX:	WATER
CLIENT ID:	122404		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	38 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	84 %

Report Date:	04-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

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=====
LAB #      8-3215                MATRIX:  WATER
CLIENT ID: 122404
=====
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ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	40 %
Phenol-d5	27 %
2,4,6-Tribromophenol	26 %

Report Date:	04-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	24-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	P. Llewellyn	Date Received:	24-Mar-88
Submitted by:	P. Llewellyn	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.18-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	B-3215	MATRIX:	WATER
CLIENT ID:	122404		

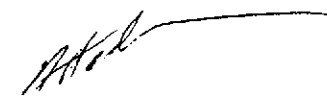
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PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	38 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	84 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor



WESCO Laboratories

HARDING LAWSON ASSOC.

APR 12 1988

Report Date: 06-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: W. Knowles
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.19-L
 Analytical Method: EPA 5030/8015

Client Contract/PO: 08382,026.02
 Date Sampled: 25-Mar-88
 Site: City of Oakland
 Date Received: 25-Mar-88
 Extract/Digest/Purge Date: 25-Mar-88
 Analysis Completion Date: 25-Mar-88
 Hold Time: 0 days

LAB #: 8-3267

MATRIX: WATER

CLIENT'S ID: 122501

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline	722	50.0

QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 Fluorobenzene 120 %

LAB #: 8-3268

MATRIX: WATER

CLIENT'S ID: 122502

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline	N.D.	50.0

QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 Fluorobenzene 105 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: W. Knowles
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.19-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 25-Mar-88
Site: City of Oakland
Date Received: 25-Mar-88
Extract/Digest/Purge
Date: 25-Mar-88
Analysis Completion
Date: 25-Mar-88
Hold Time: 0 days

LAB #: 8-3269

MATRIX: WATER

CLIENT'S ID: 122503

COMPOUND

RESULT
(ug/l)

Detection
Limit (ug/l)

Gasoline-----

N.D.

50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene

105 %

LAB #: 8-3271

MATRIX: WATER

CLIENT'S ID: 122504

COMPOUND

RESULT
(ug/l)

Detection
Limit (ug/l)

Gasoline-----

N.D.

50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene

105 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: W. Knowles
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.19-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 25-Mar-88
Site: City of Oakland
Date Received: 25-Mar-88
Extract/Digest/Purge
Date: 25-Mar-88
Analysis Completion
Date: 25-Mar-88
Hold Time: 0 days

LAB #: 8-3267

MATRIX: WATER

CLIENT'S ID: 122501

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	106	0.2
Toluene	102	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	4.0	0.2
Xylene	85	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene Percent Recovery
120 %

LAB #: 8-3268

MATRIX: WATER

CLIENT'S ID: 122502

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	2.2	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene Percent Recovery
105 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: W. Knowles
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.19-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 25-Mar-88
Site: City of Oakland
Date Received: 25-Mar-88
Extract/Digest/Purge
Date: 25-Mar-88
Analysis Completion
Date: 25-Mar-88
Hold Time: 0 days

LAB #: 8-3269
CLIENT'S ID: 122503

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene Percent Recovery
105 %

LAB #: 8-3271
CLIENT'S ID: 122504

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene Percent Recovery
105 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 06-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 25-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 25-Mar-88
 Submitted by: W. Knowles Extract/Digest/Purge
 Preservatives: none Date: 25-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.19-L Date: 25-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days

LAB # 8-3270 MATRIX: WATER
 CLIENT'S ID 122503

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	102 %
Toluene-d8	112 %
4-Bromofluorobenzene	99 %

N. D.: Not Detected

Atte
Analytical Supervisor

Report Date: 06-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 25-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 25-Mar-88
 Submitted by: W. Knowles Extract/Digest/Purge
 Preservatives: none Date: 25-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.19-L Date: 25-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days

LAB # 8-3272 MATRIX: WATER
 CLIENT'S ID 122504

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	98 %
Toluene-d8	104 %
4-Bromofluorobenzene	103 %

N. D.: Not Detected

AKG
 Analytical Supervisor

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

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LAB #	B-3273	MATRIX:	WATER
CLIENT ID:	122503		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB #	8-3273	MATRIX:	WATER
CLIENT ID:	122503		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	44 %
2-Fluorobiphenyl	44 %
Terphenyl-d14	64 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB # 8-3273

MATRIX: WATER

CLIENT ID: 122503

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	31 %
Phenol-d5	19 %
2,4,6-Tribromophenol	20 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB #	8-3273	MATRIX:	WATER
CLIENT ID:	122503		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	44 %
2-Fluorobiphenyl	44 %
Terphenyl-d14	64 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB # 8-3274

MATRIX: WATER

CLIENT ID: 122504

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB # B-3274

MATRIX: WATER

CLIENT ID: 122504

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	76 %
2-Fluorobiphenyl	62 %
Terphenyl-d14	61 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB #	8-3274	MATRIX:	WATER
CLIENT ID:	122504		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	44 %
Phenol-d5	27 %
2,4,6-Tribromophenol	23 %

Report Date:	04-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	25-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	25-Mar-88
Submitted by:	W. Knowles	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.19-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days:	2

=====

LAB #	B-3274	MATRIX:	WATER
CLIENT ID:	122504		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	76 %
2-Fluorobiphenyl	62 %
Terphenyl-d14	61 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable

[Signature]

Analytical Supervisor



WESCO Laboratories

Report Date: 07-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis
 WESCO JOB #: HLA 0831.21-L
 Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
 Date Sampled: 26-Mar-88
 Site: City of Oakland
 Date Received: 26-Mar-88
 Extract/Digest/Purge
 Date: 26-Mar-88
 Analysis Completion
 Date: 26-Mar-88
 Hold Time: 0 days

=====

LAB #:	8-3346	MATRIX:	WATER
CLIENT'S ID:	122601		

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1600	50.0

QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 Fluorobenzene 104 %

=====


LAB #:	8-3347	MATRIX:	WATER
CLIENT'S ID:	122602		

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 Fluorobenzene 102 %

N.D.: Not Detected



 Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.21-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 26-Mar-88
Site: City of Oakland
Date Received: 26-Mar-88
Extract/Digest/Purge
Date: 26-Mar-88
Analysis Completion
Date: 26-Mar-88
Hold Time: 0 days

LAB #: 8-3348

MATRIX: WATER

CLIENT'S ID: 122603

COMPOUND

RESULT
(ug/l)

Detection
Limit (ug/l)

Gasoline-----

N.D.

50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene

106 %

LAB #: 8-3349

MATRIX: WATER

CLIENT'S ID: 122604

COMPOUND

RESULT
(ug/l)

Detection
Limit (ug/l)

Gasoline-----

N.D.

50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene

102 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.21-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 26-Mar-88
Site: City of Oakland
Date Received: 26-Mar-88
Extract/Digest/Purge
Date: 26-Mar-88
Analysis Completion
Date: 26-Mar-88
Hold Time: 0 days

LAB #: 8-3346

MATRIX: WATER

CLIENT'S ID: 122601

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	290	0.2
Toluene-----	170	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	18	0.2
Xylene-----	81	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene
Percent Recovery
104 %

LAB #: 8-3347

MATRIX: WATER


CLIENT'S ID: 122602

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	1.0	0.2
Toluene-----	4.6	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	1.3	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene
Percent Recovery
102 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 07-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis
 WESCO JOB #: HLA 0831.21-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 26-Mar-88
 Site: City of Oakland
 Date Received: 26-Mar-88
 Extract/Digest/Purge
 Date: 26-Mar-88
 Analysis Completion
 Date: 26-Mar-88
 Hold Time: 0 days

LAB #: 8-3348

MATRIX: WATER

CLIENT'S ID: 122603

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	2.8	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	0.3	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 106 %

LAB #: 8-3349

MATRIX: WATER


CLIENT'S ID: 122604

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	0.4	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	0.7	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 102 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 07-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 26-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 26-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.21-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 4 days

=====

LAB # 8-3350 MATRIX: WATER
 CLIENT'S ID 122603

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	0.5	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA	Percent Recovery
Surrogate Spike	
1,2-Dichloroethane-d4	105 %
Toluene-d8	106 %
4-Bromofluorobenzene	99 %

N. D.: Not Detected

[Signature]
 Analytical Supervisor

Report Date: 07-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 26-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 26-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.21-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 4 days

=====

LAB # 8-3351 MATRIX: WATER
 CLIENT'S ID 122604

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA	Percent Recovery
Surrogate Spike	
1,2-Dichloroethane-d4	115 %
Toluene-d8	106 %
4-Bromofluorobenzene	97 %

N. D.: Not Detected

 Analytical Supervisor

Report Date:	05-Apr-88	Client Contract/PO09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

=====

LAB #	B-3352	MATRIX:	WATER
CLIENT ID:	122603		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	05-Apr-88	Client Contract/PO09382,026.02
Client:	Harding Lawson Associates	Date Sampled: 26-Mar-88
Attn:	David Leland	Site: City of Oakland
Sampled by:	Tim Walker	Date Received: 26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge
Preservatives:	none	Date: 27-Mar-88
Analyst:	Siegmund	Analysis Completion
WESCO JOB #:	HLA 0831.21-L	Date: 31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days 1

=====

LAB #	B-3352	MATRIX:	WATER
CLIENT ID:	122603		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	62 %
2-Fluorobiphenyl	62 %
Terphenyl-d14	55 %

Report Date:	05-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

=====

LAB # 8-3352

MATRIX: WATER

CLIENT ID: 122603

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	31 %
Phenol-d5	18 %
2,4,6-Tribromophenol	17 %

Report Date:	05-Apr-88	Client Contract/PO09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831,21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

=====

LAB # 8-3352

MATRIX: WATER

CLIENT ID: 122603

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	62 %
2-Fluorobiphenyl	62 %
Terphenyl-d14	55 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

=====

LAB # 8-3353

MATRIX: WATER

CLIENT ID:

122604

=====

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

=====

LAB #	8-3353	MATRIX:	WATER
CLIENT ID:	122604		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	75 %
2-Fluorobiphenyl	76 %
Terphenyl-d14	71 %

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

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=====
LAB #      8-3353                MATRIX:  WATER
CLIENT ID: 122604
=====
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ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	47 %
Phenol-d5	27 %
2,4,6-Tribromophenol	23 %

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	26-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	26-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	27-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.21-L	Date:	31-Mar-88
Analytical Method:	EPA 625	Holding Time, Days	1

=====

LAB #	8-3353	MATRIX:	WATER
CLIENT ID:	122604		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	75 %
2-Fluorobiphenyl	76 %
Terphenyl-d14	71 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

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WESCO Laboratories

LAWSON ASSOC.

APR 12 1988

APR 12 1988

ENVIRONMENTAL SERVICES
DIVISION

Report Date: 07-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis
 WESCO JOB #: HLA 0831.22-L
 Analytical Method: EPA 5030/8015

Client Contract/PO: 09382.026.02
 Date Sampled: 27-Mar-88
 Site: City of Oakland
 Date Received: 27-Mar-88
 Extract/Digest/Purge
 Date: 27-Mar-88
 Analysis Completion
 Date: 27-Mar-88
 Hold Time: 0 days

LAB #: 8-3354
 CLIENT'S ID: 132701

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline	120	50.0

QUALITY CONTROL DATA
 Surrogate Spike & Recovery
 Fluorobenzene 145 %

LAB #: 8-3355
 CLIENT'S ID: 132702

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline	N.D.	50.0

QUALITY CONTROL DATA
 Surrogate Spike & Recovery
 Fluorobenzene 108 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.22-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 27-Mar-88
Site: City of Oakland
Date Received: 27-Mar-88
Extract/Digest/Purge
Date: 27-Mar-88
Analysis Completion
Date: 27-Mar-88
Hold Time: 0 days

LAB #: 8-3356

MATRIX: WATER

CLIENT'S ID: 132703

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene 87 %

LAB #: 8-3357


MATRIX: WATER

CLIENT'S ID: 132704

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene 87 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 07-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis
 WESCO JOB #: HLA 0831.22-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 27-Mar-88
 Site: City of Oakland
 Date Received: 27-Mar-88
 Extract/Digest/Purge
 Date: 27-Mar-88
 Analysis Completion
 Date: 27-Mar-88
 Hold Time: 0 days

=====
 LAB #: 8-3354 MATRIX: WATER
 CLIENT'S ID: 132701
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	120	0.2
Toluene-----	110	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	3	0.2
Xylene-----	60	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2


 QUALITY CONTROL DATA
 Surrogate Spike Percent Recovery
 Fluorobenzene 145 %

=====
 LAB #: 8-3355 MATRIX: WATER
 CLIENT'S ID: 132702
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	0.4	0.2
Toluene-----	1.9	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	0.8	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

 QUALITY CONTROL DATA
 Surrogate Spike Percent Recovery
 Fluorobenzene 108 %

N.D.: Not Detected



 Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.22-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 27-Mar-88
Site: City of Oakland
Date Received: 27-Mar-88
Extract/Digest/Purge
Date: 27-Mar-88
Analysis Completion
Date: 27-Mar-88
Hold Time: 0 days

=====
LAB #: 8-3356 MATRIX: WATER
CLIENT'S ID: 132703
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	0.8	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 87 %


=====
LAB #: 8-3357 MATRIX: WATER
CLIENT'S ID: 132704
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	0.4	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 87 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 07-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 27-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 27-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.22-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 3 days

LAB # 8-3358
 CLIENT'S ID 132703

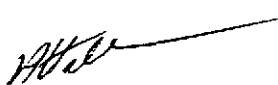
MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	94 %
Toluene-d8	96 %
4-Bromofluorobenzene	96 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 07-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 27-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 27-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.22-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 3 days

LAB # 8-3359 MATRIX: WATER
 CLIENT'S ID 132704

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	0.6	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	110 %
Toluene-d8	95 %
4-Bromofluorobenzene	94 %

N. D.: Not Detected

 Analytical Supervisor

Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-3360

MATRIX: WATER

CLIENT ID: 132703

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy) methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB # 8-3360

MATRIX: WATER

CLIENT ID:

132703

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	62 %
2-Fluorobiphenyl	60 %
Terphenyl-d14	93 %

Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3360	MATRIX:	WATER
CLIENT ID:	132703		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	31 %
Phenol-d5	20 %
2,4,6-Tribromophenol	51 %

Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3360	MATRIX:	WATER
CLIENT ID:	132703		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	62 %
2-Fluorobiphenyl	60 %
Terphenyl-d14	93 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

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LAB # 8-3361

MATRIX: WATER

CLIENT ID:

132704

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Report Date:	06-Apr-88	Client Contract/PD:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Furge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

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LAB #	8-3361	MATRIX:	WATER
CLIENT ID:	132704		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	65 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	87 %

Report Date:	06-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	27-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	27-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.22-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	B-3361	MATRIX:	WATER
CLIENT ID:	132704		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	34 %
Phenol-d5	25 %
2,4,6-Tribromophenol	62 %

Report Date: 06-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Siegmund/Moezzi
 WESCO JOB #: HLA 0831.22-L
 Analytical Method: EPA 625

Client Contract/PO: 09382,026.02
 Date Sampled: 27-Mar-88
 Site: City of Oakland
 Date Received: 27-Mar-88
 Extract/Digest/Purge
 Date: 31-Mar-88
 Analysis Completion
 Date: 01-Apr-88
 Holding Time, Days 4

=====

LAB #	8-3361	MATRIX:	WATER
CLIENT ID:	132704		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	65 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	87 %

N.D.: Not Detected
 n.d.: not determined
 N.A.: Not Applicable



 Analytical Supervisor



WESCO Laboratories

Report Date:	07-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	28-Mar-88
Analyst:	Lewis/Arntzen	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	28-Mar-88
Analytical Method:	EPA 5030/8015	Hold Time:	0 days

LAB #: 8-3388

MATRIX: WATER

CLIENT'S ID: 132801

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1600	250.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 108 %

LAB #: 8-3389

MATRIX: WATER

CLIENT'S ID: 132802

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 110 %

N.D.: Not Detected

AKG

Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: K. Hunter
Preservatives: none
Analyst: Lewis/Arntzen
WESCO JOB #: HLA 0831.23-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 28-Mar-88
Site: City of Oakland
Date Received: 28-Mar-88
Extract/Digest/Purge
Date: 28-Mar-88
Analysis Completion
Date: 28-Mar-88
Hold Time: 0 days

=====
LAB #: 8-3390

MATRIX: WATER

CLIENT'S ID: 132803
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 107 %

=====
LAB #: 8-3391

MATRIX: WATER

CLIENT'S ID: 132804
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 105 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 07-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: K. Hunter
 Preservatives: none
 Analyst: Lewis/Arntzen
 WESCO JOB #: HLA 0831.23-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 28-Mar-88
 Site: City of Oakland
 Date Received: 28-Mar-88
 Extract/Digest/Purge
 Date: 28-Mar-88
 Analysis Completion
 Date: 28-Mar-88
 Hold Time: 0 days

LAB #: 8-3388

MATRIX: WATER

CLIENT'S ID: 132801

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	290	0.2
Toluene-----	270	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	11	0.2
Xylene-----	150	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
 Fluorobenzene Percent Recovery
 108 %

LAB #: 8-3389

MATRIX: WATER


CLIENT'S ID: 132802

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	1.3	0.2
Toluene-----	2.3	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
 Fluorobenzene Percent Recovery
 110 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 07-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: K. Hunter
Preservatives: none
Analyst: Lewis/Arntzen
WESCO JOB #: HLA 0831.23-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 28-Mar-88
Site: City of Oakland
Date Received: 28-Mar-88
Extract/Digest/Purge
Date: 28-Mar-88
Analysis Completion
Date: 28-Mar-88
Hold Time: 0 days

LAB #: 8-3390

MATRIX: WATER

CLIENT'S ID: 132803

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	0.7	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 107 %

LAB #: 8-3391

MATRIX: WATER

CLIENT'S ID: 132804

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	0.9	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 105 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 07-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 28-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 28-Mar-88
 Submitted by: K. Hunter Extract/Digest/Purge
 Preservatives: none Date: 28-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.23-L Date: 28-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days


LAB # 8-3391 MATRIX: WATER
 CLIENT'S ID 132803

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	3.5	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	109 %
Toluene-d8	107 %
4-Bromofluorobenzene	100 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 07-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 28-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 28-Mar-88
 Submitted by: K. Hunter Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.23-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 2 days

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 LAB # 8-3393 MATRIX: WATER
 CLIENT'S ID 132804
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	0.9	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

 QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	104 %
Toluene-d8	106 %
4-Bromofluorobenzene	106 %

N. D.: Not Detected

 Analytical Supervisor

Report Date:	06-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

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LAB #	8-3395	MATRIX:	WATER
CLIENT ID:	132803		

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BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Fyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	06-Apr-88	Client Contract/P009382,026.02
Client:	Harding Lawson Associates	Date Sampled: 28-Mar-88
Attn:	David Leland	Site: City of Oakland
Sampled by:	Tim Walker	Date Received: 28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge
Preservatives:	none	Date: 31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion
WESCO JOB #:	HLA 0831.23-L	Date: 01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days 3

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LAB #	B-3395	MATRIX:	WATER
CLIENT ID:	132803		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	75 %
2-Fluorobiphenyl	59 %
Terphenyl-d14	72 %

Report Date:	06-Apr-88	Client Contract/PD09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3395	MATRIX:	WATER
CLIENT ID:	132803		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	34 %
Phenol-d5	21 %
2,4,6-Tribromophenol	35 %

Report Date:	06-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

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LAB #	8-3395	MATRIX:	WATER
CLIENT ID:	132803		


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PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	75 %
2-Fluorobiphenyl	59 %
Terphenyl-d14	72 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	06-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Furge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3396	MATRIX:	WATER
CLIENT ID:	132804		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl)ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	06-Apr-88	Client Contract/PD09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Furge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	B-3396	MATRIX:	WATER
CLIENT ID:	132804		

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BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	82 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	60 %

Report Date:	06-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # 8-3396

MATRIX: WATER

CLIENT ID: 132804

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery

2-Fluorophenol	54 %
Phenol-d5	33 %
2,4,6-Tribromophenol	40 %

Report Date:	06-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	28-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	28-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Furge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.23-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3396	MATRIX:	WATER
CLIENT ID:	132804		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

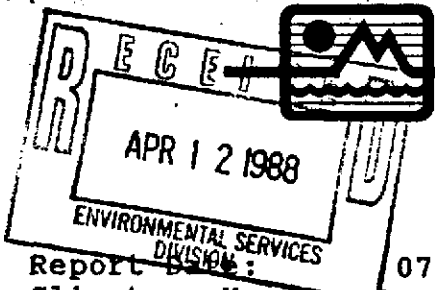
QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	82 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	60 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor



WESCO Laboratories

LAWSON ASSOC.

APR 12 1988

Report #: 07-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: K. Hunter
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.24-L
 Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
 Date Sampled: 29-Mar-88
 Site: City of Oakland
 Date Received: 29-Mar-88
 Extract/Digest/Purge Date: 29-Mar-88
 Analysis Completion Date: 30-Mar-88
 Hold Time: 0 days

LAB #: 8-3468

MATRIX: WATER

CLIENT'S ID: 132901

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline	2000	250.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
 Bromofluorobenzene 76 %

LAB #: 8-3469

MATRIX: WATER

CLIENT'S ID: 132902

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
 Fluorobenzene 99 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: K. Hunter
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.24-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 29-Mar-88
Site: City of Oakland
Date Received: 29-Mar-88
Extract/Digest/Purge
Date: 29-Mar-88
Analysis Completion
Date: 30-Mar-88
Hold Time: 0 days

=====
LAB #: 8-3470

MATRIX: WATER

CLIENT'S ID: 132903
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 82 %

=====
LAB #: 8-3472

MATRIX: WATER

CLIENT'S ID: 132904
=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 91 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 06-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: K. Hunter
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.24-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 29-Mar-88
Site: City of Oakland
Date Received: 29-Mar-88
Extract/Digest/Purge
Date: 29-Mar-88
Analysis Completion
Date: 30-Mar-88
Hold Time: 0 days

LAB #: 8-3468

MATRIX: WATER

CLIENT'S ID: 132901

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	190	1.0
Toluene-----	190	1.0
Chlorobenzene-----	N.D.	1.0
Ethylbenzene-----	17	1.0
Xylene-----	150	1.0
1,3-Dichlorobenzene-----	N.D.	1.0
1,4-Dichlorobenzene-----	N.D.	1.0
1,2-Dichlorobenzene-----	N.D.	1.0

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Bromofluorobenzene 76 %

LAB #: 8-3469

MATRIX: WATER


CLIENT'S ID: 132902

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	6	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 99 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 06-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: K. Hunter
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.24-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 29-Mar-88
 Site: City of Oakland
 Date Received: 29-Mar-88
 Extract/Digest/Purge
 Date: 29-Mar-88
 Analysis Completion
 Date: 30-Mar-88
 Hold Time: 0 days

LAB #: 8-3470
 CLIENT'S ID: 132903

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	1.0
Toluene	N.D.	1.0
Chlorobenzene	N.D.	1.0
Ethylbenzene	N.D.	1.0
Xylene	N.D.	1.0
1,3-Dichlorobenzene	N.D.	1.0
1,4-Dichlorobenzene	N.D.	1.0
1,2-Dichlorobenzene	N.D.	1.0

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 82 %

LAB #: 8-3472
 CLIENT'S ID: 132904


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 91 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 06-Apr-88 Client Contract/PO: 9382,026.02
 Client: Harding Lawson Associates Date Sampled: 29-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 29-Mar-88
 Submitted by: K. Hunter Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.24-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 1 day


LAB # 8-3471 MATRIX: WATER
 CLIENT'S ID 132903

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	1.0	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	97 %
Toluene-d8	96 %
4-Bromofluorobenzene	104 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 06-Apr-88 Client Contract/PO: 9382,026.02
 Client: Harding Lawson Associates Date Sampled: 29-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 29-Mar-88
 Submitted by: K. Hunter Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.24-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 1 day

LAB # 8-3473 MATRIX: WATER
 CLIENT'S ID 132904

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	1.2	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	112 %
Toluene-d8	98 %
4-Bromofluorobenzene	92 %

N. D.: Not Detected

[Signature]
 Analytical Supervisor

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCD JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB # 8-3474

MATRIX: WATER

CLIENT ID: 132903

=====

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	8-3474	MATRIX:	WATER
CLIENT ID:	132903		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	42 %
2-Fluorobiphenyl	58 %
Terphenyl-d14	63 %

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Furge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====

LAB #	B-3474	MATRIX:	WATER
CLIENT ID:	132903		


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PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	42 %
2-Fluorobiphenyl	58 %
Terphenyl-d14	63 %

N.D. : Not Detected
n.d. : not determined
N.A. : Not Applicable



Analytical Supervisor

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

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LAB #	8-3475	MATRIX:	WATER
CLIENT ID:	132904		

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BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy) methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

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LAB #	8-3475	MATRIX:	WATER
CLIENT ID:	132904		

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BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	48 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	74 %

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

=====
 LAB # 8-3475 MATRIX: WATER
 CLIENT ID: 132904
 =====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	45 %
Phenol-d5	31 %
2,4,6-Tribromophenol	51 %

Report Date:	05-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	29-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	29-Mar-88
Submitted by:	K. Hunter	Extract/Digest/Purge	
Preservatives:	none	Date:	31-Mar-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.24-L	Date:	01-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	2

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LAB #	8-3475	MATRIX:	WATER
CLIENT ID:	132904		


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PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	48 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	74 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

3-30-88



WESCO Laboratories

R E C E I V E D
APR 18 1988

REPORTING LABORATORY
18

**ENVIRONMENTAL SERVICES
Report**

Report Date: 13-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.25-L
 Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
 Date Sampled: 30-Mar-88
 Site: City of Oakland
 Date Received: 30-Mar-88
 Extract/Digest/Purge
 Date: 30-Mar-88
 Analysis Completion
 Date: 30-Mar-88
 Hold Time: 0 days

LAB #: 8-3516
 CLIENT'S ID: 133001

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1700	250

QUALITY CONTROL DATA

Surrogate Spike & Recovery
 Fluorobenzene 119 %

LAB #: 8-3517
 CLIENT'S ID: 133002

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
 Fluorobenzene 100 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 13-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.25-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 30-Mar-88
Site: City of Oakland
Date Received: 30-Mar-88
Extract/Digest/Purge
Date: 30-Mar-88
Analysis Completion
Date: 30-Mar-88
Hold Time: 0 days

LAB #: 8-3518

MATRIX: WATER

CLIENT'S ID: 133003

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
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Gasoline-----	N.D.	50.0
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QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 98 %

LAB #: 8-3520

MATRIX: WATER

CLIENT'S ID: 133004

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
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Gasoline-----	N.D.	50.0
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QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 98 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 13-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.25-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 30-Mar-88
 Site: City of Oakland
 Date Received: 30-Mar-88
 Extract/Digest/Purge
 Date: 30-Mar-88
 Analysis Completion
 Date: 30-Mar-88
 Hold Time: 0 days

=====

LAB #: 8-3516 MATRIX: WATER
 CLIENT'S ID: 133001

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	260	1.0
Toluene-----	220	1.0
Chlorobenzene-----	N.D.	1.0
Ethylbenzene-----	19	1.0
Xylene-----	160	1.0
1,3-Dichlorobenzene-----	N.D.	1.0
1,4-Dichlorobenzene-----	N.D.	1.0
1,2-Dichlorobenzene-----	N.D.	1.0

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 119 %

=====

LAB #: 8-3517 MATRIX: WATER
 CLIENT'S ID: 133002

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 100 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 13-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.25-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 30-Mar-88
 Site: City of Oakland
 Date Received: 30-Mar-88
 Extract/Digest/Purge
 Date: 30-Mar-88
 Analysis Completion
 Date: 30-Mar-88
 Hold Time: 0 days

LAB #: 8-3518 MATRIX: WATER
 CLIENT'S ID: 133003

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 98 %


LAB #: 8-3520 MATRIX: WATER
 CLIENT'S ID: 133004

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 98 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 13-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 30-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 30-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.25-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days


LAB # 8-3519 MATRIX: WATER
 CLIENT'S ID 133003

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	94 %
Toluene-d8	106 %
4-Bromofluorobenzene	106 %

N. D.: Not Detected



 Analytical Supervisor

Report Date: 13-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 30-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 30-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 30-Mar-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.25-L Date: 30-Mar-88
 Analytical Method: EPA 624 Hold Time 0 days

 LAB # 8-3521 MATRIX: WATER
 CLIENT'S ID 133004

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

 QUALITY CONTROL DATA
 Surrogate Spike
 1,2-Dichloroethane-d4
 Toluene-d8
 4-Bromofluorobenzene

Percent Recovery
 102 %
 104 %
 108 %

N. D.: Not Detected


 Analytical Supervisor

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation HLA 0831.25-L	Spike % recovery HLA 0831.25-L
Dichlorodifluoromethane	N.D.	-	N.S.
Methyl Chloride	N.D.	-	N.S.
Vinyl Chloride	N.D.	-	N.S.
Methyl Bromide	N.D.	-	N.S.
Ethyl Chloride	N.D.	-	N.S.
Trichlorofluoromethane	N.D.	-	N.S.
1,1-Dichloroethene	N.D.	-	N.S.
Methylene Chloride	N.D.	-	N.S.
trans-1,2-dichloroethene	N.D.	-	N.S.
1,1-Dichloroethane(M.S.)	N.D.	11	100
Chloroform	N.D.	-	N.S.
1,1,1-trichloroethane	N.D.	-	N.S.
1,2-Dichloroethane	N.D.	-	N.S.
Carbon Tetrachloride	N.D.	-	N.S.
Benzene(M.S.)	N.D.	10	87
1,2-Dichloropropane	N.D.	-	N.S.
Trichloroethene(M.S.)	N.D.	1	112
Bromodichloromethane	N.D.	-	N.S.
trans-1,3-Dichloropropene	N.D.	-	N.S.
Toluene(M.S.)	N.D.	4	95
cis-1,3-dichloropropene	N.D.	-	N.S.
1,1,2-Trichloroethane	N.D.	-	N.S.
2-Chloroethylvinyl ether	N.D.	-	N.S.
Dibromochloromethane	N.D.	-	N.S.
Tetrachloroethene	N.D.	-	N.S.
Chlorobenzene(M.S.)	N.D.	1	100
Ethylbenzene	N.D.	-	N.S.
Xylene	N.D.	-	N.S.
Bromoform	N.D.	-	N.S.
1,1,2,2,-Tetrachloroethane	N.D.	-	N.S.
1,3-Dichlorobenzene	N.D.	-	N.S.
1,4-Dichlorobenzene	N.D.	-	N.S.
1,2-Dichlorobenzene	N.D.	-	N.S.

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
1,2-Dichloroethane-d4	101 %	96 %	98 %
Toluene-d8	111 %	102 %	105 %
4-Bromofluorobenzene	104 %	130 %	129 %

N.D.: Not Detected
 N.S.: Not Spiked


 Analytical Supervisor

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

LAB # 8-3523

MATRIX: WATER

CLIENT ID: 133003

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl)ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3523	MATRIX:	WATER
CLIENT ID:	133003		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate	Spike % Recovery
Nitrobenzene-d5	52 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	62 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3523	MATRIX:	WATER
CLIENT ID:	133003		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	34 %
Phenol-d5	25 %
2,4,6-Tribromophenol	32 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3523	MATRIX:	WATER
CLIENT ID:	133003		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	52 %
2-Fluorobiphenyl	61 %
Terphenyl-d14	62 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB # 8-3524

MATRIX: WATER

CLIENT ID: 133004

=====

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

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=====
LAB #      B-3524                MATRIX:  WATER
CLIENT ID: 133004
=====
```

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	50 %
2-Fluorobiphenyl	62 %
Terphenyl-d14	66 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3524	MATRIX:	WATER
CLIENT ID:	193004		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	35 %
Phenol-d5	23 %
2,4,6-Tribromophenol	33 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	30-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	30-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	02-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.25-L	Date:	04-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	3

=====

LAB #	8-3524	MATRIX:	WATER
CLIENT ID:	133004		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	50 %
2-Fluorobiphenyl	62 %
Terphenyl-d14	66 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor



Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	01-Apr-88
Analyst:	Arntzen	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	01-Apr-88
Analytical Method:	EPA 5030/8015	Hold Time:	1 day

=====

LAB #:	8-3574	MATRIX:	WATER
CLIENT'S ID:	133101		

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	1100	50.0

QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 Fluorobenzene 110 %

=====

LAB #:	8-3575	MATRIX:	WATER
CLIENT'S ID:	133102		

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 Fluorobenzene 86 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 11-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.26-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 31-Mar-88
Site: City of Oakland
Date Received: 31-Mar-88
Extract/Digest/Purge
Date: 01-Apr-88
Analysis Completion
Date: 01-Apr-88
Hold Time: 1 day

=====
LAB #: 8-3576
CLIENT'S ID: 133103
=====

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 80 %


=====
LAB #: 8-3578
CLIENT'S ID: 133104
=====

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 80 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 11-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Arntzen
WESCO JOB #: HLA 0831.26-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 31-Mar-88
Site: City of Oakland
Date Received: 31-Mar-88
Extract/Digest/Purge
Date: 01-Apr-88
Analysis Completion
Date: 01-Apr-88
Hold Time: 1 day

LAB #: 8-3574

MATRIX: WATER

CLIENT'S ID: 133101

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	250	0.2
Toluene-----	190	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	6.2	0.2
Xylene-----	54	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 110 %

LAB #: 8-3575

MATRIX: WATER


CLIENT'S ID: 133102

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 86 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 11-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Arntzen
 WESCO JOB #: HLA 0831.26-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 31-Mar-88
 Site: City of Oakland
 Date Received: 31-Mar-88
 Extract/Digest/Purge
 Date: 01-Apr-88
 Analysis Completion
 Date: 01-Apr-88
 Hold Time: 1 day

=====
 LAB #: 8-3576
 CLIENT'S ID: 133103
 =====

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 80 %

=====
 LAB #: 8-3578
 CLIENT'S ID: 133104
 =====


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 80 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 11-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 31-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 31-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 05-Apr-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.26-L Date: 05-Apr-88
 Analytical Method: EPA 624 Hold Time 5 day

LAB # 8-3577
 CLIENT'S ID 133103

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	97 %
Toluene-d8	111 %
4-Bromofluorobenzene	116 %

N. D.: Not Detected


 Analytical Supervisor

Report Date: 11-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 31-Mar-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 31-Mar-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 05-Apr-88
 Analyst: Siegmund Analysis Completion
 WESCO JOB #: HLA 0831.26-L Date: 05-Apr-88
 Analytical Method: EPA 624 Hold Time 5 day

LAB # 8-3579
 CLIENT'S ID 133104


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	14.4	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	101 %
Toluene-d8	106 %
4-Bromofluorobenzene	110 %

N. D.: Not Detected


 Analytical Supervisor

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====
 LAB # 8-3581

MATRIX: WATER

CLIENT ID: 133103
 =====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3581	MATRIX:	WATER
CLIENT ID:	133103		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	64 %
2-Fluorobiphenyl	58 %
Terphenyl-d14	65 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,025.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3581	MATRIX:	WATER
CLIENT ID:	133103		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	28 %
Phenol-d5	14 %
2,4,6-Tribromophenol	38 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	8-3581	MATRIX:	WATER
CLIENT ID:	133103		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	64 %
2-Fluorobiphenyl	58 %
Terphenyl-d14	65 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	11-Apr-88	Client Contract/FD:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	8-3582	MATRIX:	WATER
CLIENT ID:	133104		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3582	MATRIX:	WATER
CLIENT ID:	133104		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	60 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	60 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCD JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB # 8-3582

MATRIX: WATER

CLIENT ID: 133104

=====

ACID COMPOUNDS	RESULT	Detection Limit
	(ug/l)	(ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	38 %
Phenol-d5	22 %
2,4,6-Tribromophenol	40 %

Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	31-Mar-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	31-Mar-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCD JOB #:	HLA 0831.26-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====


LAB #	8-3582	MATRIX:	WATER
CLIENT ID:	133104		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA	
Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	60 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	60 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor



Report Date:	11-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	01-Apr-88
Analyst:	Lewis	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	01-Apr-88
Analytical Method:	EPA 5030/8015	Hold Time:	0 days

=====

LAB #:	8-3664	MATRIX:	WATER
CLIENT'S ID:	130101		

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	981	100.0

QUALITY CONTROL DATA
 Surrogate Spike & Recovery
 Fluorobenzene 137 %

=====

LAB #:	8-3665	MATRIX:	WATER
CLIENT'S ID:	130102		

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
 Surrogate Spike & Recovery
 Fluorobenzene 81 %

N.D.: Not Detected

Wak

 Analytical Supervisor

Report Date: 11-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.29-L
Analytical Method: EPA 5030/B015

Client Contract/PO: 09382,026.02
Date Sampled: 01-Apr-88
Site: City of Oakland
Date Received: 01-Apr-88
Extract/Digest/Purge
Date: 01-Apr-88
Analysis Completion
Date: 01-Apr-88
Hold Time: 0 days

=====
LAB #: 8-3664
CLIENT'S ID: 130101
=====

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	981	100.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene

137 %

=====
LAB #: 8-3665
CLIENT'S ID: 130102
=====


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene

81 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 11-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis
WESCO JOB #: HLA 0831.29-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 01-Apr-88
Site: City of Oakland
Date Received: 01-Apr-88
Extract/Digest/Purge
Date: 01-Apr-88
Analysis Completion
Date: 01-Apr-88
Hold Time: 0 days

LAB #: 8-3666

MATRIX: WATER

CLIENT'S ID: 130103

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 78 %

LAB #: 8-3667

MATRIX: WATER

CLIENT'S ID: 130104

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene 89 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 11-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis
 WESCO JOB #: HLA 0831.29-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 01-Apr-88
 Site: City of Oakland
 Date Received: 01-Apr-88
 Extract/Digest/Purge
 Date: 01-Apr-88
 Analysis Completion
 Date: 01-Apr-88
 Hold Time: 0 days

=====
 LAB #: 8-3664 MATRIX: WATER
 CLIENT'S ID: 130101
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	63.0	0.4
Toluene-----	53.0	0.4
Chlorobenzene-----	N.D.	0.4
Ethylbenzene-----	3.7	0.4
Xylene-----	32.0	0.4
1,3-Dichlorobenzene-----	N.D.	0.4
1,4-Dichlorobenzene-----	N.D.	0.4
1,2-Dichlorobenzene-----	N.D.	0.4

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 137 %


=====
 LAB #: 8-3665 MATRIX: WATER
 CLIENT'S ID: 130102
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 81 %

N.D.: Not Detected



 Analytical Supervisor

Report Date: 11-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis
 WESCO JOB #: HLA 0831.29-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 01-Apr-88
 Site: City of Oakland
 Date Received: 01-Apr-88
 Extract/Digest/Purge
 Date: 01-Apr-88
 Analysis Completion
 Date: 01-Apr-88
 Hold Time: 0 days

LAB #: 8-3666

MATRIX: WATER

CLIENT'S ID: 130103

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.4
Toluene-----	N.D.	0.4
Chlorobenzene-----	N.D.	0.4
Ethylbenzene-----	N.D.	0.4
Xylene-----	N.D.	0.4
1,3-Dichlorobenzene-----	N.D.	0.4
1,4-Dichlorobenzene-----	N.D.	0.4
1,2-Dichlorobenzene-----	N.D.	0.4

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 78 %

LAB #: 8-3667

MATRIX: WATER

CLIENT'S ID: 130104

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	0.7	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 89 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 11-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 01-Apr-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 01-Apr-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 05-Apr-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.29-L Date: 05-Apr-88
 Analytical Method: EPA 624 Hold Time 4 days

LAB # 8-3668
 CLIENT'S ID 130103

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	91 %
Toluene-d8	97 %
4-Bromofluorobenzene	126 %

N. D.: Not Detected

Atch
 Analytical Supervisor

Report Date: 11-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 01-Apr-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 01-Apr-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 05-Apr-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.29-L Date: 05-Apr-88
 Analytical Method: EPA 624 Hold Time 4 days

LAB # 8-3669 MATRIX: WATER
 CLIENT'S ID 130104

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	5.1	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	0.5	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	93 %
Toluene-d8	101 %
4-Bromofluorobenzene	125 %

N. D.: Not Detected

RSB
 Analytical Supervisor

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Furge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

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LAB #	8-3670	MATRIX:	WATER
CLIENT ID:	130103		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

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=====
LAB #      B-3670                MATRIX:  WATER
CLIENT ID: 130103
=====

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BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate	Spike % Recovery
Nitrobenzene-d5	61 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	68 %

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3670	MATRIX:	WATER
CLIENT ID:	130103		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	13 %
Phenol-d5	6 %
2,4,6-Tribromophenol	19 %

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====
 LAB # 8-3670 MATRIX: WATER
 CLIENT ID: 130103
 =====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

 QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	61 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	68 %

 N.D.: Not Detected
 n.d.: not determined
 N.A.: Not Applicable



 Analytical Supervisor

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3671	MATRIX:	WATER
CLIENT ID:	130104		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl)ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

```
=====
LAB #      8-3671                MATRIX:  WATER
CLIENT ID: 130104
=====
```

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	52 %
2-Fluorobiphenyl	45 %
Terphenyl-d14	55 %

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

```
=====
LAB #      B-3671          MATRIX:  WATER
CLIENT ID: 130104
=====
```

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	96 %
Phenol-d5	20 %
2,4,6-Tribromophenol	28 %

Report Date:	12-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	01-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	01-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	05-Apr-88
Analyst:	Siegmund	Analysis Completion	
WESCO JOB #:	HLA 0831.29-L	Date:	07-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	4

=====

LAB #	8-3671	MATRIX:	WATER
CLIENT ID:	130104		

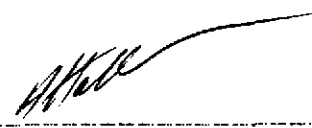
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PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	52 %
2-Fluorobiphenyl	45 %
Terphenyl-d14	55 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor



TREATMENT SYSTEM 4-2-88

WESCO Laboratories

Report Date: 14-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis/Arntzen
 WESCO JOB #: HLA 0831.30-L
 Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
 Date Sampled: 02-Apr-88
 Site: City of Oakland
 Date Received: 02-Apr-88
 Extract/Digest/Purge
 Date: 02-Apr-88
 Analysis Completion
 Date: 02-Apr-88
 Hold Time: 0 days

LAB #: 8-3723

MATRIX: WATER

CLIENT'S ID: 130201

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	890	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
 Fluorobenzene 94 %

LAB #: 8-3724

MATRIX: WATER

CLIENT'S ID: 130202

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
 Fluorobenzene 97 %

LAB #: 8-3725

MATRIX: WATER

CLIENT'S ID: 130203

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
 Fluorobenzene 100 %

N.D.: Not Detected

Analytical Supervisor

Report Date: 14-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis/Arntzen
WESCO JOB #: HLA 0831.30-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 09382,026.02
Date Sampled: 02-Apr-88
Site: City of Oakland
Date Received: 02-Apr-88
Extract/Digest/Purge
Date: 02-Apr-88
Analysis Completion
Date: 02-Apr-88
Hold Time: 0 days

=====
LAB #: 8-3727
CLIENT'S ID: 130204
=====

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene

104 %

=====
LAB #: 8-3729
CLIENT'S ID: 130205
=====

MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Gasoline-----	N.D.	50.0

QUALITY CONTROL DATA
Surrogate Spike & Recovery
Fluorobenzene

99 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 14-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis/Arntzen
WESCO JOB #: HLA 0831.30-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 02-Apr-88
Site: City of Oakland
Date Received: 02-Apr-88
Extract/Digest/Purge
Date: 02-Apr-88
Analysis Completion
Date: 02-Apr-88
Hold Time: 0 days

LAB #: 8-3723

MATRIX: WATER

CLIENT'S ID: 130201

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	73.0	0.2
Toluene-----	62.0	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	7.0	0.2
Xylene-----	60.0	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 94 %

LAB #: 8-3724

MATRIX: WATER

CLIENT'S ID: 130202

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
Fluorobenzene 97 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 14-Apr-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: Tim Walker
 Submitted by: Tim Walker
 Preservatives: none
 Analyst: Lewis/Arntzen
 WESCO JOB #: HLA 0831.30-L
 Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
 Date Sampled: 02-Apr-88
 Site: City of Oakland
 Date Received: 02-Apr-88
 Extract/Digest/Purge
 Date: 02-Apr-88
 Analysis Completion
 Date: 02-Apr-88
 Hold Time: 0 days

=====
 LAB #: 8-3725 MATRIX: WATER
 CLIENT'S ID: 130203
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA
 Surrogate Spike Percent Recovery
 Fluorobenzene 100 %

=====
 LAB #: 8-3727 MATRIX: WATER
 CLIENT'S ID: 130204
 =====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene-----	N.D.	0.2
Toluene-----	N.D.	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	N.D.	0.2
Xylene-----	N.D.	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA
 Surrogate Spike Percent Recovery
 Fluorobenzene 104 %

N.D.: Not Detected

 Analytical Supervisor

Report Date: 14-Apr-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: Tim Walker
Submitted by: Tim Walker
Preservatives: none
Analyst: Lewis/Arntzen
WESCO JOB #: HLA 0831.30-L
Analytical Method: EPA 602

Client Contract/PO: 09382,026.02
Date Sampled: 02-Apr-88
Site: City of Oakland
Date Received: 02-Apr-88
Extract/Digest/Purge
Date: 02-Apr-88
Analysis Completion
Date: 02-Apr-88
Hold Time: 0 days

LAB #: 8-3729
CLIENT'S ID: 130205

MATRIX: WATER


COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Benzene	N.D.	0.2
Toluene	N.D.	0.2
Chlorobenzene	N.D.	0.2
Ethylbenzene	N.D.	0.2
Xylene	N.D.	0.2
1,3-Dichlorobenzene	N.D.	0.2
1,4-Dichlorobenzene	N.D.	0.2
1,2-Dichlorobenzene	N.D.	0.2

QUALITY CONTROL DATA

Surrogate Spike
Fluorobenzene

Percent Recovery
99 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 14-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 02-Apr-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 02-Apr-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 06-Apr-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.30-L Date: 06-Apr-88
 Analytical Method: EPA 624 Hold Time 4 days

=====

LAB # 8-3726 MATRIX: WATER
 CLIENT'S ID 130203

=====

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	9.1	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	0.6	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	85 %
Toluene-d8	104 %
4-Bromofluorobenzene	95 %

N. D.: Not Detected

Analytical Supervisor 

Report Date: 14-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 02-Apr-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 02-Apr-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 06-Apr-88
 Analyst: Slegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.30-L Date: 06-Apr-88
 Analytical Method: EPA 624 Hold Time 4 days

LAB # 8-3728 MATRIX: WATER
 CLIENT'S ID 130204

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	15.4	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	102 %
Toluene-d8	102 %
4-Bromofluorobenzene	96 %

N. D.: Not Detected

 Analytical Supervisor

Report Date: 14-Apr-88 Client Contract/PO: 09382,026.02
 Client: Harding Lawson Associates Date Sampled: 02-Apr-88
 Attn: David Leland Site: City of Oakland
 Sampled by: Tim Walker Date Received: 02-Apr-88
 Submitted by: Tim Walker Extract/Digest/Purge
 Preservatives: none Date: 06-Apr-88
 Analyst: Siegmund/Moezzi Analysis Completion
 WESCO JOB #: HLA 0831.30-L Date: 06-Apr-88
 Analytical Method: EPA 624 Hold Time 4 days

LAB # 8-3730
 CLIENT'S ID 130205


MATRIX: WATER

COMPOUND	RESULT (ug/l)	Detection Limit (ug/l)
Dichlorodifluoromethane	N.D.	0.5
Methyl Chloride	N.D.	0.5
Vinyl Chloride	N.D.	0.5
Methyl Bromide	N.D.	0.5
Ethyl Chloride	N.D.	0.5
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-trichloroethane	N.D.	0.5
1,2-Dichloroethane	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
Benzene	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Trichloroethene	N.D.	0.5
Bromodichloromethane	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
Toluene	N.D.	0.5
cis-1,3-dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Chlorobenzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Xylene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2,-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
1,2-Dichloroethane-d4	86 %
Toluene-d8	101 %
4-Bromofluorobenzene	92 %

N. D.: Not Detected


 Analytical Supervisor

Report Date:	13-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

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LAB #	B-3731	MATRIX:	WATER
CLIENT ID:	130203		

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BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	13-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCD JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3731	MATRIX:	WATER
CLIENT ID:	130203		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	49 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	50 %

Report Date:	13-Apr-88	Client Contract/P009382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

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LAB #      8-3731          MATRIX:  WATER
CLIENT ID: 130203
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ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	31 %
Phenol-d5	21 %
2,4,6-Tribromophenol	53 %

Report Date:	13-Apr-88	Client Contract/PO09382,026.02	
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3731	MATRIX:	WATER
CLIENT ID:	130203		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	49 %
2-Fluorobiphenyl	51 %
Terphenyl-d14	50 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable

[Signature]

Analytical Supervisor

Report Date:	13-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

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LAB # 8-3732

MATRIX: WATER

CLIENT ID: 130204

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl) ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy) methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	13-Apr-88	Client Contract/PD:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3732	MATRIX:	WATER
CLIENT ID:	130204		

=====

BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	49 %
2-Fluorobiphenyl	49 %
Terphenyl-d14	56 %

Report Date:	13-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB # 8-3732

MATRIX: WATER

CLIENT ID:

130204

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	26 %
Phenol-d5	14 %
2,4,6-Tribromophenol	34 %

Report Date:	13-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	8-3732	MATRIX:	WATER
CLIENT ID:	130204		

=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	49 %
2-Fluorobiphenyl	49 %
Terphenyl-d14	56 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

Report Date:	13-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	8-3733	MATRIX:	WATER
CLIENT ID:	130205		

=====

BASE NEUTRALS	RESULT (ug/l)	Detection Limit (ug/l)
N-Nitrosodimethylamine	N.D.	n.d.
Bis(2-chloroethyl) ether	N.D.	7
1,3-Dichlorobenzene	N.D.	2
1,4-Dichlorobenzene	N.D.	4
1,2-Dichlorobenzene	N.D.	2
Bis(2-chloroisopropyl)ether	N.D.	6
N-Nitroso-di-N-propylamine	N.D.	n.d.
Hexachloroethane	N.D.	2
Nitrobenzene	N.D.	2
Bis(2-chloroethoxy)methane	N.D.	5
1,2,4-Trichlorobenzene	N.D.	2
Naphthalene	N.D.	2
Hexachlorobutadiene	N.D.	1
Hexachlorocyclopentadiene	N.D.	n.d.
2-Chloronaphthalene	N.D.	2
Dimethylphthalate	N.D.	2
Acenaphthylene	N.D.	4
2,6-Dinitrotoluene	N.D.	2
Acenaphthene	N.D.	2
2,4-Dinitrotoluene	N.D.	6
Diethyl phthalate	N.D.	2
Fluorene	N.D.	2
4-Chlorophenylphenyl ether	N.D.	4
N-Nitrosodiphenyl amine	N.D.	2
4-Bromophenylphenyl ether	N.D.	2
Hexachlorobenzene	N.D.	2
Phenanthrene	N.D.	6
Anthracene	N.D.	2
Di-n-butyl phthalate	N.D.	3
Fluoranthene	N.D.	2
Benzidine	N.D.	n.d.
Pyrene	N.D.	2
Butylbenzyl phthalate	N.D.	3

Report Date:	13-Apr-88	Client Contract/PD:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

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LAB #      8-3733                MATRIX:  WATER
CLIENT ID: 130205
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BASE/NEUTRALS (cont)	RESULT (ug/l)	Detection Limit (ug/l)
Benzo(a)anthracene	N.D.	8
3,3'-Dichlorobenzidine	N.D.	17
Chrysene	N.D.	3
Bis(2-ethylhexyl) phthalate	N.D.	3
Di-n-octyl phthalate	N.D.	3
Benzo(b)fluoranthene	N.D.	5
Benzo(k)fluoranthene	N.D.	3
Benzo(a)pyrene	N.D.	3
Indeno(1,2,3-c,d)pyrene	N.D.	4
Dibenzo(a,h)anthracene	N.D.	3
Benzo(g,h,i)perylene	N.D.	4

QUALITY CONTROL DATA

Base/Neutral Surrogate Spike % Recovery	
Nitrobenzene-d5	36 %
2-Fluorobiphenyl	39 %
Terphenyl-d14	53 %

Report Date:	13-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	B-3733	MATRIX:	WATER
CLIENT ID:	130205		

=====

ACID COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
Phenol	N.D.	2
2-Chlorophenol	N.D.	3
2-Nitrophenol	N.D.	4
2,4-Dimethylphenol	N.D.	3
2,4-Dichlorophenol	N.D.	3
4-Chloro-3-methylphenol	N.D.	3
2,4,6-Trichlorophenol	N.D.	3
2,4-Dinitrophenol	N.D.	40
4-Nitrophenol	N.D.	40
2-Methyl-4,6-dinitrophenol	N.D.	40
Pentachlorophenol	N.D.	3

QUALITY CONTROL DATA

Acid Surrogate Spike % Recovery	
2-Fluorophenol	16 %
Phenol-d5	9 %
2,4,6-Tribromophenol	29 %

Report Date:	13-Apr-88	Client Contract/PO:	09382,026.02
Client:	Harding Lawson Associates	Date Sampled:	02-Apr-88
Attn:	David Leland	Site:	City of Oakland
Sampled by:	Tim Walker	Date Received:	02-Apr-88
Submitted by:	Tim Walker	Extract/Digest/Purge	
Preservatives:	none	Date:	07-Apr-88
Analyst:	Siegmund/Moezzi	Analysis Completion	
WESCO JOB #:	HLA 0831.30-L	Date:	08-Apr-88
Analytical Method:	EPA 625	Holding Time, Days	5

=====

LAB #	8-3733	MATRIX:	WATER
CLIENT ID:	130205		


=====

PESTICIDE COMPOUNDS	RESULT (ug/l)	Detection Limit (ug/l)
alpha-BHC	N.D.	n.d.
beta-BHC	N.D.	n.d.
gamma-BHC	N.D.	n.d.
delta-BHC	N.D.	n.d.
Heptachlor	N.D.	n.d.
Aldrin	N.D.	n.d.
Heptachlor epoxide	N.D.	n.d.
Endosulfan I	N.D.	n.d.
4,4'-DDE	N.D.	n.d.
Dieldrin	N.D.	n.d.
Endrin	N.D.	n.d.
Endosulfan II	N.D.	n.d.
4,4'-DDD	N.D.	n.d.
Endrin Aldehyde	N.D.	n.d.
4,4'-DDT	N.D.	n.d.
Endosulfan Sulfate	N.D.	n.d.

QUALITY CONTROL DATA

Pesticide Surrogate Spike % Recovery	
Nitrobenzene-d5	36 %
2-Fluorobiphenyl	39 %
Terphenyl-d14	53 %

N.D.: Not Detected
n.d.: not determined
N.A.: Not Applicable



Analytical Supervisor

DISTRIBUTION

REPORT OF SYSTEM MONITORING: APRIL 1 - 15, 1988
DEWATERING EFFLUENT TREATMENT SYSTEM
CHINATOWN REDEVELOPMENT PROJECT AREA
OAKLAND, CALIFORNIA
April 20, 1988

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DFL/PAM/lan/D3733-R

Quality Control Reviewer



Christopher R. Smith
Associate Hydrogeologist