

January 13, 1993  
SCI 430.015

3683

Mr. William Meckel  
East Bay Municipal Utility District  
Mail Slot #702  
P.O. Box 24055  
Oakland, California 94623-1055

Quarterly Monitoring Report 11  
Wastewater Discharge Permit Account #502-29091  
1330 Martin Luther King Jr. Way  
Oakland, California

Dear Mr. Meckel:

This letter presents quarterly monitoring results from the groundwater treatment plant at 1330 Martin Luther King Jr. Way. Monitoring of treated effluent has been performed in accordance with criteria specified in the EBMUD wastewater discharge permit account #502-29091, issued to the Oakland Redevelopment Agency for remediation of hydrocarbon contaminated groundwater.

During the eleventh quarter of operation (October 9, 1992 through January 8, 1993) approximately 267,170 gallons of treated water were discharged into the EBMUD sanitary sewer system. Treatment plant performance remains excellent. The analytical results from 46 sampling events indicate that total volatile hydrocarbons (TVH), benzene, toluene, xylene, and ethylbenzene (BTEX) have been reduced to nondetectable concentrations before discharge into the EBMUD sanitary sewer. No indications of breakthrough have occurred in the primary carbon column. Results of the water quality data generated during the eleventh quarter are presented in Table 1. During this quarter, Extraction Well #1 (EW-1) was not in operation. For this reason, there is no analytical data presented for EW-1-44, 45, 46. Analytical test reports and Chain-of-Custody documents are attached.

The analytical test results indicate that biologic activity within the primary holding tank is ongoing. During this quarter, hydrocarbon concentrations up to approximately 145 ug/l entered the primary holding tank and no detectable concentrations of hydrocarbons were recorded leaving the tank before passing through the carbon treatment system. Consequently, hydrocarbon loading of the carbon treatment system has been minimal.

Subsurface Consultants, Inc.

Mr. William Meckel  
East Bay Municipal Utility District  
SCI 430.015  
January 13, 1993  
Page 2

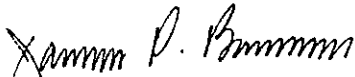
■ Subsurface Consultants, Inc.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



James P. Bowers  
Geotechnical Engineer 157 (expires 3/31/95)

MK:JPB:egh

Attachments: Table 1 - Contaminant Concentrations in Water  
Analytical Test Reports  
Chain-of-Custody Documents

cc: Ms. Lois Parr  
Oakland Redevelopment Agency

Ms. Julie Carver  
Environmental Affairs

✓ Ms. Jennifer Eberle  
ACHCSA

Mr. Eddy So  
RWQCB

Mr. Donnell Choy  
City of Oakland

TABLE 1. CONTAMINANT CONCENTRATIONS IN WATER

<u>Sample</u>	<u>Sampling Date</u>	<u>TVH (ug/L)</u>	<u>Benzene (ug/L)</u>	<u>Toluene (ug/L)</u>	<u>Ethyl-Benzene (ug/L)</u>	<u>Total Xylenes (ug/L)</u>
EW-2-44	10/29/92	100	3.5	ND	1.8	3.9
A-44		ND	ND	ND	ND	ND
B-44		ND	ND	ND	ND	ND
SS#1-44		ND	ND	ND	ND	ND
EW-2-45	11/25/92	145	0.8	ND	ND	3
A-45		ND	ND	ND	ND	ND
B-45		ND	ND	ND	ND	ND
SS#1-45		ND	ND	ND	ND	ND
EW-2-46	12/22/92	ND	0.6	ND	ND	ND
A-46		ND	ND	ND	ND	ND
B-46		ND	ND	ND	ND	ND
SS#1-46		ND	ND	ND	ND	ND

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TVH = Total volatile hydrocarbons, EPA 8015/5030

BTEX, Analyses by EPA 8020/5030

ug/L = micrograms per liter or parts per billion (ppb)

ND = None detected, chemicals not present at concentrations above the detection limits; see test reports for detection limits

EW-2 = indicates sample from Extraction Well #2

A = influent at primary carbon vessel

B = Between carbon vessels

SS#1 = side sewer #1, (effluent sample)



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

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

DATE RECEIVED: 10/29/92  
DATE REPORTED: 11/05/92


LABORATORY NUMBER: 109124


CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 430.015

LOCATION: MLK GW TREATMENT PLANT

RESULTS: SEE ATTACHED

  
Reviewed by

  
Reviewed by

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LABORATORY NUMBER: 109124  
CLIENT: SUBSURFACE CONSULTANTS  
PROJECT ID: 430.015  
LOCATION: MLK GW TREATMENT PLANT

DATE SAMPLED: 10/29/92  
DATE RECEIVED: 10/29/92  
DATE ANALYZED: 11/04/92  
DATE REPORTED: 11/05/92

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions  
TVH by California DOHS Method/LUFT Manual October 1989  
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
109124-1	EW-2-44	100	3.5	ND(0.5)	1.8	3.9
109124-2	A-44	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
109124-3	B-44	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
109124-4	SS#1-44	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	97



# EUREKA LABORATORIES, INC.

*Corporate Office:*  
6790 FLORIN PERKINS ROAD  
SACRAMENTO, CA 95828  
TEL: (916) 381-7953  
FAX: (916) 381-4013

*Branch Office:*  
17403 N.E. 28th STREET  
REDMOND, WA 98052  
TEL: (206) 885-0284  
FAX: (206) 885-0284

Air Pollution  
Chemical Analysis,  
Research & Testing  
Environmental Studies  
Robotics  
Toxicology

December 14, 1992

Mr. Mark Kawakami  
SUBSURFACE CONSULTANTS  
171 12th St.  
Oakland, CA 94607

Reference - ELI Order #: 92-12-002  
Project: MLK GW Treatment Plant  
Job #: 430.015

Dear Mr. Kawakami:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject project. This report presents analytical results for four (4) aqueous samples for the following analyses:

<u>ANALYSIS</u>	<u>METHOD</u>	<u>SAMPLE ID.</u>
Purgeable Aromatics	EPA 8020	EW-2-45, A-45, B-45 & SS#1-45
Total Petroleum Hydrocarbons (Gasoline)	EPA 5030	same as above

Sincerely,  
EUREKA LABORATORIES, INC.

By: Shao-Pin Yo  
Shao-Pin Yo, Ph.D.  
Laboratory Director

SPY/pv

Attachment

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.15

DATE SAMPLED: 11/25/1992  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212002-01A  
CLIENT SAMPLE ID: EW-2-45

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	0.8	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes(dimethylbenzenes)	3.0	0.5

Note - All positively indentified compounds were second column or second detector confirmed.

Huey-Chen Chow

\_\_\_\_\_  
Chemist

December 14, 1992

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Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.15

DATE SAMPLED: 11/25/1992  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212002-02A  
CLIENT SAMPLE ID: A-45

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes(dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

\_\_\_\_\_  
Chemist

December 14, 1992  
Date



**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.15

DATE SAMPLED: 11/25/1992  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212002-03A  
CLIENT SAMPLE ID: B-45

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes(dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

\_\_\_\_\_  
Chemist

December 14, 1992  
Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.15

DATE SAMPLED: 11/25/1992  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212002-04A  
CLIENT SAMPLE ID: SS#1-45

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

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Chemist

December 14, 1992  
Date

ORGANIC ANALYSIS REPORT  
Purgeable Aromatics, EPA Method 8020

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GM TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-05A  
CLIENT SAMPLE ID: METHOD BLANK

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes(dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

\_\_\_\_\_  
Chemist

December 14, 1992  
Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.15

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212002-07A  
CLIENT SAMPLE ID: MATRIX SPIKE RECOVERY \*

COMP. No.	COMPOUND	% SPIKE RECOVERY
V1	Benzene	101%
V2	Chlorobenzene	98%
V3	1,2-Dichlorobenzene	-
V4	1,3-Dichlorobenzene	-
V5	1,4-Dichlorobenzene	-
V6	Ethyl benzene	91%
V7	Toluene	107%
V8	Xylenes(dimethylbenzenes)	101%

\* This set of matrix spike is from another sample of the same matrix and of the same analytical batch.

Huey-Chen Chow

Chemist

December 14, 1992  
Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.15

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/02/1992  
INSTRUMENT ID: VG-2  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212002-08A  
CLIENT SAMPLE ID: MATRIX SPIKE RECOVERY  
DUPLICATE \*

COMP. No.	COMPOUND	% SPIKE RECOVERY
V1	Benzene	117%
V2	Chlorobenzene	118%
V3	1,2-Dichlorobenzene	-
V4	1,3-Dichlorobenzene	-
V5	1,4-Dichlorobenzene	-
V6	Ethyl benzene	119%
V7	Toluene	98%
V8	Xylenes(dimethylbezenes)	109%

\* This set of matrix spike is from another sample of the same matrix and of the same analytical batch.

Huey-Chen Chow

\_\_\_\_\_  
Chemist

December 14, 1992  
Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
 6790 Florin-Perkins Road  
 Sacramento, CA 95828  
 (916) 381-7953

Order No.: 92-12-002  
 Hazardous Waste Testing  
 Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
 PROJECT: MLK GW TREATMENT PLANT  
 JOB #: 430.015

DATE SAMPLED: 11/25/1992  
 DATE RECEIVED: 12/01/1992  
 DATE EXTRACTED: NA  
 DATE ANALYZED: 12/08/1992  
 INSTRUMENT ID: SVG-7  
 MATRIX: AQUEOUS  
 % MOISTURE: NA  
 REPORT WT.: NA  
 SAMPLE VOL./WT.: NA  
 DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-01A  
 SAMPLE ID: EW-2-45

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	145	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	C6-C13	
<u>PEAK CARBON NO.</u>		
Gasoline Range	C7	

Susie Yang

Chemist

December 14, 1992

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
 6790 Florin-Perkins Road  
 Sacramento, CA 95828  
 (916) 381-7953

Order No.: 92-12-002  
 Hazardous Waste Testing  
 Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
 PROJECT: MLX GW TREATMENT PLANT  
 JOB #: 430.015

DATE SAMPLED: 11/25/1992  
 DATE RECEIVED: 12/01/1992  
 DATE EXTRACTED: NA  
 DATE ANALYZED: 12/08/1992  
 INSTRUMENT ID: SVG-7  
 MATRIX: AQUEOUS  
 % MOISTURE: NA  
 REPORT WT.: NA  
 SAMPLE VOL./WT.: NA  
 DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-02A  
 SAMPLE ID: A-45

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
 Chemist

December 14, 1992  
 Date

TOTAL PETROLEUM HYDROCARBONS (GASOLINE)  
EPA METHOD 5030/8015 (Modified)

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 11/25/1992  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-03A  
SAMPLE ID: B-45

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

December 14, 1992

\_\_\_\_\_  
Date



**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
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Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 11/25/1992  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-04A  
SAMPLE ID: SS#1-45

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

December 14, 1992

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-05A  
SAMPLE ID: METHOD BLANK

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

Chemist

December 14, 1992

Date

TOTAL PETROLEUM HYDROCARBONS (GASOLINE)  
EPA METHOD 5030/8015 (Modified)

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-07A  
SAMPLE ID: B-45 MATRIX SPIKE RECOVERY

PETROLEUM HYDROCARBONS

% SPIKE RECOVERY

Gasoline Range

78%

CARBON NO. RANGE

Gasoline Range

-

PEAK CARBON NO.

Gasoline Range

-

Susie Yang

\_\_\_\_\_  
Chemist

December 14, 1992

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

---

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-08A  
SAMPLE ID: B-45 MATRIX SPIKE RECOVERY  
DUPLICATE

---

PETROLEUM HYDROCARBONS

% SPIKE RECOVERY

Gasoline Range

64%

CARBON NO. RANGE

Gasoline Range

-

PEAK CARBON NO.

Gasoline Range

-

Susie Yang

\_\_\_\_\_  
Chemist

December 14, 1992

Date

TOTAL PETROLEUM HYDROCARBONS (GASOLINE)  
EPA METHOD 5030/8015 (Modified)

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-09A  
SAMPLE ID: REAGENT SPIKE RECOVERY

<u>PETROLEUM HYDROCARBONS</u>	<u>% SPIKE RECOVERY</u>
Gasoline Range	69%
<u>CARBON NO. RANGE</u>	
Gasoline Range	-
<u>PEAK CARBON NO.</u>	
Gasoline Range	-

Susie Yang

\_\_\_\_\_  
Chemist

December 14, 1992

Date

TOTAL PETROLEUM HYDROCARBONS (GASOLINE)  
EPA METHOD 5030/8015 (Modified)

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-002  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/01/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/08/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: NA

ELI SAMPLE ID: 9212002-10A  
SAMPLE ID: REAGENT SPIKE RECOVERY

<u>PETROLEUM HYDROCARBONS</u>	<u>% SPIKE RECOVERY</u>
Gasoline Range	63%
<u>CARBON NO. RANGE</u>	
Gasoline Range	-
<u>PEAK CARBON NO.</u>	
Gasoline Range	-

Susie Yang

\_\_\_\_\_  
Chemist

December 14, 1992

Date



# EUREKA LABORATORIES, INC.

Air Pollution  
Chemical Analysis,  
Research & Testing  
Environmental Studies  
Robotics  
Toxicology

*Corporate Office:*  
6790 FLORIN PERKINS ROAD  
SACRAMENTO, CA 95828  
TEL: (916) 381-7953  
FAX: (916) 381-4013

*Branch Office:*  
17403 N.E. 28th STREET  
REDMOND, WA 98052  
TEL: (206) 885-0284  
FAX: (206) 885-0284

January 7, 1993

Mr. Mark Kawakami  
SUBSURFACE CONSULTANTS  
171 12th St.  
Oakland, CA 94607

Reference - ELI Order #: 92-12-200  
Project: MLK GW Treatment Plant  
Job #: 430.015

Dear Mr. Kawakami:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject project. This report presents analytical results for four (4) aqueous samples for the following analyses:

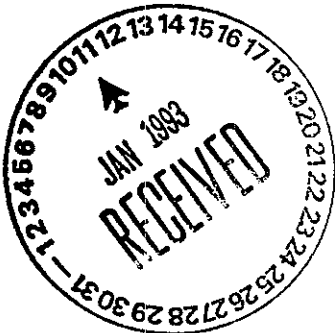
<u>ANALYSIS</u>	<u>METHOD</u>	<u>SAMPLE ID.</u>
Purgeable Aromatics	EPA 8020	EW-2-46, A-46, B-46 & SS#1-46
Total Petroleum Hydrocarbons (Gasoline)	EPA 8015 (Modified)	same as above

Sincerely,  
EUREKA LABORATORIES, INC.

By: Shao-Pin Yo  
Shao-Pin Yo, Ph.D.  
Laboratory Director

SPY/pv

Attachment



**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

REKA LABORATORIES, INC.  
 90 Florin-Perkins Road  
 Sacramento, CA 95828  
 (916) 381-7953

Order No.: 92-12-200  
 Hazardous Waste Testing  
 Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
 PROJECT: MLK GW TREATMENT PLANT  
 JOB #: 430.015

DATE SAMPLED: 12/22/1992  
 DATE RECEIVED: 12/23/1992  
 DATE EXTRACTED: NA  
 DATE ANALYZED: 12/29/1992  
 INSTRUMENT ID: VG-1  
 MATRIX: AQUEOUS  
 % MOISTURE: NA  
 REPORT WT.: NA  
 SAMPLE VOL./WT.: 5ml  
 DILUTION FACTOR: 1

CLIENT SAMPLE ID: 9212200-01A  
 CLIENT SAMPLE ID: EW-2-46

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
		0.6	0.5
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes(dimethylbenzenes)	<0.5	0.5

Note - All positively identified compounds were second column or second detector confirmed.

Huey-Chen Chow  
 \_\_\_\_\_  
 Chemist

January 7, 1993  
 Date



**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 12/22/1992  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: VG-1  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-03A  
CLIENT SAMPLE ID: B-46

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

\_\_\_\_\_  
Chemist

January 7, 1993  
Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 12/22/1992  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: VG-1  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-04A  
CLIENT SAMPLE ID: SS#1-46

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

\_\_\_\_\_  
Chemist

January 7, 1993  
Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: VG-1  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-05A  
CLIENT SAMPLE ID: METHOD BLANK

COMP. No.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes(dimethylbenzenes)	<0.5	0.5

Huey-Chen Chow

\_\_\_\_\_  
Chemist

January 7, 1993  
Date

**ORGANIC ANALYSIS REPORT**  
**Purgeable Aromatics, EPA Method 8020**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: VG-1  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-07A  
CLIENT SAMPLE ID: MATRIX SPIKE RECOVERY \*

COMP. No.	COMPOUND	% SPIKE RECOVERY
V1	Benzene	66%
V2	Chlorobenzene	71%
V3	1,2-Dichlorobenzene	-
V4	1,3-Dichlorobenzene	-
V5	1,4-Dichlorobenzene	-
V6	Ethyl benzene	69%
V7	Toluene	66%
V8	Xylenes(dimethylbezenes)	77%

\* This set of matrix spike is from another sample of the same matrix and of the same analytical batch.

Huey-Chen Chow

\_\_\_\_\_  
Chemist

January 7, 1993

Date

ORGANIC ANALYSIS REPORT  
Purgeable Aromatics, EPA Method 8020

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: VG-1  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-08A

CLIENT SAMPLE ID: MATRIX SPIKE RECOVERY DUP. \*

COMP. No.	COMPOUND	% SPIKE RECOVERY
V1	Benzene	69%
V2	Chlorobenzene	73%
V3	1,2-Dichlorobenzene	-
V4	1,3-Dichlorobenzene	-
V5	1,4-Dichlorobenzene	-
V6	Ethyl benzene	72%
V7	Toluene	65%
V8	Xylenes(dimethylbezenes)	81%

\* This set of matrix spike is from another sample of the same matrix and of the same analytical batch.

Huey-Chen Chow  
\_\_\_\_\_  
Chemist

January 7, 1993  
Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 12/22/1992  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-01A  
SAMPLE ID: EW-2-46

<u>PETROLEUM HYDROCARBONS</u>	CONCENTRATION [ug/L (ppb)]	DETECTION LIMIT [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 12/22/1992  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-02A  
SAMPLE ID: A-46

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993  
Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 12/22/1992  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-03A  
SAMPLE ID: B-46

	CONCENTRATION	DETECTION LIMIT
<u>PETROLEUM HYDROCARBONS</u>	<u>[ug/L (ppb)]</u>	<u>[ug/L (ppb)]</u>
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993  
Date



**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: 12/22/1992  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-04A  
SAMPLE ID: SS#1-46

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-05A  
SAMPLE ID: METHOD BLANK

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	<20	20
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	
<u>PEAK CARBON NO.</u>		
Gasoline Range	-	

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml

ELI SAMPLE ID: 9212200-07A

SAMPLE ID: EW-2-46 MATRIX SPIKE RECOVERY DILUTION FACTOR: 1

PETROLEUM HYDROCARBONS

% SPIKE RECOVERY

Gasoline Range

107%

CARBON NO. RANGE

Gasoline Range

-

PEAK CARBON NO.

Gasoline Range

-

Susie Yang

Chemist

January 7, 1993

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: 5ml  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-08A

SAMPLE ID: EW-2-46 MATRIX SPIKE RECOVERY  
DUPLICATE

PETROLEUM HYDROCARBONS

% SPIKE RECOVERY

Gasoline Range

104%

CARBON NO. RANGE

Gasoline Range

-

PEAK CARBON NO.

Gasoline Range

-

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-09A  
SAMPLE ID: REAGENT SPIKE RECOVERY

PETROLEUM HYDROCARBONS

% SPIKE RECOVERY

Gasoline Range

86%

CARBON NO. RANGE

Gasoline Range

-

PEAK CARBON NO.

Gasoline Range

-

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993

Date

**TOTAL PETROLEUM HYDROCARBONS (GASOLINE)**  
**EPA METHOD 5030/8015 (Modified)**

EUREKA LABORATORIES, INC.  
6790 Florin-Perkins Road  
Sacramento, CA 95828  
(916) 381-7953

Order No.: 92-12-200  
Hazardous Waste Testing  
Certification: 1165

---

CLIENT: SUBSURFACE CONSULTANTS  
PROJECT: MLK GW TREATMENT PLANT  
JOB #: 430.015

DATE SAMPLED: NA  
DATE RECEIVED: 12/23/1992  
DATE EXTRACTED: NA  
DATE ANALYZED: 12/29/1992  
INSTRUMENT ID: SVG-7  
MATRIX: AQUEOUS  
% MOISTURE: NA  
REPORT WT.: NA  
SAMPLE VOL./WT.: NA  
DILUTION FACTOR: 1

ELI SAMPLE ID: 9212200-10A  
SAMPLE ID: REAGENT SPIKE RECOVERY DUP.

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<u>PETROLEUM HYDROCARBONS</u>	<u>% SPIKE RECOVERY</u>
Gasoline Range	85%
<u>CARBON NO. RANGE</u>	
Gasoline Range	-
<u>PEAK CARBON NO.</u>	
Gasoline Range	-

Susie Yang

\_\_\_\_\_  
Chemist

January 7, 1993

Date

# CHAIN OF CUSTODY FORM

PAGE 1 OF 1

PROJECT NAME: MLK GW Treatment Plant  
 JOB NUMBER: 430.015 LAB: Curtis + Tompkins Ltd  
 PROJECT CONTACT: Sean Carson TURNAROUND: Normal  
 SAMPLED BY: Fernando Velaz REQUESTED BY: Sean Carson

ANALYSIS REQUESTED									
TVH	BTX	EPA 8015	802						
5030									

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS				METHOD PRESERVED					SAMPLING DATE				NOTES
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	Glass	HCL	H2SO4	HNO3	ICE	NONE	MONTH	DAY	YEAR	
<del>EW-1-44</del>	<del>EW-1-44</del>	<del>X</del>	<del>X</del>			<del>W</del>	<del>W</del>	<del>W</del>	<del>W</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>X</del>	<del>10</del>	<del>29</del>	<del>92</del>	<del>1</del>	<del>X</del>
EW-2-44	EW-2-44	X	X			W	W	W	W	X	X	X	X	X					X
A-44	A-44	X	X			W	W	W	W	X	X	X	X	X					X
B-44	B-44	X	X			W	W	W	W	X	X	X	X	X					X
SS#1-44	SS#1-44	X				W	W	W	W	X	X	X	X	X					X

COMMENTS & NOTES:  
 All samples are "grab samples"  
 Containers not sealed "tamper proof"  
 EW-1-44 has been deleted

CHAIN OF CUSTODY RECORD			
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>[Signature]</i>	10/29/92 4:45	<i>[Signature]</i>	10/29/92 4:44
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

**Subsurface Consultants, Inc.**

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607  
 (510) 268-0461 • FAX: 510-268-0137

92-12-002  
D83

UPS-0167-9055-418  
PAGE 1 OF 1 60c

**CHAIN OF CUSTODY FORM**

PROJECT NAME: MLK GW TREATMENT PLANT  
 JOB NUMBER: 430.015 LAB: EUREKA  
 PROJECT CONTACT: MARK KAWAKAMI TURNAROUND: NORMAL  
 SAMPLED BY: MARK KAWAKAMI REQUESTED BY: MARK KAWAKAMI

ANALYSIS REQUESTED											
TUV/BTXE EPA 8015/8020 5050											

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX				CONTAINERS					METHOD PRESERVED					SAMPLING DATE				NOTES	
		WATER	SOIL	WASTE	AIR	VOA	LITER	PINT	TUBE	GLASS	HCL	H2SO4	HNO3	ICE	NONE	MONTH	DAY	YEAR	TIME		
	<del>EW-1-45</del>	<del>X</del>				<del>3</del>				<del>X</del>			<del>X</del>		<del>1</del>	<del>1</del>	<del>25</del>	<del>9</del>	<del>2</del>	<del>X</del>	
1/A	EW-2-45	X				3				X			X		1	1	25	9	2	X	
2A	A-45	X				3				X			X		1	1	25	9	2	X	
3/A	B-45	X				3				X			X		1	1	25	9	2	X	
4A	SS#1-45	X				3				X			X		1	1	25	9	2	X	

COMMENTS & NOTES:

ALL SAMPLES ARE "GRAB SAMPLES" CONTAINERS  
 NOT SEALED "TAMPER PROOF"  
 EW-1-45 DELETED

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature) <i>[Signature]</i>	DATE/TIME <i>11/20/92</i>	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE/TIME <i>12/22</i>
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature) <i>Simon P Young</i>	DATE/TIME <i>12/01/92</i>

10:30 am

Subsurface Consultants, Inc.

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