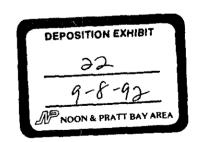


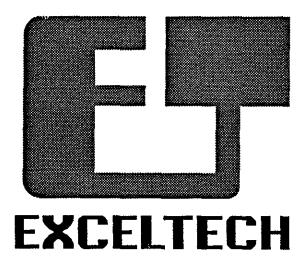
SUMMARY REPORT

FOR

JEAN R. LARKIN (PACIFIC PROPERTIES) 1628 WEBSTER STREET ALAMEDA, CALIFORNIA

> Project No. 4358F May 1990





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Background

Exceltech conducted Phase I work at the site based upon the proposed work plan submitted by LRA Environmental, and accepted by Alameda County Department of Environmental Health. (ACDEH) A copy of this work plan, "Plan of Corrections, Waste Oil Tank." July 24, 1989, is enclosed in Appendix A of this report. Based upon this report and our conversations with Pacific Property, the following work schedule was proposed.

Phase I Work Schedule and Objective

- 1. Re-excavate the contaminated soils placed back into the waste oil tank excavation by the previous contractor.
- 2. Excavate around the former waste oil tank area until soil sample readings reach non-detectable levels. Conduct confirmation sampling by sending samples to the laboratory.
- 3. Drill three soil borings around the new excavation and convert one to a groundwater monitoring well, as required by LRA's work plan.
- 4. Locate the monitoring well downgradient, as defined by an off-site well survey.

LRA's environmental work plan indicated the only contamination was localized only around the fill end of the waste oil tank excavation. Exceltech believed that excavation was the most prudent approach because (a) contaminated soils had been put back into the excavation and (b) the excavation boundaries were obscure. Furthermore, significant cost savings would result if the contamination could be defined and the soil borings placed in clean areas.

Excavation. Phase I

The first excavation phase was conducted from the end of November through early December 1989 (Site Map 1). Initially, the previously excavated soils were removed to expose native soil sidewalls. After exposing the sidewalls, it was evident that the east wall was substantially contaminated. The west wall had also visible strings of contamination.

It was agreed to extend the excavation in both west and east directions. To the west, the limit would be Webster Street; to the east, the existing building.

Excavation to the east was halted when it was determined that further excavation would undermine the building. At this time, contamination was apparent not only in the east wall of the excavation, but in the north wall as well.

Excavation to the west was stopped before Webster Street when a steel conduit was encountered. Since Pacific Properties had subleased the site to Christmas tree

vendors, Exceltech backfilled the excavation for safety and demobilized its field crews.

Exceltech's Proposal for Phase II

Exceltech proposed to Pacific Properties to demolish the existing building to extend the excavation in an attempt to determine the extent of contamination. Once the building was demolished, Exceltech also proposed to remove two hoists from inside excavating around their concrete-encased bases. Soil sampling would be conducted as required for formal excavation closure.

Excavation. Phase II

The extent of contamination at the subject site began to be revealed during the Phase II excavation (Site Map 2, photo record). Three possible additional sources of contamination besides the waste oil tank were discovered, significantly changing the scope of work. Additional sources included:

- 1. Two floor hoists.
- 2. Steel and fiberglass product lines.
- 3. Five-thousand-gallon fuel tank.

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Floor Hoist Area

Soil beneath the floor hoists were the first to be excavated and sampled. Contamination was extensive. Samples taken on February 2, 1990 in areas underneath and around the hoists revealed the following levels of contamination in the soils:

TPH as gasoline 1,800 ppm

TPH as diesel 6,300 ppm

Total oil and grease 4,400 ppm

The contamination had migrated not only laterally but vertically beneath the hoists. In areas underneath the hoists, visible contamination was removed below the water table, dewatering the excavation and removing soils. It was apparent (due to the extent of contamination) that these hoists had been leaking for many years.

A noteworthy discovery in the sample results taken in this area was the presence of gasoline and diesel. Gasoline constituents likely to migrate include benzene, toluene, ethyl benzene, and total xylenes (BTEX). Of those constituents, only total xylenes were present (at 19 ppm). The absence of the other constituents indicates that the contamination did not originate from a new source, but from one that had existed for some time.

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Exceltech dewatered the excavation, pumping the water into a baker tank on-site. Samples of the water from the middle of the excavation were taken on March 14, 1990. The following constituents were present:

TPH	860 ppb
Benzene	4.5 ppb
Toluene	8.4 ppb
Ethyl Benzene	7.1 ppb
Xylenes	7.5 ppb
High Boiling Point Hydrocarbons	2,100 ppm

Product Line Areas

The Phase II excavation led to the discovery of product lines, a second possible source of contamination. Both fiberglass and steel lines were exposed and removed (see photo documentation). Site Map 3 shows the approximate location of these lines.

Some of the lines were contained in the same trench, with the fiberglass lines situated above the steel lines. Staining, visible beneath some trench areas, indicated contamination. It was not apparent whether the lines had been properly capped; however, none of the lines had been grouted closed.

Fuel Tank

Another discovery that should be noted was a fuel tank of approximately 5,000-gallon capacity, located northwest of the demolished building. The tank had been closed in-place, that is, filled with sand and capped with cement. There was no evidence, such as staining or visible holes in the tank to suggest that the tank was a source of contamination.

Phase II Summary

The presence of fuel contamination became much more evident to the north and west as the excavation increased in size. Our objectives were (a) to excavate until the readings from the soils reached levels approved by the ACHD and (b) to close the excavation. Results from the February 28, 1990 sampling were sent to Mr. Ariv Levi of the ACDEH for approval. See Appendix B for a summary of work conducted in 1990.

Second, the fact that water had been impacted and needed to be addressed was now an issue. Confirming this was floating product being observed in the open excavation. Water samples taken in the north half of the excavation revealed the following water contamination levels:

High Boiling Point Hydrocarbons (diesel)	8,600 ppm
TPH as gasoline	7,900 ppb
Benzene	95 ppb
Toluene	290 ppb
Ethyl Benzene	220 ppb
Xylenes	1,110 ppb
Oil and Grease	16 ppm

Excavation. Phase III

Based upon the analytical results of sample 1, taken on February 28, 1990 (see Appendix A), it was decided to further excavate the northwest corner of the property where Pacific and Webster Streets meet. (See Site Map 2 and photo record.) This phase of work took place between April 17 and 22, 1990.

Starting at the Pacific Street easement and moving south parallel to Webster Street, we excavated heavily contaminated soil. The contamination appeared at the 5-foot level and continued below groundwater at the 8- to 9-foot level. Contamination appeared to continue beyond the easement, underneath the Webster Street sidewalk.

During excavation, three large canopy footings were found. These footings were situated in a line running north to south, approximately 12 feet east of the Webster Street easement. The first footing, encountered approximately 25 feet south of the

Pacific Street easement, was saturated with petroleum hydrocarbons gasoline and diesel. While removing the middle footing, we noted that the contamination was very close to grade. About 2- feet to the south, contamination reached the surface underneath the concrete slab. This pattern continued to the location of the third footing which was also removed. Approximately 1 foot beyond the third footing, the depth of the contamination began to drop below grade gradually. Contamination was no longer visible at about 120 feet south of Pacific Street.

During the excavation, large amounts of asphalt and concrete rubble were encountered. This material may have been used as backfill when the underground tanks were removed. The largest amounts were found in the northwest corner extending approximately 20 feet east and 50 feet south. On several occasions, we encountered both fiberglass and steel product lines. Often the trenches had both types of product lines, with the steel below and fiberglass above. On April 18, 1990, Exceltech Staff Geologist, Douglas T. Young took soil samples from around the excavation (Appendix C). Two of the three samples had very high levels of gasoline and diesel fuel and moderate levels of oil and grease contamination.

During Phase III, approximately 1,300 cubic yards of contaminated soil were removed from the excavation. The soil was placed upon plastic sheeting on-site and covered to prevent volatilization.

Job Summary

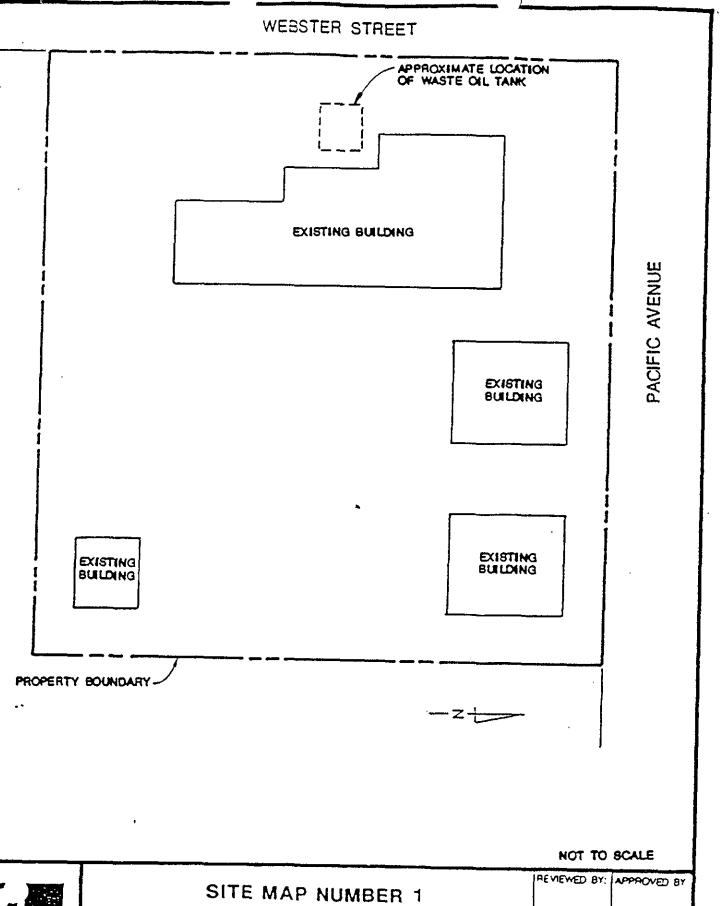
It is evident that the current scope of this job has greatly exceeded anyone's expectations. To date, over 3,000 cubic yards have been excavated. The soil adjacent to Webster, and

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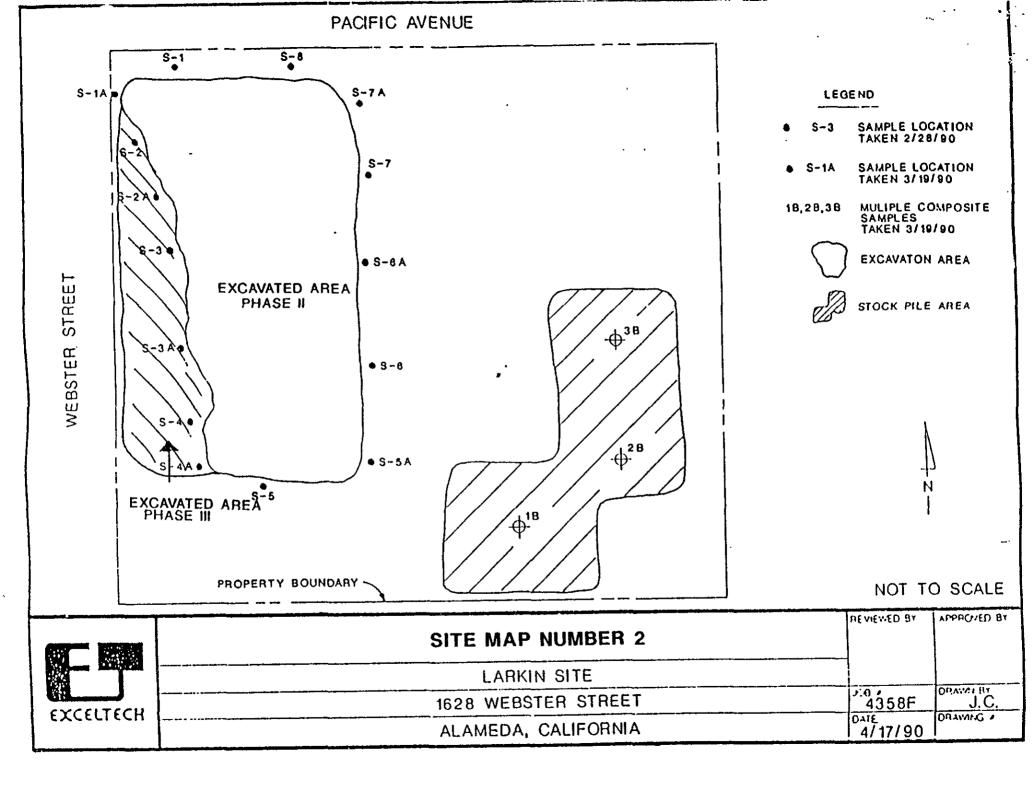
the northwest corner of the property adjacent to Pacific, still have soil contamination that will need to be addressed in the future.

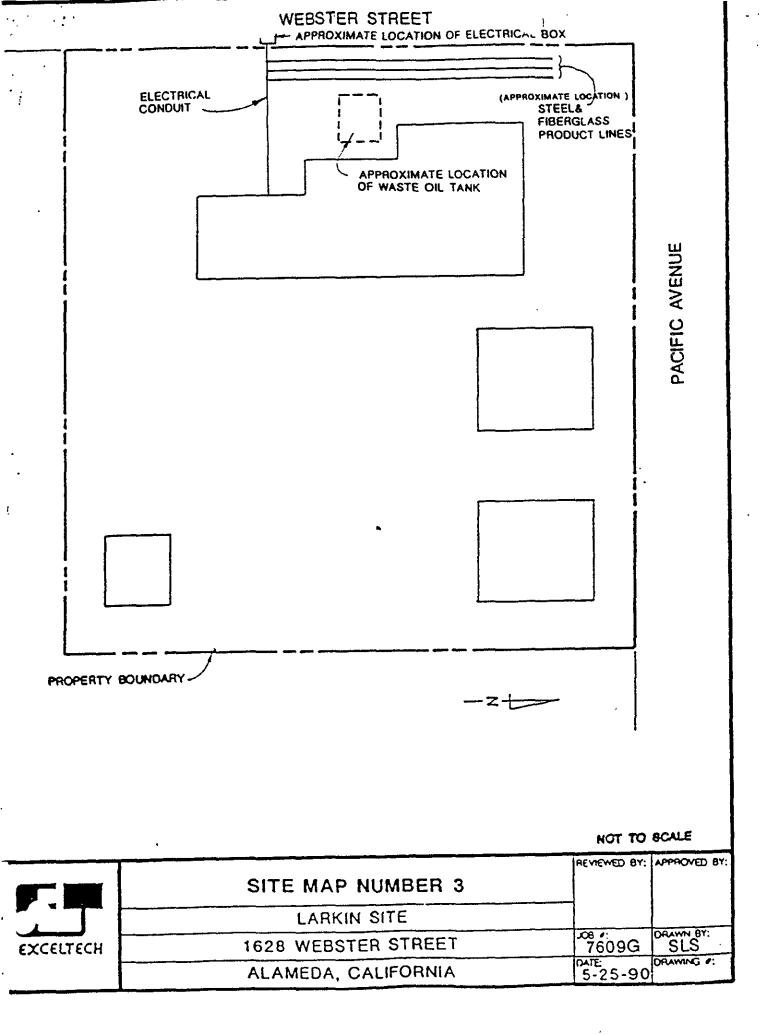
Exceltech maintains that the excavation could be closed without any further excavating in areas of the sidewaik and street. In talking with Mr. Larry Seto of the ACEDH, we agreed that backfilling wold be feasible based upon criteria outlined in a letter dated May 17, 1990 (Appendix D).

Point number 3 of that correspondence (May 17, 1990) address the attempt to place a barrier to ensure that no native contaminated soil would come into contact with clean fill. However, since groundwater has been contaminated, there are no assurances that the clean backfill will not be re-contaminated until the soil and groundwater have been cleaned up. However, Mr. Seto agreed with Exceltech that the most important aspect was to close the excavation and proceed with site development while monitoring the groundwater.



	SITE MAP NUMBER 1	HEVIEWED BY: APPROVED BY
	LARKIN SITE	
EXCELTECH	1628 WEBSTER STREET	7609G SLS
	ALAMEDA, CALIFORNIA	DATE: DRAWING #:





PHASE II EXCA: TON PHOTO RECORD

Photo #1
Orientation of Phase II excavation looking north.



Photo #2
West wall of Phase II excavation.
Note: Fiberglass product line, steel product lines in place.

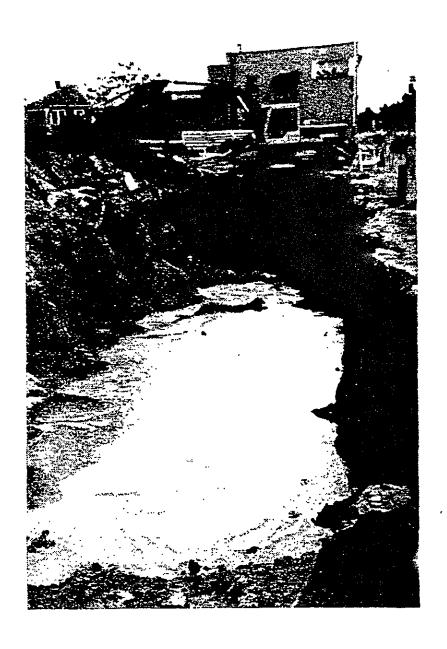


Photo #3
Northwest corner of excavation: Please note discoloration (contaminated soils) and debris in the corner.



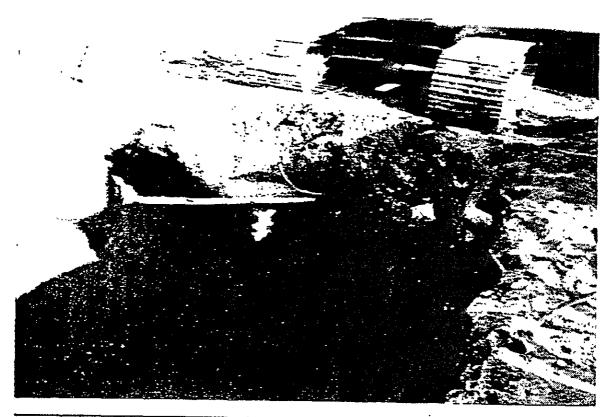
PHASE
PHOTO RECORD

Photo #1A Orientation looking south. Note floating product on water.



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During even using encountered liberglass lines, contamination and steel lines.



#3A



<u>Photo #4-</u>

Orientation looking west of current open excavation.

Note: Discoloration contamination; on west wall, toward Webster Street.

