



Environmental, Inc.

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2:30 pm, Oct 31, 2007

Alameda County
Environmental Health

1533 B Street

Hayward, CA 94541

(510) 247-9885 Facsimile: (510) 886-5399

info@eras.biz

October 24, 2007

Mr. Bob Nichols
Exotic Hardwoods
4800 Coliseum Way
Oakland, CA 94601
By fax to 436-8610

**Re: Recommendations for Response to
Alameda County Health Care Services Agency
September 26, 2007 Letter
4800 Coliseum Way, Oakland, California**

Dear Mr. Nichols:

The following is the response to the Alameda County Health Care Services Agency (ACHCSA) letter to you dated September 26, 2007, included as **Attachment 1**. The letter indicated that the subject site (the "Property") was one of four properties that have had releases of petroleum hydrocarbons and chlorinated solvents and these releases have resulted in a commingled groundwater plume. The four properties include the Property, the PG&E site adjacent to the southeast at 4930 Coliseum Way, AAA Equipment Company (AAA) at 745 50th Avenue, and Learner Investment Company (Learner) at 768 46th Avenue. Parts of these sites border the Property to the northeast. An area map showing the relative locations of these properties prepared by another consultant is included as **Attachment 2**. The ACHCSA has requested a workplan be prepared to perform additional investigation no later than October 30, 2007.

ERAS Environmental, Inc. (ERAS) has prepared this letter to address the issues raised in the ACHCSA letter and to make recommendations.

PREVIOUS INVESTIGATIONS BY OTHER CONSULTANTS

Several other environmental consultants have performed subsurface environmental investigations at the Property between 1991 and 1998. These included Aqua Terra Technologies, ATC Associates, Earth Metrics, Inc., Simon Engineering and Woodward Clyde Consultants. ERAS Phase 1 Environmental Site Assessment (ESA) dated in 2000 provides a summary of the data and findings.

A tarry black substance was also observed by Simon Engineering in several soil borings located on the up-gradient edge of the Property during their 1991 Phase 2 investigation at the Property.

Woodward Clyde Consultants (WCC) performed a Phase 2 investigation at the Property in 1993. Their investigation included the installation of the existing groundwater monitoring well, WCC-1, located on the former rail spur along the northeast side of the Property. WCC concluded that petroleum hydrocarbons found along the spur were from a number of on-site spills near the rail spur. Furthermore, WCC concluded that the chlorobenzene (CB) and dichlorobenzenes (DCB) found in groundwater appeared to be from an off-site source based on the following information.

- CB and DCB are not normally associated with fuels or motor oil
- The only solvents used at Superior Castings were lacquer thinner, acetone and isopropyl alcohol
- Off-site sources of contamination are expected in these types of industrially developed areas.

In 1998, ATC Associates (ATC) drilled a number of soil borings along the rail spur area on the Property. ATC indicated that a diesel underground storage tank (UST) was removed from the AAA Equipment site located in a direction up-gradient. The highest concentrations of diesel and motor oil in soil and groundwater were down-gradient of the location of the former diesel UST. ATC also reported tar in one of the soil borings (ATC-3) located close to the up-gradient edge of the Property. ATC noted that tar was oozing from drums located on the other side of the fence at the AAA facility. An interview with a worker at Metalcast, the tenant of the Property, indicated drums were stored in this same location for 20 years. Due to the close proximity of ATC-3 to the up-gradient property, the chlorobenzene detected in that sample may be migrating directly from a release on the up-gradient property, according to ATC. A copy of the boring log for ATC-3 is included with this report in **Attachment 3**.

INVESTIGATIONS BY ERAS

ERAS performed a number of environmental investigations at the subject site (the "Property") in 2000. These included an ESA and a Soil Remediation project. ERAS subsequently performed a file review to obtain additional information pertaining to the underground storage tank removal at the nearby Pacific Gas and Electric site at 4930 Coliseum Way. ERAS also submitted a Request for No Further Action Status to the ACHCSA dated September 21, 2000.

Phase I Assessment - ERAS reviewed groundwater monitoring information from the adjacent PG&E site indicated the groundwater flow direction consistently to the south. The ESA also included a review of previous consultants Phase 2 investigations. The conclusions reached by ERAS based on the analytical data indicated that groundwater contamination was migrating under the rail spur area from the up-gradient site. Soil in boring ATC-3 contained a much higher concentration of solvents, this appeared to indicate a localized spill that was detected at a depth of 3 feet. Note this was the boring in which tar globules were reported during drilling by the ATC geologist. The Phase I Environmental Assessment was dated 31 may 2000.

Note that a copy of this report was transmitted to Ms. Betty Graham of the Regional Water Quality Control Board (RWQCB) on June 28, 2000.

Soil Excavation - Based on information gathered for the Phase I report, ERAS recommended the soil around ATC-3 be excavated and disposed. The purpose of the excavation and sampling was to determine if the source of contamination and to remove the contamination if of limited extent. On June 14, 2000, approximately 25 cubic yards of soil were excavated in the area of ATC-3. Based on the depth to groundwater, the excavation was limited to a depth of approximately 4.5 feet. As described in the report, tar was observed to be oozing in from about 2-3 feet below the ground surface from the northeast and running down the side of the excavation. Because tar was oozing from the excavation wall adjacent to the property boundary shared with the Learner property with a known source are of tar, it was concluded that the source of the tar was off-site. A copy of ERAS field notes from the day of the excavation is included with this report in **Attachment 4**.

Response to Technical Comment 1. **Attachment 3** includes the boring location map from the 1998 Investigation conducted by ATC and analytical results for petroleum hydrocarbons in soil are included in. The soil samples found to contain TPH-motor oil above 10,000 mg/Kg are all located along the northeast property boundary with diminishing concentrations in soil samples located some distance from the property boundary. This observation along with the ERAS field observation of oozing tar at 2 foot depth along the property line indicates that the source of TPH concentrations is encroaching onto the Property from the southeast. Thus the first purpose of the excavation was achieved as it demonstrated that the source of the contamination was located on the adjacent property(ies) to the northeast. The second purpose of the excavation, to remove the contamination, was discontinued because the contaminant source was not accessible at that time. Removing a distal portion of contamination while leaving the source area in place would not be in keeping with generally recognized good practices within the industry, as it may result in recontamination of the excavated area. This is particularly true since the shallow tar showed some ability to flow as seen along the northeast excavation wall.

Response to Technical Comment 2. After excavation samples were collected for analysis from each sidewall and from the bottom of the excavation. The results of the analyses indicated the concentrations of solvents were all well below the current (2005) RWQCB Environmental Screening Levels (ESLs) based on soil leaching to groundwater that is potential drinking water. Therefore the contaminants were successfully removed in the vertical direction in the sense that contaminants above the ESLs were removed. Based on the RWQCB guidelines (Text to Appendix 1, Section 3.4 *Soil Screening Levels for Groundwater Protection*), the soil screening levels are back calculated based on target groundwater screening levels. Therefore, if soil concentrations do not exceed ESLs for protection of groundwater, and if hydrogeological assumptions of the RWQCB model are sufficiently conservative compared to the hydrogeology of the site, it can reasonably concluded that the soil is not acting directly as a source of contamination to groundwater in concentrations that exceed the ESLs in groundwater.

The RWQCB model assumes the contaminated zone is underlain by one meter of very permeable sand that freely allows the migration of leachate to groundwater. The soil samples in which CB and DCB were detected above the ESLs were located about 3 feet above the groundwater, somewhat less than one meter. However, the soil between these samples and the groundwater is much less permeable than the RWQCB model assumes. The soil at the site was described by ERAS as silty clay, and by ATC as clayey silt. The analytical results show a reduction of one order of magnitude for DCB and 3 orders of magnitude for CB over 1.5 feet. Thus, it is reasonable to conclude that the clayey material impedes migration of leachate to groundwater to a greater degree than that assumed for the development of the ESLs. Therefore, ERAS concludes that the bulk of the contamination of the ESLs detected in the groundwater was not leached from the soil directly above it, but from an upgradient source.

Request for Regulatory Review – In a letter dated 28 June 2000, ERAS transmitted the ERAS Phase I and the soil excavation and sampling report along with six reports on work conducted by previous consultants to Betty Graham of RWQCB. This letter, which is included in **Attachment 5**, requested review of the data and consideration of preparation of a “comfort letter” for the Property. Note that the documents submitted with this letter included the Aqua Terra Technologies and ERAS Phase I Reports requested in the ACHCSA letter of September 2007.

Additional File Review Information – In July 2000, ERAS conducted additional file review research for the PG&E property located at 4930 Coliseum Way, adjacent to the southeast. The file review information documented concentrations of CB and DCB in wells at the adjacent PG&E site. These detections of solvents were located in a direction cross-gradient of well WCC-1A on the Property and indicated the likely presence of an up-gradient and common source of these solvents. This additional information was summarized in a letter to RWQCB included in **Attachment 6**.

Request for No Further Action Status – On September 21, 2000, ERAS submitted a Request for No Further Action Status to Mr. Barney Chan of the ACHCSA. This letter is included as **Attachment 7**. Prior to this time, regulatory oversight was transferred from RWQCB to ACHCSA. The letter included information pertaining to the tar filled pipes that were found on the PG&E property during UST removal activities. As stated in the Aqua Resources, Inc. (ARI) Site Remediation and Closure report dated February 1992, “During the remedial excavation, two tar or heavy oil filled pipes were uncovered which appeared to originate from beyond the PG&E property line to the northeast... Once exposed, the tar began to slowly ooze from each pipe. The two pipes, one 12 inches in diameter with a smaller 4 inch diameter inner pipe and the other an 8 inch diameter corrugated line, were found buried at depths of 2 and 2 ½ feet below grade, respectively.

Note this is the approximate depth interval of oil and tar that was reported by previous consultants from soil borings drilled on the Property and the approximate depth of tar seeps reported by ERAS in the soil remediation excavation on the Property.

More Recent Technical Information – Additional technical information was provided to Mr. Bob Nichols during a meeting in September 2007. Selected maps are included in **Attachment 8**. These included Potentiometric Surface Maps of 4930 Coliseum Way by SECOR for December 2005, December 2006 and April 12, 2007 that indicated a groundwater flow direction almost directly to the south during this time. This is consistent with earlier estimated flow directions for this site.

Other maps by Levine Fricke (LFR) indicated the location of the former asphalt plant almost directly up-gradient of well OW-7 on the PG&E property that has been found to contain CB and DCB. Groundwater samples collected from several borings drilled between well WCC-1A on the Property and OW-7 on the PG&E site contained much lower concentrations of CB and DCB. This data indicates two separate plumes migrating from AAA onto the PG&E site and onto the Property. Two large underground tanks, one of which was found to contain 65,000 gallons of liquid were shown on the LFR Area Detail Map. A groundwater sample collected beneath this tank contained CB and DCB which was not used in the groundwater isoconcentration map (Figure 5) that was provided to Mr. Nichols.

The Area Detail Map (LFR Figure 3 in **Attachment 8**) shows the locations of the relatively large number of soil samples that have been collected on the Property compared to a lesser number collected on the AAA property. The data provided did not indicate the depth of the soil samples collected. The map did indicate an area near the former tanks that was excavated. A much larger area on the Learner and AAA properties is denoted on the maps as "Approximate limits of additional excavation" did not appear to have had any confirmation sidewall soil samples collected. The purpose of these excavations is not known at this time. The additional excavation removed over an estimated quantity of over 1,000 cubic yards to a depth of 2-3 feet. This depth appeared to be the approximate depth of fill that was observed to contain tarry material and was above black silt at the Property. This soil was removed from directly across the Property line from the area excavated by ERAS that contained oozing tar. ERAS does not have information as to what was done with the excavated soil or if the soil was profiled for proper disposal.

The LFR Area Detail Map showed the location of pipes that trended from the USTs on the asphalt plant area to sumps presumably used to service the rail line located on the site. These pipelines would easily have provided preferential pathways for oil and tar to be distributed into soil near the Property line and for additional areas to thus impact underlying shallow groundwater. The pipe from the Small Tank Pit on AAA serviced a sump that was located almost directly up-gradient of well OW-7 that contained CB and DCB.

HISTORICAL INFORMATION

The following is an historical evaluation of the uses of the Property and adjacent parcels and the rail spur. This information is based on City of Oakland building and fire department records, interviews with the owners of the Property and Sanborn Fire Insurance (Sanborn) maps. Copies of the important parts of the Sanborn maps for 1952, 1957, 1961 and 1966 are attached to this report in **Attachment 9**.

Building and Property Uses - The current development on the Property was constructed in approximately 1962, based on City of Oakland Building Department records. Based on aerial photographs, the Property was previously vacant land extending back to at least as long ago as 1947. Sanborn Maps from 1966 and 1969 indicated the building on the Property was used as a sporting goods warehouse. The previous owner of the Property, Mr. John Miller owned it from 1983 until 2000. He indicated it was used as an aluminum foundry during that entire time period. City of Oakland Fire Department (OFD) inspection records in 1988, observations by WCC in 1993 and by ERAS in 2000 indicated the presence of an aluminum foundry during that time. The OFD indicated the only hazardous materials used in 1988 was nitrogen gas. WCC indicated that the only chemicals in use in 1993 were lacquer thinner, acetone and isopropyl alcohol. Since 2000, the building has been used by the current tenant as a hardwood products wholesaler and shipper.

Uses of Adjacent Parcels and Rail Line - Review of the 1951 and 1952 Sanborn Maps indicates that the Property was undeveloped at that time. The parcel adjacent to the southeast contained the PG&E gas holder tank. The parcel adjacent to the northeast was occupied by Independent Construction Company (ICC) who operated an asphalt plant. Note that most of the former asphalt plant was located on what is now AAA and the remainder was located on what is now the Learner Property. The asphalt plant was served by a rail spur which extended to the southeast past the Property almost to the edge of the PG&E gas holder tank. The 1952 and 1957 Sanborn maps showed two storage buildings with loading docks, undoubtedly to serve the rail line were located adjacent to the rail line.

The 1961 Sanborn map indicated that the rail spur had been truncated and no longer extended as far to the southeast. The southeastern storage building and loading dock was no longer present. Both the 1961 and 1967 indicated an area near the rail spur was used for pipe painting on the asphalt manufacturing facility. The 1966 map was the first Sanborn map that showed the current building on the Property. It also indicated the presence of the rail spur but did not indicate how it connected to the main track line.

Uses of Detected Solvents - Chlorobenzene is used as a chemical intermediate in the production of ortho- and para-nitrochlorobenzenes. These chemicals are used as intermediates in the manufacture of rubber chemicals, antioxidants, and dyes and pigments. Other applications include uses as a tar and grease remover in cleaning and degreasing operations and as a solvent in surface coating and surface coating removers (<http://www.epa.gov/chemfact/chlor-sd.txt>). The primary uses of 1,2-dichlorobenzene are as a chemical intermediate and as a solvent. Other minor uses include its use as a solvent for waxes, gums, resins, tars, rubbers, oils and asphalts and as a degreaser for metals, leather and wool (Public Health Goal for 1,2-dichlorobenzene in Drinking Water, California Environmental Protection Agency, December 1997).

A Transportation Research Circular E-C102 prepared for the Transportation Research Board entitled Asphalt Emulsion Technology, dated in August 2006, indicates that solvents may be used in the emulsion to improve emulsification, to reduce settlement, improve curing rate at low temperatures, or to provide the right binder viscosity after curing. MS emulsions often contain up to 15% solvent to provide the right binder viscosity after curing.

Although there is a gap in the known uses of the Property from 1969 until 1983, there do not appear to have been any uses of the Property that would have been reasonably expected to have cause release of petroleum products or solvents to the Property or the rail line. The presence of chlorobenzene and dichlorobenzenes appears to be a result of spilling of asphalt products on and near the rail line located at the former ICC facility.

CONCLUSIONS AND RECOMMENDATIONS

ERAS makes the following conclusions based on the historical data reviewed, subsurface investigation by ERAS and other consultants on the Property and by other consultants on the adjacent PG&E, AAA and Learner sites.

- Historical research indicates no uses of the Property that could have caused contamination to the rail line by petroleum hydrocarbons and chlorinated solvents.
- An asphalt plant was located on the adjacent up-gradient parcel, now partly occupied by AAA and Learner. This plant was operating for at least 11 years before the current improvements on the Property were constructed. The historical documents indicate the asphalt plant operations had been significantly changed prior to any development on the Property.
- The asphalt production operation included oil tanks in the ground, product storage buildings and loading docks, and pipe painting in the outside yard were all included in the operation. Some of these operations occurred directly uphill of the location of soil and groundwater contamination on the Property. In addition, at least three pipelines are known to have carried tar close to or onto the Property and adjacent PG&E site.
- The asphalt plant is the most likely operation in the vicinity to have used petroleum hydrocarbons and chlorinated solvents. CB and DCB are known to be used in tar, oil and asphalt production. Solvents appear to be a common additive to emulsifiers used in road paving application.
- Observations made by ERAS and other environmental consultants at the Property and the adjacent PG&E site in soil borings and excavations indicate leaks of oil and tar that appeared to be emanating from a common up-gradient off-site source.

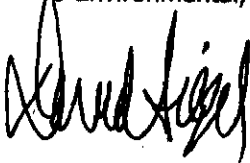
- Analytical results of soil samples collected from the Property after soil remediation of a possible spill area near boring ATC-3 Indicated that solvents were successfully removed to below current ESLs.
- Analytical results of groundwater samples collected from soil borings and wells on the Property and the adjacent PG&E property indicate a common up-gradient off-site source. CB and DCB were detected in groundwater on the up-gradient site.

Based on the historical research, observations by environmental consultants and analytical data, it appears the Property would be unlikely to have been a source of environmental contamination. Therefore, ERAS recommends that the owner request the site be de-listed as a SLIC case with the ACHCSA. The client should request a letter indicating No Further Action for contamination on the Property be prepared in a timely manner.


If you have questions or comments regarding this report please contact us at 510-247-9885.

ERAS thanks you for the opportunity to serve you.

Sincerely,
ERAS Environmental, Inc.



David Siegel, REA II 20200
Senior Program Manager



Gail M. Jones, PG 5725
Senior Geologist

Attachments

- 1) Letter from ACHCSA September 26, 2007
- 2) Area Map
- 3) Information from ATC Environmental Investigation 1998
- 4) ERAS Field Notes from Excavation Project June 14, 2000
- 5) Letter to RWQCB June 28, 2000 - Request for Regulatory Review
- 6) Letter to RWQCB July 27, 2000 - Additional Information Regarding Property
- 7) Letter to ACHCSA September 21, 2000 - Request for No Further Action Status
- 8) Maps by Other Consultants for Work at Adjacent Properties
- 9) Sanborn Maps

ATTACHMENT 1

Letter from ACHCSA September 26, 2007

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 26, 2007

Mr. Robert Nichols
P.O. Box 6716
Oakland, CA 94603

Mr. John Miller
250 Cambridge Avenue
Palo Alto, CA 94306

Subject: SLIC Case RO0002661 and Geotracker Global ID T06019788277, Superior Plaster Castings, 4800 Coliseum Way, Oakland, CA 94601

Dear Mr. Nichols and Mr. Miller:

Alameda County Environmental Health (ACEH) previously requested in correspondence in 2006 and 2007 that you provide funds for regulatory oversight of a Spills, Leaks, Investigations, and Cleanups (SLIC) case for the above referenced site. To date we have not received funds for regulatory oversight. The SLIC case for 4800 Coliseum Way in Oakland remains open due to the confirmed presence of soil and groundwater contamination beneath your property.

Although you have not submitted funds for regulatory oversight, we are issuing this directive letter specifying the required actions for this site. Further delays in investigation, late reports, or enforcement actions may result in referral of your case to the Water Board or other appropriate agency for possible enforcement actions.

Previous investigations conducted at the site to date have identified petroleum hydrocarbons in soil and groundwater beneath the northeastern portion of the property adjacent to a former railroad spur. Elevated concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, diesel, and motor oil have been detected in shallow soil at your site at concentrations up to 1,000, 13,000, and 29,000 milligrams per kilogram (mg/kg), respectively. In addition, chlorinated solvents have also been detected in shallow soil beneath your site at concentrations up to 33 mg/kg (1,4-dichlorobenzene). A tar-like material was observed at depths of 1 to 3 feet bgs across much of the northeastern portion of the site. Similar materials have been encountered during site investigations conducted on contiguous properties to the north and east. Elevated concentrations of petroleum hydrocarbons and chlorinated solvents have been detected in soil and groundwater samples collected at three adjacent properties (AAA Equipment at 745 50th Avenue owned by Alta Properties LLC [Case RO0002746], Learner Investment Company at 768 46th Avenue [Case RO0002661], and PG&E GC Gas Service at 4930 Coliseum Way [case RO0000099]). The petroleum hydrocarbons and chlorinated solvents appear to be from a common source of historic releases that occurred on each of the four properties (Superior Plaster Casing, PG&E, Learner Property, and AAA Equipment), resulting in a commingled plume. Therefore, all parties are considered responsible for the release. We encourage all parties to cooperate in terms of sharing data and generating compatible and comprehensive Corrective Action Plans for their sites. Whether you choose to investigate this source of contamination on your property individually or in conjunction with the other three responsible parties, we request that you submit plans for investigation of this area of your site **no later than October 30, 2007**.

Mr. Robert Nichols
Mr. John Miller
RO0002661
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REQUEST FOR INFORMATION

We request that you submit copies of the following reports, which are referenced in existing site investigation reports but are not in the ACEH case file:

- Aqua Terra Technologies. Phase I Environmental Site Assessment, April 1991.
- ERAS Environmental, Inc. Phase I Environmental Site Assessment, May 31, 2000.

TECHNICAL COMMENTS

1. **Limited Soil Excavation in June 2000.** Approximately 25 cubic yards of soil was excavated and removed from the northeastern portion of the site on June 14, 2000. Soil excavation was apparently limited to the immediate area of boring ATC-3. However, the documented extent of soil and groundwater contamination at the site extends over a significantly larger area than the excavation. Additional work is required to address site-wide contamination issues.
2. **Conclusions in Soil Remediation Report.** Results from the excavation and removal of approximately 25 cubic yards of soil are presented in a report entitled, "Soil Remediation," dated June 26, 2000, which was prepared by ERAS Environmental. The report describes the results from excavation activities including laboratory analytical results, and presents conclusions based on previous investigation results and the excavation. We do not concur with the conclusions stated in the June 26, 2000 report. In particular, the second conclusion on page 5, which states, "The fill identified as containing solvents was successfully removed and analytical data indicated the solvents did not impact underlying groundwater," appears to be speculative and unsupported by site data. There appears to be no basis for assuming that elevated concentrations of 1,3-dichlorobenzene (19 mg/kg) and 1,4-dichlorobenzene (33 mg/kg) in shallow soil (3 feet bgs) are not related to detections of 1,3-dichlorobenzene and 1,4-dichlorobenzene in the underlying groundwater, which is encountered at depths of 3 to 5 feet bgs in this area. Moreover, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene were detected in soil samples collected from the bottom of the ATC-3 excavation at 4.5 feet bgs. These same chemicals were detected in groundwater from boring ATC-3. Future work plans and reports must include more rigorous, technically defensible, and comprehensive evaluations of results.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **October 30, 2007 – Work Plan**

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

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ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

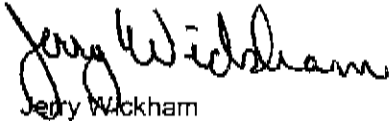
AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Mr. Robert Nichols
Mr. John Miller
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If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Mr. Robert Saur, PG&E, 3400 Crow Canyon Road, San Ramon, CA 94583

Mr. Jack Krause, Alta Properties, LLC, P.O. Box 2399, Oakland, CA 94614

Ms. Marcella Harrison, GVA Kidder Mathews, 505 Sansome Street, Suite 300, San Francisco, CA 94111

Mr. Robert Schultz, Geomatrix, 2101 Webster Street #12, Oakland, CA 94612

Mr. Tom Chandler, LFR, 3150 Bristol Street, Suite 250, Costa Mesa, CA 92626-7324

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	ISSUE DATE: July 5, 2005
	REVISION DATE: December 16, 2005
	PREVIOUS REVISIONS: October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in Excel format. These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org
 - or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload)

ATTACHMENT 2

Area Map

ATTACHMENT 3

Information from ATC Environmental Investigation 1998

TABLE 1

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
FOR ORGANIC CONSTITUENTS
METALCAST
OAKLAND, CALIFORNIA

Sample ID	Sample Date	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Detected HVOCs (EPA 8010)				TPH-M (mg/kg)	TPH-D (mg/kg)
								MCB (ug/kg)	o-DCB (ug/kg)	m-DCB (ug/kg)	p-DCB (ug/kg)		
ATC-1-4ft	10/08/98	1,000	ND 0.50	ND 0.50	ND 0.50	ND 0.50	ND 2.5	ND 5.0	ND 5.0	ND 5.0	ND 5.0	5,700	3,800
ATC-2-4ft	10/08/98	1.9	ND 0.0050	ND 0.0050	ND 0.0050	0.0082	ND 0.025	27	ND 5.0	50	130	45	11
ATC-3-3ft	10/08/98	160	0.056	ND 0.050	ND 0.050	0.12	ND 0.25	3,800	ND 5.0	19,000	33,000	29,000	13,000
ATC-4-4ft	10/08/98	170	ND 0.10	ND 0.10	ND 0.10	ND 0.10	ND 0.50	NA	NA	NA	NA	3,100	1,700
ATC-5-3.5ft	10/08/98	ND 1.0	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.0050	ND 0.025	ND 5.0	ND 5.0	ND 5.0	ND 5.0	2,700	200
ATC-6-1ft	10/08/98	120	ND 0.050	0.22	0.18	0.78	ND 0.25	ND 5.0	ND 5.0	ND 5.0	ND 5.0	17,000	6,700
ATC-7-4ft	10/08/98	700	ND 0.25	ND 0.25	ND 0.25	ND 0.25	ND 1.2	ND 5.0	ND 5.0	ND 5.0	ND 5.0	23,000	11,000
ATC-8-4ft	10/08/98	250	ND 0.12	ND 0.12	ND 0.12	ND 0.12	ND 0.62	NA	NA	NA	NA	630	490
ATC-9-4ft	10/08/98	1,000	ND 0.50	ND 0.50	ND 0.50	ND 0.50	ND 2.5	ND 5.0	ND 5.0	ND 5.0	ND 5.0	8,600	7,200

Notes:

TPH-G denotes total petroleum hydrocarbons as gasoline
 TPH-D denotes total petroleum hydrocarbons as diesel
 TPH-M denotes total petroleum hydrocarbons as motor oil
 MCB denotes chlorobenzene
 o-DCB denotes 1,2-dichlorobenzene
 m-DCB denotes 1,3-dichlorobenzene
 p-DCB denotes 1,4-dichlorobenzene
 MTBE denotes methyl tert-butyl ether
 ug/kg denotes micrograms per kilogram
 mg/kg denotes milligrams per kilogram
 ND denotes not detected above listed detection limit
 NA denotes not analyzed
 1,1-Dichlorethane (2,400 ug/kg) was detected in soil sample ATC-3-3ft.

ATC-3	
*TPG-G	160
*TPH-D	13,000
*TPH-M	29,000
*BENZENE	0.056
**O-DCB	ND 5.0
**m-DCB	19,000
**p-DCB	33,000
**MCB	3,800

ATC-9	
*TPG-G	1,000
*TPH-D	7,200
*TPH-M	8,800
*BENZENE	ND 0.50
**O-DCB	ND 5.0
**m-DCB	ND 5.0
**p-DCB	ND 5.0
**MCB	ND 5.0

ATC-8	
*TPG-G	250
*TPH-D	490
*TPH-M	630
*BENZENE	ND 0.12
**O-DCB	NA
**m-DCB	NA
**p-DCB	NA
**MCB	NA

ATC-7	
*TPG-G	700
*TPH-D	11,000
*TPH-M	23,000
*BENZENE	ND 0.25
**O-DCB	ND 5.0
**m-DCB	ND 5.0
**p-DCB	ND 5.0
**MCB	ND 5.0

ATC-6	
*TPG-G	120
*TPH-D	6,700
*TPH-M	17,000
*BENZENE	ND 0.050
**O-DCB	ND 5.0
**m-DCB	ND 5.0
**p-DCB	ND 5.0
**MCB	ND 5.0

ATC-5	
*TPG-G	ND 1.0
*TPH-D	200
*TPH-M	2,700
*BENZENE	ND 0.0050
**O-DCB	ND 5.0
**m-DCB	ND 5.0
**p-DCB	ND 5.0
**MCB	ND 5.0

ATC-1	
*TPG-G	1,000
*TPH-D	3,800
*TPH-M	5,700
*BENZENE	ND 0.50
**O-DCB	ND 5.0
**m-DCB	ND 5.0
**p-DCB	ND 5.0
**MCB	ND 5.0

ATC-2	
*TPG-G	1.9
*TPH-D	11
*TPH-M	45
*BENZENE	ND 0.0050
**O-DCB	ND 5.0
**m-DCB	50
**p-DCB	130
**MCB	27

ATC-4	
*TPG-G	170
*TPH-D	1,700
*TPH-M	3,100
*BENZENE	ND 0.10
**O-DCB	NA
**m-DCB	NA
**p-DCB	NA
**MCB	NA

APPROXIMATE LOCAL
EQUIVALENCE FLOOR
DIRECTION

FORMER RAILROAD SPUR

BUILDING

LEGEND:

--- PROPERTY LINE

-- FENCE

● SB19 SOIL BORING (COMPLETED BY SIMON-EEI Inc.)

⊕ ATC-9 SOIL BORING (COMPLETED BY ATC, Inc.)

⊙ WELL-1 APPROXIMATE LOCATION OF MONITORING WELL

• CONCENTRATIONS ARE PRESENTED IN MILLIGRAMS PER KILOGRAMS (mg/kg)

** CONCENTRATIONS ARE PRESENTED IN MICROGRAMS PER KILOGRAMS (ug/kg)

- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPH-D TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- TPH-M TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
- O-DCB 1,2-DICHLOROBENZENE
- m-DCB 1,3-DICHLOROBENZENE
- p-DCB 1,4-DICHLOROBENZENE
- MCB CHLOROBENZENE
- NA CONSTITUENT NOT ANALYZED

NOT TO SCALE



METALCAST ENGINEERING
4800 COLISEUM WAY
OAKLAND, CALIFORNIA

SITE PLAN SHOWING
SELECTED ANALYTES IN SOIL
(OCTOBER 8, 1998)

PROJECT #: 89775.0030

NOVEMBER 1998

FIGURE

4

ATTACHMENT 4

ERAS Field Notes from Excavation Project June 14, 2000

DAILY FIELD RECORD		DATE: <u>6/14/00</u>	PAGE 1 of <u>3</u>
Project No: <u>00047A</u>		Project Name: <u>4800 Coliseum Way</u>	
Location: _____		Time on Job: _____ AM to: _____ PM	
Weather Conditions: _____			
Activity: <u>Soil remediation by excavation</u>			
PERSONNEL ON SITE			
Name	Company	Time In	Time Out
<u>David Siegel</u>	<u>ERAS Environmental, Inc.</u>	<u>9:00</u>	<u>13:35</u>
<u>Steve Bright</u>	<u>SE Bright Const.</u>	<u>9:00</u>	<u>11:35</u>
VISITORS ON SITE			
Name	Company/Agency	Time In	Time Out
PERSONAL SAFETY			
<input checked="" type="checkbox"/> Protective Gloves	<input checked="" type="checkbox"/> Hard hat	<input type="checkbox"/> Tyvek Coveralls (W/Y)	
<input checked="" type="checkbox"/> Protective Boots	<input checked="" type="checkbox"/> Safety Goggles/Glasses	<input type="checkbox"/> 1/2 - Mask Respirator	
Other Safety Equipment (describe): _____			
Monitoring Equipment: _____			
Field Calibration: _____			
WASTE STORAGE INVENTORY			
Container Type	Container I.D.	Description of Contents and Quantity	Location
Signature of Field Representative: <u>David Siegel</u>			Date: <u>6/14/00</u>
Notes: _____			

DAILY FIELD RECORD

DATE: 6/14/00

PAGE 2 of 3

(continued)

TIME	DESCRIPTION OF DAILY ACTIVITIES & EVENTS
8:30	load gear LOANR office
9:00	move site, truck unloading in way
	also need to move pallets metal etc to unexc ATC-3
	Found concrete plug at top of ATC-3 (based on 3 from N corner of Bldg. Start digging next to ATC-9
	Lithology: sand/gravel just below surface. At ~ 3' found first layer, then black silt. At ~ 4' get into greenish clay stuff but get sicker with depth. Eventually get no silt and top of greenish clay. At 6.5' clay is wet PID @ 4' 91 PID @ 5.5' 21
	encountered gravel at 2.65' took sample of SW wall @ 4.5' PID=28 Sample E-1 1015
	E-2 at ATC-3 4.5' depth (1050), PID 4.2 tar oozing in from SW sidewalk 10
	Sidewalk Sample E-3 1100 approx 5ft from SE end NE sidewalk depth 4.5' PID 2.4 " " E-4 SW " " depth 4.5' approx 4 from NW end (128) PID 1.9
	Most of tar is at depth of 1-2 feet. Some of it is oozing into excavation. Site appears to contain isolated pods of discordant (greenish) soil.

COMMENTS & CHANGES FROM WORK PLAN Tar appears to be relatively horizontal layer (all at one level) below ground

TIME	TELEPHONE CONVERSATION RECORD

Signature of Field Representative *David Siegel*

Date: 6/14/00

ATTACHMENT 5

**Letter to RWQCB June 28, 2000 –
Request for Regulatory Review**

June 28, 2000

Ms. Betty Graham
California Regional Water Quality Control Board
1515 Clay Street
San Francisco, California 94612

Re: **Request for Environmental Information Review**
4800 Coliseum Way, Oakland, California

Dear Mr. Miller:

On behalf of Mr. John Miller, the owner of the Property at 4800 Coliseum Way in Oakland, California, ERAS Environmental, Inc. (ERAS) is forwarding a copy of the reports pertaining to environmental investigations conducted at the Property to you.

ERAS respectfully requests your review of these reports with the hope you may see fit to prepare a "comfort letter" for the Property so that it can be financed and its title transferred.

The following is a list of the documents being forwarded to you.

Aqua Terra Technologies, Preliminary (Phase 1) Environmental Site Assessment for the Property at 4800 Coliseum Way, Oakland, California, April 8, 1991. (**PARTIAL**)

ATC Associates, Inc., Phase II Environmental Site Investigation Report, Metalcast Engineering Facility, 4800 Coliseum Way, Oakland, California, November 25, 1998.

ERAS Environmental, Inc., Phase I Environmental Site Assessment, 4800 Coliseum Way, Oakland, California, May 31, 2000.

ERAS Environmental, Inc., Soil Remediation, 4800 Coliseum Way, Oakland, California, June 26, 2000.

Earth Metrics, Inc., Limited Subsurface Soil Chemistry Analysis for 4800 Coliseum Way, Oakland, California, May 8, 1992.

Simon Environmental Engineering, Report on Supplemental Phase II Assessment, Superior Plaster Castings, 4800 Coliseum Way, Oakland, California, July 2, 1991.

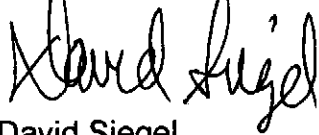
Ms. Betty Graham
4800 Coliseum Way
June 28, 2000
Page 2

Simon Environmental Engineering, Report on Phase II Assessment, Superior Plaster Castings, 4800 Coliseum Way, Oakland, California, May 16, 1991.

Woodward Clyde, Limited Phase II Site Assessment, 4800 Coliseum Way, Oakland, California, March 24, 1993.

Please call if you have any questions or require additional information.

Respectfully,
ERAS Environmental, Inc.

A handwritten signature in black ink, appearing to read "David Siegel". The signature is written in a cursive style with a large initial "D".

David Siegel,
President

ATTACHMENT 6

**Letter to RWQCB July 27, 2000 –
Additional Information Regarding Property**

July 27, 2000

Ms. Betty Graham
California Regional Water Quality Control Board
1515 Clay Street
San Francisco, California 94612

Re: **Additional Information Regarding Property at
4800 Coliseum Way, Oakland, California**

Dear Ms. Graham:

Thank you very much for taking the time this morning to discuss the subject site (the "Property") with me. As we discussed, I am including with this letter several documents that might assist you in your evaluation of environmental conditions at the Property. These are as follows.

- Parcel map showing the Property and nearby sites of environmental concern
- Part of the 1951 Sanborn Map showing the Property and adjacent sites
- A part of the latest report regarding the site at 4930 Coliseum Way

ERAS hopes this provides you a greater understanding of the issues in the area near the Property. ERAS conclusions are that chlorobenzene (CB) and the three dichlorobenzenes (DCB) in groundwater are from an off-site up-gradient source. This is based on the following observations.

- There has been no record of the use of these chemicals at the Property since its development. The Property has been used as a sporting goods warehouse, a paper products warehouse and then as a foundry since the middle 1980's. Based on a review of fire department records and interviews, the current operation has never used these solvents.
- Groundwater collected from all of the borings drilled by ATC Associates, analyzed for CB and DCB, contained these solvents even though only two (ATC-2 and ATC- 3), were found to contain these solvents in the overlying soil. The soil in and around ATC-3 was removed by ERAS. In addition, a well on the PG&E site (OMW-7) contained 909 parts per billion of CB and

Ms. Betty Graham
4800 Coliseum Way
July 27, 2000
Page 2

DCB, this well is located generally cross-gradient of 4800 Coliseum Way. The concentrations of CB and DCB in OMW-7 were similar to those in the groundwater samples collected from the Property, indicating a common source of these solvents.

The goal of the owner of 4800 Coliseum Way is not to place blame but to ask the Regional Water Quality Control Board (RWQCB) to clear his Property as a source of solvent contamination. To this end, he has agreed to submit the data from his Property to the RWQCB as well as a compilation of information regarding the nearby AAA Equipment Site, PG & E site and other nearby sites that were reviewed by ERAS. This information should act to substantially assist the RWQCB in assessing the Property, adjacent sites and nearby area.

Please call if you have any questions or require additional information.

Respectfully,
ERAS Environmental, Inc.



David Siegel, R.E.A.
President

Attachments: Copy of parcel map
 Copy of part of the 1951 Sanborn Map
 Excerpt of CET Environmental report regarding the site at 4930
 Coliseum Way

cc: Mr. John Miller
 Mr. Mike Barry
 Ms. Jan Zeretske

ASSESSOR'S MAP 34

2293 Scale 1" = 100'

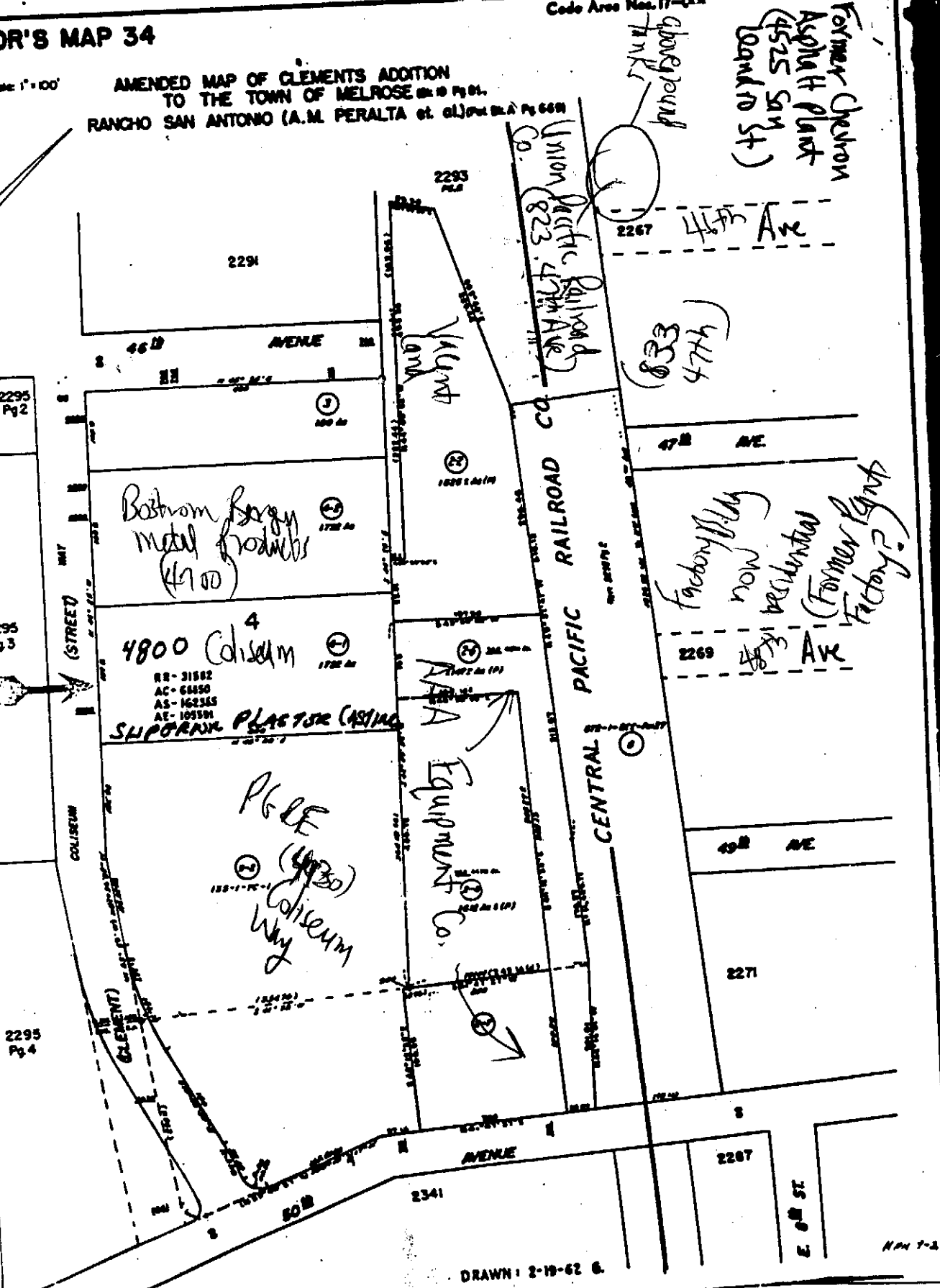
Page 1

AMENDED MAP OF CLEMENTS ADDITION
TO THE TOWN OF MELROSE
RANCHO SAN ANTONIO (A.M. PERALTA et al.)

Code Area Nos. 17-001

STATE HIGHWAY ROUTE 69

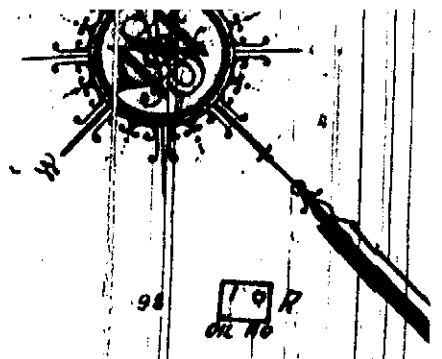
Map prepared by the Assessor's Office, Melrose, California, showing the boundaries of the parcels shown on this map. The distances between the corners of the parcels are shown in feet. The bearings of the lines are shown in degrees, minutes and seconds. The bearings and distances are given in the order in which they are shown on the map. The bearings and distances are given in the order in which they are shown on the map.



DRAWN: 2-19-62 G.

Map 34

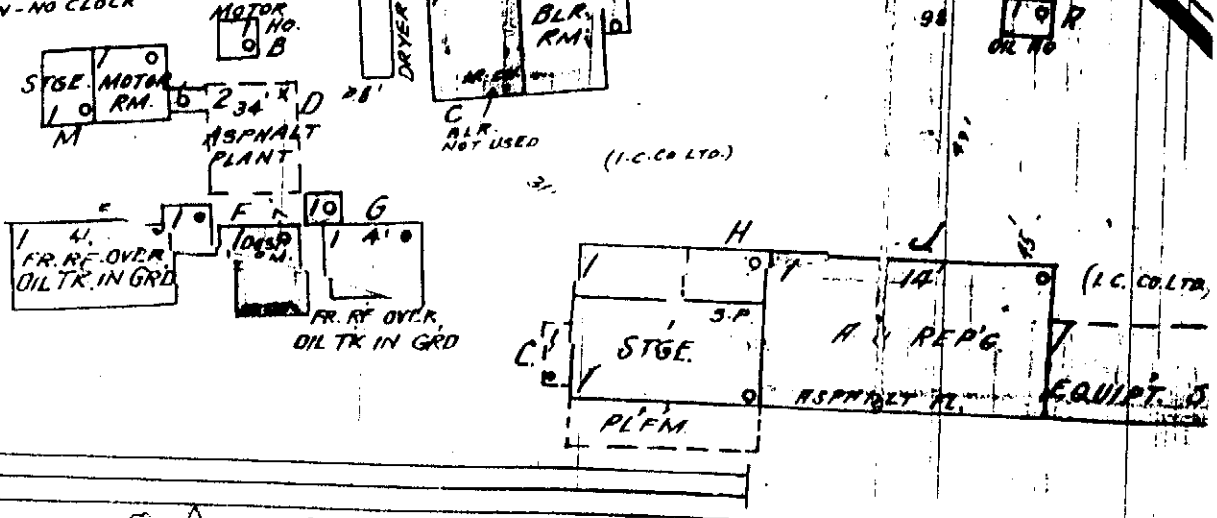
1951
P. 511



INDEPENDENT CONSTRUCTION CO. LTD.

WATCHMAN - NO CLOCK

(I.C. CO.)



garage near S. corner

4700' is vacant lot except for small

PG&E
4930 Coliseum
Way

Property
←
4800
Coliseum
Way
↓

PG&E
CAN
WATERLES.
2232

1" = 240'

Across cement is 4801-4831



CET Environmental Services, Inc., Pacific Gas and
Electric Company Construction Yard, 4930 Coliseum Way
Oakland, California
94610, 12/27/99

1.0 BACKGROUND

This report presents the results of semiannual groundwater monitoring and sampling completed in the fourth quarter of 1998 at the PG&E Distribution and Construction Yard at 4930 Coliseum Way in Oakland, California. A vicinity map is included as Figure 1. This report was completed in accordance with the directive issued by the Alameda County Health Care Services Agency (ACHCSA) and a PG&E letter to Alameda County dated April 12, 1993. This report discusses the December 1998 monitoring and sampling event and summarizes the results from groundwater monitoring and sampling performed at the site between January 1990 and the present. The groundwater monitoring program involves the following activities: measuring groundwater elevations; collecting groundwater samples from shallow wells on the site; and performing analyses of the samples to determine the distribution of selected fuel compounds, solvents, and lead in the uppermost water bearing zone, beneath the northern portion of the yard. This area includes the former locations of five underground storage tanks and one above ground storage tank. Figure 2 shows the site plan for the subject property.

In January 1988, all of the site's underground storage tanks and associated piping within the PG&E's property lines were removed. Analysis of their contents revealed that of the four tanks formerly located in a cluster at the north corner of the yard, two contained mineral spirits and two contained heavy oils. A concrete sump was located approximately 50 feet northeast of the tank cluster, near the location of a former welding shop. A fifth tank was formerly located near the west corner of the yard and contained diesel fuel. A soil sample collected below this tank indicated a concentration for diesel below the detection limit of 10 mg/kg. Following the tank removal, a subsurface investigation showed that soils immediately adjacent to the former diesel tank were not adversely impacted.

A number of soil samples collected near the former tank cluster, sump and shop location were found to contain Total Petroleum Hydrocarbons such as Diesel (TPH-D) at concentrations up to 3,900 mg/kg and Oil and Grease (O&G) at concentrations up to 1,000 mg/kg. These results were reported in the July 1988 report "Underground Tanks Investigation" by PG&E's Technical and Ecological Services Division.

In November and December 1991, approximately 2,000 cubic yards of soil was excavated as a remedial action for the petroleum hydrocarbons identified in the soil. Soil was excavated to the depth of groundwater, approximately 8 to 8 ½ feet below ground surface at the time, and replaced with clean, compacted backfill. The backfill below approximately 7 feet consisted of drain rock while backfill above 7 feet consisted of Class II aggregate base. The northwest and northeast excavation boundaries reached the approximate PG&E property lines. During the remedial excavation, confirmatory samples were taken along the sidewalls and bottom of the excavation to confirm that all the contaminated soil with concentrations above the regulatory agency approved cleanup target levels was removed. The cleanup targets for gasoline (TPH-G) and diesel (TPH-D) were 10 mg/kg and 100 mg/kg, respectively. The cleanup target for O&G was 1,000 mg/kg, and for Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) compounds was 5 µg/kg (total BTEX). This work was described in an EARTH TECHNOLOGY CORPORATION (formerly Aqua Resources, Inc.) document "Site Remediation and Closure Report ... Former Tank Cluster Area" dated February 1992.



The samples collected along the PG&E property lines were above cleanup target levels, while each of the remaining confirmatory samples was below the cleanup target levels. The samples collected along the northeastern property line were above cleanup targets primarily due to TPH-D and O&G concentrations. The soils in this excavation wall contained visible tar and heavy oil, and also two pipes containing a similar petroleum product. Analytical testing of the product found in the pipes indicated TPH-D at 7,000 mg/kg and did not indicate VOCs above the method detection limit. The samples on the northwestern property line were above cleanup target levels for one or more of TPH-G, TPH-D, O&G, and BTEX.

The conclusions of the February 1992 closure report suggested that offsite sources of petroleum hydrocarbons may exist in both the northeast and northwest directions, and requested regulatory agency input in initiating an investigation of these potential sources. Quarterly groundwater monitoring and sampling for a period of one year was recommended in the 1992 report for wells OW-1, OW-4, OW-6 and OW-7.

In September and October of 1992, a containment mitigation cap was constructed over the surface soils in an area south of the hydrocarbon remediation area. These soils are contaminated with lead, believed to originate from lead-containing paint chips generated from sandblasting of a large above-ground natural gas storage tank. The tank was removed in May 1990, and the soils were found contaminated with total and soluble lead above California Code of Regulations (CCR) levels for hazardous wastes. CCR Total Threshold Limit Concentration (TTLC) for lead is 1000 mg/kg and the Soluble Threshold Limit Concentration (STLC) is 5 mg/L, equivalent to parts per million (ppm). The ACHCSA and the Regional Water Quality Control Board (RWQCB) approved capping as the selected remedial option for this area. As part of the remedial option the County agreed upon continued groundwater monitoring and sampling for lead. Following containment capping, the remaining open ground at the site was covered with asphaltic concrete.

In February 1993, well OW-8 was installed in the southern area of the yard in the vicinity of the former above-ground storage tank (AST). A maximum lead concentration of 27 $\mu\text{g/L}$ (April 1993) was reported in samples collected from OW-8, which is below the state Maximum Contaminant Level (MCL) of 50 $\mu\text{g/L}$ for drinking water. Wells OW-2 and OW-5 are located in the vicinity of the former AST and are also being monitored for lead. Lead has not been detected above the State MCL in any monitoring events for wells OW-2, OW-5 and OW-8.

Based on lead levels consistently falling below the MCL for drinking water, the lead regulatory agency, ACHCSA, issued a letter (Appendix C) on July 14, 1994 reducing the required lead sampling frequency from quarterly to semi-annually. Similarly, petroleum hydrocarbon and VOC monitoring is presently performed semi-annually for specific wells.



3.0 ANALYTICAL RESULTS

3.1 PETROLEUM HYDROCARBONS

Table 3.1 summarizes the analytical results for petroleum hydrocarbons detected in the groundwater samples collected on December 17, 1998. TPH-D was detected in all of the monitoring wells sampled for TPH-D and the highest concentration was observed in well OW-7. TPH-G was detected in three of the five monitoring wells sampled for TPH-G. The highest concentration of TPH-G was also observed in monitoring well OW-7, located in the northern (most upgradient) corner of the site.

Table 3.1 Petroleum Hydrocarbons in Groundwater, in mg/L

Well	TPH-D	TPH-G
OW - 1	1.800	0.850
OW - 4	NA	NA
OW - 5	0.780	ND
OW - 6	2.000	0.130
OW - 7	3.500	1.100

Notes:

- 1) ND = Not Detected at or above the method Reporting Limits (RL)
- 2) TPH-D = Extractable Petroleum Hydrocarbons, Diesel Range, LUFT Manual, October 1989; RL = 0.05 mg/L.
- 3) TPH-G = Total Petroleum Hydrocarbons by California DHS Method LUFT Manual, October 1989; RL = 0.05 mg/L.
- 4) NA = Not Analyzed.

Figures 3.1 and 3.2 illustrate the historical concentrations of TPH-D in the monitored wells. For samples which reported TPH-D as not detected, one half of the detection limit was used in preparing these figures. The data from monitoring wells OW-3 and OW-6 are combined since OW-6 was installed to replace OW-3 following its destruction.

Figures 3.1 and 3.2 show that TPH-D concentrations were generally higher around the time of, or soon after, the remedial excavation in November 1991 in the wells in the remediation vicinity: OW-4, OW-6, and OW-7. Compared to the previous sampling event (June 1998), this quarter's results show an increase in TPH-D concentrations in wells OW-1, OW-5, OW-6, and OW-7. It was noted in the February 1992 tank cluster area remediation report that there is an apparent off-site source of contamination upgradient of the PG&E yard. The persistence of moderate TPH following remediation in this area is believed to be the result of this upgradient contamination.

Historically, TPH-D concentrations in monitoring well OW-5, located near the northwest property line, have fluctuated around 1,000 µg/L. The most recent sampling event yielded a concentration of 780 µg/L. Monitoring well OW-1 had TPH-D concentrations over 2000 µg/L in 1993, averaging



near 1,250 µg/L in 1994, 1,000 µg/L in 1995, 1,850 µg/L in 1996, and 1,100 µg/L in 1997. Current concentration of TPH-D in the monitoring well OW-1 was 1,800 µg/L. Monitoring well OW-6 had a concentration of 2,000 µg/L in the most recent event, showing an increase from 1,300 µg/L in the June 1998 event.

TPH-G has been consistently below 500 µg/L in all wells except upgradient wells OW-1, and OW-7. Historically, OW-7 has had concentrations ranging from 650 to 1,800 µg/L. The current TPH-G concentrations for OW-1 and OW-7 are 850 µg/L and 1,100 µg/L, respectively. Figures 3.3 and 3.4 illustrate the historical concentrations of TPH-G. Between January 1991 and March 1992 the analyses were not performed. Monitoring of TPH-G concentrations in OW-2 is no longer performed due to non-detections in this well. Relative to the previous sampling results, TPH-G concentrations have increased in OW-6 and OW-7, and decreased in OW-1. Current sampling results were non-detect for well OW-5.

3.2 LEAD

Table 3.2 presents the results of this quarter's groundwater analyses for lead. The state MCL for lead in drinking water is 50 µg/L. Samples were collected and analyzed for dissolved lead (filtered) in December of 1998. During this quarter's event, lead was not detected in the monitoring wells that were sampled for lead. Historically, all samples show concentrations below the 50 µg/L drinking water MCL. The highest historical concentration of lead was 27 µg/L in OW-8, sampled in April 1993.

Table 3.2 Lead in Groundwater, in µg/L

Well Number	State MCL	Reporting Limit	Dissolved Lead
OW-2	50	3.0	ND
OW-5	50	3.0	ND
OW-8	50	3.0	ND

Notes:

MCL = Maximum Contaminate Level for drinking water.

ND = Not Detected at or above the method Reporting Limits (RL)

NA = Not Analyzed

Dissolved Lead analyses performed by EPA Method 6010A



3.3 VOLATILE ORGANIC COMPOUNDS

Historical results of VOC monitoring are presented in Appendix B. Table 3.3 presents the recent analytical results for VOCs in groundwater. The state MCLs for drinking water were exceeded for: Vinyl-chloride in monitoring well OW-5 at concentration 1.1 $\mu\text{g/L}$, 1,1-Dichloroethane and Chlorobenzene in monitoring well OW-7 at concentrations 5.7 $\mu\text{g/L}$ and 31 $\mu\text{g/L}$ respectively, 1,4-Dichlorobenzene (1,4-DCB) in monitoring wells OW-6 and OW-7 at concentrations of 68 $\mu\text{g/L}$ and 470 $\mu\text{g/L}$, respectively.

VOCs detected at concentrations below their MCLs include:

- 1,1-Dichloroethane in wells OW-5 and OW-6;
- 1,1,1-Trichloroethane (TCA) in well OW-7;
- Trichloroethylene in well OW-5;
- Chlorobenzene in wells OW-6 and OW-7;
- 1,3-Dichlorobenzene (1,3-DCB) in wells OW-6 and OW-7;
- 1,2-Dichlorobenzene (1,2-DCB) in wells OW-6 and OW-7;
- 1,4-Dichlorobenzene in wells OW-6 and OW-7.

Figures 3.5 and 3.6 show the historical concentrations of total VOCs in the on-site monitoring wells. Figure 3.5 shows the concentrations of total VOCs in wells OW-1, OW-2 and OW-4. Of these wells, only OW-1 is presently monitored for VOCs, and these include only the BTEX fraction. From January 1994 to before the December 1997 sampling event, no BTEX was detected in well OW-1. Benzene, Ethyl Benzene and Xylene were detected in the December 1997 sample at concentrations of 0.66, 2.3, and 1.1 $\mu\text{g/L}$, respectively. In the June 1998 sample, only Toluene was detected in Well OW-1 at a concentration of 0.67. However, the results of the method blank sample, shown on the right-most column in table 3.3, reported concentration of 0.73 $\mu\text{g/L}$ for Toluene. This reading suggests that the results obtained for Toluene for sample OW-1 may be in error.

In the December 1998, the sample contained Benzene at concentration 0.5 $\mu\text{g/L}$, Ethylbenzene at concentration 0.76 $\mu\text{g/L}$, and Total Xylenes at concentration 0.67 $\mu\text{g/L}$.

Figure 3.6 shows the concentrations of total VOCs in wells OW-5, OW-6, and OW-7, located at the upgradient edges of the site. The total VOC concentrations detected this quarter in wells OW-5, OW-6, and OW-7 were 11.6 $\mu\text{g/L}$, 110.7 $\mu\text{g/L}$, and 920.95 $\mu\text{g/L}$, respectively. Total VOC concentrations in each of these wells slightly increased relative to the previous sampling event in the second quarter of 1998. These three wells lie within ten feet of the northeast and/or northwest property lines of the site. Groundwater elevation monitoring consistently indicates that the groundwater flow direction is from the north or northeast from neighboring properties onto the PG&E site. This demonstrates that VOCs are migrating onto the PG&E site from an upgradient source.

Table 3.3 Volatile Organic Compounds in Groundwater, in ug/l

*Possible
off-site source*

PURGEABLE HALOCARBONS	MCL	Well Number					MB
		OW-1	OW-4	OW-5	OW-6	OW-7	
Chloromethane		NA	NA	ND	ND	ND	ND
Bromomethane		NA	NA	ND	ND	ND	ND
Vinyl chloride	0.5	NA	NA	1.1	ND	ND	ND
Chloroethane		NA	NA	ND	ND	ND	ND
Methylene Chloride	5 [#]	NA	NA	ND	ND	ND	ND
Trichlorofluoromethane	150	NA	NA	ND	ND	ND	ND
1,1-Dichloroethene	6	NA	NA	ND	ND	ND	ND
1,1-Dichloroethane	5	NA	NA	2.5	4.6	5.7	ND
cis-1,2-Dichloroethene	6	NA	NA	ND	ND	ND	ND
trans-1,2-Dichloroethene	10	NA	NA	ND	ND	ND	ND
Chloroform	100 ^{**}	NA	NA	ND	ND	ND	ND
Freon 113	1200	NA	NA	ND	ND	ND	ND
1,2-Dichloroethane	0.5	NA	NA	ND	ND	ND	ND
1,1,1-Trichloroethane	200	NA	NA	ND	ND	5.6	ND
Carbon Tetrachloride	0.5	NA	NA	ND	ND	ND	ND
Bromodichloromethane	100 ^{**}	NA	NA	ND	ND	ND	ND
1,2-Dichloropropane	5	NA	NA	ND	ND	ND	ND
cis-1,3-Dichloropropene	5 ^{***}	NA	NA	ND	ND	ND	ND
Trichloroethylene	5	NA	NA	0.7	ND	ND	ND
1,1,2-Trichloroethane	32	NA	NA	ND	ND	ND	ND
trans-1,3-Dichloropropene	5 ^{***}	NA	NA	ND	ND	ND	ND
Dibromochloromethane	100 ^{**}	NA	NA	ND	ND	ND	ND
2-Chloroethylvinyl Ether		NA	NA	NA	NA	NA	NA
Bromoform	100 ^{**}	NA	NA	ND	ND	ND	ND
Tetrachloroethylene	5	NA	NA	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1	NA	NA	ND	ND	ND	ND
Chlorobenzene	30	NA	NA	ND	8.3	31	ND
1,3-Dichlorobenzene	600 [#]	NA	NA	ND	27	360	ND
1,2-Dichlorobenzene	600 [#]	NA	NA	ND	2.8	48	ND
1,4-Dichlorobenzene	5	NA	NA	ND	69	479	ND
PURGEABLE AROMATICS							
Benzene	1	0.5	NA	7.3	ND	0.65	ND
Toluene	1000 [#]	ND	NA	ND	ND	ND	ND
Ethylbenzene	680	0.76	NA	ND	ND	ND	ND
Total Xylenes	1750 ^{**}	0.67	NA	ND	ND	ND	ND

Notes:

- 1) MCL = Maximum Contaminant Level in drinking water (State MCL, if not noted otherwise)
- 2) # = EPA MCL
- 3) * = MCL for sum of four compounds
- 4) ** = MCL for sum of all xylene isomers
- 5) *** = MCL for sum of trans- and cis-1,3-Dichloropropene
- 6) ND = Not Detected at or above MDL
- 7) Purgeable Halocarbons (EPA method 8010)
- 8) Purgeable Aromatics (EPA method 8020)
- 9) Exceeded MCL
- 9) NA = Not Tested
- 10) MB = Method Blank



6.0 CONCLUSIONS AND RECOMMENDATIONS

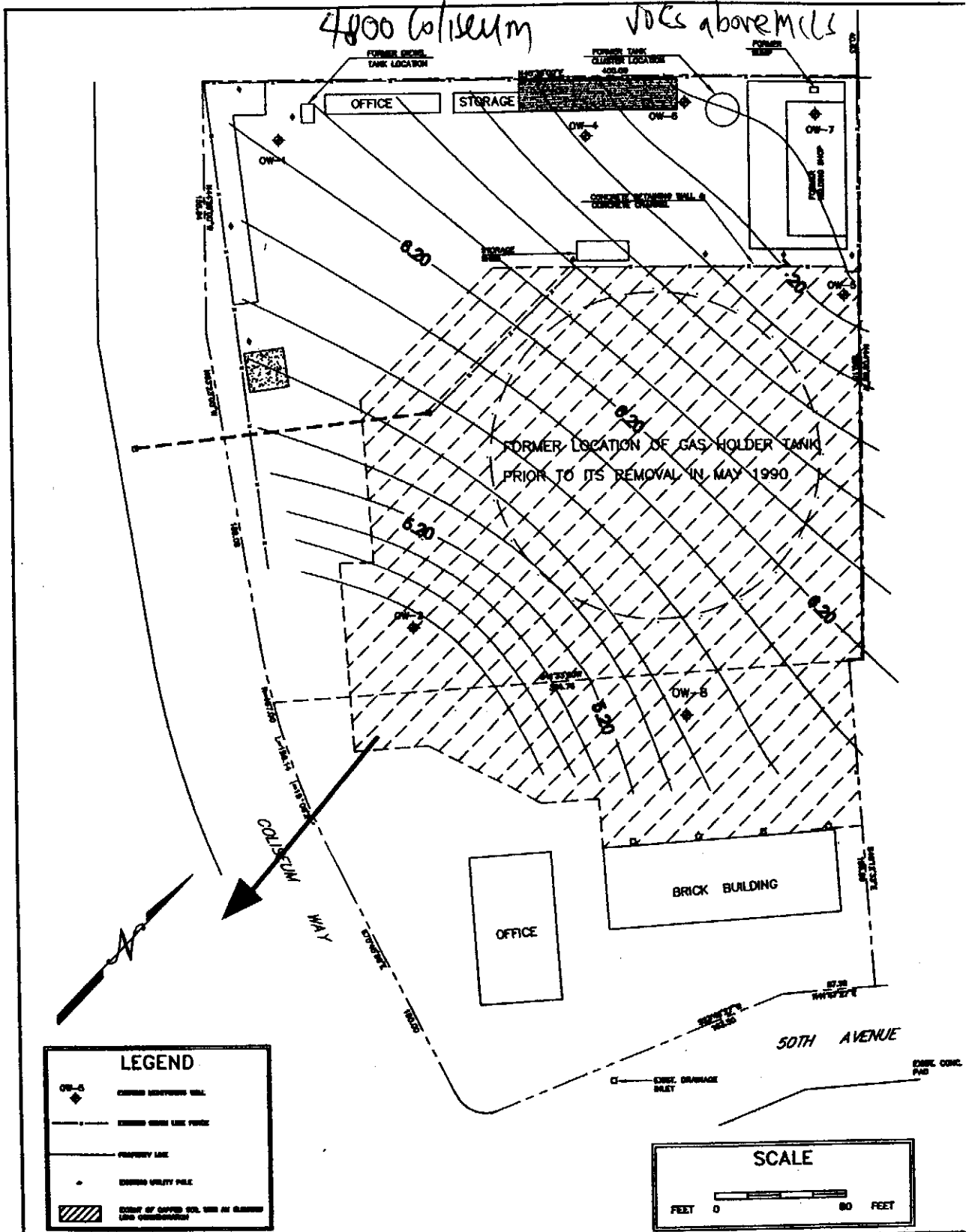
6.1 CONCLUSIONS

The following conclusions are made based upon the results of analyses performed on groundwater samples collected on December 17, 1998 from monitoring wells OW-1, OW-2, OW-5, OW-6, OW-7 and OW-8, and from prior semi-annual sampling results.

- The groundwater beneath the site appears to flow to the south, consistent with the historical flow direction. The groundwater gradient of 0.009 ft/ft is also consistent with historical data.
- TPH-D was detected in wells OW-1, OW-5, OW-6 and OW-7 above the reporting limit of 50 µg/L. The highest concentration was found in well OW-7 at 3,500 µg/L. Moderate TPH-D concentrations in groundwater have persisted in wells located in the northeastern portion of the property. Since remedial action had removed known sources of contaminants within the site, the presence of TPH-D is likely to be caused by upgradient, off-site source. TPH-D in groundwater has no regulatory action limits but is being assessed on a case-by-case basis by the regulators.
- TPH-D was detected in well OW-1 at 1,800 µg/L, a gentle drop from the 1,900 µg/L detected in the previous sampling but still below the maximum historical concentration of 3,900 µg/L observed in July of 1992. OW-1 is downgradient of a former diesel tank location.
- Monitoring wells OW-1, OW-6 and OW-7 had TPH-G concentrations of 850, 130, and 1,100 µg/L, respectively. TPH-G was not detected in well OW-5. The upgradient well OW-7 continues to have the highest concentration of TPH-G. The presence of TPH-G is likely to be caused by an upgradient, off-site source.

Soluble lead concentrations were not detected in monitoring wells OW-2, OW-5 and OW-8. The MCL for lead in drinking water is 50 µg/L.

Wells OW-5, OW-6 and OW-7 lie at the upgradient portion of the site and historically have had the highest concentrations of TPH-G and VOCs. The total VOC concentration is particularly elevated in OW-7, averaging near 921 µg/L. This indicates an upgradient, off-site source of fuel and solvent contamination located north of the subject site. The concentration of total VOCs in each of these wells increased this quarter relative to the previous sampling event.



CET Environmental Services, Inc.

**SITE PLAN AND SITE RELATIVE GROUNDWATER ELEVATIONS
PG&E DISTRIBUTION CONSTRUCTION SITE
4930 COLISEUM WAY
OAKLAND, CA 94610**

JOB NUMBER	DATE	DRAWING	BY	REVISED
3932	1/99	GW12-98	ESS/ZS	00/00

FIGURE

ATTACHMENT 7

**Letter to ACHCSA September 21, 2000 –
Request for No Further Action Status**

September 21, 2000

Mr. Barney Chan
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577
By facsimile to 337-9335

Re: **Request for No Further Action Status**
4800 Coliseum Way, Oakland, California

Dear Mr. Chan:

The purpose of this letter is to request that No Further Action Status be assigned to the site located at 4800 Coliseum Way in Oakland, California (hereinafter the "Property").

Background

On May 31, 2000, ERAS Environmental, Inc. (ERAS) completed a Phase 1 Environmental Site Assessment (ESA) report that was submitted to the owner of the Property, Mr. John Miller. The ESA included a review of several Phase 2 environmental investigations that were conducted on the Property. Based on the historical research and the findings of the Phase 2 investigations by Woodward Clyde and ATC, ERAS concluded the following:

- There was an unknown, off-site source of solvents, specifically chlorobenzene (CB) and Dichlorobenzene (DCB), in groundwater beneath the Property
- There were elevated levels of petroleum hydrocarbons in soil along a section of the northeastern edge of the Property. ERAS suggested the elevated levels of hydrocarbons may have been the result of **analysis of soil samples containing tar** noted in several of the ATC boring logs at a depth of approximately 3 feet. This assertion was supported by the **notable absence of BTEX**, indicating that only heavier hydrocarbons were present
- Historical research indicated that an asphalt plant with two sets of underground storage tanks were present on the parcel adjacent to the Property (now occupied by AAA Equipment Company) and **within approximately 50 feet in a generally up-gradient direction** of the area where solvents and hydrocarbons are present in soil and groundwater. ERAS suggested the solvents may have been used by the asphalt plant or by the former approximately up-gradient Dutch Boy Paint Plant

- There is **no record of the use of solvents or petroleum hydrocarbons** at the Property since construction of the building in approximately 1962. **None of the known tenants that occupied the Property would have used these chemicals**
- ERAS excavated approximately 20 cubic yards of soil to remove an area of soil that was found to contain CB and DCB at a shallow depth. Confirmation sampling indicated almost complete removal of these solvents in soil. A **layer of tar oozing into the excavation** was noted at a depth of 2-3 feet.

Chronology of Oversight Agency Contact

On June 13, 2000, ERAS contacted Ms. Betty Graham of the RWQCB who agreed to review the information pertaining to the Property. On June 28, 2000 the information was transmitted to that office. Approximately 10-15 messages and calls were made by ERAS and the owner of the Property to attempt to ascertain the status of the Property. On August 8, 2000 Ms. Graham notified ERAS that this case should be handled by the ACHCSA.

A call to the ACHCSA indicated the City of Oakland Fire Department (FD) would have to refer the case. ERAS obtained an appointment with Mr. Leroy Griffin of the FD and delivered the information to that office on August 18, 2000. Approximately 5 follow-up calls were made to the FD since the file was to be sent to the ACHCSA within 2-3 working days. On September 14, 2000, ERAS called Mr. Mark Gomez to inquire why it had been almost a month since the file was to be transferred to the ACHCSA. **ERAS has been attempting, on behalf of the Property owner, to have agency input on this case since June 13, 2000.**

Review of Information Pertaining to 4930 Coliseum Way

ERAS has reviewed the file for the adjacent site on two separate occasions. File information indicates the consultant for PG&E has reported a groundwater flow direction consistently to the south. The presence of CB and DCB was reported in groundwater wells and it was suggested this appeared to be migrating from the parcels adjacent to the northeast (AAA Equipment Company) and the northwest (the Property).

A complex of four underground storage tanks, reportedly containing mineral spirits (2 tanks) and heavy oils (2 tanks) were removed from the north corner of the site (adjacent to the area contaminated at 4800 Coliseum Way) in 1988. Approximately 2,000 cubic yards of petroleum contaminated soil was excavated from this area in 1991. The results of the remediation were reported by Aqua Resources, Inc. (ARI) in the report entitled Site Remediation and Closure Report, PG&E ENCON-GAS Transmission and Distribution Construction Yard Former Tank Cluster Area 4930 Coliseum Way Oakland, California, dated February 1992.

This report included a section (Section 5.0, pages 40-43) entitled POTENTIAL SOURCES OF UPGRADIENT CONTAMINATION. Section 5.1 is entitled DESCRIPTION AND CHARACTERIZATION OF TAR FILLED PIPES. "Two metal pipelines containing a heavy

Mr. Barney Chan
4800 Coliseum Way
September 21, 2000
Page 3

viscous oil or tar were uncovered during excavation...Each pipeline was oriented approximately perpendicular to the northeastern property line...the soil surrounding the pipe was contaminated with a tar similar in appearance down to the depth of the water table in the vertical direction and at least 10 feet laterally in either direction from the pipe."

The pipelines were reportedly located a depth of approximately 2 ½ feet. ARI analyzed samples of the tar from the pipes as well as the petroleum contaminated soil. While the tar did not contain CB and DCB, the soil collected near the groundwater table approximately 35 feet from the terminus of a 12 inch diameter pipe contained these solvents. Soil samples collected from the excavation and from boring B-11 contained TPH-d, TPH-mo and motor oil in concentrations similar to those observed at the Property.

Request for No Further Action Status

The information obtained from the Property and from the PG&E site provides compelling evidence that a **significant source of contamination is present that appears to be emanating from the AAA Equipment Company site.** This includes solvents in both soil and groundwater, and tar that is causing hydrocarbon contamination in both soil and groundwater.

The owner of the Property at 4800 Coliseum Way is being unfairly penalized by the presence of this contamination that has affected his Property. **ERAS requests, on behalf of Mr. John Miller, that a No Further Action Status be assigned and a letter prepared to that effect as soon as possible.** Mr. Miller has spent a significant sum of money over the last 10 years to assess this problem and since June 2000 has been more than willing to share this information with the appropriate agencies.

Please call if you have any questions or require additional information.

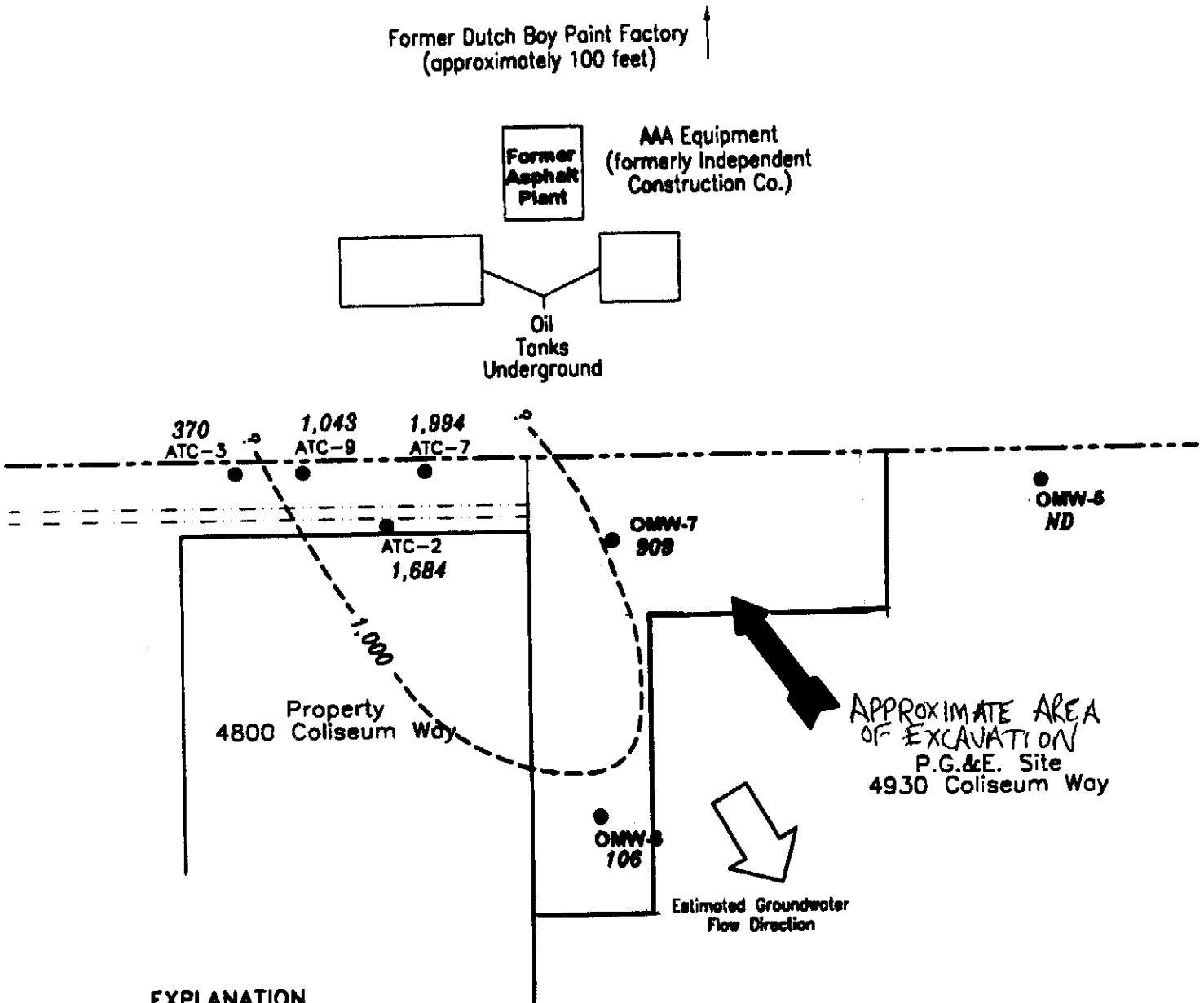
Respectfully,
ERAS Environmental, Inc.



David Siegel, R.E.A.
President

cc: Mr. John Miller by facsimile to 650-321-8998
Mr. Mike Barry, Grubb & Ellis Company by facsimile to 510-430-2976
Ms. Jan Zeretske, TMC Development by facsimile to 415-989-3382
Mr. Ole Tustin, U.S. Bank SBA Division by facsimile to 415-882-7722
Ms. Gail Jones, R.G., ERAS Environmental, Inc.

Former Dutch Boy Paint Factory
(approximately 100 feet)



EXPLANATION

Base: Sanborn Fire Insurance Map, 1951

Total dissolved solvent concentrations from groundwater samples collected 10/08/98

Total dissolved solvent concentrations from groundwater samples collected 12/17/98

- Soil boring/monitoring well
- 106 Concentrations of total CB and DCB in groundwater samples (ugls)

VICINITY MAP

Project No. 00047A
4800 Coliseum Way
Oakland, California

FIGURE 2

June, 2000

ERAS
Environmental

**SITE REMEDIATION AND
CLOSURE REPORT**

PG&E ENCON-GAS
Transmission and Distribution Construction Yard
Former Tank Cluster Area
4930 Coliseum Way
Oakland, California

Submitted to:

Alameda County Health Care Services Agency
Department of Environmental Health
Division of Hazardous Materials

Prepared by:

AQUA RESOURCES INC.
a wholly owned subsidiary of The Earth Technology Corporation
2030 Addison Street, Suite 500
Berkeley, California 94704

February 1992

Disk: 90262.2 File: closure.rpt

5.0 POTENTIAL SOURCES OF UPGRADIENT CONTAMINATION

ARI conducted a limited Phase I preliminary site assessment of the Coliseum Way facility in November and December 1990. The purpose of this assessment was to attempt to determine if potential sources of groundwater contamination may exist upgradient from the Coliseum facility. The site assessment consisted of the following activities:

- 1) field reconnaissance of the site and surrounding area,
- 2) a file search of selected regulatory agencies,
- 3) a review of available maps and aerial photographs.

[REDACTED] the remedial excavation, two tar or heavy oil filled pipes were discovered which [REDACTED] appeared to originate from beyond the PG&E property line to the northeast. The contents of these pipes were characterized and found to be similar in character to some of the contaminants observed in the remediated soils. A discussion of the pipes and their content as well as the results of the first two activities performed in the preliminary site assessment are described below. The results of the map and photograph review were described in Section 2.3, Site History.

5.1 DESCRIPTION AND CHARACTERIZATION OF TAR FILLED PIPES

Two metal pipelines containing a heavy viscous oil or tar were uncovered during excavation along the northeast side of the PG&E property. Each pipeline was oriented approximately perpendicular to the northeastern property line. Once exposed, the tar began to slowly ooze from each pipe. The two pipes, one 12 inches in diameter with a smaller 4 inch diameter inner pipe and the other an 8 inch diameter corrugated line, were found buried at depths of 2 and 2 1/2 feet below grade, respectively. They were separated horizontally by a distance of about 2 feet.

The 4 inch inner pipeline was the first uncovered. Its terminus was discovered about 20 feet from the AAA Equipment Co. property at a depth of about 2 1/2 feet. It is unknown whether this pipe was intact in-situ or if it lay in broken sections as several lengths came out of the ground easily during excavation. Each of these lengths contained viscous tar or heavy oil and the soil surrounding the pipe was contaminated with a tar similar in appearance down to

the depth of the water table in the vertical direction and at least 10 feet laterally in either direction away from the pipe.

The outer pipe was first discovered about 5 feet from the AAA property line. At this exposure it appeared that most of the tar lie in the annular space between the two pipes. By attaching a chain to the inner pipe of the 12 inch line and tie pulling with the excavator bucket a 12 foot length of the inner pipe was removed, meaning this pipe, and presumably the outer pipe extends at least 7 feet under the AAA yard. The appearance of the two pipes with product in their annulus seems to indicate that this was a process pipeline at one time. Commonly, viscous fluids are heated in order to induce flow through a pipeline and this is sometimes accomplished by passing steam or hot water through an inner line to heat the fluid in the annular space.

The 8 inch diameter corrugated (culvert-type) pipe terminus was uncovered about 3 feet from the AAA property line and it too contained the heavy oil or tar. Visual inspection indicated that this pipeline may continue some unknown distance beyond the property line. Each of the two pipes were sealed at the excavation boundary as described in Section 4.6.1.

Another technique used historically to induce flow of a viscous petroleum product is the addition of solvents to reduce viscosity. In order to determine if the produce found in the pipe contained solvents a sample (E-PIPE-2) of the product was collected from the 12 inch diameter pipe and analyzed for halogenated volatile organics, semivolatile organics and BTEX compounds, by EPA methods 8010, 8270 and 8020 respectively. This sample was additionally analyzed for petroleum hydrocarbons as gasoline, kerosene, diesel and motor oil. The results of these analyses, shown in Table 5-1, indicate that xylene, at low concentration of 11 ug/kg, was the only volatile compound detected of those tested. There was however a significant concentration of diesel, 7000 mg/kg or 0.7%, contained in the product and a number of polynuclear aromatic hydrocarbons (PAHs) were also detected in the tens of parts per million range.

TABLE 5-1 COMPARISON OF DETECTED COMPOUNDS IN PRODUCT
SAMPLE E-PIPE-2 AND SOIL SAMPLES E-6 AND B-11

Detected Compound	Analysis Method (EPA #)	Sample ID		
		E-PIPE-2	E-6	B-11
Xylene	¹ 8240, ² 8020	11 ug/kg ²	< 5 ug/kg ¹	< 5 ug/kg ¹
Chlorobenzene	¹ 8240, ² 8010	< 5 ug/kg	< 5 ug/kg ¹	130 ug/kg ¹
1,3-Dichlorobenzene	¹ 8240, ² 8010	< 5 ug/kg	< 5 ug/kg ¹	1100 ug/kg ¹
1,4-Dichlorobenzene	¹ 8240, ² 8010	< 5 ug/kg	< 5 ug/kg ¹	1800 ug/kg ¹
1,2-Dichlorobenzene	¹ 8240, ² 8010	< 5 ug/kg	< 5 ug/kg ¹	160 ug/kg ¹
Naphthalene	8270	< 5 mg/kg	0.5 mg/kg	< 1 mg/kg
Acenaphthene	8270	13 mg/kg	< 0.5 mg/kg	< 1 mg/kg
Fluorene	8270	52 mg/kg	0.9 mg/kg	< 1 mg/kg
Phenanthrene	8270	76 mg/kg	1.8 mg/kg	< 1 mg/kg
Anthracene	8270	13 mg/kg	< 0.5 mg/kg	< 1 mg/kg
Fluoranthene	8270	13 mg/kg	< 0.5 mg/kg	< 1 mg/kg
Pyrene	8270	72 mg/kg	3.0 mg/kg	1.9 mg/kg
Benzo(a)anthracene	8270	44 mg/kg	< 0.5 mg/kg	< 1 mg/kg
Chrysene	8270	30 mg/kg	< 0.5 mg/kg	< 1 mg/kg
Benzo(a)pyrene	8270	16 mg/kg	< 0.5 mg/kg	< 1 mg/kg
Gasoline	5030-8015	< 1 mg/kg	NA	< 1 mg/kg
Kerosene	3510-8015	< 1 mg/kg	< 1 mg/kg	< 1 mg/kg
Diesel	3510-8015	7000 mg/kg	3500 mg/kg	130 mg/kg
Motor Oil	3510-8015	< 10 mg/kg	6700 mg/kg	NA
Oil & Grease	5520 E&F	NA	NA	1600

Notes: NA = Not Analyzed

In order to determine whether or not the two pipelines were the source of contaminants found in neighboring soils, the EPA 8270 analysis for semivolatile organics was repeated on two soil samples obtained from the vicinity of the pipelines. Sample E-6 was collected approximately 2 1/2 feet below the 12 inch diameter pipe from the excavation sidewall. Sample B-11 was collected at a depth of 8 1/2 feet approximately 35 feet from the observed original terminus of the 12 inch diameter pipe. These samples were additionally analyzed for volatile organic compounds by EPA 8240 and TEH as diesel. Total oil and grease was also tested in sample

B-11. Both of these soil samples contained a visible tar product similar in appearance to that in the pipelines. A comparison of the results for samples E-PIPE-2, E-6 and B-11 is shown in Table 5-1. The soil in the vicinity of sample B-11 was later excavated due to the hydrocarbons present.

The results of the 8270 analysis for the product sample indicated that a number of PAHs are present in the pipeline product. Three of these PAHs were also detected in sample E-6 and one, Pyrene, was detected in all three of the samples. Diesel was also detected in all three samples. This may suggest that the heavier fraction of hydrocarbons present in the wall and bottom samples is of a similar nature to the pipeline product. Sample B-11 contained concentrations of chlorobenzene and the dichlorobenzenes which were not detected in the other two samples, indicating a probable volatile halocarbon source other than the pipelines.

5.2 RESULTS OF FIELD RECONNAISSANCE

The nearby area bounded by Coliseum Way and San Leandro Street, 45th Avenue and 54th Avenue, is presently occupied by industrial and commercial businesses, primarily concerned with metal processing and finishing, scrap metal sales, and auto service and body work.

The yard of the scrap metal dealer immediately adjacent to the site on the northeast contains various types of electrical equipment and machinery, hydraulic equipment, welding equipment, air conditioning equipment, transformers, drums marked battery fluid, paint cans, and oil soaked wood and a trailer. The metal finishing operations appear to include chrome plating, anodizing, and industrial plating. CIM Inc., a construction materials firm, is located at 833 47th Avenue. Chevron has a large facility on San Leandro Street between 45th and 46th Avenues which includes several large aboveground storage tanks.

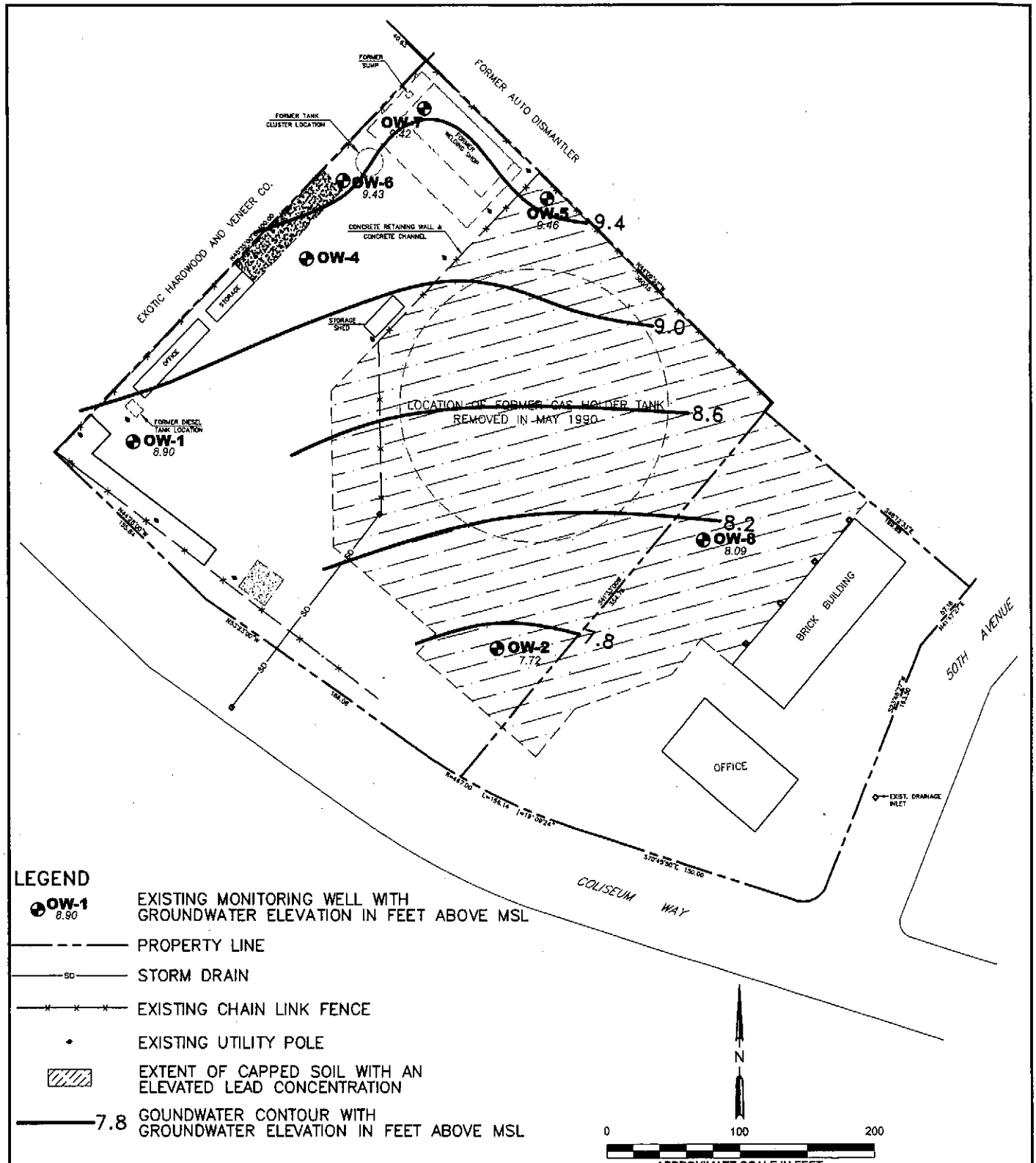
5.3 AGENCY DATA

A city directory from 1969 at the Oakland Public Library shows that similar industries were in the area at that time. In addition, the Titanium Pigment Corporation, Division of the National Lead Co., a paint manufacturing company, was located at 4825 San Leandro Street in 1969. Superior Products Co., sealing compounds, occupied 833 47th Avenue in 1969.

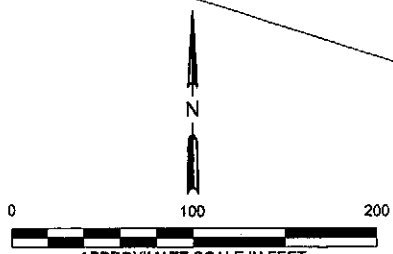
ATTACHMENT 8

Maps by Other Consultants for Work at Adjacent Properties

EXOTIC



- LEGEND**
- OW-1** 8.90 EXISTING MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MSL
 - PROPERTY LINE
 - STORM DRAIN
 - EXISTING CHAIN LINK FENCE
 - EXISTING UTILITY POLE
 - EXTENT OF CAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION
 - 7.8 GROUNDWATER CONTOUR WITH GROUNDWATER ELEVATION IN FEET ABOVE MSL



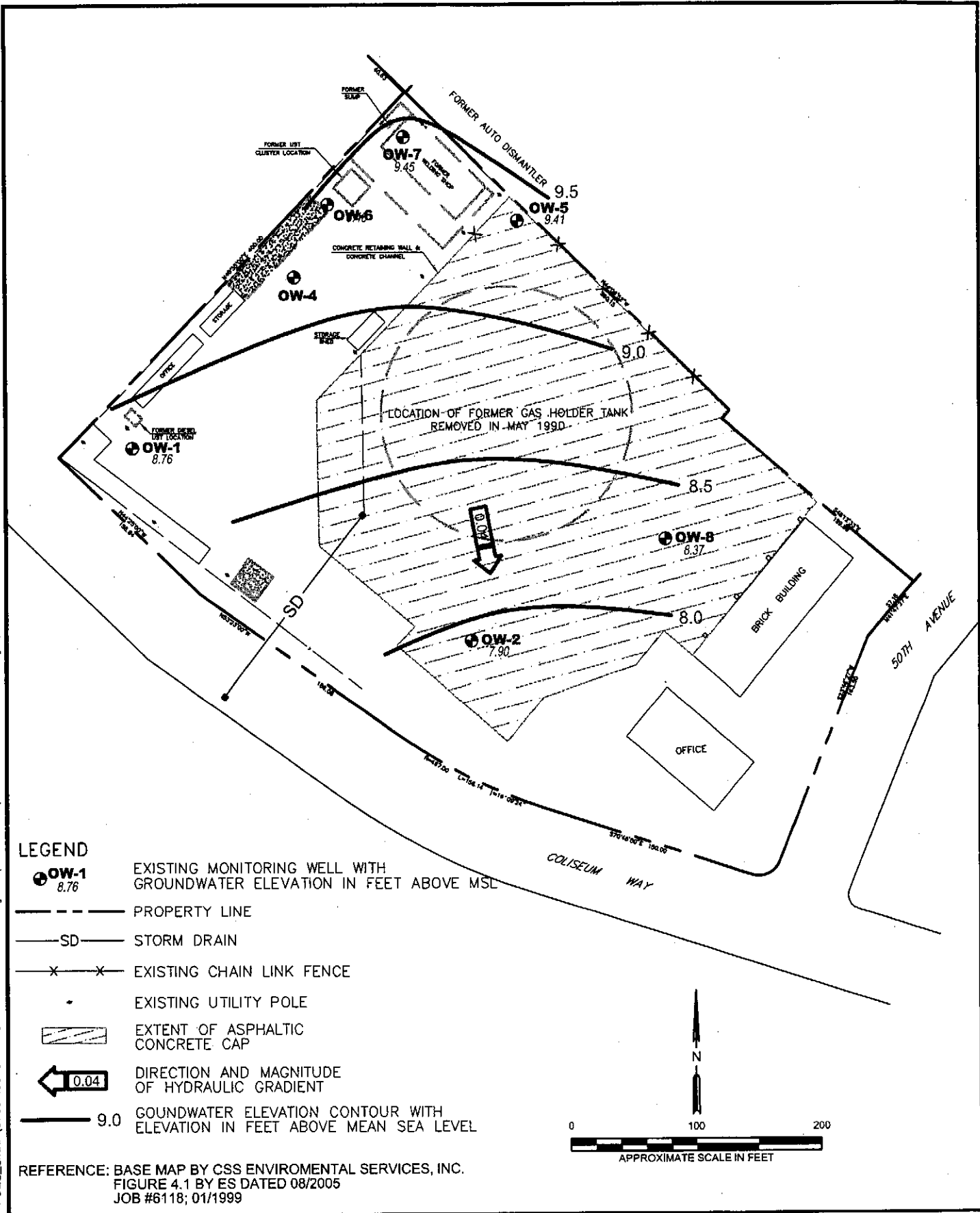
REFERENCE: BASE MAP BY CSS ENVIRONMENTAL SERVICES, INC. FIGURE 4.1 BY ES DATED 08/2005 JOB #6118; 01/1999

No warranty is made by SECOR International, Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

<p>SECOR 57 Lafayette Circle, 2nd Floor Lafayette, California PHONE: (925) 299-9300 FAX: (925) 299-9302</p>	FOR:	PG&E OAKLAND GENERAL SERVICE YARD 4930 COLISEUM WAY OAKLAND, CALIFORNIA		POTENTIOMETRIC SURFACE MAP DECEMBER 2005	DRAWING 3
	JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
	05OT.50265.00.0003	RRR	AM	AM/GH	02/08/06

EXOTIC

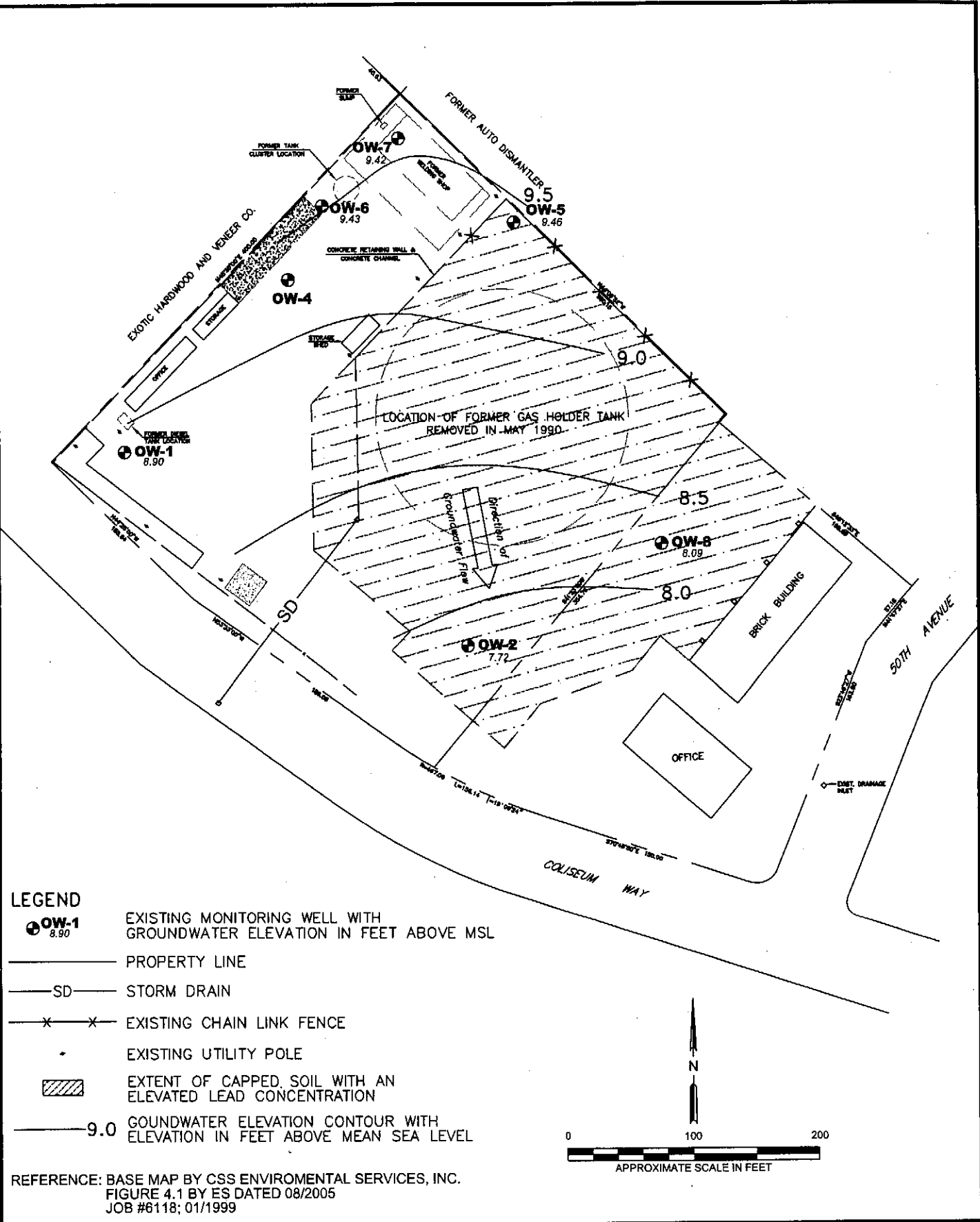
FILENAME: P:\07037 PG&E\EntriX\07037.0018 PG&E Oakland SC UST Program\10.0 CADD\400_CADD Current Drawings\07037.0018 OKLND SC Figure 2-3-4.dwg



	<p>Pacific Gas and Electric Oakland General Construction Yard Oakland, California</p>	<p>FIGURE 3 Groundwater Elevation Contours (April 12, 2007)</p>
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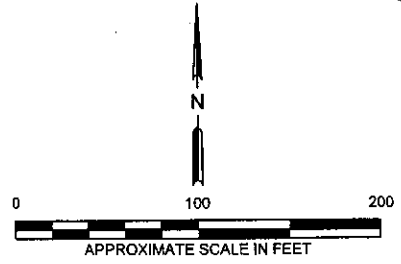
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FILENAME: P:\07037 PG&E\EntriX\07037.0007 PG&E\UST Reporting & Sacramento SVE\CADD\400_CADD Current Drawings\07037.0007 OKLND Figure 2-3-4.dwg



LEGEND

- OW-1** 8.90 EXISTING MONITORING WELL WITH GROUNDWATER ELEVATION IN FEET ABOVE MSL
- PROPERTY LINE
- SD— STORM DRAIN
- X — X — EXISTING CHAIN LINK FENCE
- EXISTING UTILITY POLE
- EXTENT OF CAPPED SOIL WITH AN ELEVATED LEAD CONCENTRATION
- 9.0 — GROUNDWATER ELEVATION CONTOUR WITH ELEVATION IN FEET ABOVE MEAN SEA LEVEL



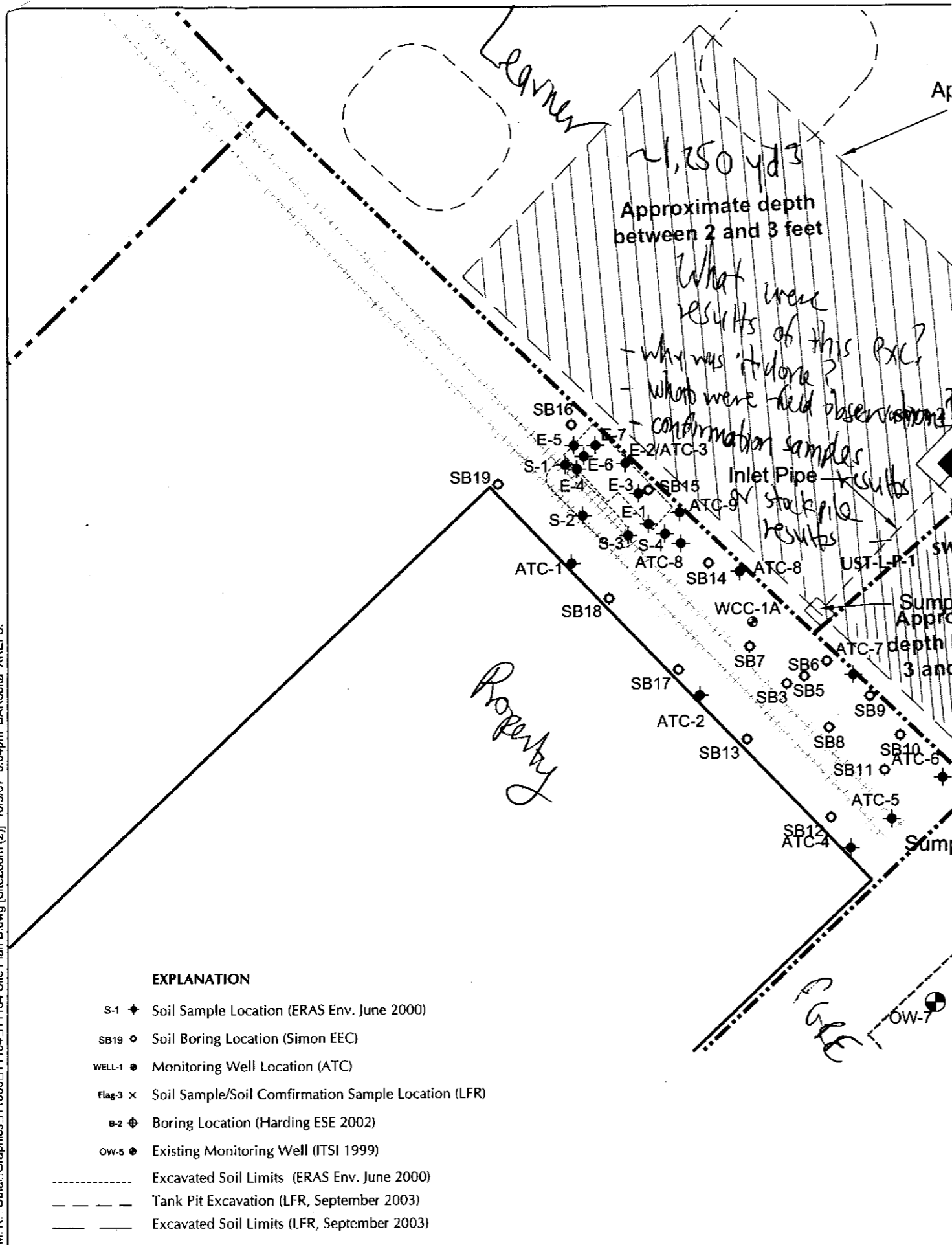
REFERENCE: BASE MAP BY CSS ENVIROMENTAL SERVICES, INC.
 FIGURE 4.1 BY ES DATED 08/2005
 JOB #6118; 01/1999



Pacific Gas and Electric
 Oakland General Construction Yard
 Oakland, California

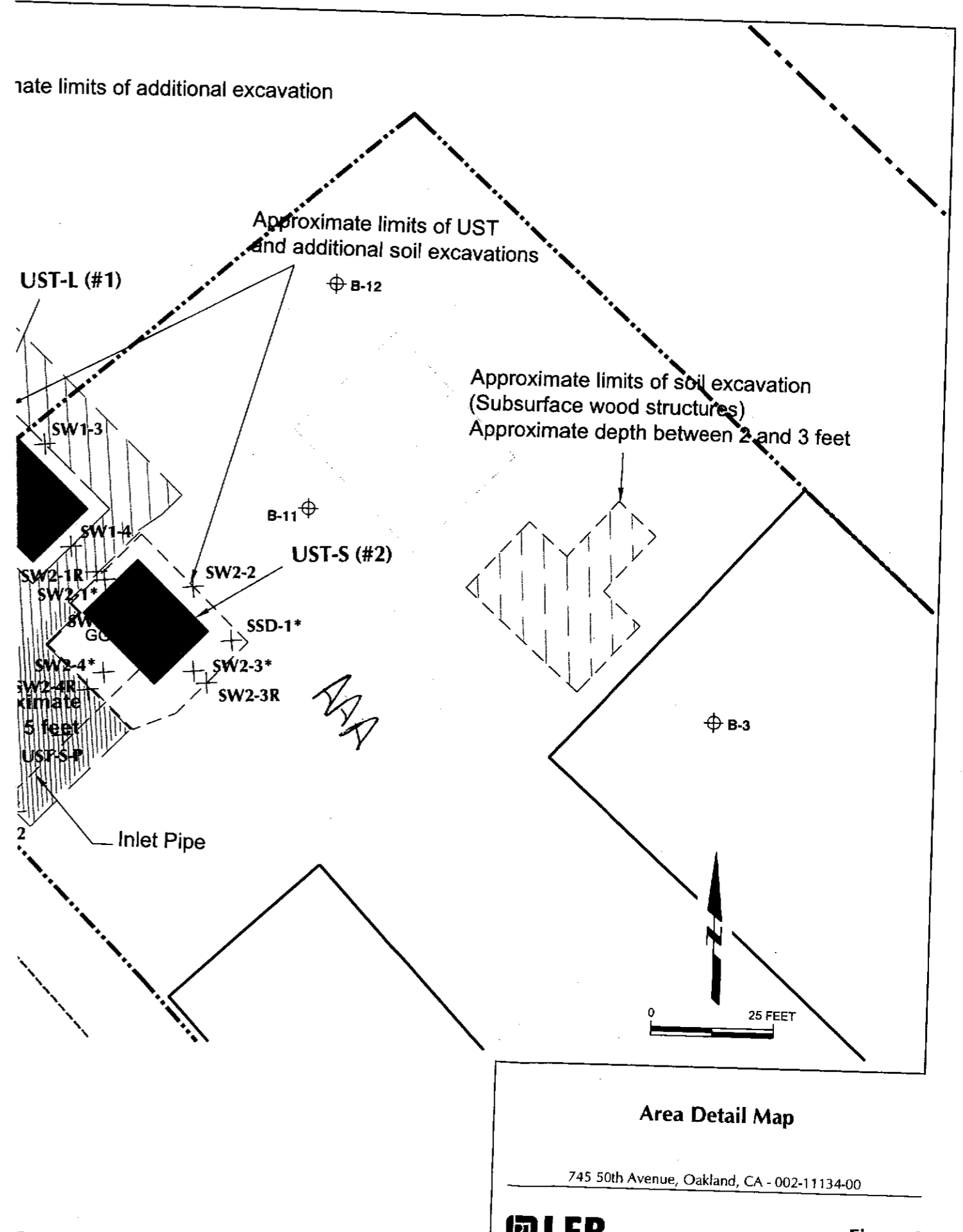
FIGURE 3
 Groundwater Elevation
 Contours
 (December 20, 2006)

CM: K:\Data\Graphics\11000\11134\11134 Site Plan B.dwg [SiteZoom (2)] 10/9/07 3:04pm BARobila XREFS:



EXPLANATION

- S-1 ♦ Soil Sample Location (ERAS Env. June 2000)
- SB19 ○ Soil Boring Location (Simon EEC)
- WELL-1 ● Monitoring Well Location (ATC)
- flag-3 x Soil Sample/Soil Confirmation Sample Location (LFR)
- B-2 ⊕ Boring Location (Harding ESE 2002)
- OW-5 ● Existing Monitoring Well (ITSI 1999)
- Excavated Soil Limits (ERAS Env. June 2000)
- - - - - Tank Pit Excavation (LFR, September 2003)
- _____ Excavated Soil Limits (LFR, September 2003)



0 25 FEET

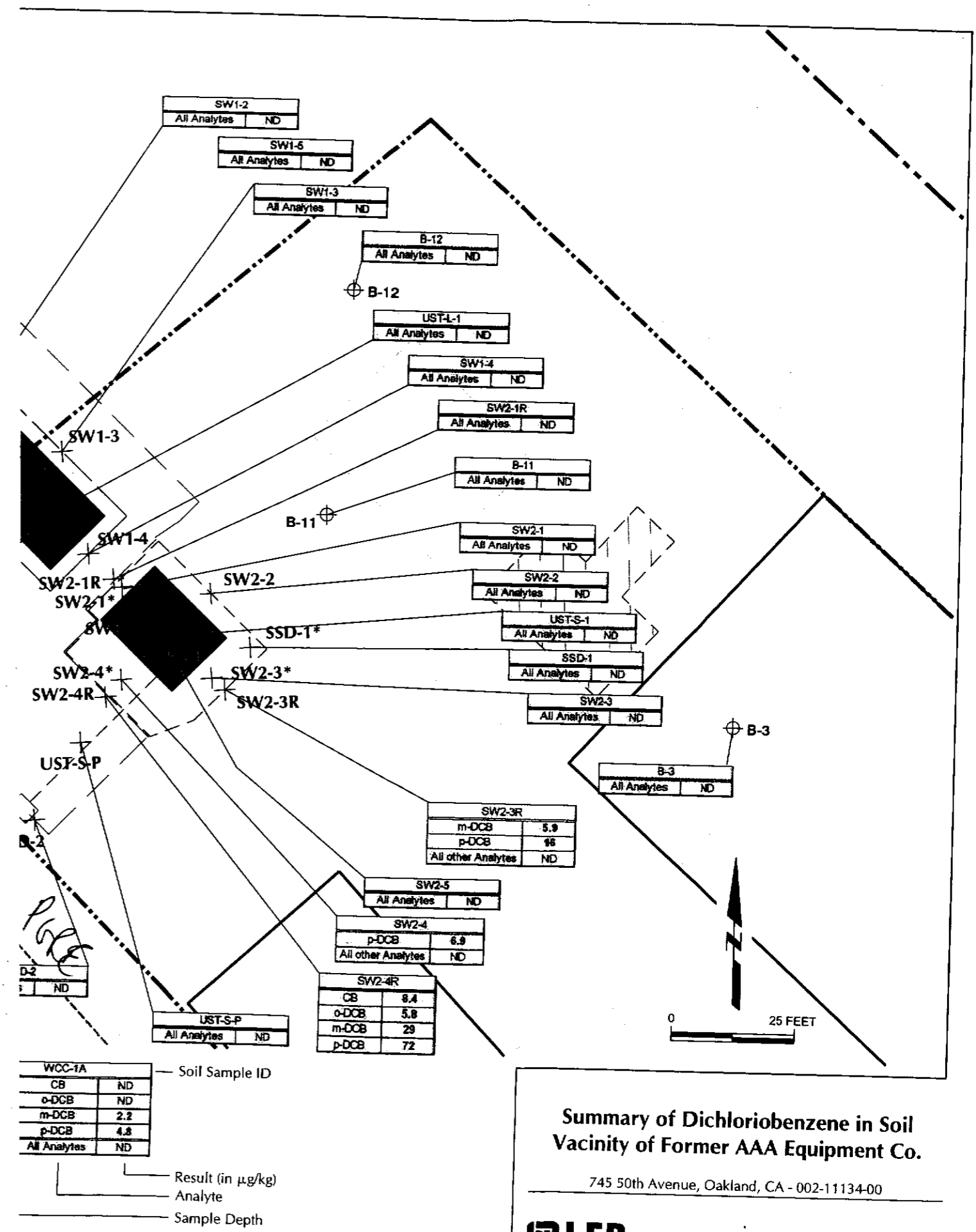
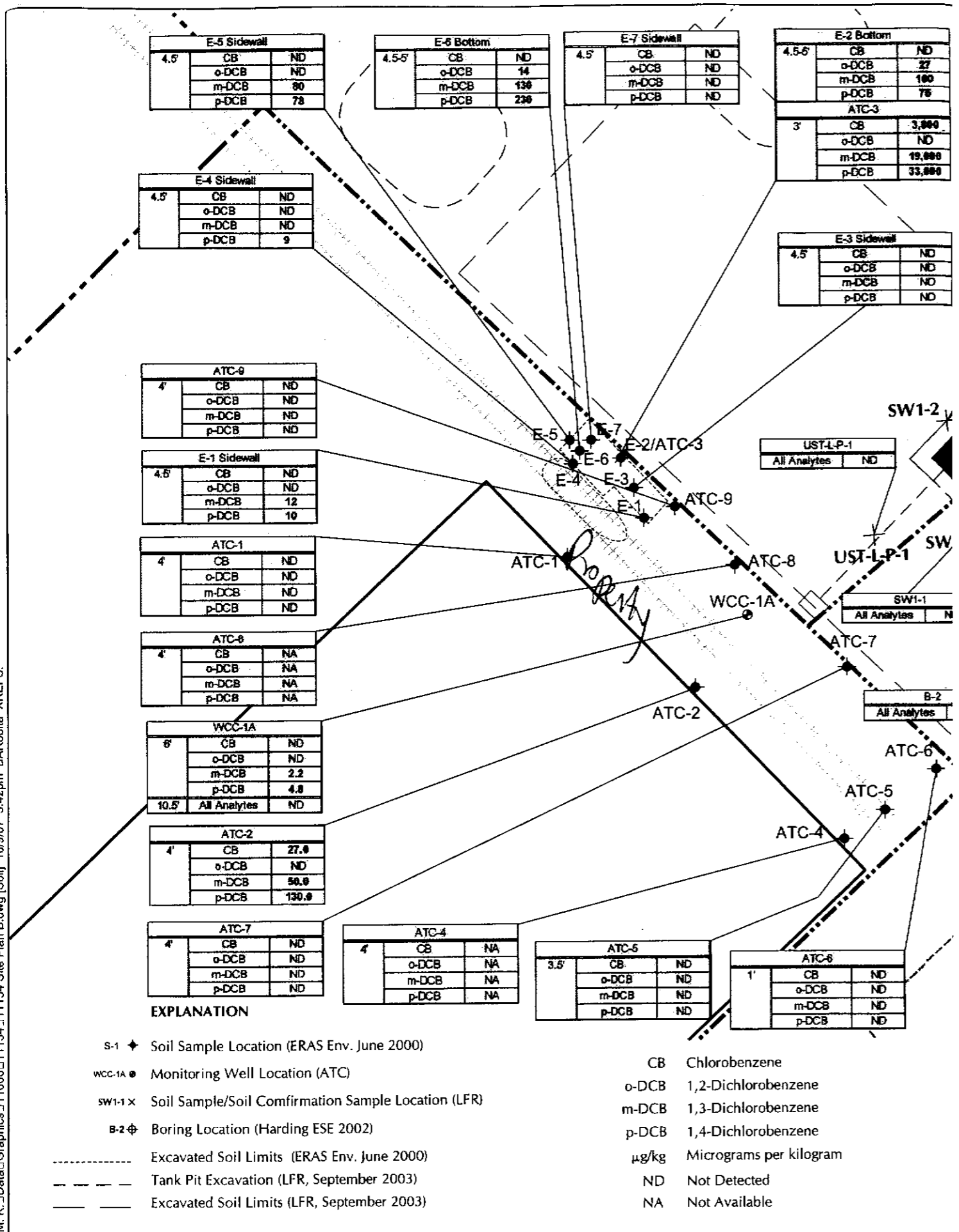
Area Detail Map

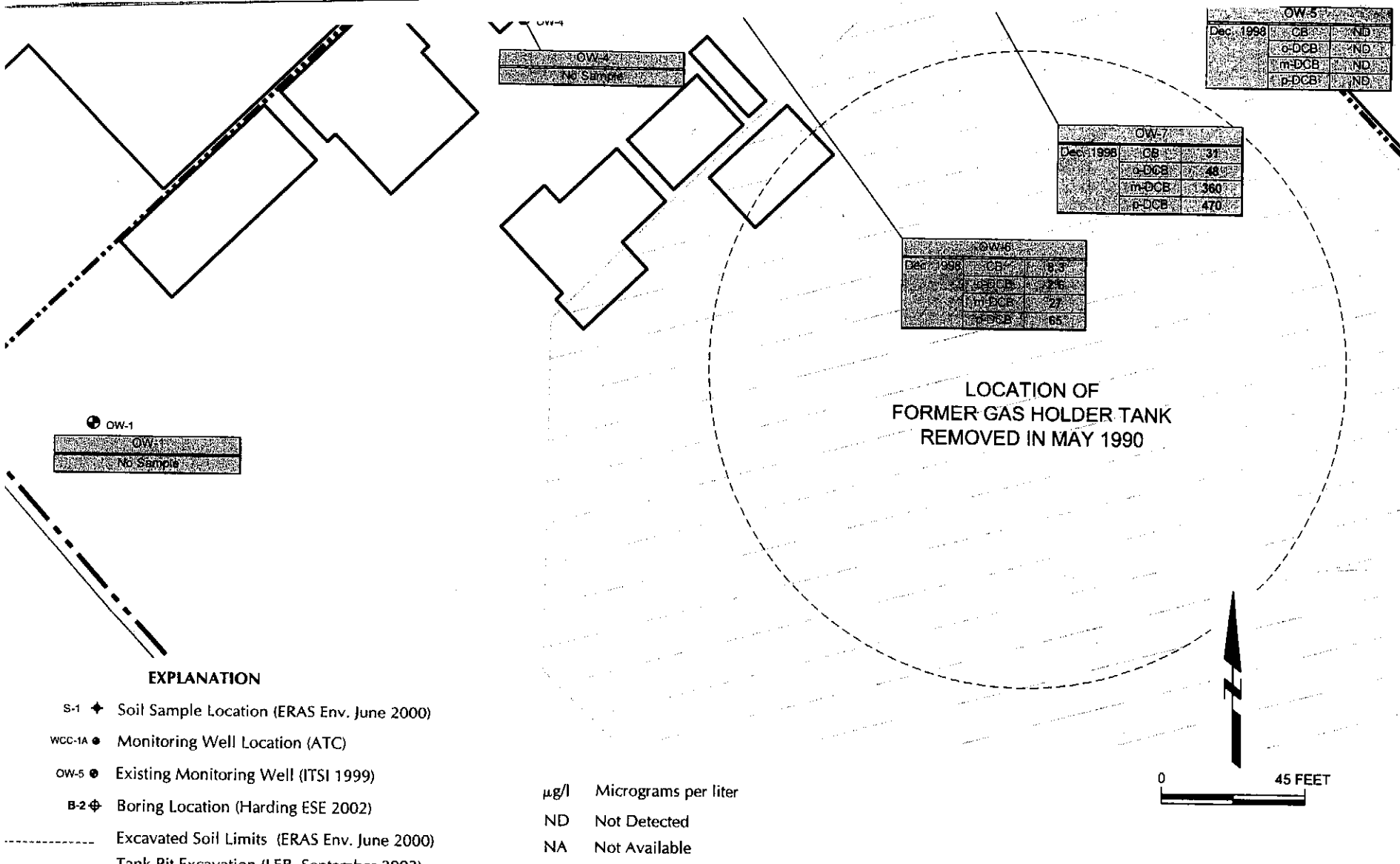
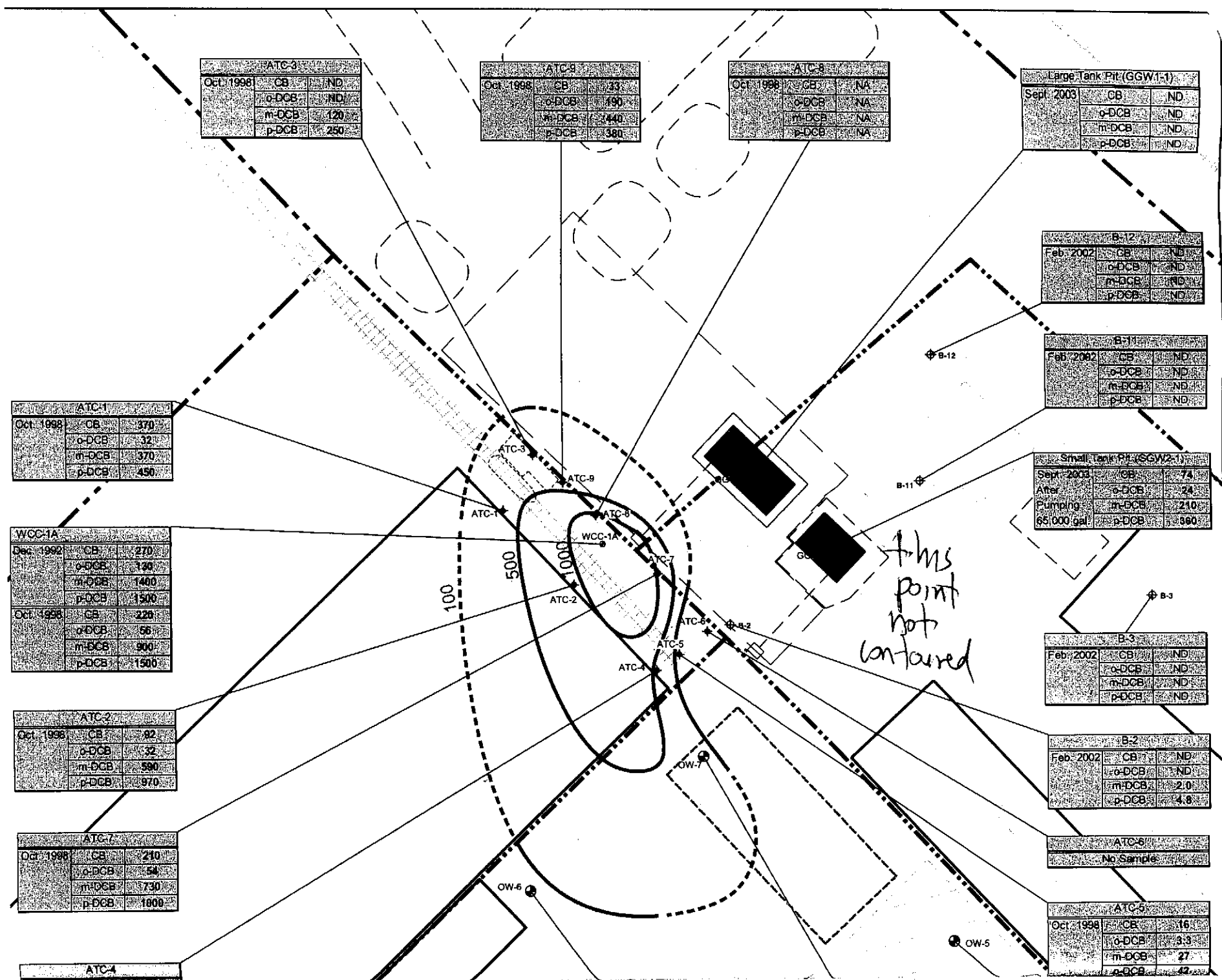
745 50th Avenue, Oakland, CA - 002-11134-00



Figure 3

CM: K:\Data\Graphics\11000\11134_Site Plan B.dwg [Soil] 10/9/07 3:42pm BARobilia XREFS:

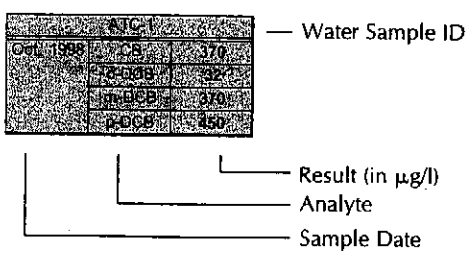




EXPLANATION

- S-1 ♦ Soil Sample Location (ERAS Env. June 2000)
- WCC-1A ● Monitoring Well Location (ATC)
- OW-5 ● Existing Monitoring Well (ITSI 1999)
- B-2 ♦ Boring Location (Harding ESE 2002)
- - - - - Excavated Soil Limits (ERAS Env. June 2000)
- - - - - Tank Pit Excavation (LFR, September 2003)
- - - - - Excavated Soil Limits (LFR, September 2003)
- 100 Groundwater Contour (p-DCB Concentration)
- CB Chlorobenzene
- o-DCB 1,2-Dichlorobenzene
- m-DCB 1,3-Dichlorobenzene
- p-DCB 1,4-Dichlorobenzene

µg/l Micrograms per liter
 ND Not Detected
 NA Not Available



Summary of Dichlorobenzene in Groundwater
Vacinity of Former AAA Equipment Co.

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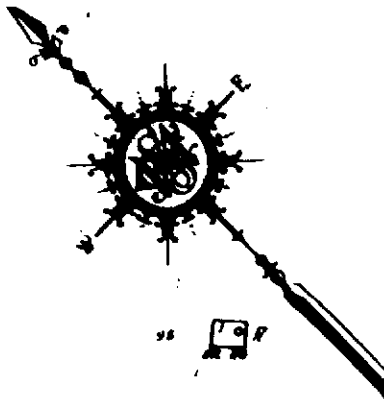


Figure 5

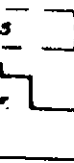
ATTACHMENT 9

Sanborn Maps

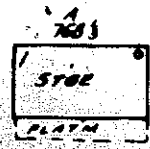
1 13 // 5110071



AP METALS YARD



1/2" DIA. 65'
7051



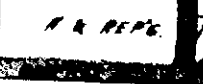
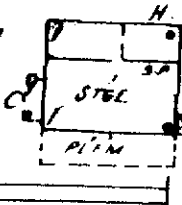
INDEPENDENT CONSTRUCTION CO., LTD.
WATCHMAN, NO CLOCK



ROTARY
DRYER
NOT
USED



BLR NOT
USED



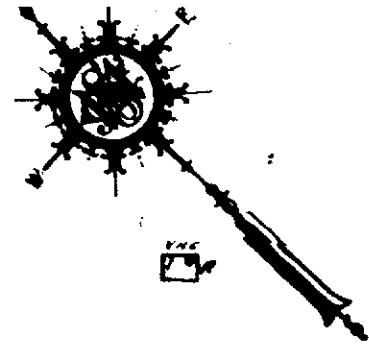
W.H.

2231

2232

P.G. & E.
COPY
WIRELESS (

1961 Sanborn



METALS YARD

15' x 10'

7x8

15' x 10' 65'



4
7x8
5' x 6'
PLATE

PIPE PAINTING
IN OPEN

Pipe Painting
in open

7x8

7x8

7x8
C

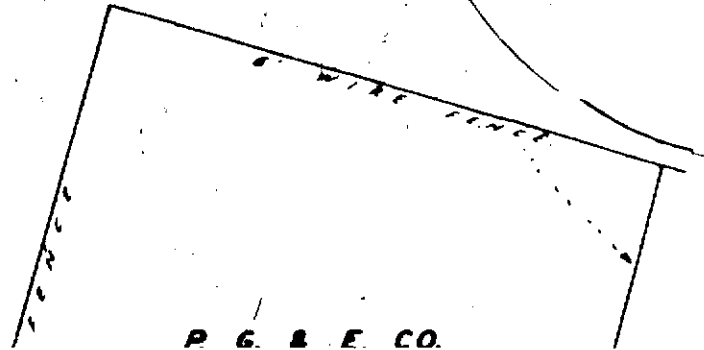
INDEPENDENT CONST'N. CO.
NO. 12 CHANNY
NO. 12 CLACK

Empty Stge.

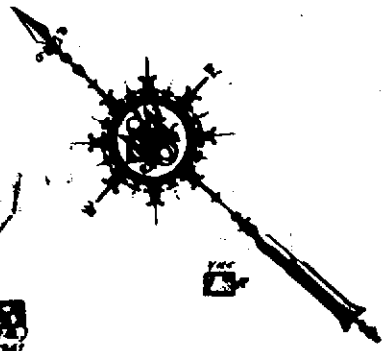
2231

2232

P.G. & E. CO.
NO. 1
CARRYING
WATERLESS (1)



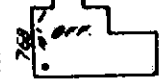
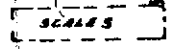
1966 Symbarkit



Hydraulic
press

THE LEARNER CO.

SCRAP METALS YARD



14' x 10'

70' x 4'

(N. 22R)

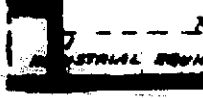
MISC STG

PIPE PAINTS
IN OPEN



NUMBERED ON 50TH AV.

USED MACH'Y -
INDUSTRIAL EQUIP



4600' x 2

LAB. PILES
& BLDG. MATERIALS

2231

2232

P.G. & E. CO.
COPY NO.
WATERLESS (17)

P. G. & E. CO.
MAY 1990

(P.G. & E. CO.)
(COPY 1990)