

A Report Prepared for

California Regional Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street, Suite 700
Oakland, California 94607

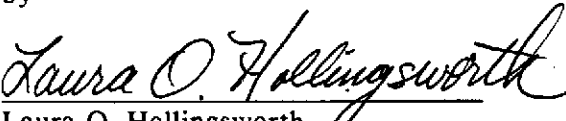
**REPORT OF SYSTEM MONITORING
JANUARY 1990
DEWATERING EFFLUENT TREATMENT SYSTEM
CHINATOWN REDEVELOPMENT PROJECT AREA
OAKLAND, CALIFORNIA**

HLA Job No. 09382,040.02

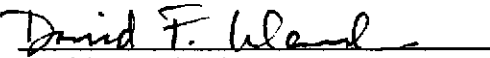
Submitted on behalf of:

City of Oakland Redevelopment Agency
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February 20, 1990

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I INTRODUCTION

This report discusses the operation and monitoring of the ground-water treatment system at 10th and Webster streets, Oakland, California from January 1 to January 31, 1990. The system is treating ground water produced from extraction wells located in the area bounded by 9th, 11th, Webster and Franklin streets. Ground-water extraction is being conducted in conjunction with in situ biological treatment of soil at the Pacific Renaissance Plaza (PRP) site bounded by 9th, Franklin, and Webster streets and the East Bay Municipal Utility District (EBMUD) property line approximately 100 feet north of the centerline of 10th Street.

This report has been prepared by Harding Lawson Associates (HLA) on behalf of the Redevelopment Agency of the City of Oakland (Agency) and is submitted in compliance with NPDES Permit CA 0029394, adopted on July 20, 1988, by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). Under the NPDES permit, treatment system discharge limits are 50 parts per billion (ppb) for total petroleum hydrocarbons (TPH) identified as gasoline; 5.6 ppb for lead; 5.0 ppb each for chlorobenzene, 1,2-dichloroethane, 1,2-dichloropropane, trichloroethylene, 1,1,2-trichloroethane, benzene, xylenes, and ethylbenzene; 0.5 ppb for toluene; 0.01 ppb for ethylene dibromide; and 0.0 ppb for total residual chlorine. The treatment system is designed to reduce concentrations of hydrocarbons in ground water to less than discharge limits specified in the NPDES permit.

II TREATMENT SYSTEM OPERATION

The ground-water treatment system was installed March 8, 1988, and has been in operation since March 14, 1988. Water is treated by pumping it through four carbon contactors arranged in pairs. Organic compounds in the influent are adsorbed onto 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 ground-water extraction wells may be pumped through either module first. The system also includes a holding tank for influent water, pumps, filters, piping, and instrumentation. Four water sampling ports -- one influent, two intermediate, and one effluent -- enable water samples to be collected throughout 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.

Treated effluent is either recycled to the PRP biological treatment system or discharged to the storm drain. From December 31, 1989 to February 1, 1990, total effluent discharged from the system was 1,135,850 gallons, based on readings of the flowmeters located on each extraction well. Average flow through the treatment system for the month was 24.6 gallons per minute (gpm). Of the 1,135,850 gallons of treatment system effluent, over 99 percent, or 1,134,040 gallons, were recycled to the PRP biotreatment injection system and 1,810 gallons were discharged to the storm drain.

The carbon contactors were backwashed on January 5, January 16, and January 26. Bag filters were replaced approximately every 2 to 3 days. The sand filter was backwashed with fresh water twice a day. Cartridge filters were changed on January 10.

III TREATMENT SYSTEM MONITORING

During this reporting period, treatment system samples were collected on January 3 from the influent, intermediate, and effluent sampling ports. A duplicate effluent sample was submitted with the samples collected.

All samples were analyzed by Pace Laboratories, Novato, California, a California-certified laboratory. All samples were analyzed for halogenated organics by EPA Test Method 8010, for benzene, toluene, ethylbenzene, and xylenes by EPA Test Method 8020, and for TPH as gasoline by EPA Test Method 8015. Influent and effluent samples were analyzed for ethylene dibromide by EPA Test Method 504, for residual chlorine by Standard Method 408E, and for dissolved oxygen by EPA Test Method 360.2.

Results of analyses of samples collected June 8, 1989 through January 3, 1990 are summarized in Tables 1 through 4. Analytical results for samples collected in January are discussed in this report.

IV RESULTS

Results of treatment system water sample analyses for TPH and for the EPA Test Method 8010, 8020, and 504 compounds analyzed indicate that on the sampling date (January 3, 1990), the carbon treatment system removed most individual constituents to below detection levels in discharge water. Ethylene dibromide, and 1,2-dichloroethane were detected in the effluent sample at concentrations of 0.04 ppb, and 3.3 ppb, respectively.

The ethylene dibromide concentration exceeds the 0.01 ppb effluent limit. The ethylene dibromide effluent limit has only been exceeded once in the past, in February 1989. The presence of ethylene dibromide in the effluent may indicate exhaustion of the carbon beds. The analytical results from treatment system samples collected in February will be evaluated to assess this.

TABLE 1. TREATMENT SYSTEM WATER ANALYSIS: INFLUENT SAMPLES

PAGE 1

HLA SAMPLE ID #	89230801	89270503	8930CS1M	89090741	8910CS1N	89451124	89490017	90010311
DATE	06/08/89	07/05/89	08/01/89	09/07/89	10/05/89	11/02/89	12/05/89	01/03/90
TEST METHOD/ COMPOUNDS								
EPA 8020								
Benzene	1.2	11.5	710	6.3	2.2	ND < 0.2	3.7	2
Toluene	0.9	2.5	610	0.7	1.7	ND < 0.2	0.7	0.4
Ethylbenzene	ND < 0.2	ND < 0.2	46	ND < 2.0	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylenes	26	71	1100	39	38	12	25	10
Chlorobenzene	ND < 0.2	ND < 0.2	ND < 2.0	NT	NT	NT	NT	NT
1,2-Dichlorobenzene	ND < 0.2	ND < 0.2	ND < 2.0	NT	NT	NT	NT	NT
All other 8020 compounds	ND < 0.2	ND < 0.2	ND < 2.0	NT	NT	NT	NT	NT
EPA 8015								
TPH (Gasoline)	110	220	6200	ND < 50	120	ND < 50	50	ND < 50
EPA 8010								
1,1-dichloroethene	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Methylene chloride	0.6	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,1-dichloroethane	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Chloroform	4.5	2.5	ND < 5.0	4.3	ND < 0.5	5.5	3.3	ND < 0.5
1,1,1-trichloroethane	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,2-dichloroethane	8.1	8.3	ND < 5.0	7.6	6.6	10	7.1	6.7
Trichloroethene	10.3	9.8	ND < 5.0	14	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,2-dichloropropane	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Bromodichloromethane	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Cis-1,3-dichloropropene	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Tetrachloroethene	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Chlorobenzene	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Bromoform	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,1,2,2-tetrachloroethane	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Dibromochloromethane	ND < 0.5	ND < 0.5	ND < 5.0	ND < 0.5	ND < 0.5	ND < 0.5	0.63	0.69
All other 8010 compounds	ND	ND	ND	ND	ND	ND	ND	ND
EPA 504								
Ethylene dibromide	ND < 0.01	0.09	0.09	ND < 0.02	1.6	2.8	LT 4.0	2.1
Standard Method 408E								
Residual chlorine (mg/l)	ND < 0.05	ND < 0.01	ND < 0.05	0.5	ND < 0.05	0.1	ND < 0.05	ND < 0.05
EPA 360.2								
Dissolved oxygen (mg/l)	14	6.9	20	6.8	5.6	3.4	5.6	8.4

LT - Detected but not quantified at a concentration less than indicated value.

ND - Not detected at stated detection limit.

NT - Not Tested.

All results reported in parts per billion (ppb) except where indicated.

TABLE 2. TREATMENT SYSTEM WATER ANALYSIS: INTERMEDIATE SAMPLES

PAGE 1

HLA SAMPLE ID #	89230802	89270502	8930CSIM	89090742	8910CSIT	89451126	89490018	90010312
DATE	06/08/89	07/05/89	08/01/89	09/07/89	10/05/89	11/02/89	12/05/89	01/03/90
TEST METHOD/COMPOUNDS								
EPA 8020								
Benzene	NT	ND < 0.2	79	ND < 0.2	1.7	NT	ND < 0.2	ND < 0.2
Toluene	NT	0.7	61	ND < 0.2	ND < 0.2	NT	1.8	ND < 0.2
Ethylbenzene	NT	ND < 0.2	2.6	ND < 0.2	ND < 0.2	NT	ND < 0.2	ND < 0.2
Xylenes	NT	ND < 0.2	140	ND < 0.2	ND < 0.2	NT	ND < 0.2	ND < 0.2
Chlorobenzene	NT	ND < 0.2	ND < 0.2	NT	NT	NT	NT	NT
1,3-Dichlorobenzene	NT	ND < 0.2	ND < 0.2	NT	NT	NT	NT	NT
All other 8020 compounds	NT	ND < 0.2	ND < 0.2	NT	NT	NT	NT	NT
EPA 8015								
TPH (Gasoline)	NT	NT	NT	NT	ND < 50	NT	ND < 50	ND < 50
EPA 8010								
Methylene chloride	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,1-dichloroethane	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Chloroform	ND < 0.5	1.5	5.6	4.7	ND < 0.5	ND < 0.5	3.8	3.6
1,1,1-trichloroethane	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,2-dichloroethane	1.3	3.4	ND < 0.5	6.2	7.7	7.5	6.6	6.3
Trichloroethene	ND < 0.5	ND < 0.5	2.7	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Tetrachloroethene	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Chlorobenzene	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
Bromoform	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
1,3-dichlorobenzene	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
All other 8010 compounds	ND	ND	ND	ND	ND	ND	ND	ND

 ND - Not detected at stated detection limit.

NT - Not Tested.

All results reported in parts per billion (ppb) except where indicated.

TABLE 3. TREATMENT SYSTEM WATER ANALYSIS: EFFLUENT SAMPLES

PAGE 1

HLA SAMPLE ID #	89230803	89270501	8930CSEF	89090740	8910CSEF	89451127	89490019	90010313	90010314
DATE	06/08/89	07/05/89	08/01/89	09/07/89	10/05/89	11/02/89	12/05/89	01/03/90	01/03/90
TOTAL FLOW (THOUSAND GALLONS)	9778.1	10953.4	12120.6	13566.4	14424.0	-	-	-	-
AVERAGE FLOW (GPM)	30.5	30.2	30.0	27.1	21.3	-	-	-	-
TEST METHOD/COMPOUNDS									
EPA 8020									
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 < 0.7	ND < 0.2	ND < 1.2	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
Diphenylhydrazine	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	NT	NT	NT	NT
All other 8020 compounds	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	NT	NT	NT	NT
EPA 8015									
TPH (Gasoline)	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
EPA 8010									
Dichlorodifluoromethane	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0	ND < 2.0
1,1-dichloroethene	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	ND < 0.6	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.53	ND < 0.5	ND < 0.5
1,1-dichloroethane	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
Chloroform	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	ND < 1.5	ND < 1.6	ND < 0.5	ND < 0.5
1,1,1-trichloroethane	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
1,2-dichloroethane	ND < 0.5	ND < 0.5	ND < 0.7	ND < 1.1	ND < 1.7	ND < 2.8	ND < 3.0	ND < 3.3	ND < 3.5
Trichloroethene	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
Tetrachloroethene	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
All other 8010 compounds	ND	ND	ND	ND	ND	ND	ND	ND	ND
EPA 360.2									
Dissolved oxygen (mg/l)	10	3.3	1.0	1.9	1.3	1.8	5.3	2.6	NT
EPA 504									
Ethylene dibromide	ND < 0.01	ND < 0.01	ND < 0.02	ND < 0.02	ND < 0.02	ND < 0.01	ND < 0.02	0.04	0.05
Standard Method 408E									
Residual chlorine (mg/l)	ND < 0.05	ND < 0.01	ND < 0.05	ND < 0.05	ND < 0.05	ND < 0.05	ND < 0.05	ND < 0.05	NT

ND - Not detected at stated detection limit.

NT - Not Tested.

All results reported in parts per billion (ppb) except where indicated.

TABLE 4. TREATMENT SYSTEM WATER ANALYSIS: BLANK SAMPLES

PAGE 1

HLA SAMPLE ID #	89230805	89270515	---	89090615	8910CSTB	89451125	89490020	-
DATE	06/08/89	07/05/89	08/01/89	09/07/89	10/05/89	11/02/89	12/05/89	01/03/90
TEST METHOD/COMPOUNDS								
EPA 8020								
Benzene	ND < 0.2	ND < 0.2	NT	ND < 0.5	ND < 0.2	ND < 0.2	ND < 0.2	NT
Toluene	ND < 0.2	ND < 0.2	NT	ND < 0.5	ND < 0.2	ND < 0.2	ND < 0.2	NT
Ethylbenzene	ND < 0.2	ND < 0.2	NT	ND < 0.5	ND < 0.2	ND < 0.2	ND < 0.2	NT
Xylenes	ND < 0.2	ND < 0.2	NT	ND < 0.5	ND < 0.2	ND < 0.2	ND < 0.2	NT
All other 8020 compounds	ND < 0.2	ND < 0.2	NT	NT	NT	NT	NT	NT
EPA 8015								
TPH (Gasoline)	ND < 50	ND < 50	NT	ND < 250	ND < 50	ND < 50	ND < 50	NT
EPA 8010								
Dichlorodifluoromethane	ND < 2.0	NT	NT	NT	ND < 2.0	ND < 2.0	NT	NT
1,1-dichloroethene	ND < 0.5	NT	NT	NT	ND < 0.5	ND < 0.5	NT	NT
Methylene chloride	ND < 0.5	NT	NT	NT	ND < 0.5	ND < 0.5	NT	NT
1,1,1-trichloroethane	ND < 0.5	NT	NT	NT	ND < 0.5	ND < 0.5	NT	NT
1,2-dichloroethane	ND < 0.5	NT	NT	NT	ND < 0.5	ND < 0.5	NT	NT
All other 8010 compounds	ND	NT	NT	NT	ND	ND	NT	NT
EPA 504								
Ethylene dibromide	NT	NT	NT	NT	ND < 0.02	NT	NT	NT

ND - Not detected at stated detection limit.

NT - Not Tested.

All results reported in parts per billion (ppb) except where indicated.

Appendix

LABORATORY ANALYTICAL RESULTS FOR
TREATMENT SYSTEM SAMPLES

Harding Lawson Associates
200 Rush Landing Road
Novato, CA 94945

January 23, 1990
PACE Project
Number: 400103501
WPP1218
Revised February 22, 1989

Attn: Mr. David Leland

PRP Oakland

PACE Sample Number:
Date Collected:
Date Received:
Parameter

Influent	Intermediate	Effluent
700380	700390	700400
01/03/90	01/03/90	01/03/90
01/03/90	01/03/90	01/03/90
90010311	90010312	90010313

Units

MDL

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Parameter	Units	MDL	Influent	Intermediate	Effluent
Chlorine, Total Residual	mg/L	0.05	ND	-	ND
Oxygen, Dissolved	mg/L	0.1	8.4	-	2.6

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

Parameter	Units	MDL	Influent	Intermediate	Effluent
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	-	-
Total Purgeable Fuels, as Gasoline	mg/L	0.05	ND	ND	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	-	-
Benzene	mg/L	0.0002	0.0020	ND	ND
Ethylbenzene	mg/L	0.0002	ND	ND	ND
Toluene	mg/L	0.0002	0.0004	ND	ND
Xylenes, Total	mg/L	0.0002	0.010	ND	ND

HALOGENATED VOLATILE COMPOUNDS EPA 8010

Parameter	Units	MDL	Influent	Intermediate	Effluent
Dichlorodifluoromethane	ug/L	2.0	ND	ND	ND
Chloromethane	ug/L	2.0	ND	ND	ND
Vinyl Chloride	ug/L	2.0	ND	ND	ND
Bromomethane	ug/L	2.0	ND	ND	ND
Chloroethane	ug/L	2.0	ND	ND	ND
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	ND	ND
1,1-Dichloroethene	ug/L	0.5	ND	ND	ND
Methylene Chloride	ug/L	0.5	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	0.5	ND	ND	ND
1,1-Dichloroethane	ug/L	0.5	ND	ND	ND
Chloroform	ug/L	0.5	ND	3.6	ND
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	ND	ND
Carbon Tetrachloride	ug/L	0.5	ND	ND	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Offices:
Minneapolis, Minnesota
Tampa, Florida
Coralville, Iowa
Novato, California
Leawood, Kansas
Irvine, California
Asheville, North Carolina
Charlotte, North Carolina

Harding Lawson Associates
200 Rush Landing Road
Novato, CA 94945

January 23, 1990
PACE Project
Number: 400103501

Attn: Mr. David Leland

PRP Oakland

PACE Sample Number:
Date Collected:
Date Received:
Parameter

Influent	Intermediate	Effluent
700380	700390	700400
01/03/90	01/03/90	01/03/90
01/03/90	01/03/90	01/03/90
90010311	90010312	90010313

Units MDL

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Chlorine, Total Residual	mg/L	0.05	ND	-	ND
Oxygen, Dissolved	mg/L	0.1	8.4	-	2.6

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):					
Total Purgeable Fuels, as Gasoline	mg/L	0.05	ND	ND	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):					
Benzene	mg/L	0.0002	0.0020	ND	ND
Ethylbenzene	mg/L	0.0002	ND	ND	ND
Toluene	mg/L	0.0002	0.0004	ND	ND
Xylenes, Total	mg/L	0.0002	0.010	ND	ND

HALOGENATED VOLATILE COMPOUNDS EPA 8010

Dichlorodifluoromethane	ug/L	2.0	ND	ND	ND
Chloromethane	ug/L	2.0	ND	ND	ND
Vinyl Chloride	ug/L	2.0	3.2	ND	ND
Bromomethane	ug/L	2.0	ND	ND	ND
Chloroethane	ug/L	2.0	ND	ND	ND
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	ND	ND
1,1-Dichloroethene	ug/L	0.5	ND	ND	ND
Methylene Chloride	ug/L	0.5	ND	ND	ND
trans-1,2-Dichloroethene	ug/L	0.5	ND	ND	ND
1,1-Dichloroethane	ug/L	0.5	ND	ND	ND
Chloroform	ug/L	0.5	ND	3.6	ND
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	ND	ND
Carbon Tetrachloride	ug/L	0.5	ND	ND	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Offices:
Minneapolis, Minnesota
Tampa, Florida
Coralville, Iowa
Novato, California
Leawood, Kansas
Irvine, California
Asheville, North Carolina
Charlotte, North Carolina

Mr. David Leland

Page 2

PRP Oakland

January 23, 1990

PACE Project

Number: 400103501

PACE Sample Number:

Date Collected:

Date Received:

Parameter

Influent	Intermediate	Effluent
700380	700390	700400
01/03/90	01/03/90	01/03/90
01/03/90	01/03/90	01/03/90
MDL 90010311	90010312	90010313

Units

MDL

ORGANIC ANALYSIS

HALOGENATED VOLATILE COMPOUNDS EPA 8010

1,2-Dichloroethane (EDC)	ug/L	0.5	6.7	6.3	3.3
Trichloroethene (TCE)	ug/L	0.5	ND	ND	ND
1,2-Dichloropropane	ug/L	0.5	ND	ND	ND
Bromodichloromethane	ug/L	0.5	ND	ND	ND
2-Chloroethylvinyl ether	ug/L	0.5	ND	ND	ND
trans-1,3-Dichloropropene	ug/L	0.5	ND	ND	ND
cis-1,3-Dichloropropene	ug/L	0.5	ND	ND	ND
1,1,2-Trichloroethane	ug/L	0.5	ND	ND	ND
Tetrachloroethene	ug/L	0.5	ND	ND	ND
Dibromochloromethane	ug/L	0.5	0.69	ND	ND
Chlorobenzene	ug/L	0.5	ND	ND	ND
Bromoform	ug/L	0.5	ND	ND	ND
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	ND	ND
1,3-Dichlorobenzene	ug/L	0.5	ND	ND	ND
1,4-Dichlorobenzene	ug/L	0.5	ND	ND	ND
1,2-Dichlorobenzene	ug/L	0.5	ND	ND	ND
Bromochloromethane (Surrogate Recovery)			87%	90%	89%
1,4-Dichlorobutane (Surrogate Recovery)			95%	95%	98%

1,2-DIBROMOETHANE (EDB) EPA METHOD 504

1,2-Dibromoethane	ug/L	0.01	2.1	-	0.04
Date Extracted			01-08-90	-	01-08-90

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Offices:
Minneapolis, Minnesota
Tampa, Florida
Coralville, Iowa
Novato, California
Leawood, Kansas
Irvine, California
Asheville, North Carolina
Charlotte, North Carolina

Mr. David Leland
Page 3

January 23, 1990
PACE Project
Number: 400103501

PRP Oakland

Effluent Duplicate

PACE Sample Number: 700410
Date Collected: 01/03/90
Date Received: 01/03/90
Parameter Units MDL 90010314

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Total Purgeable Fuels, as Gasoline	mg/L	0.05	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	mg/L	0.0002	ND
Ethylbenzene	mg/L	0.0002	ND
Toluene	mg/L	0.0002	ND
Xylenes, Total	mg/L	0.0002	ND

HALOGENATED VOLATILE COMPOUNDS EPA 8010

Dichlorodifluoromethane	ug/L	2.0	ND
Chloromethane	ug/L	2.0	ND
Vinyl Chloride	ug/L	2.0	ND
Bromomethane	ug/L	2.0	ND
Chloroethane	ug/L	2.0	ND
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND
1,1-Dichloroethene	ug/L	0.5	ND
Methylene Chloride	ug/L	0.5	ND
trans-1,2-Dichloroethene	ug/L	0.5	ND
1,1-Dichloroethane	ug/L	0.5	ND
Chloroform	ug/L	0.5	ND
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND
Carbon Tetrachloride	ug/L	0.5	ND
1,2-Dichloroethane (EDC)	ug/L	0.5	3.5
Trichloroethene (TCE)	ug/L	0.5	ND
1,2-Dichloropropane	ug/L	0.5	ND
Bromodichloromethane	ug/L	0.5	ND
2-Chloroethylvinyl ether	ug/L	0.5	ND
trans-1,3-Dichloropropene	ug/L	0.5	ND
cis-1,3-Dichloropropene	ug/L	0.5	ND

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Offices:
Minneapolis, Minnesota
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Charlotte, North Carolina

Mr. David Leland
Page 4

January 23, 1990
PACE Project
Number: 400103501

PRP Oakland

Effluent Duplicate

PACE Sample Number: 700410
Date Collected: 01/03/90
Date Received: 01/03/90
Parameter Units MDL 90010314

ORGANIC ANALYSIS

HALOGENATED VOLATILE COMPOUNDS EPA 8010

1,1,2-Trichloroethane	ug/L	0.5	ND
Tetrachloroethene	ug/L	0.5	ND
Dibromochloromethane	ug/L	0.5	ND
Chlorobenzene	ug/L	0.5	ND
Bromoform	ug/L	0.5	ND
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND
1,3-Dichlorobenzene	ug/L	0.5	ND
1,4-Dichlorobenzene	ug/L	0.5	ND
1,2-Dichlorobenzene	ug/L	0.5	ND
Bromochloromethane (Surrogate Recovery)			95%
1,4-Dichlorobutane (Surrogate Recovery)			103%

1,2-DIBROMOETHANE (EDB) EPA METHOD 504

1,2-Dibromoethane	ug/L	0.01	0.05
Date Extracted			01-08-90

MDL Method Detection Limit
ND Not detected at or above the MDL.

The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my direct supervision.

Stephen F. Nackord

Stephen F. Nackord
Director, Sampling and Analytical Services

Steve Oram

Douglas E. Oram, Ph.D.
Organic Chemistry Manager

DISTRIBUTION

REPORT OF SYSTEM MONITORING
JANUARY 1990
DEWATERING EFFLUENT TREATMENT SYSTEM
CHINATOWN REDEVELOPMENT PROJECT AREA
OAKLAND, CALIFORNIA
February 20, 1990

Copy No. 4

Copy No.

1 copy:	California Regional Water Quality Control Board San Francisco Bay Region 1800 Harrison Street, Suite 700 Oakland, California 94607 Attention: Mr. Don Dalke	1
2 copies:	City of Oakland Redevelopment Agency One City Hall Plaza Oakland, California 94612 Attention: Mr. Peter Chen	2-3
1 copy:	Alameda County Department of Environmental Health 80 Swan Way, Room 200 Oakland, California 94621 Attention: Mr. Lowell Miller	4
1 copy:	Job File	5
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LOH/DFL/TLW/lid/LOH705-R

QUALITY CONTROL REVIEWER

Tamara L. Williams, R.G. - 4678
Tamara L. Williams for
Geologist - 3954



February 23, 1990

09382,040.02

California Regional Water
Quality Control Board
San Francisco Bay Region
1800 Harrison Street, Suite 700
Oakland, California 94607

Attention: Mr. Donald Dalke

Gentlemen:

**NPDES Permit Reporting Requirements
Dewatering Effluent Treatment System
Chinatown Redevelopment Project Area
Oakland, California**

This letter transmits Harding Lawson Associates' (HLA) *Report of System Monitoring, January 1990, Dewatering Effluent Treatment System, Chinatown Redevelopment Project Area, Oakland, California* describing the operations and monitoring of the carbon adsorption system for ground-water treatment at 10th and Webster Streets in Oakland.

This letter also requests approval of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) for a modification of NPDES Permit CA0029394 from monthly reporting to quarterly reporting. Monthly sampling and analysis will continue in accordance with permit requirements. We would be pleased to report to you verbally each month regarding sampling and analysis results. Quarterly reporting is proposed to streamline reporting and permit compliance efforts without jeopardizing the effectiveness of the system in meeting permitted effluent limitations.

If you have any questions regarding this request, please call David Leland at (415) 899-7352 or Pete Mote at (415) 899-7397.