

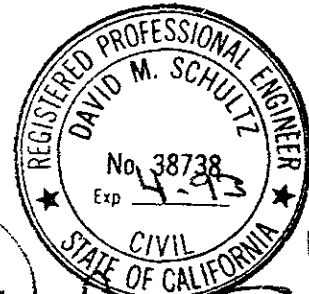


December 22, 1992

FINAL REPORT
OF
BUNKER-OIL OVEREXCAVATION ACTIVITIES
at
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared for:
Mr. Ron Kessler
The Oliver Rubber Company
1200 65th Street
Emeryville, California

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583





December 22, 1992

The Oliver Rubber Company
Emeryville, CA 94662

ATTENTION: Mr. Ron Kessler

SUBJECT: Overexcavation of Former Bunker Oil Tank Excavation
Oliver Rubber
Emeryville, CA

ASE JOB NO.: 2571

Mr. Kessler:

INTRODUCTION

Aqua Science Engineers, Inc. (ASE) was contracted by our client, Oliver Rubber Company to perform overexcavation duties in the area of the former Bunker Oil tank (see Figure 1, Site Plan). The overexcavation was prompted by Ms. Susan Hugo of the Alameda County Health Care Services Agency (ACHCSA) in the form of a letter from her agency addressed to Oliver Rubber, dated December 1, 1992. In brief, the letter stated that in order to apply for and potentially receive site closure, the elevated levels of soil contamination in the direct proximity of the former bunker oil tank would need to be remediated to levels far below what was detected during original excavation activities. During initial excavation and sampling activities, three of the four excavation sidewalls of the former bunker oil excavation indicated elevated levels of diesel and oil and grease contamination as follows:

<u>Location</u>	<u>Diesel (ppm)</u>	<u>Oil & Grease (ppm)</u>
SW-N	490	1500
SW-S	470	1300
SW-W	130	450

Therefore, on December 18, 1992, ASE personnel mobilized on site to remediate (overexcavate and offhaul) the known areas of soil contamination.

Bunker Overex - December, 1992

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OVEREXCAVATION

ASE personnel, Steve DeHope, and selected subcontractors arrived on site the morning of December 18, 1992. All personnel was currently certified with 29CFR 1910.120 training. Previous soil borings and a monitoring well in the general proximity of the former excavation had delineated the extent of the contamination. It was ASE's intent to excavate from within the former excavation up to the known areas of non-contaminated soils. The removed soil would be stockpiled on site, analyzed, and appropriately disposed of at a local certified landfill.

The overexcavation activities began by removing the backfill material of the initial excavation. That material, known to be free of contamination, was stockpiled separately to be used again as backfill. A gas line was encountered during excavation; however it was determined to be "dead", and was subsequently removed. Once all the backfill material was excavated, contaminated sidewalls were excavated to the limits of the soil borings and monitoring well surrounding the excavation (see Figure 1). The dimensions of the overexcavated area grew to approximately 19 feet by 10 feet, and 8 feet deep before all of the contaminated soil appeared to have been excavated. Visual inspections along with use of a hand-held organic vapor meter (OVM 580A) were used to define the extent of the soil contamination.

SIDEWALL SOIL SAMPLING

Ms. Susan Hugo arrived on site at approximately 2:00 p.m. to verify that the "new" excavation sidewalls were excavated to the proper limits. Soil samples were collected by ASE personnel at locations chosen by Ms. Hugo. A soil sample was collected from each of the three excavation sidewalls (SW-N, SW-S, SW-W), and one composited soil sample was collected from the excavated material (STKP-1A). The soil samples were collected in brass tubes, covered on each end with aluminum foil, capped and sealed with tape. Each sample was then appropriately labeled and stored in a cooler with ice prior to transport to the analytical laboratory. The soil samples were transported to Priority Environmental Labs in Milpitas, CA, a state certified analytical laboratory, under proper chain-of-custody requirements. The soil samples were analyzed for Total Petroleum Hydrocarbons as Diesel (EPA method 3550/8015), the fractions BTEX (EPA method 8020), and for Oil & Grease (EPA method 5520 D&F). The results of the soil analytical testing are tabulated below as Table One, and copies of the original laboratory report is attached in Appendix A.

TABLE ONE
Summary of Chemical Analysis of SOIL Samples
TPH Diesel, BTEX, and Oil & Grease

Sample I.D.	TPH Diesel (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	Oil & Grease (ppm)
SW-N	2.9	8.4	14	7.3	24	48
SW-S	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SW-W	30	N.D.	N.D.	6.6	12	N.D.
STKP-IA*	36	N.D.	N.D.	N.D.	N.D.	150
EPA METHOD	3550/ 8015	8020	8020	8020	8020	5520 D&F

ND Non Detectable at analytical method limits
 ppm parts per million
 ppb parts per billion
 * Composite sample

STOCKPILED SOIL

The excavated material (approximately 50 cubic yards) was stockpiled on site and will be loaded, trucked, and properly disposed of at a local landfill once further "soil profiling" has occurred. ASE anticipates disposal as Non-Hazardous material at a local Class III landfill. The stockpiled soil is covered with visqueen.

BACKFILLING AND RESURFACING

The excavation was backfilled with a combination of the original backfill material and imported base rock. The excavation was backfilled to 4 inches below grade, and will be resurfaced to match existing conditions at a later date.

CONCLUSIONS AND RECOMMENDATIONS

ASE spoke with Ms. Hugo of the ACHCSA immediately after soil sample results were faxed from the laboratory to our office. The results appeared to be low enough that further action regarding the soil in the direct proximity of the former bunker oil excavation would not be necessary. Furthermore, site closure is now possible once quarterly groundwater monitoring has proven that groundwater has not been impacted by petroleum hydrocarbon contamination. ASE recommends continuing

quarterly groundwater monitoring for a period of at least one year. Site closure may be applied for pending favorable quarterly monitoring results.

REPORT LIMITATIONS

The results of this investigation represent conditions at the time of the soil sampling and specific location at which the samples were collected, and for the specific parameters analyzed for by the laboratory.

It does not fully characterize the site for contamination resulting from sources other than the former bunker oil tank, or for parameters not analyzed for by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CSDHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Should questions or concerns arise regarding this report, please feel free to give us a call at (510) 820-9391.

Respectfully submitted,

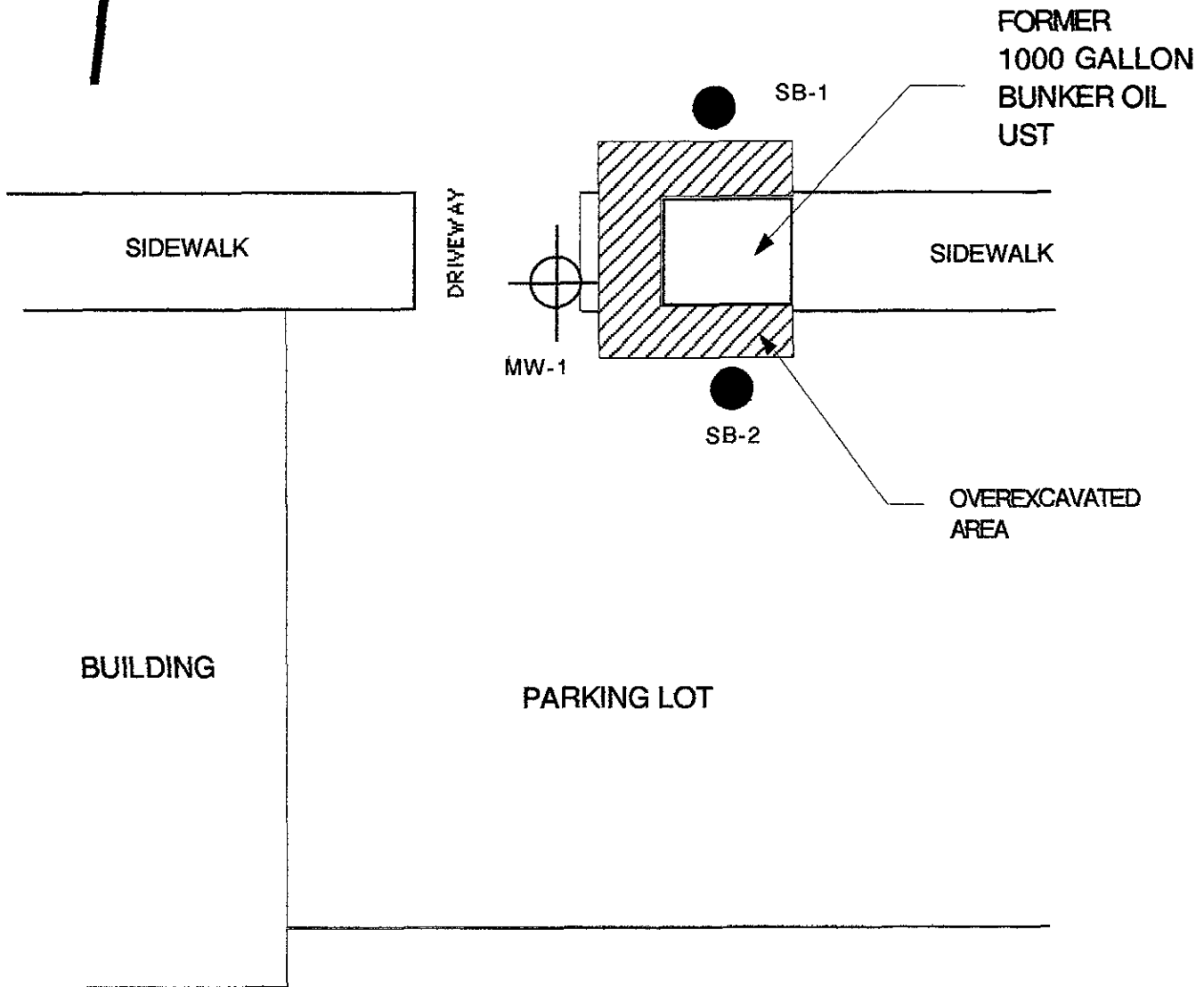
AQUA SCIENCE ENGINEERS, INC.

David Allen
Project Manager

cc: Ms. Susan Hugo, ACHCSA
Mr. Rich Hiatt, RWQCB, San Francisco Bay Region



65th Street



LEGEND

- SB-1 Soil Boring
- ⊕ MW-1 Monitoring Well
- ▨ Overexcavated Area

SITE PLAN

Oliver Rubber
1200 65th Street
Emeryville, California

Aqua Science Engineers | Figure 1

APPENDIX A

CAL EPA Certified
Laboratory Analytical Results
and
Chain-of-Custody Document



PRIORITY ENVIRONMENTAL LABS

Priority Environmental Analysis Laboratory

December 21, 1992

PEL # 9212042

AQUA SCIENCE ENGINEERS, INC.

Attn: Steve DeHope
Re: Four soil samples for BTEX, Diesel, and Oil & Grease analyses.

Project name: Oliver Rubber

Date sampled: Dec 18, 1992
Date extracted: Dec 19-20, 1992

Date submitted: Dec 19, 1992
Date analyzed: Dec 19-20, 1992

RESULTS:

SAMPLE I.D.	Diesel (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylenes (ug/Kg)	Oil & Grease (mg/Kg)
SW-N	2.9	8.4	14	7.3	24	48
SW-S	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SW-W	30	N.D.	N.D.	6.6	12	N.D.
STKP-1A*	36	N.D.	N.D.	N.D.	N.D.	150
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	104.3%	82.4%	87.6%	92.0%	90.9%	---
Duplicate Spiked Recovery	90.2%	88.6%	93.5%	91.4%	102.3%	---
Detection limit	1.0	5.0	5.0	5.0	5.0	50
Method of Analysis	3550 / 8015	8020	8020	8020	8020	5520 D & F

* Compositied soil sample.

David Duong
Laboratory Director

1764 Houret Court
Milpitas, CA 95035
(408) 946-9636

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PEL # 9212042
INV # 23278

Chain of Custody

1764 Houret Ct. Milpitas, CA. 95035 Tel: 408-946-9636 Fax

DATE: 12/19/92 PAGE: 1 OF: 1

OBJECT INFORMATION					ANALYSIS REPORT										NUMBER OF CONTAINERS						
OBJECT NO.	COMPANY	ADDRESS	PHONE	FAX	1911-Galoline (EPA 5035.2015)	1911-Gasoline w/ETEX (EPA 502.8020)	TR-4-Diesel (CPA 5010/5000.2015)	LIQUID POLYMERISABLE AROMATICS (EPA 502.8020)	STAL OIL & GREASE (EPA 5520.101)	RESIN, OIL, POLYMER (EPA 609.2050)	TOTAL POLYMERISABLE AROMATICS (EPA 4181)										
SAMPLE ID	DATE	TIME	MATRIX	LAB ID	[X]																
SW-S	12-18		S		[X]										1						
SU-N	12-18		S		[X]										1						
LW-W	12-18		S		[X]										1						
STKP-1A	12-19		S		[X]										1						

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
OBJECT NAME: Silver Rubber	TOTAL # OF CONTAINERS 7	RECD. GOOD COND./COLD YES		SIGNATURE: <i>Steve DeLope</i> NAME: A.S.E. COMPANY:	SIGNATURE: <i>David Duong</i> NAME: DAVID DUONG COMPANY: ASE	SIGNATURE:	SIGNATURE:
INSTRUCTIONS & COMMENTS: Composite STKP				Date: 12/19	Date: 12/19/92	Date:	Date: