CITY OF OAKLAND



CITY HALL • 1333 BROADWAY • OAKLAND, CALIFORNIA 94612

Office of Public Works

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April 28, 1993

Leslie C. Wong Excess Land Sales State of California Department of Transportation PO Box 23440 Oakland, CA 94623

> Re: 4-A1A-980

> > Parcel DD-39591-01-01 6th and Castro Streets

Dear Ms. Wong:

This letter is in response to your April 14, 1993 letter regarding the referenced surplus property.

The City completed the attached report. I am enclosing a copy of the report for your Hazardous Waste Coordinator to review. report suggests soil problems on site.

The City is interested in the site only if the soil problems are cured and the site is ready for development. Please get back to me with the acquisition time frame. I can be reached at (510) 238-3541.

If you have any questions regarding the report, please call Julie Carver at (510) 238-6361.

Sincerely,

Frank Fanelli, ASA

Manager, Real Estate Services

FF:krs Attachment

James Branch, Office of Housing and Neighborhood Development Warren Branscum, OPW Real Estate

Julie Carver, OPW Environmental Programs

Harry Schrauth, OPW Administration Roy Schweyer, Office of Housing and Neighborhood Development

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GEOTECHNICAL & ENVIRONMENTAL CONSULTAINTS

In Reply Please Refer to: 3493-F3

January 27, 1993

City of Oakland OPW Environmental Affairs Division Oakland, CA 94612

Attention:

Julie Carver

Subject:

6th Street and Castro Street Parcel

Oakland, California

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

Dear Ms. Carver:

We are pleased to present our phase one environmental site assessment of the subject property consisting of a city block bordered by 6th, 7th, Brush and Castro Streets in Oakland, California. The attached report includes a description of assessment activities, along with ENGEO's findings and recommendations regarding the property.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, or require additional services, please contact our office.

Very truly yours,

ENGEO INCORPORATED

Eric Harrell

Staff Environmental Geologist

Reviewed by:

Brian Flaherty

CEG 1256

REPORT

to

CITY OF OAKLAND

OAKLAND, CALIFORNIA

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

for the

6TH STREET AND CASTRO STREET PARCEL

OAKLAND, CALIFORNIA

ENGEO INCORPORATED 3493-F3

JANUARY 27, 1993



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EXECUTIVE SUMMARY

The subject site, Assessors Parcel Number (APN) 1-221-14-1, is surrounded by Brush, 7th, Castro and 6th Streets in Oakland, California (Figure 1). The State of California is the current owner of the parcel with a CALTRANS parcel number of DD39591-01-01. With the exception of two piers from an elevated section of Interstate Highway 980 no permanent structures are currently situated on the subject property. Eight city blocks surround the subject parcel with residential, and commercial use including interstate roadways to the northeast and south.

On-site potential environmental concerns were not observed during the site walkover. The subject property is a grass and brush covered parcel with a six-foot-high chain link fence around the perimeter. Scattered fragments of concrete, plywood, metal pipe and reinforcing bar were observed on the parcel. A temporary ground-water monitoring well installed by ERM-West in 1987 was found on the western portion of the property.

Records research found three underground storage tanks were removed from the site at the former Mahoneys Flying A Service Station on January 15, 1971 (Figure 2). A soil and ground-water study conducted by ERM-West in 1987 detected low levels of xylene in soil samples with ethylbenzene, toluene and xylene exposed in laboratory analysis of a ground-water sample. Laboratory analysis of a soil sample recovered in the eastern portion of the site found detectable levels of petroleum hydrocarbons.

Based on the site characterization conducted by ERM-West, the RWQCB wanted ground-water monitoring to be continued to define the plume movement and to possibly identify the source. No ground-water cleanup would be required unless contaminant concentrations increased and posed a significant threat to the beneficial use of ground water in the area. In 1987, the RWQCB did not want new uses or activities to be undertaken that preclude clean-up of soil or ground water at the site.

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A number of buildings were situated on the subject property from at least 1889 to 1973. Lead paint was used during this period and could have impacted surface and near surface soil.

The Francis Plating Company of Oakland, a RCRA toxic storage site is located approximately 80 feet northwest of the subject parcel. The plating company had a fire on November 24, 1992 which has temporarily closed the facility. When available, a review of the EPA oversite report should be undertaken to evaluate the potential for the plating works to have impacted the ground-water beneath the subject property.

A former gasoline service station was also identified on the northern corner of the intersection of 7th and Castro Streets. Depending on the historical use and condition of underground storage tanks at this site the potential exists for impacts to the soil and/or ground water at the subject property.

A soil and ground water investigation should be undertaken to further characterize the site conditions from past use. Surface and near-surface samples should be collected for laboratory testing to determine the lead and heavy metal levels in the soil. Those portions of the parcel identified with past commercial use should be investigated. At a minimum, soil samples collected from these areas should be submitted for laboratory testing for the suspected compounds used in each business. Ground water collected from either permanent monitoring wells or by Hydropunch sampling should be tested for the suspected compounds used on the parcels and compounds from off-site sources.



INTRODUCTION

Purpose and Scope

The purpose of this study was to assess the potential environmental concerns on the subject property. The scope of services included: (1) a site walkover, (2) a review of aerial photographs, Sanborn Fire Insurance Maps, and USGS topographic maps, (3) a records search of information maintained by city, state, county and federal agencies regarding the subject parcel and nearby properties, and (4) preparation of this report with our findings and recommendations.

Property Description

The subject site identified by Assessors Parcel Number (APN) 1-221-14-1 is surrounded by Brush Street, 7th Street, Castro Street and 6th Street (Figure 1). No structures are located on the subject property with the exception of two piers from an elevated section of Interstate Highway 980. The parcel is covered with grass and surrounded by a perimeter fence. The site is relatively level at an elevation of \pm 20 feet above mean sea level. A storm drain inlet is located on the western portion of the property. Eight city blocks surround the subject parcel with residential and commercial use, including interstate highways to the northeast and south (Figure 1).

Site Geology

The geologic deposits beneath the property have been mapped as the Merritt Sand. These deposits are described as loose, fined grained very well sorted beach and wind blown sand. Subsurface investigations conducted by ERM West on the subject parcel encountered fill in the upper 3 to 5 feet with the exception of borehole Nos. 1 and 2 where fill was encountered down to the bottom of the borings at 15 feet. Concrete, asphalt and brick were



mixed with the fill materials. The native soils were logged as a medium brown sand with increasing amounts of clay with depth. Ground water was measured at a depth of approximately 15 feet beneath the existing ground surface. Ground-water flow direction was not determined during ERM's investigation but has been reported to be toward the south in a hydrogeologic study on a nearby parcel.



SITE WALKOVER

A site walkover was conducted by an ENGEO Incorporated environmental geologist on January 19, 1993. The property was viewed for hazardous materials storage, surficial staining or discoloration, debris, stressed vegetation, or other conditions which may be indicative of potential sources of soil or ground-water contamination. The site was also inspected for fill/ventilation pipes, ground subsidence, or other evidence of existing or pre-existing underground storage tanks.

The subject property is a grass and brush covered parcel surrounded by a six-foot-high chain-link fence. Scattered fragments of concrete, plywood, metal pipe and reinforcing bar were found on the parcel. A temporary ground-water monitoring well installed by ERM-West in 1987 was found in the western portion of the property in the approximate location of Boring B1 (Figure 2). Two piers for an elevated section of Interstate Highway 980 are situated on the northeastern portion of the site.

Acorn Plaza, with retail shops, is located one block north of the subject property. Interstate 980 is situated to the northeast with open space and residences to the east. Piers for Interstate 980 are situated on the block southeast of the subject parcel. Interstate 880 is located above the parcels south of the subject property. The parcels to the southwest, beneath Interstate 880, were used for automobile, truck and equipment storage at the time of the site walkover. An auto parts store, Shell Service Station and the Francis Plating Company of Oakland are located on the block northwest of the subject property.

At the time of the site walkover, a clean up was being undertaken at the Francis Plating Company of Oakland due to a fire that had occurred at the plating works on November 17, 1992. The site cleanup was being conducted by Erthco Environmental Services with Mr. Leonard Lamb overseeing operations on the site. A number of containers were on the site



for the removal of hazardous debris. Mr. Brad Shipley provided oversite for the Environmental Protection Agency (EPA) for the first month of the cleanup.



RECORDS SEARCH

Local, state and federal agencies were contacted to obtain information regarding the subject parcel and known contaminated properties in the immediate vicinity. Agencies contacted included:

- 1. City of Oakland Building Inspection and Planning Departments.
- 2. City of Oakland Fire Department
- 3. City of Oakland Library Oakland History Room
- 4. Alameda Department of Environmental Health, Division of Hazardous Materials
- 5. California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)
- 6. State Water Resources Control Board (SWRCB)
- 7. California Environmental Protection Agency (CAL-EPA) Department of Toxics Substance Control (DTSC), North Coast Region
- 8. U.S. Environmental Protection Agency (Region IX)
- Cal Trans
- Moseman Construction

The City Building Inspection and Planning Department offices were contacted for information concerning use of the subject property. The City Fire Department was contacted for information concerning hazardous material storage or spills on the property and to review fire department inspection and underground storage tank records.

The Alameda Department of Environmental Health, Division of Hazardous Materials underground storage tank/hazardous waste generator/hazardous material management plan (2185 program) data base was reviewed for information regarding the subject property and properties within one-half mile of the site.

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The RWQCB Fuel Leaks List and the RWQCB North Bay Toxics List were reviewed for leaking tank or other documented contaminated sites within one half mile and one mile of the property respectively. The Solid Waste Assessment Test List (SWAT) maintained by the RWQCB and the Solid Waste Information System List (SWIS) prepared by The Office of Solid Waste Management were reviewed for active or inactive landfill sites within one mile of the subject property.

The Expenditure Plan For The Hazardous Substance Cleanup Bond Act of 1984 (Revised January 1990), Abandoned Site Program Information System List (ASPIS), and the Hazardous Waste and Substances List (Cortese List) were reviewed for information on documented contaminated sites within one mile of the subject property.

The U.S. Environmental Protection Agency was contacted to provide available listings of known hazardous waste facilities in the site vicinity. Information was requested regarding the Comprehensive Environmental Response Compensation and Liability Act List (CERCLIS), and the Resource Conservation and Recovery Act (RCRA) List.

No title report was available for the subject parcel. Copies of agency data bases and personal communication records are maintained in ENGEO's files and can be provided at your request.

City of Oakland Building Inspection and Planning Department

No files were found at the Building Inspection Department for addresses located on the subject parcel. Personnel from the Building Inspection Department stated that after demolition of a building, records for that building are destroyed. A review of the records for relocated buildings did not find that the buildings formerly on the subject property were moved to new locations.



A Sanborn Fire Insurance Map maintained and modified by the Building Department was reviewed and the results are discussed in the Sanborn Map review section.

Oakland Fire Department

A permit to remove three underground storage tanks was issued on January 7, 1971, for 738 6th Street. The underground tanks were listed as having volumes of 10,000, 7,500 and 5,000 gallons each. The permit listed the owner as the State of California Division of Highways. The underground storage tank location is listed as 20 feet east of Brush Street on the north side of 6th Street. No Fire Department Inspection Reports were available for the businesses formerly on the subject property. A copy of the underground storage tank site removal permit is included in Appendix B.

Oakland Library - Oakland History Room

Kelts Geographical Directory (1936) and Polk's Oakland City Directory (1967) were reviewed for businesses and residences located at the subject parcel and nearby properties. Ten addresses on the subject parcel were identified in the 1936 listings including Sunset Manufacturing Company (615 Castro Street), Durham Farm Creamery (701 7th Street), Sunrise Laundry Company (717 7th Street), Market Garage (733 7th Street) and Larson's Wine Shop (741 7th Street).

Twenty eight addresses were identified in the 1967 directory. The identified commercial properties are as follows:

6th Street

728 Eagle Garage Auto Repair

740 Mahoneys Flying A Service and Gas Station



7th Street

701 Du	rham Farm	Creamery	Incorporated
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703 Durham Farm Creamery Plant

725 Gus Pool Room

733 Car Parts Center

741 Sunrise Laundry Company

747 Old Mexico Bar and Tavern

Properties with potential environmental concerns identified on adjacent blocks included Messiah's Advocate Job Printing (716 7th Street), New City of Paris Laundry (772 7th Street), Blk Gen Petroleum Corp (800 7th Street), Texaco Service Station (808 8th Street), Seal-Tuff Paint Company (690 7th Street), Francis Plating of Oakland Incorporated (785 7th Street), Leon Fuller Mobil Service (700 Castro Street) and Continental Machine Works and Metal Stamping Company (729 Castro Street). The locations of most of these sites are shown on Figure 3.

Alameda County Assessors Office

The subject property is identified by assessors parcel number (APN) 1-221-14-1. Addresses listed for the subject parcel include: 616 Brush Street; 603, 609, 611 and 615 Castro Street; 716, 720, 722, 728, 738 and 740 6th Street and 701, 717, 725, 738, 747 7th Street.

The State of California acquired the parcels between July 1, 1969, and March 30, 1971. The Durham Farm Creamery was listed as the owner of APN 1-221-5 on March 6, 1964.

Alameda Department of Environmental Health, Division of Hazardous Materials

The subject property is not listed by Alameda County as a underground storage tank site or hazardous waste generator. Review of the county Underground Storage Tank and Local



Oversite Program lists found 41 and 15 sites respectively within one-half mile of the subject property. A listing of these facilities is included in Appendix C.

Alameda County was contacted to provide information on the environmental oversite relating to the cleanup at the Francis Plating Company of Oakland. To date Alameda County has not responded to the request for information.

Regional Water Quality Control Board, San Francisco Bay Area Region (2)

The subject property and 35 other leaking underground fuel storage tank sites were found on the RWQCB Fuel Leaks List within one half mile of the subject property. A summary of the underground storage tanks information is included in Appendix D. The RWQCB North Bay Toxics List and the Fuel Leaks List identify the subject property at 7th and Brush Street.

Petroleum impact of soil and ground water was documented during a environmental study of the subject property conducted by ERM-West in 1987. A site history compiled by ERM-West stated that the former businesses on the subject parcel with potential environmental concern included a gas station, a diary and a commercial warehouse. ERM-West stated that the gasoline station had at least two USTs with the creamery and warehouse maintaining one underground gasoline storage tank each. No reference was provided for the statement that these businesses maintained underground storage tanks. ERM-West stated that it was their understanding that the underground storage tanks were removed at the time the buildings were demolished and removed.

Seven soil borings were drilled at the subject property with two of these converted to temporary ground-water monitoring wells. A summary of the soil and ground-water laboratory analysis results is presented in Table I.

TABLE I
Soil and Ground-water Laboratory Analysis Results
Proposed Greyhound Site, 7th and Brush Street, Oakland California

	Sample Depth				
Boring	in feet	<u>Matrix</u>	Ethylbenzene	<u>Toluene</u>	<u>Xylenes</u>
B 1	16.0 - 16.5	Soil	N.D.	N.D.	0.004
B 5	17.0 - 17.5	Soil	1.3	1.5	7.9
B6	17.0 - 17.5	Soil	N.D.	N.D.	0.002
B 7	17.0 - 17.5	Soil	N.D.	N.D.	0.002
B1*	12.8 - 15.0	Aqueous	0.0005	0.0003	0.005

^{*}Also detected: Low molecular weight aliphatic and alicyclic hydrocarbons- 0.0012 ppm; C3-C5 alkylbenzene isomers - 0.011 ppm; methyl styrene - 0.001 ppm; methyl indane - 0.002 ppm.

The approximate location of the soil borings are shown on Figure 2. A copy of the report is included in Appendix D.

Two RWQCB responses were reviewed relating to the soil and ground-water impacts found on the subject property. On April 30, 1987, ERM-West contacted Mr. Lester Feldman to provide a preliminary evaluation of the contamination for the Greyhound Corporation, a potential purchaser for the subject parcel. While the subject parcel was not identified as a having a high priority, the letter suggested continued ground-water monitoring to define the plume movement and to possibly identify the source. The letter stated that a ground-water cleanup would not be required unless contaminant concentrations increase and pose a significant threat of beneficial use of ground water in the area.

An evaluation of contamination exposed on the subject parcel was provided by Mr. Stephen Hill of the RWQCB to Mr. Hilinski of the Grubb and Ellis Company on October 30, 1987. The RWQCB recommended a file review to identify past potential environmental concerns.



The RWQCB also recommended that no new uses or activities preclude clean-up of soil at the site. Copies of each of these letters are included in Appendix D.

The subject parcel and 13 other properties within one mile of the subject site were found on the North Bay Toxics List (Appendix E). The Safety-Kleen facility at 404 Market Street is located approximately 500 feet south-southwest of the subject parcel and has had documented ground-water impact from total petroleum hydrocarbons as mineral spirits, 1,1-dichloroethene, 1,1-dichloroethane, 1,2-dichloroethane, 1,2-dichloroethene, vinyl chloride, 1,1,1 trichloroethane, trichloroethene, chlorobenzene, chloroform and tetrachloroethene. The highest concentrations of purgeable halocarbons were detected in two ground-water monitoring wells, located upgradient from the Safety Kleen facility, approximately 330 feet south-southwest of the subject parcel. A Groundwater Technology Report states that the upgradient source for these compounds is unknown but the purgeable halocarbon impact does not appear to be related to the Safety Kleen facility. Based on a reported ground-water gradient flowing to the south, the subject parcel is cross and up gradient from the impacted monitoring wells (Figure 3).

A summary of the North Bay Toxics sites is included in Appendix E.

No active landfills are documented by the RWQCB or the Solid Waste Management Board within one mile of the subject property.

Cal - EPA Toxic Substances Control Division, North Coast Region

The subject property is not listed on the Calsites data base. Thirty-seven properties are documented by DTSC on the Calsites facilities data base, within one mile of the subject site. Thirty three of the sites are listed by the DTSC as requiring no further action (NFA). A review of the site profiles for the non NFA sites did not find information that these sites



could impact the soil and/or ground water at the subject property. A list of the Calsites is included in Appendix F.

No Annual Work Plan (formerly BEP) sites are documented within one mile of the property. Twenty-seven facilities on the Cortese List are within one-half mile of the project site and are included in Appendix G. Sites identified on the Cortese list were compiled from the Regional Water Quality Control Board list of leaking underground storage tank sites.

The Department of Toxics Substances Control has completed limited studies of radon risks throughout the State. Preliminary results indicate that Region 6, in which Alameda County was included, exceeded the Environmental Protection Agency limit of 4 picocuries per liter of air in 5.5 percent of the single-family residences that participated in the study.

U.S. Environmental Protection Agency Region IX

Ten CERCLIS sites are listed by the EPA within one mile of the subject property (Appendix H). A list of the nearby RCRA facilities is included in Appendix I.

Mr. Brad Shipley of the EPA was contacted to provide information on the Francis Plating Company facility at 785 7th Street. After a fire on November 17, 1992, Mr. Shipley provided oversite for the EPA for the first month of the site cleanup before turning the facility oversite over to the Alameda County Department of Environmental Health. Mr. Shipley stated that the EPA had not required a soil and/or ground-water characterization after the fire at the plating facility. Mr. Shipley stated that the EPA Technical Assistance Division would document the cleanup work on the site but that this report would not be available for public review for approximately one month.



Cal Trans

Cal Trans has owned and maintained the subject property since 1970. Mr. Peter Terry, a Cal-Trans Employee, has provided maintenance for the site for approximately two and one half years. Mr. Terry stated that weeds on the site were mowed one to two times a year and the herbicide Round-up is applied along the sidewalk to control weeds. Mr. Terry stated that there has been no materials storage on the site in the past two and one half years.

Moseman Construction

Materials storage was visible on the site in the 1985 aerial photograph review. Ms. Leslie Wong, a Cal-Trans Employee was contacted to obtain information on the contractor involved with the Interstate Highway 980 construction during this time. We were provided with the name of Moseman Construction, P.G. Box 6000 Redding, CA. 96099. No telephone number was available for the Moseman Construction Company. Moseman Construction Company was not found in a review of the telephone listings for Redding, California.



AERIAL PHOTOGRAPH AND MAP REVIEW

The following aerial photographs provided by Pacific Aerial Surveys (Oakland) and the University of California, Berkeley, were reviewed to provide information regarding past conditions and land use at the subject site and in the immediate vicinity:

Photograph Number	<u>Date</u>
AV-11-06-03/04	03-24-47
AV-28-13-42/43	04-14-50
AV-119-09-32/33	08-14-53
AV-337-05-27/28	07-03-59
AV-550-08-21/22	07-25-63
AV-902-05-16/17	05-02-69
AV-1100-05-16/17	04-14-73
AV-1377-05-23/24	07-19-77
AV-2040-05-15/16	06-22-81
AV-2640-05-18/19	05-15-85
AV-3268-05-18/19	03-30-88
AV-4230-09-25/26	04-08-92

Sanborn Fire Insurance Maps were produced for the subject property during the 1889, 1902, 1912, 1951 and 1952 mapping periods. Topographic maps were reviewed for the years 1947, 1959, 1968, and 1980 for indications of topographic or land use changes at the subject parcel.

Prior to the demolition of the buildings on the subject parcel a number of residential and commercial buildings had been situated on the site over the past 85 years. By 1889, on-site businesses included a Chinese laundry, F.E. Knowles Granite Works, a meat market and a warehouse for home moving materials. Changes noted between 1889 and 1902 include development of a marble works and retail stores in the northern portion of the parcel with the removal of the granite works, meat market, and warehouse storage. Residential development had taken place by 1902 in the barn and open space areas. With the exception of the western portion of the subject property, development was relatively unchanged until



building demolition in 1973. Businesses listed on the 1951 and 1952 maps include Painters Storage and Automobile Storage (733 Seventh Street), Sunrise Laundry (717 Seventh Street), Creamery (705 Seventh Street), Roofing Materials Warehouse (615 Castro Street), and retail stores (737-747 Seventh Street).

The Sanborn Map maintained by the Oakland Building Inspection Department shows a service station situated in the western portion of the subject property. A note on the map states that the address for the service station, 740 6th Street, was reissued on March 14, 1956. The location of the service station building and pump islands noted on the 1959 photograph are shown on Figure 2. Three boilers were mapped on the subject property in the creamery, auto shop and Sunrise Laundry. A stamping and machine shop was listed at 615 Castro Street.

By 1973 the buildings on the subject property had been removed or demolished with the exception of the residence at 722 6th Street. No buildings were situated on the subject property after 1977. The parcel was undeveloped after 1977 with the exception of the material storage during the construction of Interstate Highway 980 in 1985. Materials storage on the parcel appeared to consist of stockpiled soil, concrete and wood.

Eight city blocks surround the subject parcel. The nearby blocks have been developed for a mixture of residential and commercial uses over the past 100 years. Two service stations were identified on blocks immediately adjacent to the subject property. By 1951, a service station was located on the southern corner of the intersection of Castro and 7th Street with a second service station located on the northern corner of the intersection of West and 7th Street (Figure 3).



DISCUSSION WITH CONCLUSIONS

Two RWQCB letters were reviewed relating to the soil and ground-water impacts found on the subject property. Based on the site characterization conducted by ERM-West, the RWQCB stated that: (1) the subject parcel was not identified as a having a high priority for cleanup; (2) ground-water monitoring should be continued to define the plume movement and to possibly identify the source; (3) ground-water cleanup would not be required unless contaminant concentrations increase and pose a significant threat of beneficial use of ground water in the area and (4) no new uses or activities should be undertaken that preclude clean-up of soil or ground water at the site.

The following environmental concerns or potential environmental concerns were identified:

Subject Property

- 1. Three underground storage tanks were removed from the former Mahoneys Flying A Service Station on January 15, 1971. There were no records of soil and ground-water sampling conducted at the time of the underground storage tank removal. A soil and ground-water sampling study was undertaken by ERM-West in 1987 with three exploratory borings drilled on the former gasoline service station site. Low levels of xylene were found in three soil samples with ethylbenzene, toluene and xylene detected in laboratory analysis of a ground-water sample. It does not appear that a soil and/or ground-water sample was recovered down gradient from the former underground storage tank location.
- 2. Laboratory testing of a soil sample recovered in the eastern portion of the site found detectable levels of petroleum hydrocarbons. The boring was located in the immediate area of a mapped former ground-water production well. A well which has not been properly decommissioned could act as a vertical conduit for the petroleum hydrocarbons found in the soil.
- 3. The ERM-West reports states, "Both the dairy creamery and the warehouse reportedly had at least one underground storage tank for gasoline storage. It is also reported that the tanks were removed at the time that the buildings were demolished and removed." No information was found during this environmental site assessment documenting the existence or removal of the underground storage tanks.



- 4. A number of buildings were situated on the subject property from at least 1889 to 1973. Paint containing lead was used during this period and could have impacted surface and near surface soils.
- 5. A temporary monitoring well installed in 1987 by ERM-West was observed during the site walkover. A second temporary well installed in 1987 was not observed during the site walkover but if located it should be properly decommissioned.

Adjacent Parcels

- 6. The Francis Plating Company of Oakland is located approximately 80 feet northwest of the subject parcel. The plating works, a RCRA toxic storage facility, has been at its current location for at least the past 25 years. The plating company had a fire on November 24, 1992, which temporarily closed the facility. The EPA provided oversite during the initial fire cleanup activity and to date have not required a soil or groundwater characterization for the plating facility. A final report has yet to be issued by the EPA. The EPA has transferred oversite of the plating works facility to Alameda County Environmental Health Department. To date the Alameda County Environmental Health has not responded to a request for information.
- 7. A gasoline service station was identified at the northern corner of the intersection of 7th and Castro Streets. Depending on the historical use and condition of underground storage tanks at this site, the potential exists for soil or ground-water impacts to the subject property.



RECOMMENDATIONS

- 1. Existing and potential impacts to the soil and ground water have been documented on the subject property from a number of possible on-site sources. A subsurface investigation should be undertaken on the portions of the parcel where past site use could have included potential contaminants. The investigation would include the collection of soil and ground-water samples with laboratory analysis.
- 2. An effort should be made to locate the former ground-water production well and, if found, to decommission the well according to applicable Alameda County ordinances.
- 3. A geophysical survey of the parcel should be undertaken to identify underground storage tanks or other subsurface structures prior to beginning an intrusive subsurface exploration.
- 4. Sampling and laboratory testing of surface and near-surface soil is recommended to determine if hazardous levels of lead are present on the site.
- 5. The temporary monitoring well installed by ERM-West in 1987 should be decommissioned if it is not going to be used for future ground-water monitoring.
- 6. When available, information from the EPA and Alameda County Environmental Health Department on the Francis Plating Company should be reviewed to evaluate potential impacts to the subject property.
- 7. Ground-water characterization should be undertaken on the northeastern portion of the subject site to determine the potential upgradient impact from the former gasoline service station situated on the northern corner of 7th and Castro Streets.



LIMITATIONS

The recommendations and conclusions presented in this report were based on the findings of our study which were developed solely from the contracted services. The scope of this investigation was comprised of (1) a site walkover, (2) a review of available and accessible reports and data bases, (3) a review of historical aerial photographs, and (4) preparation of this report. No laboratory analysis of soil or ground-water samples was conducted in association with this assessment.

Visual observations referenced in this report are intended only to represent site conditions on January 19, 1993. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage which occurred subsequent to the site walkover conducted by ENGEO personnel.

It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to third party and for remedial or mitigative action, shall be solely that of the Client. ENGEO agrees not to provide a report to any third party not legally required, unless authorized by the Client.

ENGEO Incorporated has prepared this report for the exclusive use of our client, City of Oakland, OPW Environmental Affairs Division. This assessment was performed in accordance with the standard of practice in Northern California in 1993. No other warranties, expressed or implied, as to the services provided are made.



REFERENCES

Regulatory Agency Information:

- Alameda Department of Environmental Health, Division of Hazardous Material; Site List for Underground Tank Program, Hazardous Waste Generator Program, Business Plan/2185 Program dated October 16, 1992.
- Alameda Department of Environmental Health, Division of Hazardous Material; List of Underground Storage Tank Cleanup sites; dated November 16, 1992.
- San Francisco Bay Regional Water Quality Control Board; Fuel Leaks Update dated January 4, 1993.
- San Francisco Bay Regional Water Quality Control Board; North Bay Toxics List dated November 10, 1992.
- Regional Water Quality Control Board; Solid Waste Assessment Test List (SWAT) dated November 6, 1991.
- Office of Solid Waste Management; Solid Waste Information System List (SWIS) dated January 1992.
- State of California Environmental Protection Agency, Department of Toxic Substance Control Calsites dated June 29, 1992.
- State of California Environmental Protection Agency, Department of Toxics Substances Control; The Expenditure Plan for Hazardous Substance Cleanup Bond Act of 1984 Revised January 1990.
- State of California Environmental Protection Agency, Department of Toxics Substance Control; *Hazardous Waste and Substance Site List* (Cortese List, AB 3750) dated December 14, 1992.
- United States Environmental Protection Agency; Comprehensive Environmental Response Compensation and Liability Act List (CERCLIS) dated December 10, 1992.
- United States Environmental Protection Agency, Region IX, Resource Conservation and Recovery Act (RCRA) Notifiers List dated December 14, 1992.



Additional References:

California Division of Mines and Geology, 1982; Special Studies Zone, West Oakland Quadrangle.

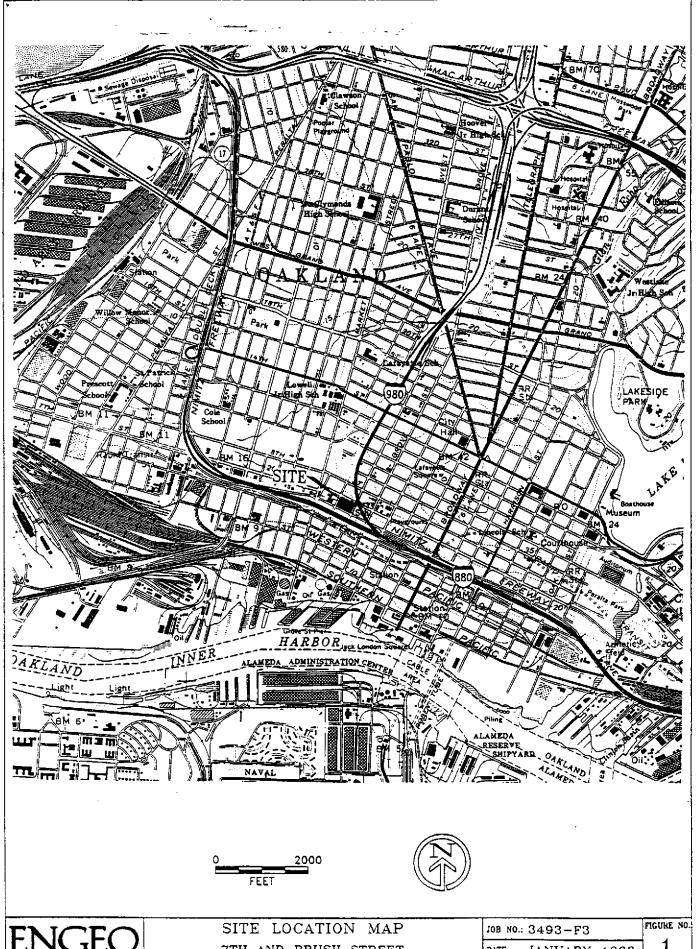
Helley, Lajoie and Burke, 1972; Geologic Map of Late Cenozoic Deposits Alameda County, California; Miscellaneous Field Studies Map MF-429.

APPENDIX A

Figure 1 Site Location

Figure 2 Site Plan

Figure 3 Site Vicinity Map

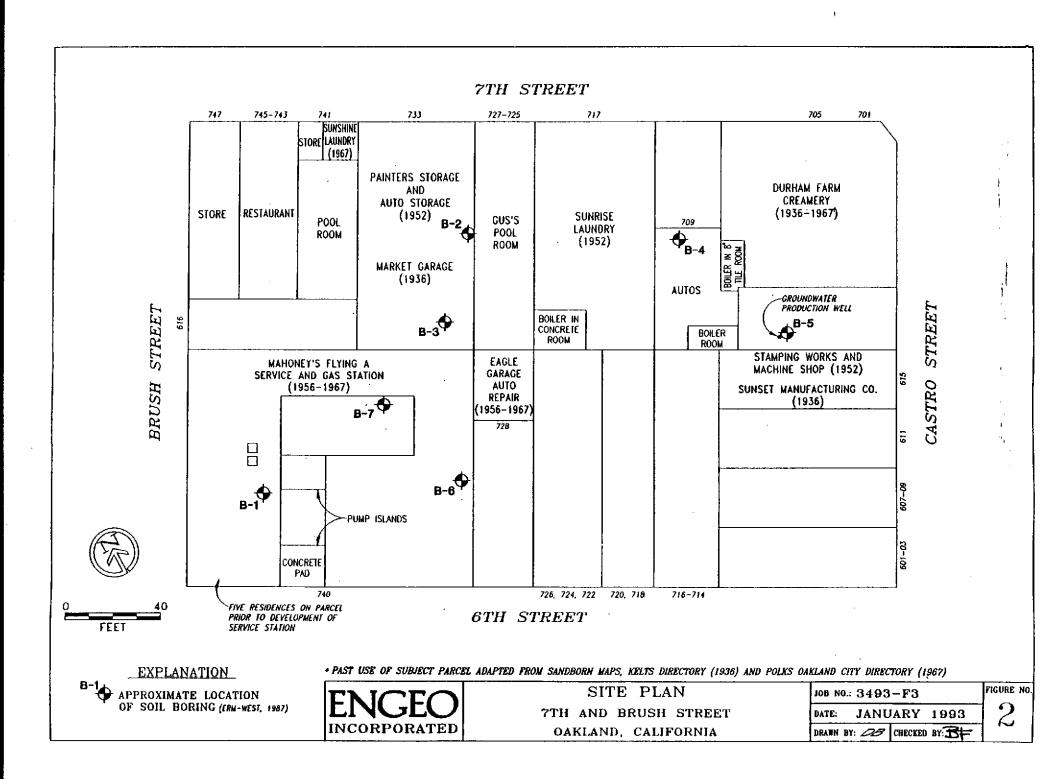


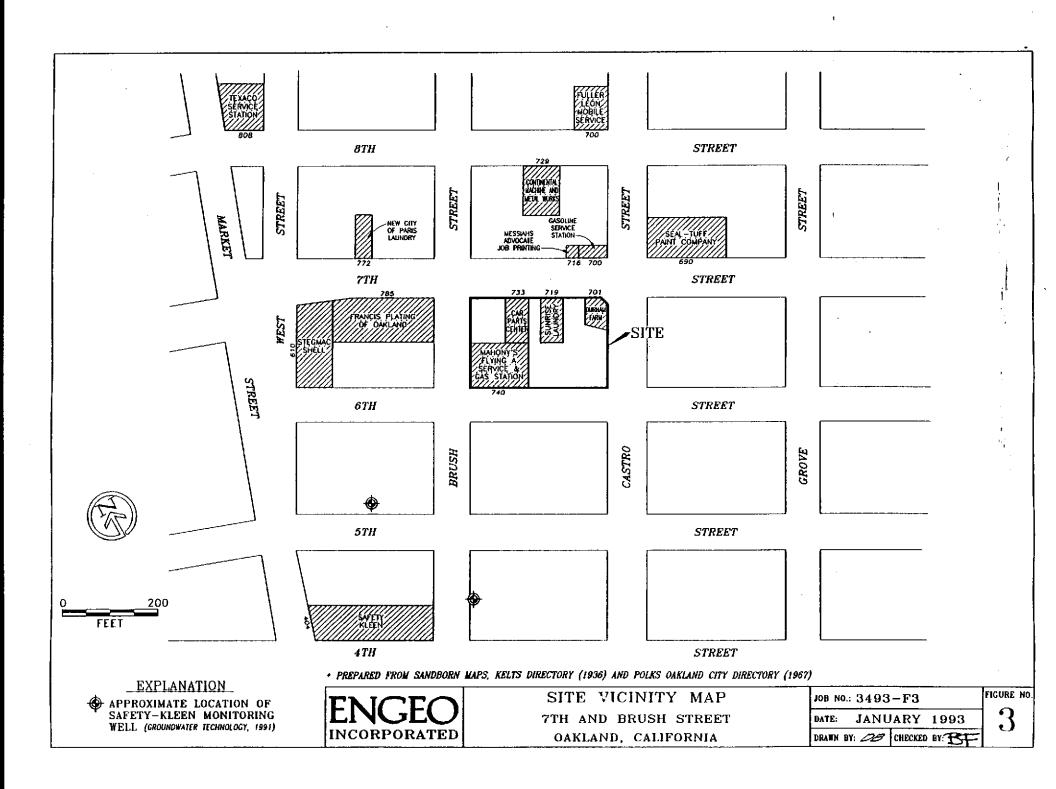
ENGEO INCORPORATED

SITE LOCATION MAP 7TH AND BRUSH STREET OAKLAND, CALIFORNIA

DATE: JANUARY 1993
DRAWN BY: 23 CHECKED BY:

1







APPENDIX B

City of Oakland Permit to Remove Inflammable Liquid Tanks 738 6th Street, Oakland, California

xcavation Permit	Granted	No

Z	X	1
	/ ,	`\
	1	`

ک ر	CITY				يوند فيستند و	Tank Pa	rmit
Permit to	Excavate and Install, R	epair, or	Remove I ad. California.	nflammabl	e Liquid Tan January 7.		
PERMISSION IS HER	EBY GRANTED TO STATE TO			ank and excevate		feet insid	DOLFA "
• Ji side of 6t	h	Street EXEMPLE	20_f++t_		Brush	·	Street
No738 6th-					x_10H;_1_:		
<u>. State of Califo</u> Joseph Ballinge	rnie, Div. Highway: r Go.	Address_61	B.V.	Leandro	St. Oak.	Phone 5 ,	32-6471
sions of street (sidewalk) surface ks: Remove existin	to be disturbed X.		Number of	Tanks	Capacity		
Owner	This Permit is granted in hereby agrees to remove tanks on d	liscontinuance	of use or when	notified by the	City Authorities.		
S.	When Installing, removing or repa	iring tanks, no	open flame to	be on or near p	remises. N i	ł.	
ved	Fire Mai	rshal			<u> </u>	<u> </u>	
vad	Drainage Division Engineering	Dept.					
	· ·			w 🖺		E	•
EXCAVAT	ING PERMIT			[X 6th St.		
Issued in accordance with (Ord. No. 278 GMS, Sec. 4-2.04				<u> </u>		
· · · · · · · · · · · · · · · · · · ·	quare feet of digging or removal g	ranted.	CERTIFIC	 ATE OF TAI	S NK AND EQU	l IPMENT II	NSPECTION
celpt of \$	special deposit is hereby acknowl	ledged.	nspected and	passed on	an 15		<u>, 19</u> 7
GENERAL DEPOSIT.	BUREAU OF PERMITS AND LIC	ENSES.	y Doruc	1 / 0	witel I	<u>~</u>	Fire Marsh
				·			4 16 20 141 211
ction Fee Paid	10.00 (Check)			`overing Teal	NOTICE s, Above Certif		Be Signed.
ived by 10 #	Chillips and	=			lify Fire Preventio		

THIS PERMIT MUST BE LEFT ON THE WORK AS AUTHORITY THEREFOR.



APPENDIX C

Alameda Department of Environmental Health
Division of Hazardous Materials
Underground Storage Tank/Local Oversite Program Sites
Oakland, California, One-Half Mile Radius



Underground Storage Tanks, Oakland, California

FACILITY

ADDRESS

Harbor Facilities Ga.

205 Brush St.

S and D Chevron Station

17000 Castro St.

Oakland Fire Station

1605 Martin L. King

City Blue Print

1700 Jefferson St.

Oakland Federal Building

1201 Clay St.

Oakland Federal Building

1305 Clay St.

Oakland Piedmont Mun

661 Washington St.

Western Electro Mechanical

300 Broadway

Express Auto Service

333 Broadway

Probation Center

400 Broadway

Oakland Convention Center

1000 Broadway

Bill Lovie's Auto Specialist

800 Franklin St.

City Auto Repair

330 Webster St.

Salvation Army Rehab.

601 Webster St.

Howard Terminal

1 Market St.

Safety Kleen "TDS"

404 Market St.

Stegmac Shell

610 Market St.

East Bay Ford Truck

333 Filbert St.

Aratey Services

330 Chestnut St.

Schnitzer Steel Prod.

Foot of Adeline St.

Svenhard Swedish Bakery

335 Adeline St.

Anchor Container Service

120 Magnotia St.

Burke Company

310 Union St.

Condor Freight Lines

324 Union St.

KTVU Television Channel

2 Jack London Square

Salty-Dog

53 Jack London Square 100 Jack London Square

Oakland Fire Station

534 2nd St.

Union Machine Shop

Coker Pump and Equipment

1055 3rd St. 1221 3rd St.

Oakland Tribune Garage

P.E. O'Hare

309 4th St.

Guarantee Forklift

699 4th St.



Underground Storage Tanks, Oakland, California

FACILITY	<u>ADDRESS</u>
Rino Pacific	1101 5th St.
Central Motor Terminal	1107 5th St.
Police Transportation	495 6th St.
Bay Alarm Company	325 7th St.
Oakland Parking Structure	585 7th St.
Pacific Bell	1075 7th St.
Everridge Exxon Gas Station	1211 7th St.
Cochran and Celli Jeep	345 11th St.
Parking Garage	420 13th St.



Local Oversite Program, Oakland, California

FACILITY

PG&E - Oakland Power

Grove Auto Repair

Former Tank Site

Douglas N. Salter

Oakland City Hall

City Hall Plaza

Bramalea Pacific

Zimmerman Investment

Pacific Renaissance

Lehar Sales

Norcal Metal Fabrication

Southern Pacific Transportation

Alameda County Health

Former Shell Service

Vend Mart Property

ADDRESS

50 Martin L. King Way

424 Martin L King Way

1330 Martin L. King Way

901 Jefferson St.

1417 Clay St.

1 City Hall Plaza

1111 Broadway

1330 Broadway

1000 Franklin St.

150 Chestnut St.

114 Adeline St.

5th and Kirkham

499 5th St.

461 8th St.

1035 7th St.

Regional Water Quality Control Board Sites Seventh Street and Brush Street, Oakland, California (one-half mile radius)

SITE NAME	<u>LOCATION</u>	DISTANCE	GROUND- WATER <u>IMPACT</u>	GROUND- WATER GRADIENT,
Alex Shaw and Associates	800 Franklin St.	2,200 E	Yes	Southwest
Allied Poultry	333 Clay St.	900 SE		
Aratex Services	300 Chestnut St.	1,300 W	Yes	South
Blue Print Service Company	1700 Jefferson St.	2,800 NE	Yes	North-Northeast
Bramalea Pacific	12th and Clay St.	Same site as I	Bramalea Pacific,111	1 Broadway
Bramalea Pacific	13th and Jefferson St.	1,700 NE	Yes	North
Bramalea Pacific	1111 Broadway	1,700 NE	Yes	North
Bramalea USA Incorporated	901 - 999 Jefferson St.	850 NE	Yes	Unknown
Chinatown Redevelopment Project	11th and Webster St.	2,600 E	Yes	Unknown
City of Oakland	1417 Clay St.	2,200 NE	Unknown	Unknown
City of Oakland Housing Authority	935 Union St.	2,600 NW	No	Unknown
City Auto Repair	330 Webster St.	2,400 SE	Unknown	Unknown
East Bay Ford Truck	333 Filbert	1,100 W	No	Unknown
Five City Center	1300 Clay St.	2,000 NE	No	Unknown
Greyhound	7th and Brush St.		Yes	Unknown
Guarantee Forklift	699 4th St.	450 S	Unknown	Unknown
P.E. O'Hare N.A. 1-19-93	339 3rd St.	2,600 SE		
Marine Terminal Corporation	333 Market St.	550 SW	Yes	Unknown
Norcal Metal Fabricators*	1121 3rd St.	1,500 W		

1997

Course Continue to the

INITIAL ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPOSED GREYHOUND SITE

11.12.14.7

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7TH AND BRUSH OAKLAND, CALIFORNIA

Prepared for:

GREYHOUND LINES, INC. PHOENIX, ARIZONA

Prepared by:

ERM-West Walnut Creek, California

April 16, 1987

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ADDENDIV D	CHAIN OF CHEMONY PODGE	-

SECTION ONE BACKGROUND

The Greyhound Corporation retained ERM-West to perform an environmental site assessment of a parcel currently owned by the State of California Department of Transportation. The purpose of the site assessment was to determine if environmental problems exist at the site that may represent significant potential liability exposure to the purchaser of the property.

SITE LOCATION

The site that was evaluated for this report is a fenced vacant lot located at Brush between 6th and 7th Streets in Oakland, California (Figure 1). The site is one city block, approximately 60,000 square fact in size.

SITE HISTORY AND USE

The site was previously occupied by numerous commercial facilities and private residences; however, after acquisition by the State of California Department of Transportation in 1970, all buildings were demolished and removed. Property ownership record searches indicated that three commercial facilities of potential concern historically existed on the site. These businesses included a gas station at the west corner of the site, a dairy creamery located at the east corner of the site, and a commercial warehouse on the northeast side of the site. The gas station was known to have at least two underground tanks for gasoline storage and possibly an underground tank for used oil storage. Soth the dairy creamery and the warehouse reportedly had at least one. underground tank each for gasoline storage. The exact locations of the tanks at each of the businesses are unknown. It is also reported that the tanks were removed at the time that the buildings were demolished and removed.

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1	Priority Pollutant Purgeable and Extractable Organics Detected in Subsurface Soil Samples.	7
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BORING LOCATIONS

FIGURE 1 7th AND BRUSH SITE BORING LOCATIONS
OAKLAND, CALIFORNIA

W

SCALE: 1"-40'

MARI-Wood

Residential property owners may have historically applied commercial herbicides and pesticides to flowers and vegetable gardens and may have also randomly dumped used oil; however, the environmental concern for these activities is small.

The only current site use is as a corridor for a highway overpass. Two vertical support beams for the overpass are situated on the eastern corner of the property at the former location of the dairy creamery. An aerial photograph was obtained.

SECTION TWO

Site activities were carried out in two phases. On March 16 and 17, 1987, boreholes were drilled and soils were sampled from the boreholes. On April 1, 1987, groundwater samples were collected from two boreholes. Seven borings were drilled at the site by use of a truck-mounted continuous flight solid stem auger. The borings ranged in depth from 15 to 17 feet and were 6-inches in diameter. Borehole locations are shown on Figure 1.

Down hole soil samples were taken with 24 by 2-inch steel Shelby tubes at one depth in each of the seven holes, with the exception of boring B5. In boring B5, two soil samples were taken due to suspected contamination as avidenced by a noticeable odor and above background readings on the Soil Sentry Air Monitor (discussed below). After removal of the Shelby tubes from the boring, the soil samples were examined for soil classification purposes, after which the bottom 6 inches of the Shelby tube was cut-off and stored for subsequent sample analysis.

Down hole air sampling was performed in each of the seven holes at three different depths by using a Soil Sentry. Model 17-100A. The three depths were at approximately 5, 10, and 15 feet. The air sampling system functions by insertion of a down hole probe and transport tube into the open borehole. A continuous air sample is withdrawn from the borehole and fed into a bulk semiconductor vapor analyzer for instantaneous analysis and subsequently translated by a microprocessor into relative numerical values. A printer then provides documentation of all operations.

Temporary PVC monitoring well casing was placed in the three open boreholes that intersected the apparent water table (B1, B5, B6) so that groundwater samples could be collected. The

monitoring well casing consisted of 5 feet of 2-inch I.D., .010-inch slotted schedule 40 PVC screw-mounted to 10 feet of 2-inch I.D., solid wall schedule 40 PVC. Backfill was not placed between the well casing and the borehole sidewalls so that the temporary casing could be removed. Boreholes in which no water was encountered were backfilled with native materials after air and soil sampling was completed.

On April 1, 1987, groundwater samples were collected from wells B1 and B6. Prior to sample collection the wells were bailed dry with a 1.75-inch O.D. by 36-inch teflor bailer. After the wells recovered with fresh formation water, samples were collected by use of the same bailer (after decontamination) and were carefully transferred into sample collection bottles. During collection of the groundwater sample from borehole B1, a slight gasoline cdor was detected emanating from the borehole.

All samples were sent by overnight delivery to Central Coast Analytical Services (San Luis Obispo, California) for analysis. Chain of Custody procedures were followed in order to have a traceable record of the analytical sample possession.

SECTION THREE RESULTS AND DISCUSSION

This section summarizes the results of the investigation at the 7th and Brush Site. The site soils and hydrogeology are descriptions are followed by a discussion of the soil and groundwater analyses. These results are used to evaluate existence of contamination at the site.

SOILS AND RYDROLOGY

The soils encountered as the site were generally disturbed in the upper 3 to 5 feet in most boreholes and at depths of 15 feet (sotal depth of borehole) in two holes, boreholes 31 and 32. In the disturbed zones blocks of concrete, asphalt, and brick were encountered during the drilling.

Native soils consisted of fairly homogenous chocolate brown to medium brown sandy soil with increasing amounts of play matrix at depth. Soils became damp at approximately 15 feet. On April 1, 1987, water was measured in two of the three boraholes in which casing was placed. These two holes, Bl. and B6, both located in the west corner, had approximately 2'3" and 1'3" of water, respectively. The difference in water level between the two boraholes is partially due to borehole 1 being approximately 6 inches deeper than borahole 6. The rubble backfill encountered during drilling in the west corner may also be responsible for causing the remaining variation in the groundwater level between the two holes.

RESULTS OF LABORATORY ANALYSES

Soil and groundwater samples were analyzed by Central Coast Analytical Services (San Luis Obispo, California) for priority

TABLE 1

PRIORITY POLLUTANT PURGEABLE AND EXTRACTABLE ORGANICS
DETECTED IN SUBSURFACE SOIL SAMPLES

Boring	Sample Depth	Constituent and Concentration	Detection Limit
Bl	16.0' - 16.5'	Xylenes: 0.004 ppm	0.001 ppm
E 5	17.0' - 17.5'	Ethylbenzene: 1300 ug/kg Toluene: 1500 ug/kg Kylenes: 7900 ug/kg	500 ug/kg 1000 ug/kg 500 ug/kg
36	17.0' - 17.5'	Mylenes: 0.002 ppm	0.001 ppm
В7	17.0" - 17.5"	Xylenes: 0.002 ppm	0.001 ppm

All priority pollutant purgeable and extractable organics not listed were not detected.

pollutants and extractable organics. Laboratory reports from all analyses performed are presented in Appendix A.

Soil

The results of soil analyses for purgeable and extractable organics are displayed in Table 1. Note that this Table presents only those samples where constituents were detected. Detectable levels of organic constituents were found in four boreholes, B1, B5, B6 and B7. The organics detected (athylbentene, toluene, xylene) are typically associated with gasoline and possibly with cleaning solvents. These constituents were detected at relatively low concentrations.

Groundwater

The results of groundwater analyses for purgeable and extractable organics are displayed in Table 1. Note that this Table presents only those samples where constituents were detected. Detectable levels of organic constituents were found in one borehole. Bl. The same organics were detected in the water samples as in the soil samples (ethylbenzene, toluene and xylene. In addition, other organic constituents were detected that are also components of gasoline or gasoline products (alignatic and alicyclic hydrocarbons, C2 - C5 alkylbenzene isomers, methylstyrane and methyl lindans

PRIORITY POLLUTANT PURGEABLE AND EXTRACTABLE ORGANICS
DETECTED IN GROUNDWATER SAMPLES

Boring	Sample Depth	Constituent and Concentration	Detection Limit
81	12.8' - 15'	Ethylbenzene: 0.5 ug/l Toluene: 0.3 ug/l Xylenes: 5.0 ug/l Aliphatic and Alicyclic Eydrocarbons: 1.2 ug/l Alkylbenzene Isomers: 11 c Methyl Styrene: 1 ug/l Methyl Indane: 2 ug/l	0.1 ug/1 0.2 ug/1 0.1 ug/1

All priority pollutants purgeable and extractable organics not listed were not detected.

Central Coast'

Central Coast Services

- - Analytical Services, Inc. 141 Suburban Road, Suite C-4 Analytical San Luis Obispo, California 93401

(805) 543-2553

Lab Number : Collected ::

Received

: \$3/19/87

603197

Collected by: EPA METHOD 8249

Sample Description: Instrument Blank

Tested

Compound Analyzed	Detection Limit	(ug/1)	Concentration	(ug/l)
Benzene	Ø.	1	not	found
Bromodichloromethane	3 .	1	not	found
Bromoform	Ø.	2	not	found
Carbon Tetrachloride	3.	. 1	not	found
Chlorobenzene	, 3 .	1	not	found
2-Chloroethyl Vinyl Ether	1.		not	faund
Chloroform	Ø.	.1	not	found
Dibromochloromethane	Ø.	. 1	nat	found
1,2-Dichlorobenzene	Ø.	.1 '	not	found
1,3-Dichlorobenzene	3 .	. 1	not	found
1,4-Dichlorobenzene	Ø .	1	not	found
Dichlorodifluoromethane	1.	•	not	found
1,1-Dichlorosthane	9.	. 1	nct	found
1,2-Dichlaroethane (EDC)	Ø	. 1	nct	found
1,1-Dichloroethene	Ø	. 1	not	found
c-1,2-Dichlorcethene	Ø	. 1	not	found
t-1,2-Dichloroethene	Ø	. 1	not	found
1,2-Dichloropropane	Ø.	. 1	not	found
c-1,3-Dichloropropene	Ø	. 1	not	found
t-1,3-Dichloropropene	Ø	. 1	not	found
Dichlorotrifluoroethane	Ø	. 1	not	found
Ethylbenzene	. Ø	. 1	not	found
Ethyl Chloride	Ø	. 1	not	found
Methyl Bromide	Ø	. 1	not	found
Methyl Chloride	. Ø	. 2	not	found
Methylene Chloride	18	-	not	found
Methylethyl Ketone (MEK)	5	•	not	found
Methylisobutyl Ketone (MIE	K) 5	•	not	found
1,1,2,2-Tetrachloroethane	Ø	. 5	not	found
Tetrachloroethylene (PCE)	Ø	. 1	not	found
Toluene		. 2	not	found
1,1,1-Trichloroethane (TCA	•	. 1	not	found
1,1,2-Trichloroethane	Ø	. 1	not	found
Trichloroethene (TCE)	-	. 1	not	found
Trichlorotrifluoroethane (="	•	· not	found
Trichlorofluoromethane(F-1	=	. 1	not	found
Vinyl Chloride		. 1		found
Xylenes		. 1		found
Percent Recovery of Sample	Specific Qualit	y Assurance	Spike is: 1	ð Ø .

Respectfully submitted,

CENTRAL COAST ANALYTICAL SERVICES

Macy D. Golden

Mary D. Hovlicek, Ph.D., President

Central Coast Analytical Services

Central Coast

Lab Number: Analytical Services, Inc.

Collected:

603207

141 Suburban Road , Suite C-4 San Luis Obispo, California 93401

Received:

Tested:

Ø3/2Ø/87

(8Ø5) 543-2553

Collected by:

Fuel Fingerprint Analysis - EPA Method 624/8240

SAMPLE DESCRIPTION: Instrument Blank

Compound Analyzed	Detection Limit in ppm	
		in ppm
Benzene	ଷ. ୪୬ ଶ୍ର	not found
Toluene	ଡ . ଜଣ 1	not found
Ethylbenzene	Ø. ØØ1	not found
Xylenes	0.001	not found
Ethylene Dibromide (ED8)	ø. ø001	not found
Naphthalene	Ø.Ø21	not found
TOTAL PURGEAGLE PETROLEUM HYDRO	OCARBONS (TURPENTINE)	not found
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		118.

Respectfully submitted, CENTRAL COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D.

President

Central
Coast
Analytical
Services

Central Coast Analytical Services, Inc. 141 Suburban Road , Suite C-4 Received: San Luis Obispo, California 93401

Lab Number: D1798 Collected: Tested:

93/16/87 \$3/18/87 93/20/87

(8Ø5) 543-2553 Collected by: M. Bell

Fuel Fingerprint Analysis - EPA Mathod 624/8240

ERM-WEST

1777 Botelho Dr., Suite 260 Walnut Creek, CA 94596

SAMPLE DESCRIPTION: Oakland, Job #238

.Soil from B1 # 16.9-16.5'

Compound Analyzed	Detection Limit	Concentration
	in ppm	in ppm
		الله الله الله الله الله الله الله الله
Senzene	₹. ₹ ₫∶	nat found
Toluene	3. 3 31	not found
Ethylbenzene	5.36I	not found
Xylenes	ð. Øð T	8.854
Ethylene Dibromide (EDB)	១.១៤:	not found
Naphthalene	Ø. ØØ?	not found
TOTAL PURGEABLE PETROLEUM HYDRO	CARBONS (GASCLINE)	
STX as a Percent of Fuel		net applicable
Percent Surrogate Recovery		86.

Respectfully submitted.

CENTRAL COAST ANALYTICAL SERVICES

Mary Havlicek, Ph.D.

President

Central Coast'

-Analytical Services, Inc. Lab Number : 01791 Central 141 Suburban Road, Suite C-4 Coast Collected : §3/16/87 Analytical| San Luis Obispo, California 93401 Received : \$3/18/87 Services (805) 543-2553 Tested : Ø3/19/87

Collected by: M.Bell ERM-WEST TESTED FOR EPA 8010/8020 USING EPA 8240

1777 Botelho Or., Suite 260 Walnut Creek, CA 94596

| Sample Description: Oakland, Job #238

Sail from B2 @ 16.9-16.5'

Compound Analyzed -	Detection	Limit	(ug/kg)	Concentration (ug/kg)
Benzene		1'.		not found
Bromodichloromethane		1.	·	not found
Bromoform		2	•	not found
Carbon Tetrachloride		1.		not found
Chlorobenzene		1.		not found
2-Chlordethyl Vinyl Ether		10.		not found
Chloroform		1.		not found
Dibromochloromethane		1.		not found
1,2-Dichlorobenzene	•	1.		not found
1,3-Dichlorobenzene		1.		not found
1,4-Dichlorobenzene		1.		not found
Dichlorodifluoromethane		19.		not found
1,1-Dichlordethane		1.		not found
1,2-Dichloroethane (EDC)		1.		not found
1,1-Dichlorcethene		1.		not found
c-j,2-Dichlorpethene		1.		not found
t-1,2-Dichloroethene		1.		not found
1,2-Dichloropropane		1.		not found
c-1.3-Dichloropropese		1.		not found
t-1,3-Dichloropropene		1.		not found
Dichlorotrifluoroethane		1.		not found
Ethylbenzene		1.		not fauna
Ethyl Chloride		1.		not found
Methyl Bromide		1.		not found
Methyl Chloride		2.	•	not found
Mathylene Chloride		1岁.		not found
Methylethyl Ketone (MEK)		5Ø.		not found
Methylisobutyl Ketone (MIB	K)	5₫.		not found
1,1,2,2-Tetrachloroethane		5 .		not found
Tetrachioroethylene (PCE)		1.		not found
Toluene		2.		nat found
1.1.1-Trichloroethane (TCA)	1.		not found
1,1.2-Trichloroethane		1.		not found
Trichloroethene (TCE)		1.		not found
Trichloretrifluoreethane (10.		not found
Trichlorafluoromethane(F-1	1)	1.		not found
Vinyl Chloride		1.		not found
Xylenes		1.		not found
Percent Recovery of Sample	-Specific	Quality	/ Assurance	Spike is: 97.

Respectfully submitted,

CENTRAL COAST ANALYTICAL SERVICES

Macy D. Havelicak, Ph.D., President

MH/ssc

Central Coast

Analytical Services, Inc. Lab Number : Central D1792 141 Suburbon Road, Suite C-4 Collected : Coast 03/16/87 Analytical San Luis Obispo, California 93401 Received : Ø3/18/87 Services (805) 543-2553 Tested Ø3/19/87 Collected by: M.Bell

ERM-WEST TESTED FOR EPA 8010/8020 USING EPA 8240 1777 Botelho Dr., Suite 260 Sample Description:

Walnut Creek, CA 94596 Sample Description:

Oakland, Job #238

Soil from 83 € 16.8-16.5'

Compound Analyzed 0	etection Limit	(ug/kg) C	oncentration (ug/kg)
Benzene	i.		not found
Bromodichloromethane	1.		not found
Bromoform	2.		not found
Carbon Tetrachloride	1.		not found
Chlarobenzene	1.		not found
2-Chloroethyl Vinyl Ether	10.	•	not found
Chloroform	1.		not found
Dibromochloromethane	1.		not found
1,2-Dichlorobenzene	1		not found
1,3-Dichlorobenzene	1.		not found
1,4-Dichlorobenzene	1.	•	not found
Dichlorodifluoromethane	19.		nat found
1,1-Dichloroethane	t.		not found
1,2-Dichloroethane (EDC)	1.		act found
1,1-Dichlorgethene	1.		not found
c-1,2-Dichloroethene	1.		ποτ τουπα
t-1,2-01chloroethene	1.		mot found
1,2-0ichloropropane	1.		not found
c-1,3-Dichloropropene	1.		not found
t-1,3-Dichloropropene	1.		not found
Dichlorstrifluordethane	1.		not found
Ethylbenzene	7.		not found
Ethyl Chloride	1.		not found
Methyl Bromide	1.		not found
Methyl Chloride	2.		not found
Methylene Chloride	ູ 10.		not found
Methylethyl Ketone (MEK)	· 5ð.		not found
Methylisobutyl Ketone (MIBK)	5Ø.	•	not found
1,1,2,2-Tetrachlorcethane	5. `		not found
Tetrachloroethylene (PCE)	1.		not found
Toluene	2.	-	not found
1,1,1-Trichloroethane (TCA)	1.		not found
1,1,2-Trichloroethane	1.		not found
Trichloroethene (TCE)	1.	•	not found
Trichlorotrifluoroethane (fl			not found
Trichlorofluaromethane(F-11)			not found
Vinyl Chloride	1.		not found
Xylenes	1.		not found
Percent Recovery of Sample-S	pecific Quality	Assurance S	pike is: 99.

Respectfully submitted,

CENTRAL COAST ANALYTICAL SERVICES

-May O. Harberil

Mary D. Havlicek, Ph.D., President

Central Coast -Central Analytical Services, Inc. Lab Number: 01793

Coast 141 Suburban Road, Suite C-4 Collected: \$3/16/27

Analytical San Luis Obispo, California 93481 Received: \$3/18/87 Tested : 93/19/87 Services (8Ø5) 543-2553 Collected by: M.Bell ERM-WEST TESTED FOR EPA 8010/8020 USING EPA 8240 1777 Botelho Dr., Suite 26# Sample Description: _ Gakland, Job #258 ¥alnut Creek, CA 94596 Soil from 84 @ 9.5-10.0'

Compound Analyzed	Detection Limit (up	g/kg) Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	, not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	net found
2-Chloroethyl Vinyl Ether	1 ₫ .	_ net found
Caloroform	1.,	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1 _	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	7.	not found
Dichlorodifluoromethane	1 ଅ	not found
1,1-Dishloroethane	1.	not found
1,2-Dichlorgethone (EDC)	₹.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	ī.	not found
t-1,2-Dichloroethene	7.	, not found
1,2-Dichloropropane	1.	not found
c-1,3-Dicaloropropene	1.	not found
t-1,3-Dichloropropene	1,	not found
Dichlorotriflucroethane	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	₫.	not found
Methyl Bromide	7.	not found .
Methyl Chloride	2.	not found
Methylene Chloride	19.	not found
Methylethyl Ketone (MEK)	5₿.	not found
Methylisobutyl Ketone (MIE	K) 5Ø.	not found
1,1,2,2-Tetrachloroethane	5 .	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	2.	net found
1,1,1-Trichloroethane (TCA) 1.	· not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	. 1.	not found
Trichlorotrifluoroethane (f113) าฮ.	not found
Trichlorofluoromethane(F-1		act found
Vinyl Chloride	1.	not found
Xylenes	· 1.	not found
Percent Recovery of Sample	-Specific Quality A	ssurance Spike is: 95.

Respectfully submitted. CENTRAL COAST ANALYTICAL SERVICES

May D. Darliet

Mary D. Havlicak, Ph.D., President

Central Coast Services

Central Coast Analytical Services, Inc. Lab Number : D1794
14T Suburban Road, Suite C-4 Collected : \$3/17/87 Analytical San Luis Obispo, California 934#1 Received : #3/18/87 (8Ø5) 543-2553

Tested : Ø3/19/87

Scil from 85c € 11.5-12.0°

Collected by: M.8ell TESTED FOR EPA 8010/8020 USING EPA 8240

ERM-WEST 1777 Botelho Dr., Suite 260 Walnut Creek, CA 94596

Compound Analyzed

Sample Description:

Ockland, Job #238

Detection Limit (ug/kg) Concentration (ug/kg)

200000000000000000000000000000000000000	bacactan cimina (ag) ng	,,
Be nzene	1,	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrochloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Minyl Ether	10.	not found
Chloroform	. 1.	not found
Dibromochloromethane	1.	not found
1,2-Dichloropenzene	τ	not found
1,3-Dichloropenzene	1.	not found
1.4-Dichlorobenzene	1.	nat found
Dichlorodifluoromethane	10.	not found
1,1-Dichlorsethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	7.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-0ichloropropene	1.	not found
Dichlorotrifluoroethane	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	2.	not found
Methylene Chloride	₹ Ø .	not found
Methylethyl Ketone (MEK)	5Ø.	not found
Methylisobutyl Ketone (MISK	SØ.	not found
1,1,2,2-Tetrachloroethane	5 .	not found
Tetrochloroethylene (PCE)	1.	not found
Toluene	2.	not found
1,1,1~Trichlaroethane (TCA)	٦.	. not found
1.1,2-Trichloroethone	1.	not found
Trichloroethene (TCE)	1.	not found
Tricalorotrifluoroethane (f	113) 19.	not found
Trichlorofluoromethane(F-11		not found
Vinyl Chloride	1.	not found
Xylenes .	1.	not found
Percent Recovery of Sample-	Specific Quality Assur	rance Spike is: 110.

Respectfully submitted,

CENTRAL COAST ANALYTICAL SERVICES

May W. Harleil Mary D. Havlicek, Ph.D., President

Central Coast '

Central — Analytical Services, Inc. Lab Number : D1795
Coast 141 Suburban Road, Suite C-4 Collected : Ø3/17/87
Analytical San Luis Obispo, California 93401 Received : Ø3/18/87
Services (805) 543-2553 Tested : Ø3/19/87

Collected by: M.Bell ERM-WEST TESTED FOR EPA 8010/8020 USING EPA 8240

1777 Batelho Dr., Suite 260 Sample Description: Walnut Creek, CA 94596 Oakland, Job #238

Soil from 65b @ 17.0-17.5'

Compound Analyzed-	Detection Limit (ug/kg)	Concentration (ug/kg)
Benzene	500.	not found
Gromodichloromethane	500.	not found
3romoform	ୀ ଅଷ୍ଟର	not found
Carbon Tetrachloride	500.	. not found
Chlorobenzere	500.	not found
2-Chloroethyl Vinyl Ether	SØØ .	not found
Chloroform	500	not found
Dibromochloromethane	500	not found
1,2-Dichlorotenzene	500.	not found
1,3-Dichloropenzeme	500	not found
1,4-Dichlaropenzene	5øø.	not found
Dichlorodifluoromethane	SØØ .	not found
1,1-Dichlorcethane	5 9 9.	not found
1,2-Dichlorcethane (EDC)	5ø¢ .	not found
1,1-Dichloroethene	5øØ .	not found
c-1,2-Dichlorsethene	ଅ ଷ୍ଟ .	sot found
t-1,2-Dichlorpethene	· 500.	not found
1,2-Dichloropropane	500.	not found
c-1,3-Dichloropropene	500.	not found
t-1,3-Dichloropropens	5 00 .	not found
Dichlorotrifluoroethane	5 9 3.	not found
Ethylbenzene	5 0 0.	1500.
Ethyl Chloride	500	not found
Methyl Bromice	590	not found
Methyl Chloride	1908	not found
Methylene Chloride	5ØØ.	not found
Methylethyl Ketone (MEK)	-50∅.	not found
Methylisobutyl Ketone (MI8	K) · 500.	not found
1,1,2,2-Tetrachlorcethane	2500.	not found
Tetrachloroethylene (PCE)	500 .	not found
Toluene	1000	. 15øø.
1,1,1-Trichloroethane (TCA		, not found
1,1,2-Trichloroethane	. 5 9 0 .	not found
Trichloroethene (TCE)	5ØØ.	sot found
Trichloratrifluoraethane (ņot found
Trichlorofluoromethane(F-1	•	not found
Vinyl Chloride	5ØØ.	not found
Xylenes	5ØØ.	7900.
Percent Recovery of Sample	-Specific Guality Assurance	e Spike is: 11ø.

Respectfully submitted.

CENTRAL COAST ANALYTICAL SERVICES

May D. Havlick

	Central
ŀ	Coast
ļ	Analytical
1	Services

Central Coast

Lab Number: D1796

Analytical Services, Inc. Collected: \$3/17/87 141 Suburban Road , Suite C-4 Received: \$3/18/87 In Luis Obispo, California 934\$1 Tested: \$3/28/87 San Luis Obispo, California 934#1

Tetfibm with Myley due untarongs was a eventational provider

(805) 543-2553 Collected by: M. Bell

Fuel Fingerprint Analysis - EPA Method 624/8240

ERM-WEST

SAMPLE DESCRIPTION:

1777 Botelho Dr., Suite 269

Oakland, Job #238

| Walnut Creek, CA 94596

. Soil from 86 @ 17.9-17.5'

Compound Analyzed	Detection Limit	Concentration
	in pọm	in ppm
		~~~~
•		
Benzene	Ø. 2Ø1	not found
Toluene	ø.301	not found
Ethylbenzene	9.301	not found
Xylenes	Ø. ØØ1	8.332
Ethylene Dibromide (ED&)	Ø, ØØ1	not found
Naphthalene	<b>3</b> .001	not found
TOTAL PURGEABLE PETROLEUM HYDROCAR	<§.;	
BTX as a Percent of Fuel	not applicable	
Percent Surrogate Recovery	83.	
医血球性结合性 化抗性 医性性性性 化二苯甲基苯甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲	<b>以成为以来不以以及之之之之以及及及及之之</b> 者	

Respectfully submitted, CENTRAL COAST ANALYTICAL SERVICES

Mary Havlicak, Ph.D.

President

Central
Coast
Analytical
Services

Central Coast Analytical Services, Inc. 141 Suburban Road , Suite C-4 Received:

Lab Number: Collected:

D1797 Ø3/17/87 Ø3/18/87

San Luis Obispo, California 93491

Tested:

\$3/28/87

(805) 543-2553

* Collected by: M. Bell

Fuel Fingerprint Analysis - EPA Method 824/8240

ERM-WEST

1777 Sotelho Dr., Suite 250

SAMPLE DESCRIPTION: Oakland, Jcb #238

Walnut Creek, CA 94596

- Soil from 87 @ 17.9-17.5'

Compound Analyzed	Detection Limit in pum	Concentration in ppm
Benzene	Ø. ØØ1	not found
Toluene	ø. øø:	sat found
Ethylbenzene	Ø. ØØ1	not found
Xylenes	Ø. 951	Ø. Ø32
Ethylene Dibromice (EDB)	3.951	not found
Naphthalene	0.231	n <b>ot</b> found
TOTAL PURGEABLE PETROLEUM HYDR	<ø.;	
3TX as a Percent of Fuel	not applicable	
Percent Surrogate Recovery	<b>79.</b> ";	

Respectfully submitted,

CENTRAL COAST ANALYTICAL SERVICES

Mary Havlicsk, Ph.D.

President

FUZ

C[<1[18m AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of PUBLIC HEAL

Central Coast Central Analytical Services, Inc. Lob Number : D2197 Coast Coast 1%1 Suburban Road, Suite C-4. Collected : \$4/\$1/87 Analytical San Luis Obispo, California 83481 Received : \$4/\$2/87 141 Suburban Rood, Suite C-4. Services (805) 543-2553 Tested : 84/82/87 Collected by: M. Bell ERM-WEST

1777 Sotelho Or., Suite 25#

Wolnut Creek, CA 94596

EPA METHOD 8248

Sample Description:

Job #238: Greyhound, Ockland

Compound Analyzed	Detaction Limit (ug/	1) Concentration (ug/1)
Benzene	Ø. i	not founc
Bramodichlaromethane	<b>3</b> .1	not found
Bromeform	9.2	not found
Corbon Tetrachloride	ā. 1	not found
GN1arabenzene	9.1	not found
2-Chloroethyl Vinyl Ether	1	not found
Chlaroform T	Ø. 1	not found
Dibromochloromethene	<b>2</b> .1	not found
1,2-dichlorobenzene	<b>a.</b> ;	not found
1,3-0ichlorobenzeme	<b>a</b> . 1	not found
1,4-Olchidrobenzene	<b>a</b> .:	not found
Dichlorodifluoromethane	1.	not found
1,1-0:chloroethone	ਰ. 1	not found
1,2-Dichloroethane (EDC)	<b>3</b> .1	not found
1.1-Dichlorosthene	Ø. i	not found
c-1,2-Dichloroethene	9.1	not found
t-1,2-0ichioroethene	<b>3</b> .1	not found
1,2-0ichloropropane	3.1	not found
c-1,3-Dichloropropene	<b>3</b> . T	not found
t=1.3-Dichloropropene	ý. j	not found
Dichlorotrifluoroethone	Ø . !	not found
Ethylpenzene	3.1	# de l'ound
Ethyl Chicride	Ø. 1	Agt found
Methyl Bromide	9.1	not found ,
Methyl Chloride	9.2	not found
Methylene Chloride	19.	not found
Methylethyl Ketone (MEK)	5.	not found
Methylisobuty: Ketone (MIEK)		not found
1.1.2.2-Tetrachloroethane	Ø.5	not found
Tetrochicroethylene (PCE)	Ø.1	not found
Toluene	ø. 2	#.3
1.1.1-Trichloroethane (TCA)	0.1	not found
1.1,2-Trichloroethane	<b>3</b> 1	not found
Trichlordethene (TCE)	Ø . 1	net found
Trichlorotrifluoroethane (fi		not found
Trichiorofluoromethans(F-11)	9.1	not found
Vinyl Chicride	<b>a</b> . 1	not found
XAJouea	ø. 1	5. Ø
Percent Recovery of Sample-S	specific Quality Assn	rance Soike is: 330,

Respectfully submitted.

CENTRAL COAST ANALYTICAL SERVICES

May D. Hauliel Mary O. Havlicek, Ph.D., President

MEN BU - UK 1441-UA U U H H .U

CEXTETON ALH, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT OF FUBLIC HEAL

Central Coast

Analytical Services Collected (1777) Coast Analytical Services Collected: \$4/\$1/87
Analytical 141 Suburban Road, Suite C-4 Received: \$4/\$2/87
Services San Luis Obispo, California 934\$1 Tested: \$4/\$2/87 (865) 543-2553

Collected by: M. Bell

. ERM WEST 1777 Schelho Drive Suite 259 Walnut Creek, CA 94598 Sample Description:

Job #238; Greyhound, Cakland

B1 Woter

SUPPLEMENTARY REPORT FOR EPA 8244.

CONSTITUENT

APPROXIMATE LEVEL ug/l

LOW MOLECULAR WEIGHT ALIPHATIC & ALICYCLIC HYDROCARBONS

1.2

C3-C5 ALKYLBENZENE ISOMERS

it.

METHYL STYRENE

1.

METHYL INDANE

2.

021975UP, WR1/11 MH/ke

Respectfully submitted. CENTRAL COAST ANALYTICAL SERVICES

Mary Havilesk, Ph.D., President

AIR, WATER and HAZARDOUS WASTE MABORATORY CERTIFIED by CALIFORNIA DEPT OF PUBLIC HEAL 'c[<l[10m The second secon

Central Coast

Central Analytical Services, Inc. Lab Number: D2198
Coast 141 Suburban Road, Suite C-4 Callected: \$4/\$1/87
Analytical San Luis Obispo, California 93481 Received: \$4/\$2/87

(885).543-2553

Tested : \$4/92/87

Collected by: M. Bell

ERM-WEST

1777 Botelho Dr., Suite 265

Wolnut Creek, CA 94596

EPA METHOD 8246 Sample Description:

Job #238; Grayhound, Ockland

85 water

Compound Analyzed De	etection Limit (ug/l)	Concentration (ug/1)
Benzene	ø.1	not found
Bromodichloromethane	8.1	not found
<b>Bromo</b> form	ø. 2	not found
Carbon Tetrachloride	Ø. !	not found
Chlorobenzene	Ø. 1	not found
2-Chloroethyl Yinyl Ether	1.	not found
Chloroform	9.1	not found
01bromochloromethane	<b>\$.1</b>	not found
1,2-Dichlorobenzene	Ø.1	not found
1,3—Olchioropenzene	<b>Ø</b> .1	not faund
1,4-0ichlorobenzene	g. i	not found
Olchlorodifluoromethome	1.	not found
1.1-0ichloroethane	Ø. 1	not found
1,2-Dichloroethane (EDC)	<b>Ø</b> .1	not found
I,!-Dichloroethene	9.1	not found
c-1,2-Dichloroethene	Ø. 1	not found
t-1,2-01chlorgethens	Ø. 1	ಸರಕ ಕೆಂಟಗಡ
1,2-Dichloropropane	Ø. 1	not found
c-1.3-Dichloropropene	<b>3</b> .:	not found
t-1,3-Dichlaropropene	<b>9.</b> 7	not found
Dichlorotrifluoroethane	<b>Ø</b> . †	not foun⊴
Ethylbenzene	<b>9</b> ., 1	not found
Ethyl Chioride	Ø. ?	not found
Methyl Bromide	<b>3</b> , !	not found
Methyl Chloride	9.2	not found
Methylene Chloride	16.	not found
Methylatnyl Katone (MEK)	5.	not found
Methylisobutyl Ketone (MISK)	<b>5</b> .	not found
1,1.2,2-Tetrachloraethane	Ø.5	not found
Tetrochloroathylene (PCE)	<b>Ø</b> .1	not found
Toluene	Ø. Z	not found
1,1,1-Trichloroethane (TCA)	<b>8.1</b>	not found
1,1,2-Trichloroethame	ø. 1	not found
Trichiorcethene (TCE)	Ø.1	not found
Trichloretrifluoreethane (fl)	(3) 1ø.	not found
Trichlorofluoromethane(F-11)	Ø _ 1	not found
Vinyl Chloride	Ø _ 7	not found
Xylenes	<b>ø</b> j. 1	not fo <b>und</b>
Percent Recovery of Sample-Sp CLEAN - NO SUPPLEMENT FO	pecific Quality Assurance	e Spike is: 13Ø.

Respectfully submitted,

CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

2MOI2IVIO ROLAM		GROUP SYMBOLS		TYPICAL NAMES		
	N NO. 200 SIEVE* GRAVELS GOM OR MORE OF COARSE FRACTION AINED ON NO. 4 SIEVE		AN /ELS .		GW	WELL-GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
SIEVE			CLEAN		GP	POORLY GRADED GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
SOILS I NO. 200	GRA	60% OR MORE O COARSE FRACTI RETAINED ON NO. 4	GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
RAINED		C RETA	GRA		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MEXTURES
COARSE-GRAINED SOILS MONE THAN 60% RETAINED ON NO. 200 SIEVE		O.S.	CL.EAN SANDS		SW	WELL—GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
COA	SANDS THAN 60% C E FRACTIO		CI.6 SAN		SP	POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
MORE 1	COARE MONE THAN 60% SANDS MONE THAN 60% OF COARSE FRACTION PASSES NO. 4 SIEVE		SANDS WITH FINES		SM	SILTY SANDS, SAND—SILT MIXTURES
			SA WITH		SC.	CLAYEY SANOS, SAND—CLAY MIXTURES
•	AYS	AYS HT SS			ЖĻ	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
SOILS NO. 200 SIEVE	NO. 200 SIEVETILITS AND CLAYS CLQUID LIMIT FOX OH LESS				CT	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
10 -				4 TO 020 TO	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
FINE-GAAINE	LAYS	AYS AIT AN BOX			мн	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS
					сн	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
8	51LTS 51LTS GREAT			ОН	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY	
нідн	HIGHLY ORGANIC SOILS P		PΤ	PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS		

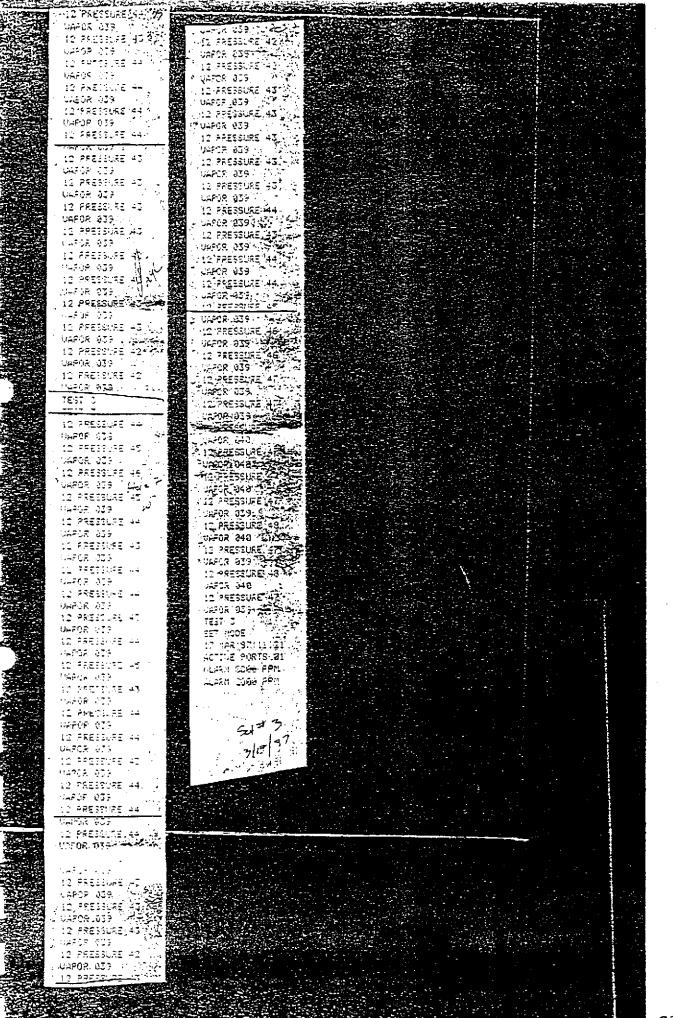
^{*} BASED ON THE MATERIAL PASSING THE 3 INCH (75 mm) SIEVE.

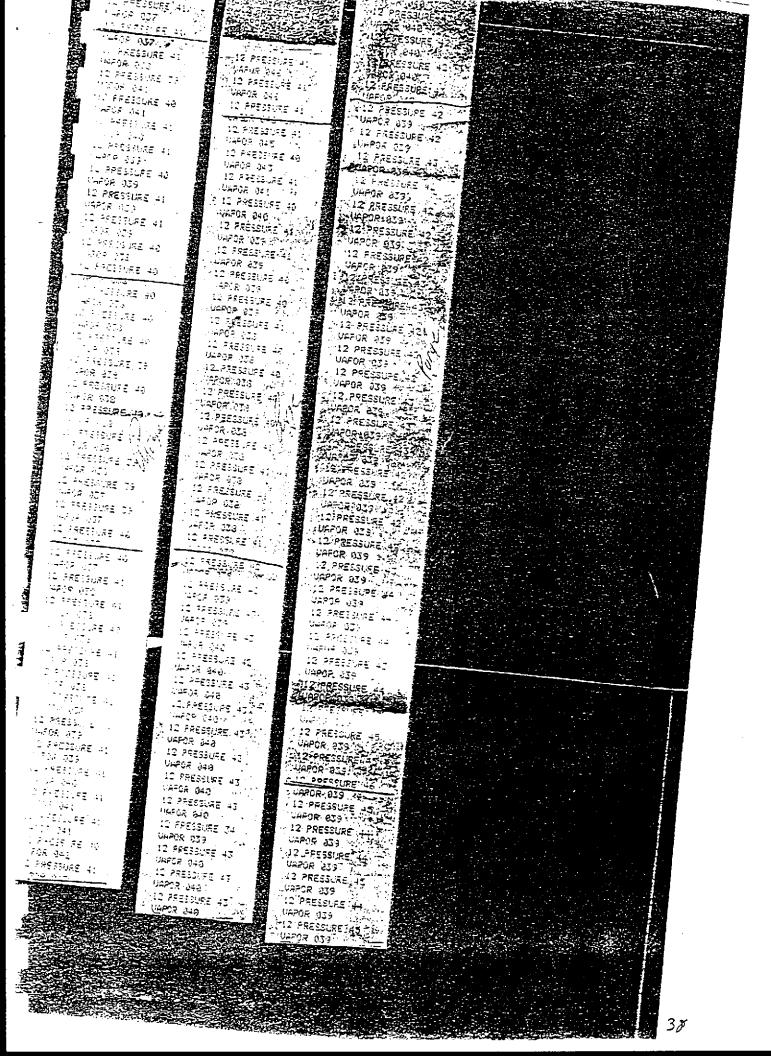
**Drilling Log** Environmental Resources Management Sketon Mac 19 Sion East line 113' from North line Well Number <u>83</u> Fotal Depth_ 16 6" Water Level, Initial 1000 2 24-ors. Screen Dia 1/A Length_ Casing: Dia. NA Length... Drilling Company FNFX CO Orilling Method Solid Hem Anger Backfilled w/milive meterial Bill Jarvis Log By M. Bell Description/Soil Classification (Color Texture, Structures) Croclede Grown Joseph Soll Medium Brown Torchy Ist 1 Clay Matrix Slightly Damp Ar Sample (0) Asphall Chunks Air Sample (15) Medium Brown Sidy Soil Clay Matrix, Damp Drive Samph 17 1/2 - 16 1/21 Bottom of the 16 1/2"

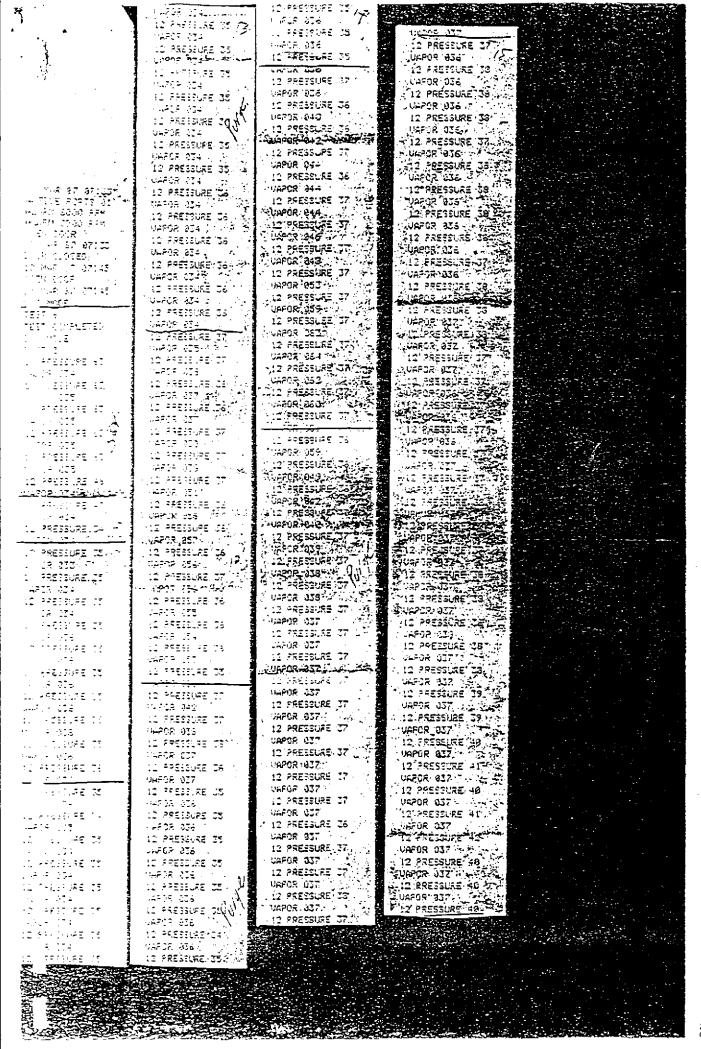
JC

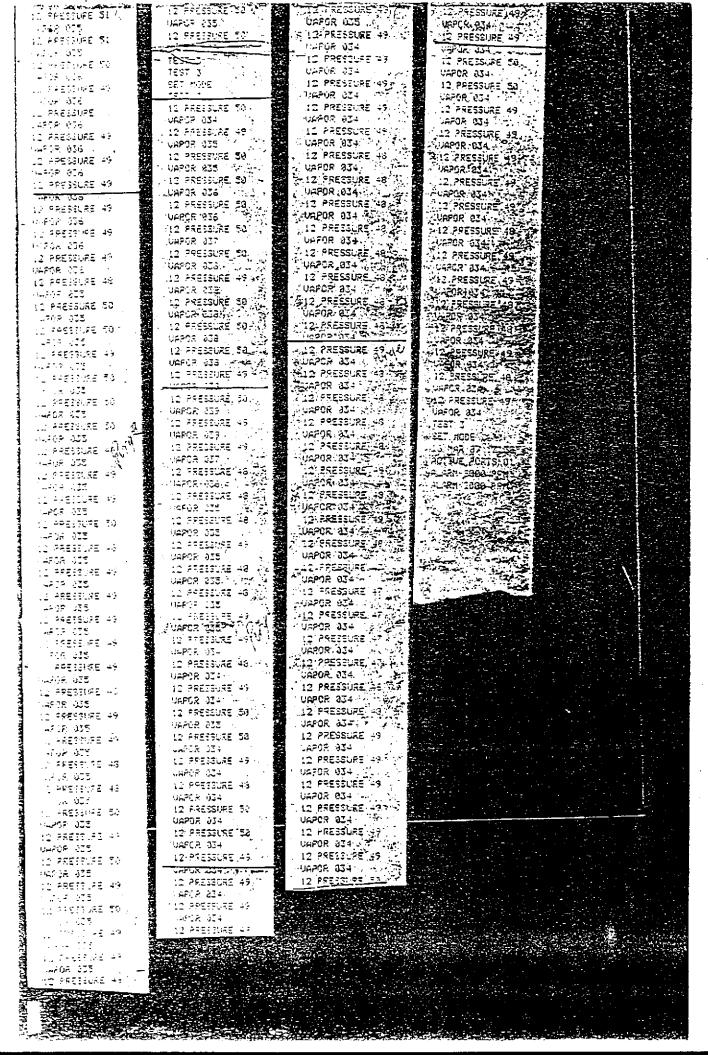
Environmental Resour	rces Ma	voðsilletit	Drilling Log
Project Granhour	2	Owner	Sketch Map
Location Dakland	<u> 14</u>	W.O. Number	11 from West line
Weil Number <u>B6</u>	Tot	al Depth 17/2 Diameter 6"	112 from North line.
Surface Elevation	Wa	tar Level: Initial	
Screen. Dia	ten	gth Sior Size - 0/0	
Casing, Dia		igin 12 Type Schooling 90 AVC	Notes
Drilling Company ENT		<u>-</u>	Notes temp. Cating
Oriller Bill Tarvis	Log	By M. Be W Date Drilled 3/17/67	Ala Backfil
Doptis (Faut) Graphic Log Wett Construction	Sample	Description/Soil Class Color, Texture, Struc	
5 \$0 50 50 50 50 50 50 50		Choclate Brown Surgy Soil  Air Sample (5) Medium Brown Sandy Soil  Medium Brown Sandy Soil  Damp  Saturated Light Brown Sa  Drive Sample (17/2')  Bottom of Hole 17/2'	, clay Matrix

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#### CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

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#### CHAIR OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

Suice 26	ental a nt alho Driva o roek, CA 9		5°E	Job Rocation: Oakland CA Job No: 238 No. of Samples Collected: 8  page _ a of 2				
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		page / of	
1777 Botelho Drive			
Suite 260		•	
Walnut Crook, CA 9	4596		
(415) 946-0455	•	•	

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1777 Botalho Drive - Suite 260 - Walnut Creek, California 94596-5022 © (415) 946-0455 4650 Campus Drive - Suite 101 - Newport Beach, California 92660-1805 © (714) 852-9490 1865 Suntise Boulevard - Suite 105 - Rancho Cordova, California 95670-6536 © (816) 635-1766

Reply To:

April 30, 1987

Walnut Creek

K. M. RIES

MAY 1987

Kenneth M. Rias Manager, Environmental and Energy Engineering Greyhound Corporation Greyhound Tower Mail Station 1742 Phoenix, AZ 95077

C.J. ENSENBERGER

MAY 0 1 1987

SUBJECT:

Regional Water Quality Control Board (RWQCB) Likely
Response to Contamination at the Proposed Grands

Site in Oakland, California

Dear Mr. Ries:

In response to your raquest, we have contacted or laster Feliman of the RWQCB to determine the Board's likely response to the reporting of the detected contaminants at levels similar to those detected at the proposed Greyhound site in Oakland, California, Mr. Feldman indicated that the detected concentrations of volatile organics suggest a minor groundwater contamination problem. If the site were reported, it would be listed as a toxic waste site, although it would receive "the lowest priority" among sites listed.

The course of action for the proposed Greyhound site suggested by the RWQCS would be continued groundwater monitoring. As the decected organics may represent the edge of a contaminant plume changes in concentration would be monitored, and increases or decreases would be reported to the RWQCB. In addition, the contaminant source (i.e., underground tank or pipeline) would be identified it possible. If the source is found to be an-site further contamination might be arrested through tank or pipeling removal. Groundwater cleanup would not be required unless contaminant source of groundwater in the area.

An affiliate of the Environment (3.2) - 100 (15) in it Group with Offices (3.4) Annapolis, MC + Anni Arbon Mr + Bloomington (Mt) + Boston (3.0) Color for 100 - Entireston (WV + Chanotte (WC + Color mous Chanotte (WC + Chanotte (WC + Color mous Chanotte (WC + Chanotte (WC + Color mous Chanotte (WC + Colo

I believe this provides a sufficient response to satisfy your concerns. If you have further questions or need additional information, please call me or Ben Leslie-Bole.

Sincerely,

ERM-WEST

Dan E. Verwoert, P.G.

Project Manager

Enclosures - Noted

BLB/dd/238

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

Phone: Area Code 415 464-1255



SAN FRANCISCO BAY REGION 1111 JACKSON STREET, ROOM 6040 DAKLAND 94607

> October 30, 1987 File No. 2198.09(mad)

John P. Hilinski Grubb & Ellis Company Industrial Properties Division 475 14th Street, Suite 1250 Oakland, CA 94612

Subject: Initial Environmental Site Assessment

for the proposed Greyhound Site

7th and Brush Streets Oakland, Alameda County

Dear Mr. Hilinski,

We have reviewed the subject environmental assessment and we have the following comments. First, we suggest Greyhound Corporation look through files of both the Regional Water Quality Control Board and the Department of Health Services in order to see if the site has been identified as having any toxic contamination of soil or groundwater. We recommend that no new uses or activities preclude clean-up of any soil or groundwater contamination discovered at the site.

If you have any questions, you can reach me at 415-464-4399.

Sincerely,

Stephen A. Hill

Environmental Specialist III

#### APPENDIX E

#### Regional Water Quality Control Board North Bay Toxics Sites Seventh Street and Brush Street, Oakland, California (one-half mile radius)

<u>SITE NAME</u>	LOCATION	DISTANCE (feet)	GROUND-WATER <u>IMPACT</u>	GROUND-WATER  GRADIENT
7th and Brush	7th and Brush	0	Yes	Unknown
City of Oakland - Redevelopment*	11th and Webster	2,600 E		
E-Z-est Products	2528 Adeline Street	5,300 N	No	Unknown
Frank G. Mar Community Housing Project	Harrison and 13th Streets	3,500 E	Yes	Southwest
Northwestern Venetian Blind Supply Company	1218 24th Street	5,200 N	Yes	Unknown
Oakland Redevelopment Agency*	1300 Clay Street	2,000 NE		
Oakland Redevelopment Agency	13th/14th/Jefferson and Martin Luther King Streets	1,750 NE	Yes	Unknown
PG&E Oakland MPG (2 sites)*	50 Market Street 630 Embarcadero	1,750 SE 1,400 S		
Port of Oakland - Howard Terminal*	Bmbarcadero	2,200 S		
Safety Kleen	404 Market Street	500 SSW	Yes	South
Schnitzer Steel Products	Adeline Street	2,200 SW	No	Unknown
Sherex Chemical Company	1401 Middle Harbor Road	4,200 SW	Yes	West
Vukasin/Southern Pacific Transport Company	54 Embarcadero and Failon	4,800 SE	Yes	Southwest
Alameda Supply Center*	Alameda, California	4,200 S		

^{*}File not available at time of file review.



#### APPENDIX F

# California Environmental Protection Agency (Cal-EPA) Department of Toxics Substance Control (DTSC) North Coast Region Calsites

NAME	ADDRESS	STATUS
Adams Delivery Service	114 Bush St.	NFA
Allied Paper Company	283 4th St.	NFA
Alta Plating and Chemical Corp.	1732 Peralta St.	NFA
Architectural Ceramics	1940 Union St.	NFA
Badanic	1380 7th St.	NFA
Bay Area Oil Company	300 Castro St.	NFA
Bay Graphics	1337 17th St.	NFA
Bearing Service Inc.	52 9th	NFA
Bendell and Company	176 11th	NFA
Capitol Supply Company	351 Embarcadero	NFA
Cleo's Printing	1241 21st St.	NFA
Cutoff Company	2324 Adeline	NFA
Cutter Lumber Products	S26 2nd St.	NFA
Don Cherry Scrap Metal	1448 3rd St.	NFA
Don Philbrick Boat Works	603 Embarcadero	NFA
E-Z-Est Products Company	2528 Adeline	NFA
East Bay Machine	333 9th St.	NFA
Fieldhome Inc.	499-N Embarcadero	NFA
Geltz Machinery Company	2015 Chestnut St.	NFA
Harry P. Robarts Company	1403 5th St.	NFA
Lakeside Non-Ferrous Metals Corp.	412 Madison St.	PEARM
Miners & Pisani	330 6th St.	NFA
Neptune Society	77 Jack London Square	NFA
Nor-Cal Metal Fabricators	1121 3rd St.	NFA
PG&E - Oakland	Market between 1st and Grove St.	HRR
Polymeric Technology	2329 Chestnut St.	NFA
Red Star Yeast	1384 5th St.	NFA
Sherex Chemical Co. (Middle Harbor)	1401 Middle Harbor Rd.	PEARL
Skips Trucking Company	112 Adeline St.	NFA



NAME	ADDRESS	<u>STATUS</u>
Smilo Chemical Co.	500 Kirkham St.	NFA
Southern Pacific Transportation, Oakland	5th and Kirkham Streets	PEARM
Standard Chemical Company	236 2nd St.	NFA
Sunset Trading Company	568 3rd St.	NFA
Todd Die Company	95 Market St., G-5	NFA
West Transportation Inc.	95 Market St.	NFA
Whitey's Welding & Steel Fabrication	830 22nd St.	NFA
Work Wear Corporation	330 Chestnut St.	NFA
Art Weeks Inc.	1305 Franklin St.	NFA
Batte Resources International	1221 Broadway	NFA
C & G Dental X-Ray	1904 Franklin St., #802	NFA
Champion Company, The	610 16th St.	NFA
East Bay Blueprint Supply Company	1742 Franklin	NFA
Laxas Sewing Company	337 13th St.	NFA
Miller Photo Screen Service	2578 West St.	NFA
Oakland Graphics	864 14th St.	NFA

NFA - No Further Action by DTSC
PEARL - Preliminary Endangerment Assessment Required, Low Priority
PEARM - Preliminary Endangerment Assessment Required, Medium Priority
HRR - Hazard Ranking Required



#### APPENDIX G

## California Environmental Protection Agency (Cal-EPA) Department of Toxics Substance Control (DTSC) Cortese Sites

FACILITY ADDRESS

Greyhound 7th and Brush

City Auto Repair 330 Webster St.

City of Oakland 1417 Clay St.

Chinatown Redevelopment Proj. 11th and Webster

Bramalea Pacific 12th and Clay
Blue Print Service Company 1700 Jefferson

Alex Shaw and Associates 800 Franklin

Bramalea Pacific 13th and Jefferson St.

Shell 461 8th St.

Unknown 1111 Broadway

Texaco 424 Martin Luther King

Shell 7th and Broadway

•

City of Oakland Housing Authority 935 Union St.

Five City Center 1300 Clay St.

Pacific Renaissance Plaza 9th and Webster

•

Parking Structure 7th and Jefferson

Unknown 11th St.

East Bay Ford Truck

Safety-Kleen Corp. 404 Market St.

Port of Oakland Jack London Square

Sherex Chemical Company 1401 Middle Harbor Road

333 Filbert

Aratex Services 330 Chestnut St.

P.E. O'Hare & Company 309 Fourth St.

Oakland Redevelopment Agency 1330 Martin Luther King Jr.

Sherex Chemical Company 1401 Middle Harbor Road

Oakland Community Development 690 15th St.

Oakland City Hall Plaza



#### APPENDIX H

### U.S. Environmental Protection Agency (Region IX) Comprehensive Environmental Response Compensation and Liability System

EPA ID NO.	SITE NAME	ADDRESS
CAD000098806	Building H-232, Port of Oakland	845 Embarcadero
CAD009206160	Francis Plating of Oakland Inc.	785 7th St.
CAD009148669	NorCal Metal Fabricators	1121 3rd St.
CAD981415169	PG&E Gas Plant Oakland 601 2	1st between Jefferson and Market
CAD981416191	PG&E Gas Plant Oakland 601 2A	First and Washington
CAD990788168	Sherex Chemical Company	1401 Middle Harbor Rd.
CAD029247319	Smilo Chemical Company	500 Kirkham
CAD982401580	54 Embarcadero	Fallon St. and Embarcadero Dr.



#### APPENDIX I

### U.S. Environmental Protection Agency (Region IX) Resource Conservation and Recovery Act

NAME	ADDRESS	STATUS CODES
Aratex Services Inc.	330 Chestnut St.	LQG
BPS Oakland	1700 Jefferson	SQG
The Burke Co.	310 Union St.	LQG
Caltrans District 4	415 Harrison St.	LQG
Clorox	1221 Broadway	SQG
East Bay Fixture Co.	333 Filbert St.	LQG
Francis Plating Of Oakland	785 7th St.	TSD-N-
Guarantee Fork Lift Inc.	699 4th St.	LQG
Industrial Technology	114 Adeline St.	Trans -BBL-
Jam Graphics Inc.	175 Filbert St., Suite 103	sQG
MV California Star	1 Market St.	LQG
Nor-Cal Metal Fabricators	1121 3rd St.	sQG
Oakland City Hall	1 City Hail Plaza	LQG
Oakland Tribune Inc.	409 13th St.	SQG
PG&E Gas Load Center	50 Market St.	LQG
Safety Kleen Corp.	404 Market St.	TSD - LQG TRNS
Smilo Chemical Co. Inc.	500 Kirkham St.	LQG TRANS
Texaco Service Station	424 Martin Luther King Jr.	LQG

SQG - Small Quantity Generators

LQG - Large Quantity Generators

TRNS - Transporter

TSD - Treatment, Storage and Disposal Facility