

AMERICAN
ENVIRONMENTAL MANAGEMENT CORP.

Please Refer to:
AEMC Job No. 50109

12 October 1990

Mr. Paul Smith
Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

**RE: REPORT FOR UNDERGROUND STORAGE TANK REMOVAL
SEARS, ROEBUCK AND CO., OAKLAND, CALIFORNIA**

Dear Mr. Smith:

American Environmental Management Corporation (AEMC) is pleased to submit for your review the following report as part of the underground storage tank closure activities at 2633 Telegraph Avenue, Oakland, California.

If you have any questions or comments regarding the site or this report, please do not hesitate to call Mr. Phil Walsack or Mr. Michael Holley at (916) 364-8872.

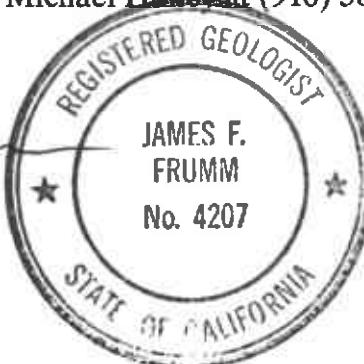
Sincerely,

James F. Frumm

James F. Frumm, R.G., R.E.A.
Regional Manager
Engineering Division

PKW/scg
r1src-10(pw-3)

Enclosure





Please Refer to:
AEMC Job No. 50109

12 October 1990

Ms. Bernadine Palka
Sears, Roebuck and Co.
Sears Tower
Department 731, BSC 39-34
Chicago, Illinois 60684

**RE: REPORT OF UNDERGROUND STORAGE TANK REMOVAL
SEARS, ROEBUCK AND CO., OAKLAND, CALIFORNIA**

Dear Ms. Palka:

American Environmental Management Corporation (AEMC) was retained by Sears, Roebuck and Co. to excavate, remove and dispose of the existing underground storage tanks (UST). In addition, AEMC obtained and chemically analyzed soil samples as part of the UST closure activities at 2633 Telegraph Avenue, Oakland, California (Figure 1). All work onsite was completed under the regulatory guidance of Mr. Paul Smith, Alameda County Department of Environmental Management (ACDEM) and under the direct supervision of a State of California Registered Geologist.

From 17 through 20 September 1990, seven underground storage tanks were excavated and removed from the site. Six tanks containing motor oil were removed from the eastern side of the automotive repair bay (five 1,000-gallon tanks and one 2,000-gallon tank). One 1,000-gallon tank containing waste oil was removed from the western side of the repair bay (Figure 2). Dry ice was introduced into the tanks to reduce the explosive hazard under the supervision of the Oakland Fire Department. All of the USTs had been bound by metal strapping to concrete slabs. These bindings were cut and the USTs were then pulled from the excavation using a backhoe. The tanks were transported as hazardous waste to Erickson Inc. in Richmond, California under Hazardous Waste Manifest No. 88441125. None of the concrete slabs were removed at this time.

During the removal process several tanks were noted to have poor integrity and several holes. Tank 2 (2,000-gallon) had a hole in its northwestern side and soil to the north of the tank was stained. Tank 6 had a cracked seam in its southwestern weld and the soil to the north and south of the tank was noticeably stained. Tank 7 (1,000-gallon waste oil) had two holes in the bottom of its southern side and many corrosion pin holes. Soil was extensively stained throughout this excavation.

The excavated soil was stockpiled into three locations. Two stockpiles were created during the motor oil tank excavation. Stockpile 1, located on the southeastern end of the excavation, contains approximately 200 cubic yards of soil and backfill from around Tanks 3, 4, 5, and 6. Stockpile 2, located on the northeastern end of the excavation, contains approximately 50 cubic yards of soil from around Tanks 1 and 2. Stockpile 3

Ms. Bernadine Palka
Sears, Roebuck and Co.
12 October 1990
Page 2

contains approximately 30 cubic yards of soil from the Tank 7 excavation (Figure 3). All of the stockpiles are covered with Visqueen at the present time.

On 19 September 1990, soil samples were obtained from the base of both tank excavations (Figure 3). The samples were taken from native soil approximately 2 feet below the backfill material along the sides of the concrete slabs. The native soil is a highly plastic, heavy gray-green clay. The soil samples were gathered with a brass tube, sealed with Teflon tape, plastic end caps, and electrical tape. All samples were then labeled, refrigerated, and delivered to AEMC's State of California Certified Laboratory under chain-of-custody for analysis.

AEMC's Analytical Laboratory (State Certification No. 210) tested all of the excavation and stockpile samples for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by the EPA Method 8020 Modified, Total Petroleum Hydrocarbons as diesel (TPH-D) by EPA Method 8015 Modified, and Oil and Grease by EPA Method 9071. In addition, the waste oil tank excavation and stockpile samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-G) by EPA Method 8015 Modified, Volatile Organic Compound by EPA Method 8240, and the ICAP Metal Series by EPA Method 6010 using Total Threshold Limit Concentration Extraction.

The analytical results from the soil samples within both excavations indicate the presence of hydrocarbon contamination in the native soil (see Table 1 for analytical results). The highest concentrations of contamination in the motor oil tank excavation occur in SB-5/6B at 390 ppm TPH-D and Oil and Grease at 600 ppm. Although, apparent contamination was visually noted during the tank removal in the Tank 2 location, analytical results showed only Oil and Grease concentrations at 80 ppm.

Contamination in the waste oil tank excavation occurred in both samples. SB-7A contained 2,800 ppm TPH-D and 3,200 ppm Oil and Grease. SB-7B showed concentrations of TPH-D at 1,500 ppm and Oil and Grease at 2,100 ppm (see Table 2 for analytical results). Appendix A contains the complete Laboratory Results and chains-of-custody.

at motor
oil tank
excav.

waste oil
excav
metals problem?

During the removal operations, neither AEMC's geologist nor Mr. Smith, ACDEM, observed any groundwater or interflow present in the excavations. However groundwater in the area is believed to be less than 25 feet below ground surface.

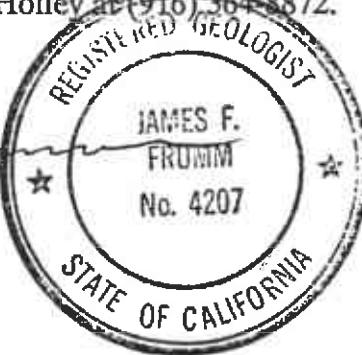
Using the Department of Health Services Leaking Underground Fuel Tank Manual and the Regional Water Quality Control Board's Tri-Regional Recommendations Document (updated August 1990) as guides, AEMC will submit a Soil Contamination Workplan and Remediation Proposal for the motor oil tanks site to ACDEM. In addition, a separate Preliminary Report will be submitted for the waste oil tank site. This report will propose a method to assess the vertical and lateral extent of soil and groundwater contamination.

Ms. Bernadine Palka
Sears, Roebuck and Co.
12 October 1990
Page 3

If you have any questions or comments regarding the site, please do not hesitate to call
Mr. Phil Walsack or Mr. Michael Holley at (910) 364-8872.

Sincerely,

James F. Frumm
James F. Frumm, R.G., R.E.A.
Regional Manager
Engineering Division



PKW/scg
r1src-10(pw-3)

cc: Mr. Paul Smith, Alameda County Department of Environmental Management

TABLE 1
Analytical Results of Soil Samples
Sears, Roebuck and Co.
Oakland, California
Motor Oil Tank Area

<u>Sample ID</u>	<u>Depth</u> (feet below ground surface)	TPH-D (ppm)	Oil & Grease (ppm)
<u>Excavation</u>			
SB-1A	10	ND	ND
SB-1B	10	ND	ND
SB-1/2 A	10	ND	80
SB-2/3 A	10	ND	ND
SB-3/4 A	10	ND	ND
SB-4/5 A	10	ND	ND
SB 5/6 A	11	ND	ND
SB-5/6 B	10	390	600*
SB-6A	9	ND	ND
<u>Stockpile</u>			
SP-1-1	—	140	ND
SP-1-2	—	120	260
SP-1-3	—	170	280
SP-1-4	—	52	240
SP-1-5	—	77	100
SP-2-1	—	39	100
SP-2-2	—	87	200

* Sample also contained Ethylbenzene @ 13 ppb and Xylenes @ 14 ppb.

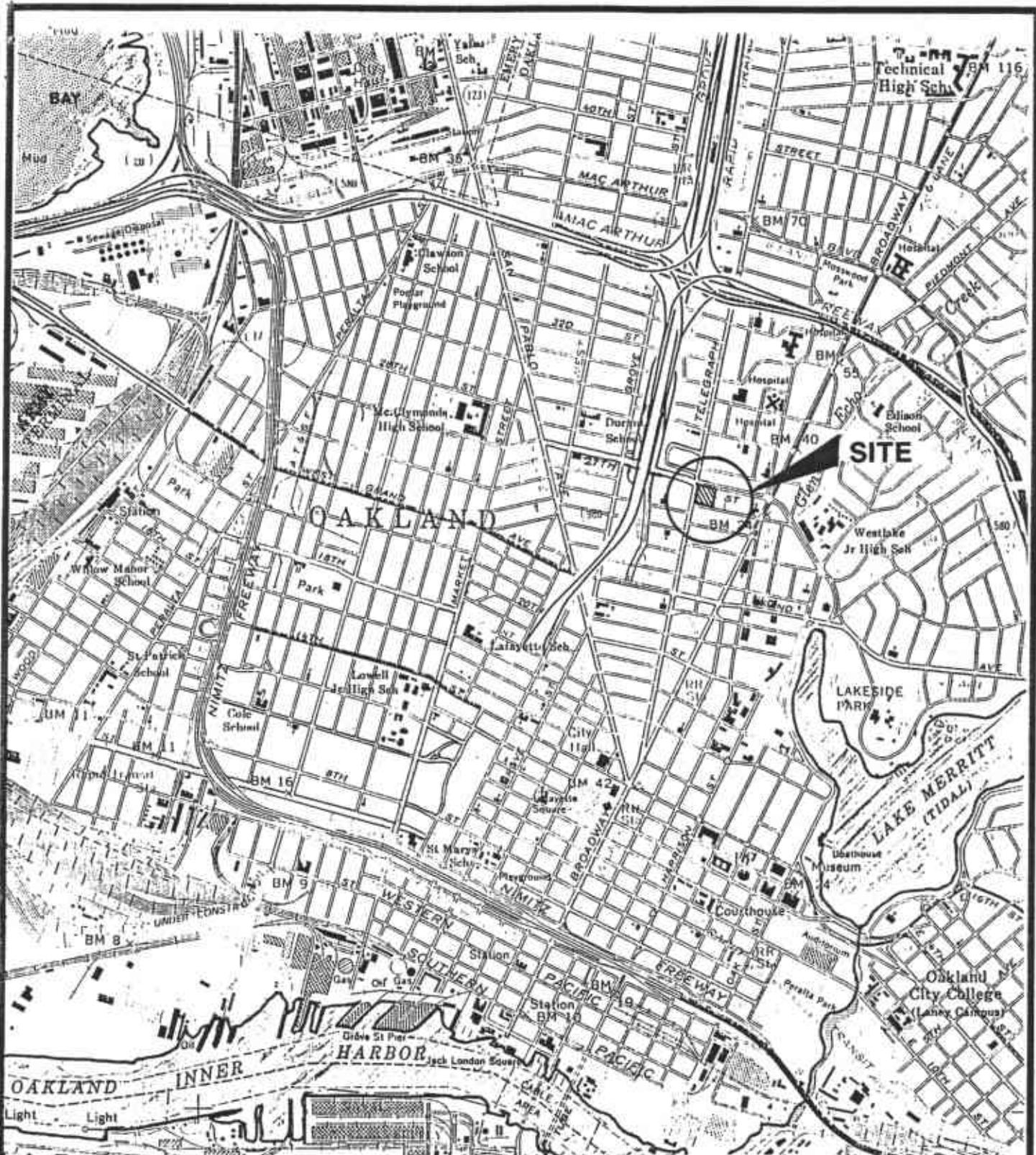
TABLE 2
Analytical Results of Soil Samples
Sears, Roebuck and Co.
Oakland, California
Waste Oil Tank Area

Sample ID	Depth (feet bgs)	TPH-G (ppm)	TPH-D (ppm)	Oil &									
				Grease (ppm)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	Cd (ppm)	Cr (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)
Excavation													
SB-7A ^a	9	31	2,800	3,200	ND	58	100	720	ND	33	28	360	54
SB-7B ^b	9	31	1,500	2,100	12	200	250	1,400	ND	28	24	190	64
Stockpile													
SP-3-1 ^c	—	39	4,400	6,800	ND	310	410	3,000	ND	20	20	440	62
SP-3-2	—	13	850	1,600	ND	9	23	220	1	32	34	47	45

bgs below ground surface

TPH-G Total Petroleum Hydrocarbons as gasoline
 TPH-D Total Petroleum Hydrocarbons as diesel
 B Benzene
 T Toluene
 X Xylenes
 E Ethylbenzene
 Cd Cadmium
 Cr Chromium
 Ni Nickel
 Pb Lead
 Zn Zinc

- (a) Sample also contained: Tetrachloroethene @ 82 ppb
Trichloroethene @ 17 ppb
- (b) Sample also contained: Acetone @ 140 ppb
Tetrachloroethene @ 7 ppb
Trichloroethane @ 19 ppb
- (c) Sample also contained: Tetrachloroethene @ 52 ppb



U.S.G.S.
Oakland West
QUADRANGLE LOCATION
1:5 MIN. SERIES

1000' 0' 1000' 2000'
SCALE: 1"=2000'-0"



AMERICAN
ENVIRONMENTAL MANAGEMENT CORP.

FIGURE 1
SITE LOCATION MAP

SEARS AUTOMOTIVE - Oakland, California

DRAWN BY:	GPM	DATE:	9/28/90	PROJECT NO.	50109
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EXPLANATION:

- W — WATER MAIN
- G --- GAS MAIN
- *** SS SANITARY SEWER
- SD STORM DRAIN
- DRAIN LINE
- TANKS TO BE EXCAVATED
- PREVIOUS LOCATION of PUMP ISLAND
- ISLAND & STORAGE TANKS

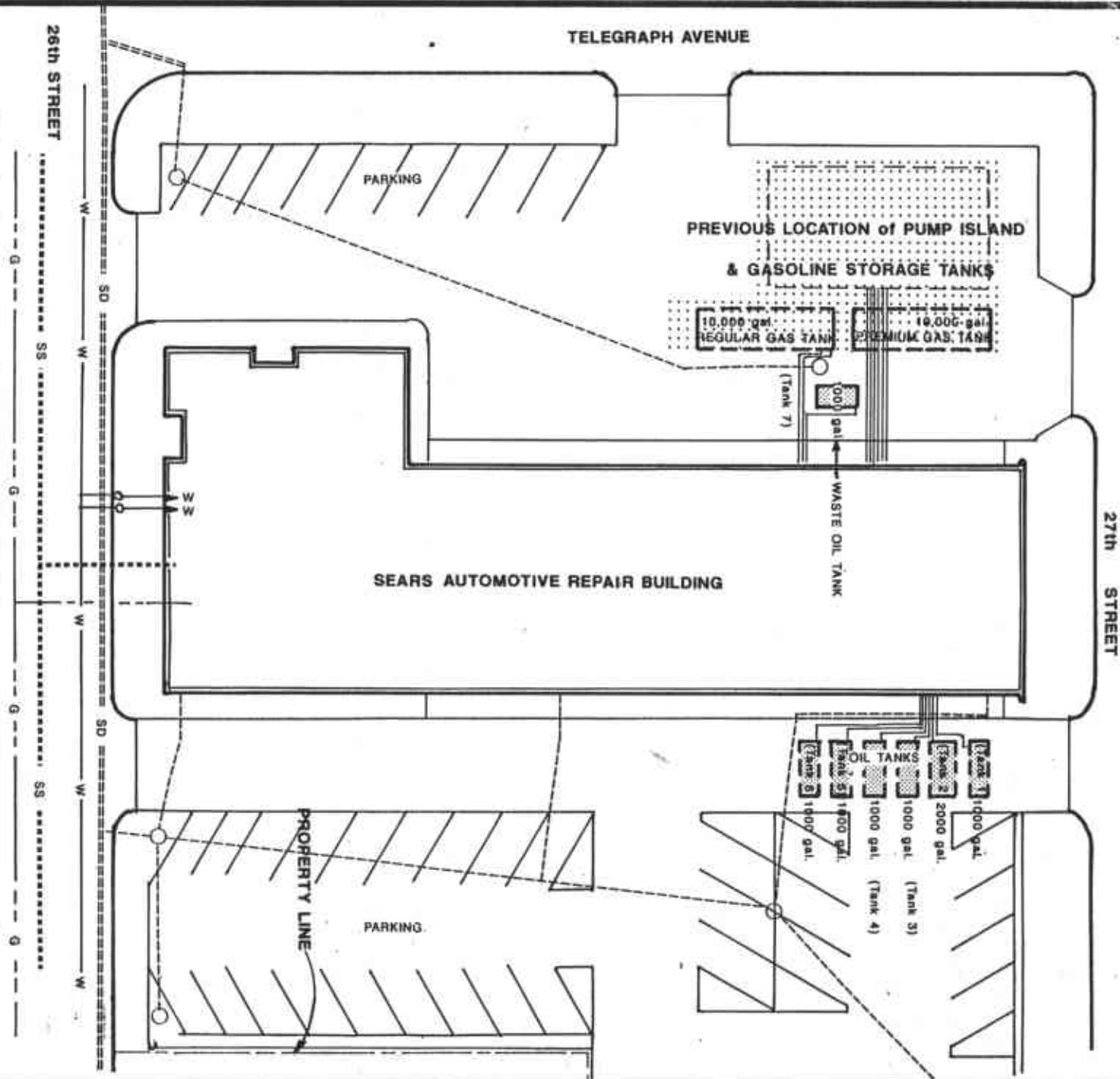
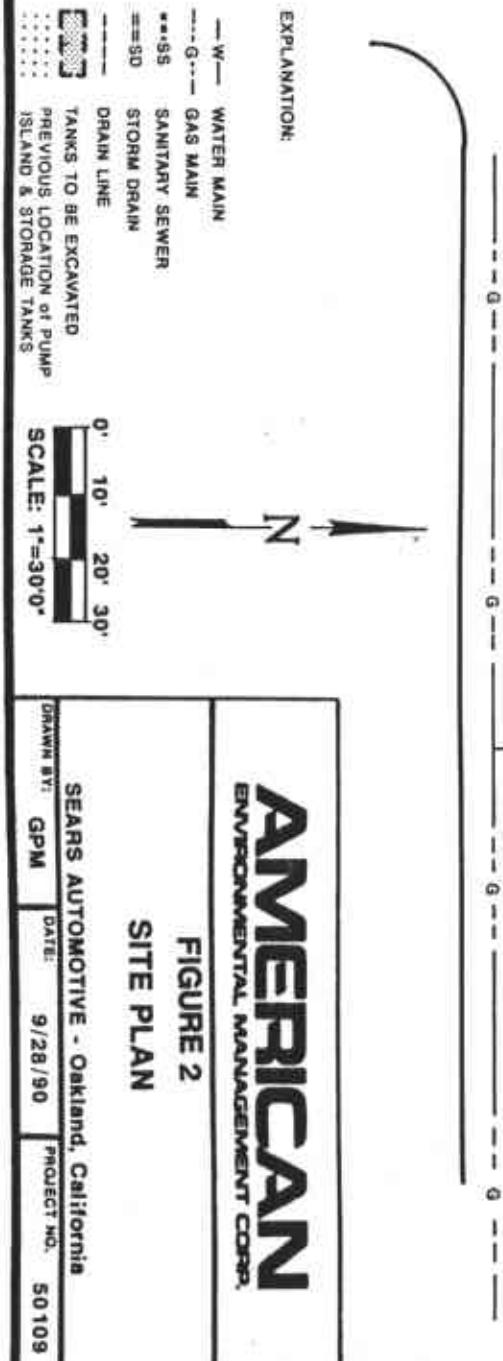
0' 10' 20' 30'

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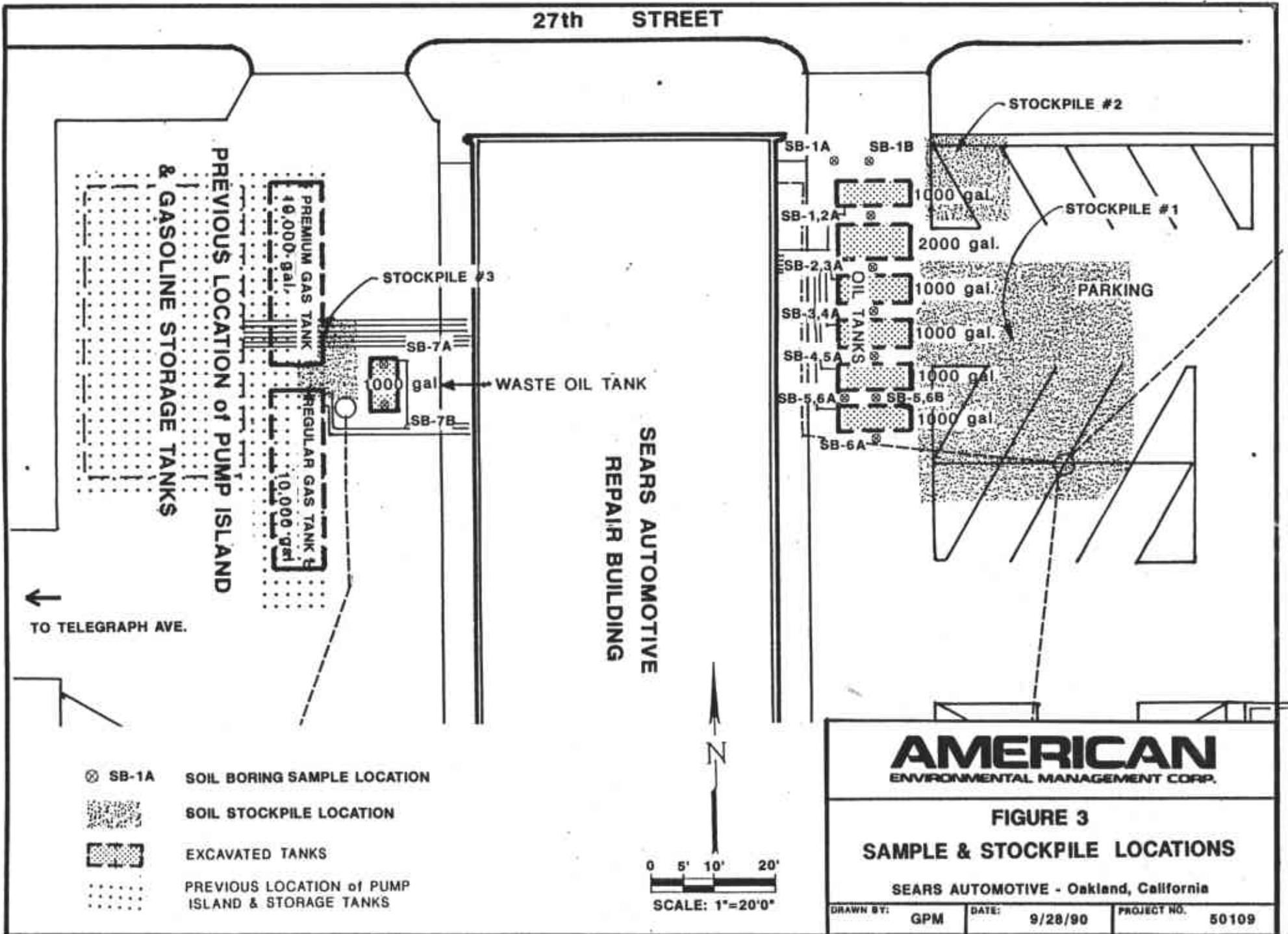
FIGURE 2

SITE PLAN

DRAWN BY: GPM DATE: 9/28/90 PROJECT NO. 50109



27th STREET



AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

AEMC White Rock
11855 White Rock Road
Rancho Cordova, CA 95742

09/28/90

Attn: T. Anckner

Re: Project: Sears Roebuck Co.
AEMC Lab Reference No.: L5351 Project No.:
Date Samples Received: 09/20/90 Job No.: 50109
No. Samples Received: 38 Soil samples

These samples were received by AEMC in a chilled state, intact, and accompanied by chain-of-custody documentation.

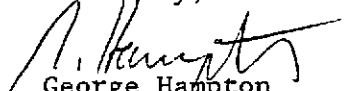
The above referenced samples were analyzed as follows:

No. of Samples	Analysis
4	Cadmium by ICAP
4	Chromium (Total) by ICAP
4	Lead by ICAP
4	Nickel by ICAP
4	Zinc by ICAP
4	TPH Gasoline only
20	TPH Diesel only
16	Purgeable Aromatics by EPA 8240
20	Oil and Grease - gravimetric

The "TPH as Diesel" data presented here represent measurement of only those hydrocarbons contained within the molecular weight range (C10-C25) which includes the major diesel components.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,


George Hampton
Laboratory Director

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLG, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742 Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co. AEMC Contact: M. Jaeger

Date Sampled: 9/19/90 Job No.: 50109
Date Received: 9/20/90 COC Log No.: 20427
Date Extracted: 9/20/90 AEMC I.D.: L5351-9
Date Analyzed: 9/20/90 Batch No.: 51214
Date Reported: 9/24/90 Matrix: Soil
Client Sample I.D.: SB-7A

Element	Results (mg/kg)	Rpt. Limit (mg/kg)	Method
Cd (Cadmium)	ND	1.0	6010
Cr (Chromium - total)	33	5.0	6010
Ni (Nickel)	28	5.0	6010
Pb (Lead)	360	5.0	6010
Zn (Zinc)	54	5.0	6010

Rpt. Limit = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLC, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SB-7B

Job No.: 50109
COG Log No.: 20427
AEMC I.D.: L5351-10
Batch No.: 51214
Matrix: Soil

Element	Results (mg/kg)	Rpt. Limit (mg/kg)	Method
Cd (Cadmium)	ND	1.0	6010
Cr (Chromium - total)	28	5.0	6010
Ni (Nickel)	24	5.0	6010
Pb (Lead)	190	5.0	6010
Zn (Zinc)	64	5.0	6010

Rpt. Limit = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLC, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SP-3-1 Composite

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-34
Batch No.: 51214
Matrix: Soil

Element	Results (mg/kg)	Rpt. Limit (mg/kg)		TTLC	Method
		1.0	1.0		
Cd (Cadmium)	ND	1.0	1.0	100.	6010
Cr (Chromium - total)	20	5.0	5.	500.	6010
Ni (Nickel)	20	20.	20.	2000.	6010
Pb (Lead)	440	5.0	5.	1000.	6010
Zn (Zinc)	62	5.0	250	5000	6010

Rpt. Limit = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLC, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SP-3-2 Composite

Job No.: 50109
COG Log No.: 20427
AEMC I.D.: L5351-37
Batch No.: 51214
Matrix: Soil

Element	Results (mg/kg)	Rpt. Limit (mg/kg)	Method
Cd (Cadmium)	1.0	1.0	6010
Cr (Chromium - total)	32	5.0	6010
Ni (Nickel)	34	5.0	6010
Pb (Lead)	47	5.0	6010
Zn (Zinc)	45	5.0	6010

Rpt. Limit = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLC, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: Method Blank

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-MB
Batch No.: 51214
Matrix: Soil

Element	Results (mg/kg)	Rpt. Limit (mg/kg)	Method
Cd (Cadmium)	ND	1.0	6010
Cr (Chromium - total)	ND	5.0	6010
Ni (Nickel)	ND	5.0	6010
Pb (Lead)	ND	5.0	6010
Zn (Zinc)	ND	5.0	6010

Rpt. Limit = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLC, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 51214
Matrix: Soil

ELEMENT	Spike Conc. (mg/kg)	MS %Rec	MSD %Rec	Duplicate RPD
Cd (Cadmium)	25	97%	90%	7%
Cr (Chromium - total)	25	86%	84%	2%
Ni (Nickel)	25	80%	75%	6%
Pb (Lead)	250	98%	104%	6%
Zn (Zinc)	25	78%	74%	5%

MS = Matrix Spike
MSD = Matrix Spike Duplicate
% Rec = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Metals, TTLC, EPA Method 6010

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 51214

Element	LCS Conc. (mg/L)	LCS %Rec
Cd (Cadmium)	0.5	112%
Cr (Chromium - total)	0.5	99%
Ni (Nickel)	0.5	92%
Pb (Lead)	0.5	88%
Zn (Zinc)	0.5	92%

LCS = Laboratory Control Standards
% Rec = Percent Recovery

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90
Date Received: 09/20/90
Date Extracted: 09/20/90
Date Analyzed: 09/20/90
Date Reported: 09/24/90

Job No.: 50109
GOC Log No.: 20427
AEMC I.D.: L5351
Matrix: Soil

Client	Sample I.D. AEMC	Batch #	TPH as Gasoline (mg/kg)
SB-7A	L5351-9	6265	31
SB-7B	L5351-10	6265	31
SP-3-1 Composite	L5351-34	6265	39
SP-3-2 Composite	L5351-37	6265	13
Method Blank	L5351-MB	6265	ND

REPORTING LIMIT* 1.0

*Unless otherwise indicated in parentheses

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90
Date Received: 09/20/90
Date Extracted: 09/20/90
Date Analyzed: 09/20/90
Date Reported: 09/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6265
Matrix: Soil

Analyte	Spike Conc. (mg/kg)	MBS %Rec	MBSD %Rec	Duplicate RPD
Gasoline	4.0	105%	108%	3%

MBS = Method Blank Spike
MBSD = Method Blank Spike Duplicate
% Rec = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90
Date Received: 09/20/90
Date Extracted: 09/20/90
Date Analyzed: 09/20/90
Date Reported: 09/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6265

Analyte	LCS Conc. (mg/L)	LCS %Rec
Gasoline	0.8	112%

LCS = Laboratory Control Standards
% REC = Percent Recovery

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90

Job No.: 50109

Date Received: 09/20/90

COC Log No.: 20427

Date Extracted: 09/20/90

AEMC I.D.: L5351

Date Analyzed: 09/20/90

Matrix: Soil

Client	Sample I.D. AEMC	Batch #	TPH as Diesel (mg/kg)
SB-1A	L5351-1	6268	ND
SB-1/2A	L5351-2	6268	ND
SB-2/3A	L5351-3	6268	ND
SB-3/4A	L5351-4	6268	ND
SB-4/5A	L5351-5	6268	ND
SB-5/6A	L5351-6	6268	ND
SB-5/6	L5351-7	6268	390
SB-6A	L5351-8	6268	ND
SB-7A	L5351-9	6268	2,800
SB-7B	L5351-10	6268	1,500
SP-1-1 Comp.	L5351-13	6267	140
SP-1-2 Comp.	L5341-16	6267	120
SP-1-3 Comp.	L5341-19	6267	170
SP-1-4 Comp.	L5341-22	6267	52
SP-1-5 Comp.	L5351-25	6267	77
SP-2-1 Comp.	L5351-28	6267	39
SP-2-2 Comp.	L5351-31	6267	87
SP-3-1 Comp.	L5351-34	6267	4,400
SP-3-2 Comp.	L5351-37	6267	850
SB-1B	L5351-38	6267	ND
Method Blank	L5351-MB	6267	ND
Method Blank	L5351-MB	6268	ND

REPORTING LIMIT* 10

*Unless otherwise indicated in parentheses

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90
Date Received: 09/20/90
Date Extracted: 09/20/90
Date Analyzed: 09/20/90
Date Reported: 09/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6267
Matrix: Soil

Analyte	Spike Conc. (mg/kg)	MBS %Rec	MBSD %Rec	Duplicate RPD
Diesel	100	111%	104%	7%

MBS = Method Blank Spike
MBSD = Method Blank Spike Duplicate
% Rec = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90
Date Received: 09/20/90
Date Extracted: 09/20/90
Date Analyzed: 09/20/90
Date Reported: 09/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6268
Matrix: Soil

Analyte	Spike Conc. (mg/kg)	MBS %Rec	MBSD %Rec	Duplicate RPD
Diesel	100	114%	111%	3%

MBS = Method Blank Spike
MBSD = Method Blank Spike Duplicate
% Rec = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Total Petroleum Hydrocarbons, EPA Method 8015

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 09/19/90

Job No.: 50109

Date Received: 09/20/90

COC Log No.: 20427

Date Extracted: 09/20/90

AEMC I.D.: L5351

Date Analyzed: 09/20/90

Date Reported: 09/24/90

Analyte	LCS Conc. (mg/L)	LCS %Rec
Diesel	1,000	105%

LCS = Laboratory Control Standards

% Rec = Percent Recovery

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: BTXE, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90

Job No.: 50109

Date Received: 9/20/90

COC Log No.: 20427

Date Extracted: 9/20/90

AEMC I.D.: L5351

Date Analyzed: 9/20/90

Matrix: Soil

Date Reported: 9/24/90

Client	Sample I.D.	AEMC	Batch #	Benzene (ug/kg)	Toluene (ug/kg)	Ethyl- benzene (ug/kg)	Xylenes, Total (ug/kg)
SB-1A		L5351-1	6263	ND	ND	ND	ND
SB-1/2A		L5351-2	6263	ND	ND	ND	ND
SB-2/3A		L5351-3	6263	ND	ND	ND	ND
SB-3/4A		L5351-4	6263	ND	ND	ND	ND
SB-4/5A		L5351-5	6263	ND	ND	ND	ND
SB-5/6A		L5351-6	6263	ND	ND	ND	ND
SB-5/6B		L5351-7	6263	ND	ND	13	14
SB-6A		L5351-8	6263	ND	ND	ND	ND
Method Blank		L5351-MB	6263	ND	ND	ND	ND
SP-1-1 Composite		L5351-13	6264	ND	ND	ND	ND
SP-1-2 Composite		L5351-16	6264	ND	ND	ND	ND
SP-1-3 Composite		L5351-19	6264	ND	ND	ND	ND
SP-1-4 Composite		L5351-22	6264	ND	ND	ND	ND
SP-1-5 Composite		L5351-25	6264	ND	ND	ND	ND
SP-2-1 Composite		L5351-28	6264	ND	ND	ND	ND
SP-2-2 Composite		L5351-31	6264	ND	ND	ND	ND
SB-1B		L5351-38	6264	ND	ND	ND	ND
Method Blank		L5351-MB	6264	ND	ND	ND	ND

REPORTING LIMIT*

5 5 5 10

*Unless otherwise indicated in parentheses

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: BTXE, EPA Method 8240

CLIENT: AEMC
 11855 White Rock Road
 Rancho Cordova, CA 95742

Project No.:
 Contact: T. Anckner
 Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
 Date Received: 9/20/90
 Date Extracted: 9/20/90
 Date Analyzed: 9/20/90
 Date Reported: 9/24/90

Job No.: 50109
 COC Log No.: 20427
 AEMC I.D.: L5351
 Matrix: Soil

Client	Sample I.D.	Toluene-d8 Conc. (ug/kg)	Surrogate Recovery % Recovery
SB-1A	L5351-1	100	93%
SB-1/2A	L5351-2	100	101%
SB-2/3A	L5351-3	100	103%
SB-3/4A	L5351-4	100	101%
SB-4/5A	L5351-5	100	102%
SB-5/6A	L5351-6	100	101%
SB-5/6B	L5351-7	100	92%
SB-6A	L5351-8	100	101%
Method Blank Batch 6263	L5351-MB	100	104%
SP-1-1 Composite	L5351-13	100	85%
SP-1-2 Composite	L5351-16	100	72%
SP-1-3 Composite	L5351-19	100	71%
SP-1-4 Composite	L5351-22	100	78%
SP-1-5 Composite	L5351-25	100	102%
SP-2-1 Composite	L5351-28	100	99%
SP-2-2 Composite	L5351-31	100	92%
SB-1B	L5351-38	100	103%
Method Blank Batch 6264	L5351-MB	100	103%

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: BTXE, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6263
Matrix: Soil

Surrogate	Spike Conc. (ug/kg)	MS %Rec	MSD %Rec	
Toluene-d8	100	105%	102%	
Analyte	Spike Conc. (ug/kg)	MS %Rec	MSD %Rec	Duplicate RPD
Benzene	50	115%	114%	1%
Toluene	50	110%	110%	0%

MS = Matrix Spike
MSD = Matrix Spike Duplicate
% REC = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: BTXE, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6264
Matrix: Soil

Surrogate	Spike Conc. (ug/kg)	MS %Rec	MSD %Rec	
Toluene-d8	100	102%	101%	
Analyte	Spike Conc. (ug/kg)	MS %Rec	MSD %Rec	Duplicate RPD
Benzene	50	113%	113%	0%
Toluene	50	106%	103%	3%

MS = Matrix Spike
MSD = Matrix Spike Duplicate
% REC = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: BTXE, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6263, 6264

Analyte	LCS Conc. (ug/L)	LCS % Rec
Benzene	50	103%
Toluene	50	98%

LCS = Laboratory Control Standards
% REC = Percent Recovery

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SB-7A

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-9
Batch No.: 6264
Matrix: Soil

Surrogate	CAS #	Spike Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	d107-06-2	100	110%
Toluene-d8	d108-88-3	100	91%
p-Bromofluorobenzene	460-00-4	100	110%

Analyte	CAS #	Concentration (ug/kg)	Rpt. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-1	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	100	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	82	5
Toluene	108-88-3	58	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	17	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	720	10

RPT. LIMIT = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SB-7B

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-10
Batch No.: 6264
Matrix: Soil

Surrogate	CAS #	Spike Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	d107-06-2	100	110%
Toluene-d8	d108-88-3	100	92%
p-Bromofluorobenzene	460-00-4	100	120%

Analyte	CAS #	Concentration (ug/kg)	Rpt. Limit (ug/kg)
Acetone	67-64-1	140	100
Benzene	71-43-2	12	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-1	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	250	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	7	5
Toluene	108-88-3	200	5
1,1,1-Trichloroethane	71-55-6	19	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	1,400	10

RPT. LIMIT = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SP-3-2 Composite

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-37
Batch No.: 6264
Matrix: Soil

Surrogate	CAS #	Spike Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	d107-06-2	100	110%
Toluene-d8	d108-88-3	100	89%
p-Bromofluorobenzene	460-00-4	100	120%

Analyte	CAS #	Concentration (ug/kg)	Rpt. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-1	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	23	
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	9	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	220	10

R.P.T. LIMIT = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: SP-3-1 Composite

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-34
Batch No.: 6264
Matrix: Soil

Surrogate	CAS #	Spike Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	d107-06-2	500	110%
Toluene-d8	d108-88-3	500	92%
p-Bromofluorobenzene	460-00-4	500	120%

Analyte	CAS #	Concentration (ug/kg)	Rpt. Limit (ug/kg)
Acetone	67-64-1	ND	500
Benzene	71-43-2	ND	25
Bromodichloromethane	75-27-4	ND	25
Bromoform	75-25-2	ND	25
Bromomethane	74-83-9	ND	50
2-Butanone	78-93-3	ND	500
Carbon disulfide	75-15-0	ND	25
Carbon tetrachloride	56-23-5	ND	25
Chlorobenzene	108-90-7	ND	25
Chloroethane	75-00-3	ND	50
2-Chloroethyl vinyl ether	110-75-8	ND	250
Chloroform	67-66-3	ND	25
Chloromethane	74-87-3	ND	50
Dibromochloromethane	124-48-1	ND	25
Dibromomethane	74-95-3	ND	25
1,2-Dichlorobenzene	95-50-1	ND	25
1,3-Dichlorobenzene	541-73-1	ND	25
1,4-Dichlorobenzene	106-46-1	ND	25
Dichlorodifluoromethane	75-71-8	ND	50
1,1-Dichloroethane	75-34-3	ND	25
1,2-Dichloroethane	107-06-2	ND	25
1,1-Dichloroethene	75-35-4	ND	25
1,2-Dichloroethene, total	540-59-0	ND	25
1,2-Dichloropropane	78-87-5	ND	25
cis-1,3-Dichloropropene	10061-01-5	ND	25
trans-1,3-Dichloropropene	10061-02-6	ND	25
Ethylbenzene	100-41-4	410	25
2-Hexanone	591-78-6	ND	250
Methylene chloride	75-09-2	ND	25
4-Methyl-2-pentanone	108-10-1	ND	250
Styrene	100-42-5	ND	25
1,1,2,2-Tetrachloroethane	79-34-5	ND	25
Tetrachloroethene	127-18-4	52	25
Toluene	108-88-3	310	25
1,1,1-Trichloroethane	71-55-6	ND	25
1,1,2-Trichloroethane	79-00-5	ND	25
Trichloroethene	79-01-6	ND	25
Trichlorofluoromethane	75-69-4	ND	25
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	25
Vinyl acetate	108-05-4	ND	250
Vinyl chloride	75-01-4	ND	50
Xylenes, total	1330-20-7	3,000	50

RPT. LIMIT = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90
Client Sample I.D.: Method Blank

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351-MB
Batch No.: 6264
Matrix: Soil

Surrogate	CAS #	Spike Conc. (ug/kg)	Recovery (percent)
1,2-Dichloroethane-d4	d107-06-2	100	95%
Toluene-d8	d108-88-3	100	103%
p-Bromofluorobenzene	460-00-4	100	98%

Analyte	CAS #	Concentration (ug/kg)	Rpt. Limit (ug/kg)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl vinyl ether	110-75-8	ND	50
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-1	ND	5
Dichlorodifluoromethane	75-71-8	ND	10
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
1,2-Dichloroethene, total	540-59-0	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5
1,1,2-Trichlorotrifluoroethane	79-13-1	ND	5
Vinyl acetate	108-05-4	ND	50
Vinyl chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

RPT. LIMIT = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6264
Matrix: Soil

Surrogate	CAS #	Spike Conc. (ug/kg)	MS %Rec	MSD %Rec
1,2-Dichloroethane-d4	d107-06-2	100	99%	99%
Toluene-d8	d108-88-3	100	102%	101%
p-Bromofluorobenzene	460-00-4	100	102%	102%

Analyte	Spike Conc. (ug/kg)	MS %Rec	MSD %Rec	Duplicate RPD
Benzene	50	113%	113%	0%
Chlorobenzene	50	99%	97%	2%
1,1-Dichloroethene	50	117%	111%	5%
Toluene	50	106%	103%	3%
Trichloroethene	50	107%	105%	2%

MS = Matrix Spike
MSD = Matrix Spike Duplicate
% REC = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Purgeable Organic Analytes, EPA Method 8240

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/20/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6264

Analyte	LCS Conc. (ug/L)	LCS %Rec
Benzene	50	103%
Chlorobenzene	50	103%
1,1-Dichloroethene	50	104%
Toluene	50	98%
Trichloroethene	50	98%

LCS = Laboratory Control Standards
% REC = Percent Recovery

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Oil & Grease, EPA Method 9071

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/21/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6251, 6252
Matrix: Soil

Client	Sample I.D. AEMC	Concentration (mg/kg)	Rpt. Limit (mg/kg)
SB-1A	L5351-1	ND	50
SB-1/2A	L5351-2	80	50
SB-2/3A	L5351-3	ND	50
SB-3/4A	L5351-4	ND	50
SB-4/5A	L5351-5	ND	50
SB-5/6A	L5351-6	ND	50
SB-5/6B	L5351-7	600	50
SB-6A	L5351-8	ND	50
SB-7A	L5351-9	3,200	50
SB-7B	L5351-10	2,100	50
Method Blank Batch 6251	L5351-MB	ND	50
SP-1-1 Composite	L5351-13	ND	50
SP-1-2 Composite	L5351-16	260	50
SP-1-3	L5351-19	280	50
SP-1-4	L5351-22	240	50
SP-1-5	L5351-25	100	50
SP-2-1	L5351-28	100	50
SP-2-2 Composite	L5351-31	200	50
SP-3-1 Composite	L5351-34	6,800	50
SP-3-2 Composite	L5351-37	1,600	50
SB-1B	L5351-38	ND	50
Method Blank Batch 6252	L5351-MB	ND	50

RPT. LIMIT = Reporting Limit

ND = Not Detected at or above indicated Reporting Limit.

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Oil & Grease, EPA Method 9071

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/21/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6251
Matrix: Soil

Analyte	Spike Conc. (mg/kg)	MS %Rec	MSD %Rec	Duplicate RPD
Oil & Grease	4,940	98%	96%	1%

MS = Matrix Spike
MSD = Matrix Spike Duplicate
% REC = Percent Recovery
RPD = Relative Percent Difference

AMERICAN
ENVIRONMENTAL LABORATORIES CORP.

ANALYSIS REPORT: Oil & Grease, EPA Method 9071

CLIENT: AEMC
11855 White Rock Road
Rancho Cordova, CA 95742

Project No.:
Contact: T. Anckner
Phone:

Project: Sears Roebuck Co.

AEMC Contact: M. Jaeger

Date Sampled: 9/19/90
Date Received: 9/20/90
Date Extracted: 9/20/90
Date Analyzed: 9/21/90
Date Reported: 9/24/90

Job No.: 50109
COC Log No.: 20427
AEMC I.D.: L5351
Batch No.: 6252
Matrix: Soil

Analyte	Spike Conc. (mg/kg)	MS %Rec	MSD %Rec	Duplicate RPD
Oil & Grease	4,840	97%	98%	1%

MS = Matrix Spike
MSD = Matrix Spike Duplicate
% REC = Percent Recovery
RPD = Relative Percent Difference

AMERICAN

ENVIRONMENTAL MANAGEMENT CORP.

CHAIN OF CUSTODY

L5351
LOG NO. 20426

CLIENT NAME <i>Sears - Oakland</i>	CLIENT JOB NUMBER <i>50109</i>	ANALYSIS REQUESTED	FIELD CONDITIONS:						
ADDRESS	DESTINATION LABORATORY								
PROJECT NAME <i>Sears Roebuck Co</i>	<input checked="" type="checkbox"/> AETC 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95670	ICAP methods	Oil & Grease	24 HOURS	48 HOURS	1 WEEK			
PROJECT MANAGER <i>Ton Anchur</i>	<input type="checkbox"/> OTHER	TPH-D	TPH-G	8240	8240	2 WEEKS			
SAMPLED BY <i>Walsack</i>									
JOB DESCRIPTION <i>Soil Sampling under 6 oil tank II waste oil</i>									
SITE LOCATION <i>Oakland</i>									
DATE	TIME	SAMPLE	CONTAINER	3	24 HOURS	48 HOURS	1 WEEK	2 WEEKS	NOTE / FIELD READINGS
6-19		SP-3-1A	PUSH Soil		X X X X X X	X			< Cmp info
		SP-3-1B			X X X X X X	X			
		SP-3-2A			X X X X X X	X			
		SP-3-2B			X X X X X X	X			< Cmp info
SUSPECTED CONSTITUENTS									
SAMPLE RETENTION TIME									

HELD IN CUSTODY BY <i>P. Walsack Maynard Long</i>	DATE / TIME <i>6/20 0630 6/20 9:30</i>	RECEIVED BY <i>Maynard Long Mike Westfall</i>	DATE / TIME <i>6/20 6:30 7/20/90 0935</i>	REMARKS	PRESERVATIVES: (1) HCL (2) HNO3
					<input checked="" type="checkbox"/> = COLD (4)
					LAB TO SEND RESULTS TO: <i>Walsack ORIGINAL</i> <i>Anchur COPY</i>
SHIPPED VIA	FED X	UPS	OTHER	AIRBILL #	

CLIENT NAME <i>Sears - Oakland</i>	CLIENT JOB NUMBER 50109	ANALYSIS REQUESTED										FIELD CONDITIONS:					
ADDRESS	DESTINATION LABORATORY																
PROJECT NAME	<input checked="" type="checkbox"/> AETC 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95670											COMPOSITE:					
PROJECT MANAGER <i>Anchaser</i>	PHONE #																
SAMPLED BY <i>Walsack</i>											SPECIAL INSTRUCTIONS:						
JOB DESCRIPTION																	
SITE LOCATION <i>Oakland</i>											TURN AROUND TIME						
NOTE / FIELD READINGS																	
DATE	TIME	IDENTIFICATION	DEPTH	METHOD	TYPE	CONTAINER NO.	TYPE	PRESERVATIVES	T	H	E	T	C	24 HOURS	48 HOURS	1 WEEK	2 WEEKS
6-19		SB-1A		Backhoe Bucket	Soil	1	Brown	X X	X X	X X	X X	X X	X X	X X	X X		
		SB-1/2A				2		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-2/3A				3		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-3/4A				4		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-4/5A				5		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-5/6A				6		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-5/6B				7		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-6A				8		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-7A				9		X X	X X	X X	X X	X X	X X	X X	X X		
		SB-7B				10		X X	X X	X X	X X	X X	X X	X X	X X		
		SPF-1A				11		X X	X X	X X	X X	X X	X X	X X	X X		
		SPF-1B				12		X X	X X	X X	X X	X X	X X	X X	X X		
SAMPLE RETENTION TIME																	
SUSPECTED CONSTITUENTS <i>Oil - Waste Dil</i>																	
RECORDED BY	DATE / TIME	RECEIVED BY	DATE / TIME	REMARKS		PRESERVATIVES:											
PL Walsack	6/20 0630	May Long	6/20 6:30			(1) HCL		(3) = COLD									
May Long	6/20 9:30	Mike Westfall	9/20/90 0935			(2) HNO3		(4)									
LAB TO SEND RESULTS TO:																	
<i>Walsack</i> ORIGINAL																	
<i>Anchaser</i> COPY																	
SHIPPED VIA		<input type="checkbox"/> FED X		<input type="checkbox"/> UPS		<input type="checkbox"/> OTHER		AIRBILL #									

CLIENT NAME	Sears
ADDRESS	Telegraph Ave Oakland
PROJECT NAME	
PROJECT MANAGER	Tom Anchors
PHONE #	
SAMPLED BY	Phil Walsack
JOB DESCRIPTION	Soil Sampling 7 UST's
SITE LOCATION	Oakland

CLIENT JOB NUMBER	50109
DESTINATION LABORATORY	AETC 3249 FITZGERALD RD. RANCHO CORDOVA, CA. 95670
PRESERVATIVES	<input checked="" type="checkbox"/> AETC <input type="checkbox"/> OTHER
ANALYSIS REQUESTED	T-PAH TPH-C BTXE O.D. (Cross) 9071 TCPA2 mfrs 0108
FIELD CONDITIONS:	See below

COMPOSITE:	See below
SPECIAL INSTRUCTIONS:	
TURN AROUND TIME	24 HOURS 48 HOURS 1 WEEK 2 WEEKS
NOTE / FIELD READINGS	

DATE	TIME	SAMPLE	DEPTH	METHOD	TYPE	CONTAINER	NO.	TYPE	3	24 HOURS	48 HOURS	1 WEEK	2 WEEKS	NOTE / FIELD READINGS
6-19		SP-1-2A		Backhoe Excav	Soil		1	Bags	X X	X	X	X	X	Cmp into 1
		SP-1-2B							X X	X	X	X	X	Cmp into 1
		SP-1-3A							X X	X	X	X	X	Cmp into 1
		SP-1-3B							X X	X	X	X	X	Cmp into 1
		SP-1-4A							X X	X	X	X	X	Cmp into 1
		SP-1-4B							X X	X	X	X	X	Cmp into 1
		SP-1-5A							X X	X	X	X	X	Cmp into 1
		SP-1-5B							X X	X	X	X	X	Cmp into 1
		SP-2-1A							X X	X	X	X	X	Cmp into 1
		SP-2-1B							X X	X	X	X	X	Cmp into 1
		SP-2-2A							X X	X	X	X	X	Cmp into 1
		SP-2-2B							X X	X	X	X	X	Cmp into 1

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

RElinquished By	DATE / TIME	RECEIVED BY	DATE / TIME	REMARKS	PRESERVATIVES:
P. Walsack	6/20 8:30	May Long	6/20 6:30		(1) HCL (2) HNO3
May Long	6/20 9:30	Phil Walsack	9/20/90 0925		(4) COLD
					LAB TO SEND RESULTS TO:
					Walsack
					ORIGINAL
					Anchors
					COPY

SHIPPED VIA

FED X

UPS

OTHER

AIRBILL #