GROUNDWATER TECHNOLOGY, INC.

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4080-D Pike Lane, Concord, CA 94520

(415) 671-2387

October 2, 1990

Job No. 203 680 5016.03

Mr. Dennis Byrne
Alameda County Health Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

RE: Underground storage tank replacement at the Safety-Kleen Corporation facility, 404 Market Street, Oakland, CA.

Dear Mr. Byrne:

Attached is a copy of the "Report of Underground Storage Tank Replacement Activities at the Safety-Kleen Oakland Service Center, Oakland, California".

If you have any questions, or require clarification of details, please direct your inquiry to Ms. Anne Lunt of the Safety-Kleen Corporation at (213) 831-3903.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Paul D. Horton
Project Manager

PDH:lbm

Attachment

L5016E7.PH

REPORT OF UNDERGROUND STORAGE TANK REPLACEMENT ACTIVITIES AT THE SAFETY-KLEEN OAKLAND SERVICE CENTER OAKLAND, CALIFORNIA

9-90

SEPTEMBER 1990

GROUNDWATER TECHNOLOGY, INC.
CONCORD, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

4080-D Pike Lane, Concord, CA 94520
(415) 671-2387

REPORT OF UNDERGROUND STORAGE TANK REPLACEMENT ACTIVITIES AT THE SAFETY-KLEEN OAKLAND SERVICE CENTER OAKLAND, CALIFORNIA

SEPTEMBER 1990

Prepared for:

Safety-Kleen Corporation
P.O. Box 1429
San Pedro, CA 90733-1429

Prepared by:

GROUNDWATER TECHNOLOGY, INC.
4080-D Pike Lane
Concord, CA 94520

Jamie Bethell
Project Engineer

Richard M. Thomasser
Project Hydrogeologist

Allen B. Storm
Registered Geologist
NO. 4394

REGISTERED GEOLOGIST
ALLEN B. STORM
No 4394
Exp. 6-92
STATE OF CALIFORNIA

R5016B7.RT

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INTRODUCTION

Safety-Kleen Corporation (Safety-Kleen), retained Groundwater Technology, Inc. (GTI), to provide technical supervision of underground storage tank system replacement activities at the Safety-Kleen Service Center located at 404 Market Street in Oakland, California (Figure 1). This report describes the activities conducted by Groundwater Technology, Inc., and provides documentation regarding the procedures followed during the underground storage tank replacement.

SITE BACKGROUND

The Safety-Kleen Oakland Service Center has served as a distribution center for Safety-Kleen products since 1975. These products include mineral spirits solvent and other products for the automotive and food service industries. The mineral spirits solvent is stored on site in clean and used or "spent" condition. Three underground storage tanks (USTs) were installed in 1970 and 1971 to store the mineral spirits solvent. Two 6,000-gallon steel USTs were used to store the spent mineral spirits solvent prior to shipment to Safety-Kleen's recycling facility in Reedley, California. The third UST was a 10,000-gallon steel tank used to store clean mineral spirits. Figure 2 shows the site plan, and Figure 3 shows the location of the three old USTs.

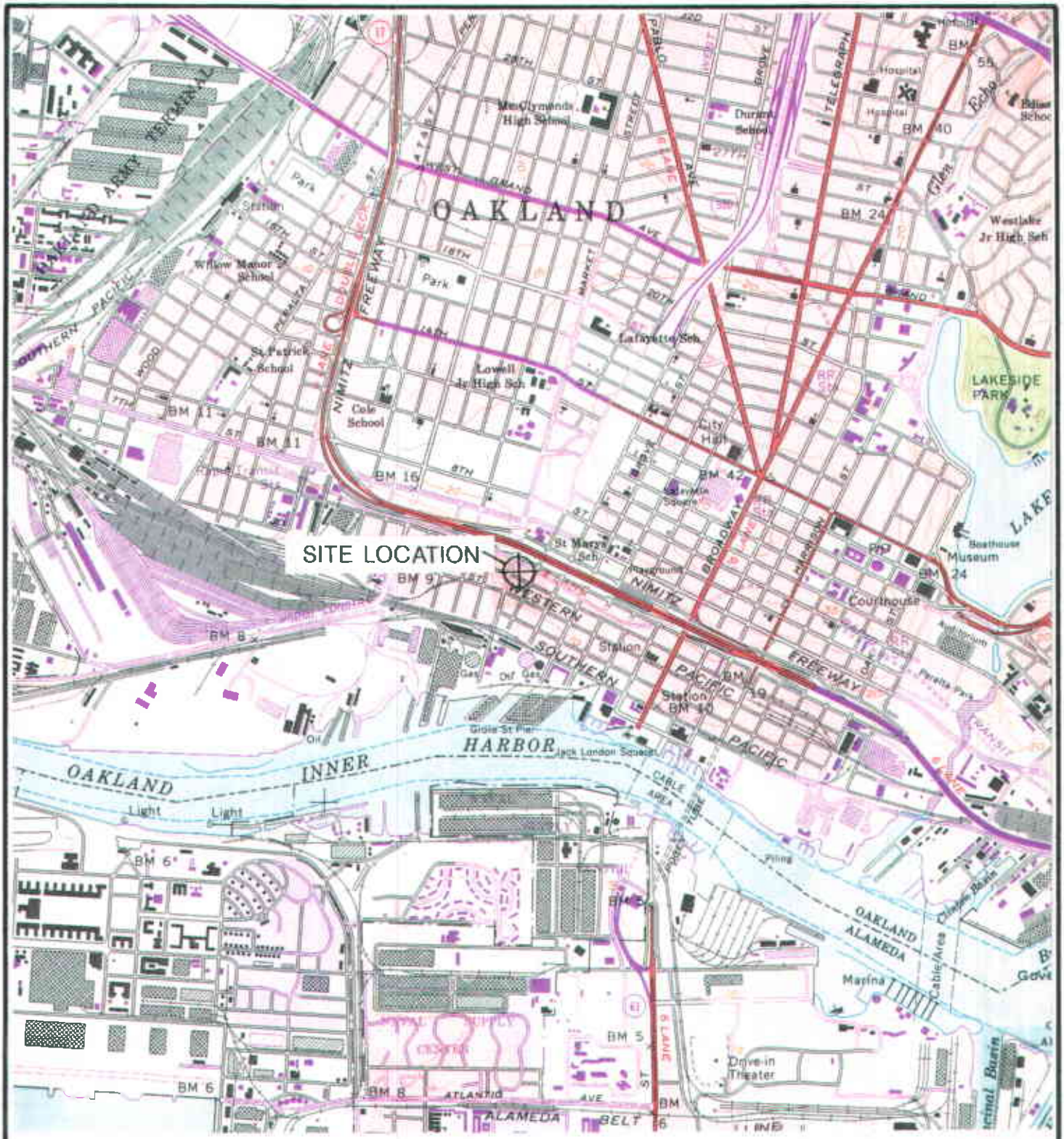

FIGURE 1
SITE LOCATION MAP

SAFETY-KLEEN
404 MARKET ST.
OAKLAND, CALIFORNIA

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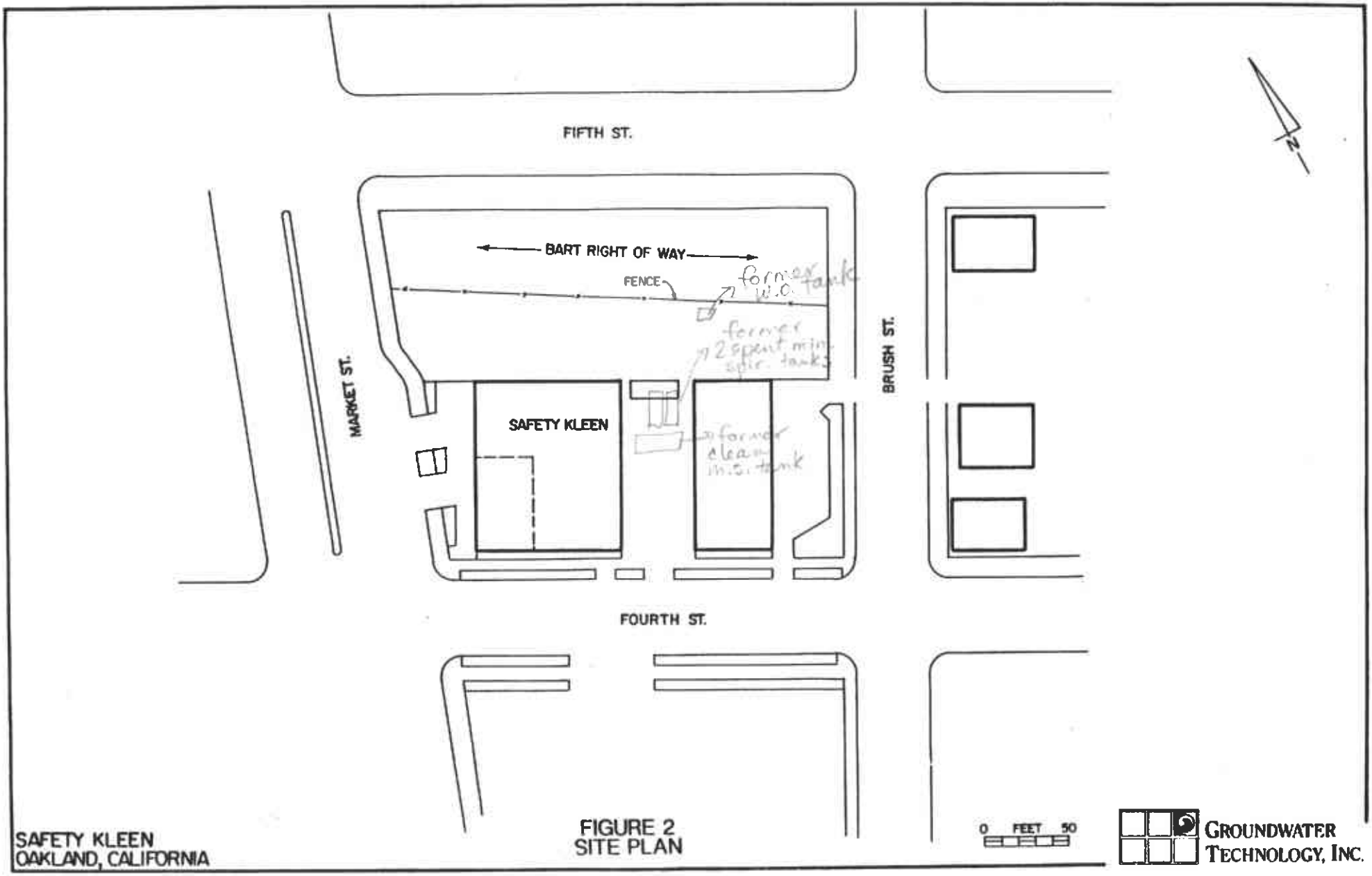

FIGURE 2
SITE PLAN

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

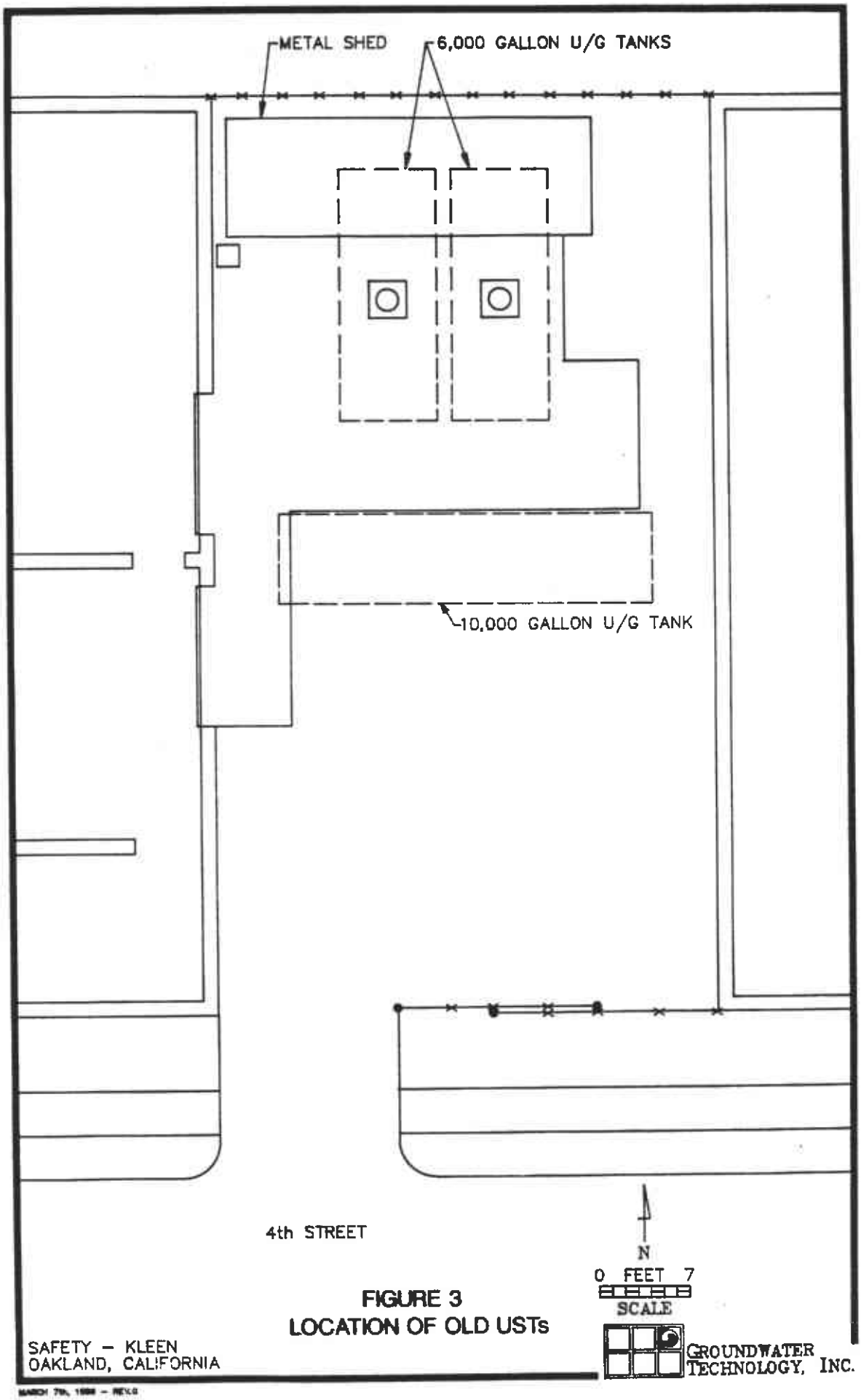

FIGURE 3
LOCATION OF OLD USTs

SAFETY – KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

Results of site assessment conducted by Groundwater Technology, Inc. and others are summarized in the "Update Report of Additional Assessment, 404 Market Street, Oakland, California", dated June 1990. The assessment results indicated impacts on the subsurface soil and shallow groundwater by mineral spirits solvent and chlorinated organics. Measurable separate-phase mineral spirits product was observed in groundwater monitoring wells, and dissolved chlorinated organics were detected in samples collected from wells in the vicinity of the tank pit. Groundwater occurs at approximately 8 feet below grade and flows towards the south in the site vicinity.

SCOPE OF WORK

Although repairs were made to the underground storage tank system and subsequent tank integrity testing revealed the system to be tight, Safety-Kleen undertook the entire system upgrade due to tank ages.

Tank replacement plans included performing limited remedial activities and construction of remedial facilities to address the impacted soil and shallow groundwater. The remedial activities performed during tank replacement included excavation and disposal of impacted soil in the vicinity of the USTs and removal of floating separate-phase mineral spirits product during excavation dewatering. Remedial facilities constructed include soil-venting system piping for future extraction of soil vapors to remediate impacted soil and a product recovery well for future separate-phase mineral spirits extraction. These activities are described further in this report.

Safety-Kleen has recently acquired the property north of the Service Center facility (Figure 2). A review of property ownership records indicated that the property had been used in the past for two automobile service stations at which underground storage tanks were used. A geophysical survey of the property revealed the presence of a small underground storage tank apparently used for waste-oil storage. A detailed description of the tank removal activities are included in this report. App M

This report of tank replacement activities is being presented in the following manner:

- Site Supervision and Health and Safety Monitoring
- Underground Storage Tank Removal
- Installation of New UST System and Remedial Facilities
- Waste Oil Tank Removal

SITE SUPERVISION AND HEALTH AND SAFETY MONITORING

Groundwater Technology served as the overall site supervisor through the entire tank replacement program which occurred from May 31 through July 5, 1990. During this time, a representative of Groundwater Technology, Inc. was on site to oversee activities relating to tank removal, replacement, and remedial action. A chronology of the activities which took place during each day on site is included in Appendix A. This chronology summarizes key events and includes the names of persons visiting the site. In addition, photographs documenting the tank replacement process are included.

The Groundwater Technology, Inc. representative served as the on-site Health and Safety Coordinator, responsible to maintain compliance with the site specific Health and Safety Plan. The Plan, dated May 24, 1989 prepared by Groundwater Technology, Inc., provides the following information:

- Site Background
- Emergency Response Procedures
- Site Characterization Data
- Hazard Evaluation
- Site Chemicals of Concern
- Material Safety Data Sheets (MSDS)
- Site Health and Safety Requirements

Personnel working on site were given the opportunity to read the Health and Safety Plan, and were required to sign a statement that they would abide by the provisions of the Plan.

In addition to specific procedures that were outlined regarding proper tank excavation and removal, personnel protective equipment, and waste handling, the Plan set Action Levels for the site-worker breathing zone. To comply with the Plan, four air monitoring stations were chosen within the work area (Figure 4). Regular monitoring of these stations was performed using a photo-ionization detector. Appendix B contains the air monitoring data for the site while work was in progress.

The site Health and Safety Coordinator set the level of personnel protective equipment based on the conditions encountered during work activities, and in accordance with the

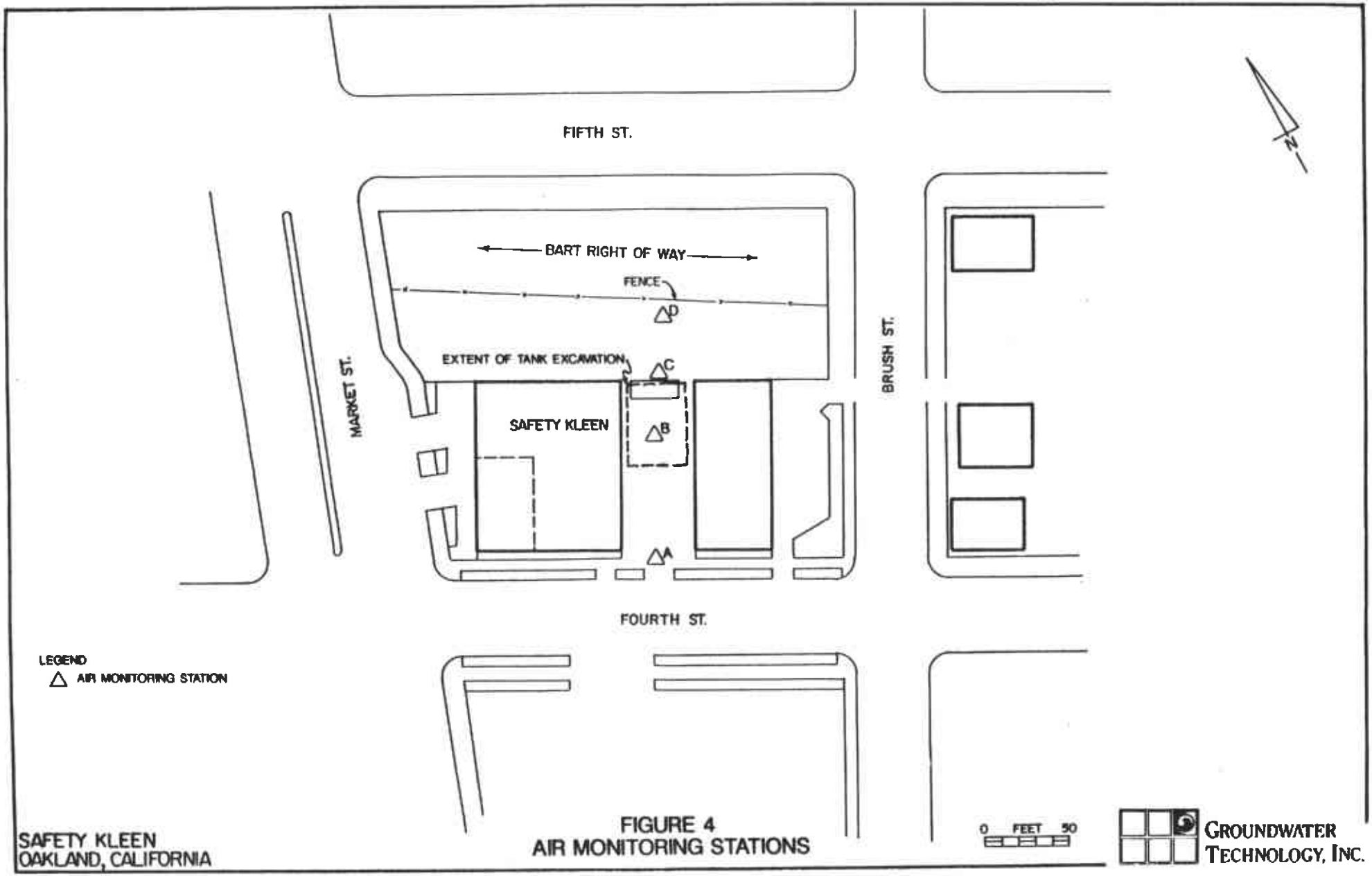

FIGURE 4
AIR MONITORING STATIONS

SAFETY KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

Health and Safety Plan. The site Health and Safety Coordinator also was responsible to see that all activities were performed as specified by any required permits. Specific permits required are discussed further in the following sections of this report.

EXISTING UNDERGROUND STORAGE TANK REMOVAL

Activities relating to the removal of the three existing underground storage tanks took place between May 31 and June 12, 1990. The following sections describe the specific activities performed during the tank removal process.

TANK REMOVAL PERMITTING

Underground storage tank removal permits were obtained from the Alameda County Health Care Services Agency and The City of Oakland Fire Department.

The State of California Department of Health Services (DHS) allowed the tank replacement activities to proceed based upon Section 66389, Article 4 of Title 22, California Code of Regulations (CCR).

The Bay Area Air Quality Management District was notified per Regulation 8, Rule 40.

A permit was obtained from The East Bay Municipal Utilities District (EBMUD) for discharge of treated groundwater related to excavation dewatering. Excavation dewatering is discussed further in this report.

The above-referenced permits and notification letters are included in this report as Appendix C.

SURVEY OF ADJACENT STRUCTURES

A survey was performed on the Safety-Kleen and Ralph Johnson & Associates buildings by a California-licensed surveyor, due to their proximity to the proposed excavation. The purpose of surveying these structures was to provide documentation of existing building elevations, so that any settling which could potentially occur from excavation activities could be accurately evaluated. The results of the survey are included in this report as Appendix D.

SHORING DESIGN AND MODIFICATIONS

A shoring design for the tank replacement excavation was prepared by H.V. Anderson Engineers to comply with CCR Title 8, Chapter 4, Subchapter 4 - Construction Safety Orders. The type of shoring proposed was sheet-pile shoring. The design, procedures and calculations are included in Appendix E.

The initial design was revised twice based on site conditions. The first revision called for removal of the north end of the shoring because the existing 6,000-gallon tank extended further north than originally calculated. The second revision called for the sheets to be installed by means of excavation rather than by being mechanically driven. This change was required to reduce vibration in the adjacent Ralph Johnson and Associates facility. The revised shoring plans are included in Appendix E.

The shoring was installed prior to existing tank removal, and remained in place until after the new tanks were installed and the tank pit was backfilled to approximately 5 feet below grade.

EXCAVATION DEWATERING

The tank excavation was completed to approximately 13-feet below grade. Since shallow groundwater was encountered at a depth of approximately 8-feet below grade, excavation dewatering was required to allow for tank replacement activities. Existing groundwater monitoring data indicated that the water would be impacted by dissolved-phase volatile organics, and that separate-phase mineral spirits product would be encountered.

Using available hydraulic information from the site, the volume of water expected to be removed during the excavation process was estimated at approximately 30,000 gallons. A permit was obtained from EBMUD for discharge of this water to the sanitary sewer following removal of separate-phase product and treatment.

Groundwater and product that accumulated in the tank excavation was pumped into two 21,000-gallon portable Baker tanks for initial storage. Separate-phase product was skimmed from the Baker^{TM} tanks and sent to the Safety-Kleen Corporation Recycle Center in Reedley, California. The water remaining in the tanks was then pumped through a series of granular activated carbon vessels to remove any dissolved-phase organics present. As specified in the EBMUD permit, periodic sampling was performed to verify system efficiency. The actual volume of water removed, treated and discharged was approximately 34,000 gallons. The amount of product removed equaled approximately 100 gallons.

The EBMUD discharge permit required a report describing the groundwater treatment and discharge activities. The report is included in this report as Appendix F.

TANK DECONTAMINATION AND DESTRUCTION

In preparation for tank removal, product and waste solvent were pumped from the three existing USTs on May 31, 1990. All materials generated in the excavation of the tanks and subsequent decontamination steps were sent to the Safety-Kleen Recycle Center in Reedley, California. On June 1, 1990, the tanks were desludged by a confined space entry team. EPA Level "B" personal protective equipment was required for the confined space entry into the tanks. Following desludging, the tanks were decontaminated by high pressure water washing, known as "hydroblasting". This activity was observed by Mr. K. Madoshi of the California Department of Health Services. Prior to removal each tank was inerted to reduce explosion potential, using dry ice. Inspector Dawson of the City of Oakland Fire Department was on site to observe the tank removal.

The two 6,000-gallon tanks were removed from the excavation on June 7, 1990 and transported off site to H&H Environmental Services for disposal. Mr. Madoshi of DHS arrived after the tanks had been removed, at that time he inspected the excavation. The 10,000-gallon tank was removed on June 8, 1990 and similarly transported off site for disposal.

The Certification of Tank Disposal provided by H&H Environmental Services is included in Appendix G. ok

SOIL SAMPLING

Eight soil samples were collected from the walls and bottom of the tank excavation following tank removal. Figure 5 shows the locations of the soil samples in relation to the tank excavation as well as the location of the removed tanks. Samples "Pit 1" through "Pit 6" were collected from the bottom of the excavation at a depth of 13 feet below grade. These samples were analyzed for TPH-as-mineral spirits by modified EPA Method 8015 and for aromatic and halogenated volatile organics by EPA Methods 8010/8020. In addition, sample "Pit 1" was also analyzed for California Assessment Metals (CAM) under Title 22 CCR. Two other samples identified as "East-End" and "West-End" were collected from a depth of 12 feet at either end of the 10,000-gallon tank from the sidewalls of the excavation. These samples were analyzed for TPH-as-mineral spirits, volatile organics by EPA Method 8240, and aromatic hydrocarbons by EPA Methods 5030/8020.

The results of soil sample analyses are summarized in Tables 1 through 3. Laboratory reports and Chain-of-Custody documentation is included in Appendix H.

EXCAVATED SOIL DISPOSAL

Excavated soils totaling 984 tons were stockpiled on the back lot and covered with plastic prior to disposal. Soil samples were collected from the stockpiled soils for characterization analyses.

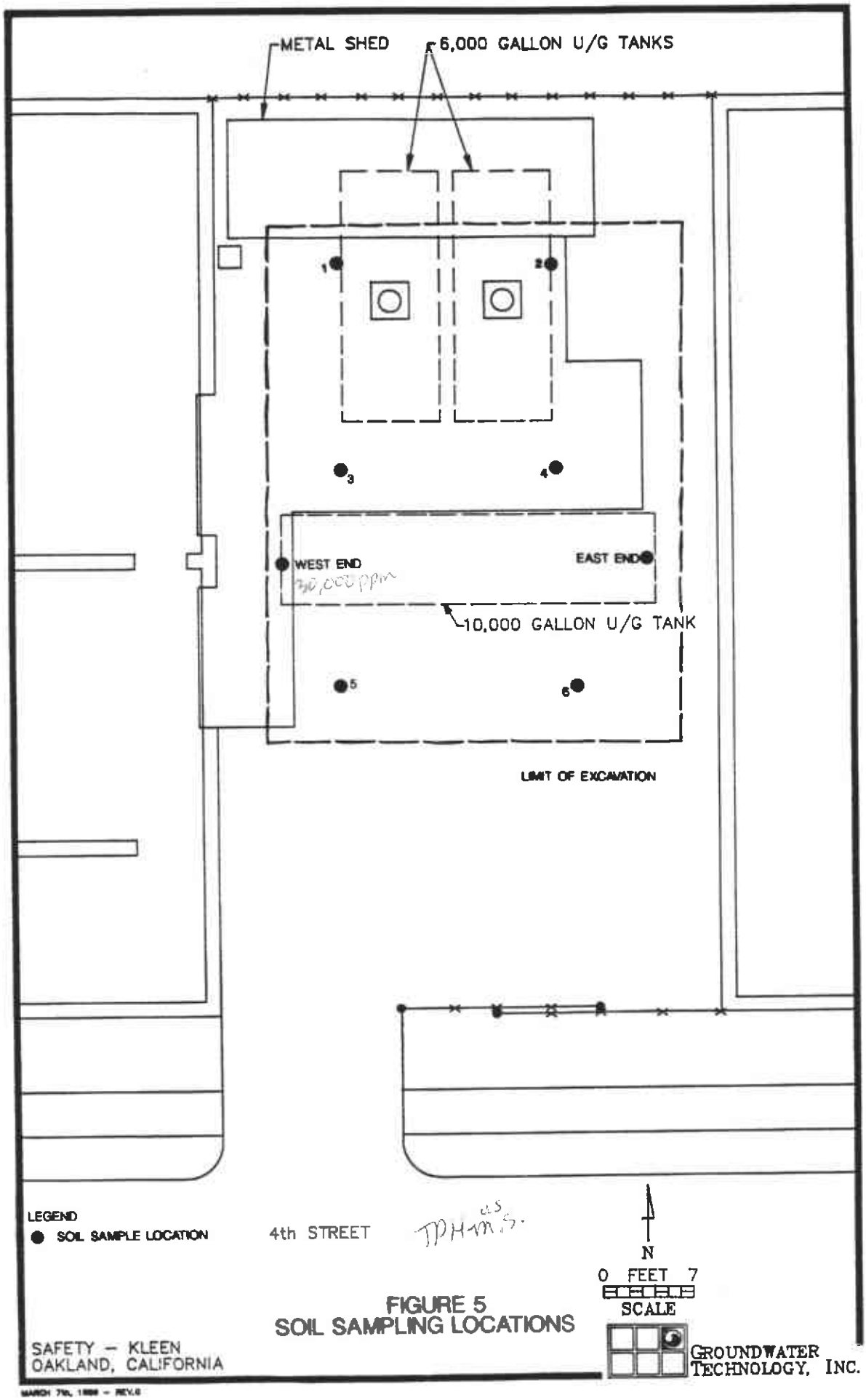

FIGURE 5
SOIL SAMPLING LOCATIONS

SAFETY – KLEEN
OAKLAND, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

TABLE 1

LABORATORY ANALYTICAL RESULTS
FOR SOIL SAMPLES
EPA METHOD 8020 AND 8015
AROMATIC HYDROCARBONS AND TPH-AS-MINERAL SPIRITS
(parts per million [ppm])

SAMPLE I.D.	DEPTH (ft.)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	TPH-AS-MINERAL SPIRITS
Pit 1	13	<0.5	11.0	4.6	49	12,000
Pit 2	13	<0.5	18.0	5.1	84	9,500
Pit 3	13	<0.5	11.0	2.7	49	2,400
Pit 4	13	<0.5	7.6	3.1	50	10,000
Pit 5	13	<0.5	7.5	3.5	45	9,700
Pit 6	13	<0.5	11.0	5.1	78	12,000
EAST END	12	<0.1	6.0	<0.1	34	16,000
WEST END	12	0.01	4.0	<0.1	28	30,000

TPH = Total Petroleum Hydrocarbons

TABLE 2

LABORATORY ANALYTICAL RESULTS
FOR SOIL SAMPLES
CHLORINATED HYDROCARBONS
(results in parts per million [ppm])

SAMPLE I.D.	EPA METHOD	DEPTH (ft.)	CHLORO-BENZENE	1,2 DCB	1,3 DCB	1,4 DCB	1,1 DCE	T 1,2 DCE	PCE	1,1,1-TCA	TCE	1,1 DCA
Pit 1	8010	13.0	<0.5	12	1.2	6.5	1.3	1.5	7.8	7.3	1.7	<0.5
Pit 2	8010	13.0	<0.5	12	1.3	6.6	2.0	2.1	8.6	9.8	3.4	<0.5
Pit 3	8010	13.0	<0.5	15	1.0	6.6	0.4	3.9	0.71	3.0	<0.5	<0.5
Pit 4	8010	13.0	<0.5	16	1.1	7.3	0.3	5.8	<0.5	2.8	<0.5	<0.5
Pit 5	8010	13.0	1.0	15	0.9	6.0	0.5	3.8	1.1	3.6	45	<0.5
Pit 6	8010	13.0	0.6	20	1.6	9.8	0.4	4.0	0.7	3.3	78	<0.5
East End	8240	12.0	<0.25	15	7.8	8.2	<0.25	2.5	4.0	11.0	0.75	<0.25
West End	8240	12.0	<0.25	10	2.4	5.9	<0.25	1.9	8.4	17.0	<0.25	0.27

1,2 DCB = 1,2 Dichlorobenzene
1,3 DCB = 1,3 Dichlorobenzene
1,4 DCB = 1,4 Dichlorobenzene
1,1 DCE = Dichloroethene
T1,2 DCE = trans 1,2-Dichloroethene
PCE = Tetrachlorethane
1,1,1 TCA = 1,1,1 Trichloroethane
TCE = Trichloroethene
1,1 DCA = 1,1 Dichloroethane

TABLE 3

**LABORATORY ANALYTICAL RESULTS
FOR SOIL SAMPLE "PIT 1"
CAM Metals**
(Results in ppm)

TOTAL THRESHOLD LIMIT CONCENTRATION TEST RESULTS

PARAMETER	PIT 1	STLC TTLC
Antimony	<25	
Arsenic	<25	
Barium	39	100
Beryllium	<1	
Cadmium	<3	5
Chromium	41	80
Cobalt	8	25
Copper	8	5 1000
Lead	12	
Mercury	<0.02	
Molybdenum	<25	
Nickel	<5	
Selenium	<50	
Silver	<5	
Thallium	<13	
Vanadium	22	24
Zinc	23	250

all ok

Excavated soils were transported to Port Costa Materials, Inc., in Port Costa, California for thermal destruction of volatile hydrocarbons in their rotary kiln. A copy of the laboratory reports and the Certificate of Destruction is included in Appendix I.

INSTALLATION OF NEW UST SYSTEM AND REMEDIAL FACILITIES

Installation of the new underground storage tank system began on June 12, 1990. This section of the report describes the new UST system and the remediation facilities installed to address residual soil contamination and separate-phase product extraction.

DESCRIPTION OF NEW UNDERGROUND STORAGE TANK SYSTEM

Two new 12,000-gallon double-walled Glasteel^{TM} underground storage tanks were installed in the excavation at the site. Sheets 1 through 3 (Appendix J) provide the details of tank construction, including a description of the manways and leak detection monitoring systems. One tank will be used to store clean mineral spirits solvent, and the other will be used for spent solvent storage.

The tanks were manufactured by Modern Welding Company, Inc., and the piping, which is steel with high-density polyethylene secondary containment, was manufactured by Total Containment, Inc. The Glasteel^{TM} tanks were produced in accordance with Underwriters' Laboratories, Inc. (UL) Standard 58 (Standard for steel underground tanks for flammable and combustible liquids) and the Association for Composite Tanks Standards ACT-100 (Specification for the fabrication of FRP-clad USTs). The tanks also meet, or exceed, the requirements of the National Fire Protection Association (NFPA) Standards 30 and 31, the Uniform Fire Code and National Standards Institute B137.1-1971. These standards are intended to prevent the collapse or rupture of tanks used for flammable liquid storage.

Prior to placing the tanks into the excavation, a 12- to 18-inch bed of pea-gravel aggregate was placed as a base for the tanks. Three concrete deadmen for each tank were placed in the excavation and then the tanks were lowered into the excavation. Hold-down straps (four per tank) were placed over the tanks and then attached to the deadmen.

The tank pit was backfilled to within 5 feet of the surface using pea-gravel. The manways and associated product lines were then installed in the excavation.

VAPOR AND GROUNDWATER EXTRACTION SYSTEMS

Prior to completion of tank pit backfilling, soil-vent system piping and a product recovery well were installed in the excavation to accomplish future remedial action objectives. These objectives are to remove any residual separate-phase product which accumulates in the tank pit and to remediate soil adjacent to the tank pit.

The Work Plan for Soil-Vent System and Recovery Well Installation, prepared by Groundwater Technology, Inc., dated June 15, 1990, was submitted to the DHS and the California Regional Water Quality Control Board, San Francisco Bay Region for review.

Figure 6 presents the location of the product recovery well and the soil-vent system layout in schematic. Sheet 4 (in pocket-Appendix J) provides details of the construction of these facilities.

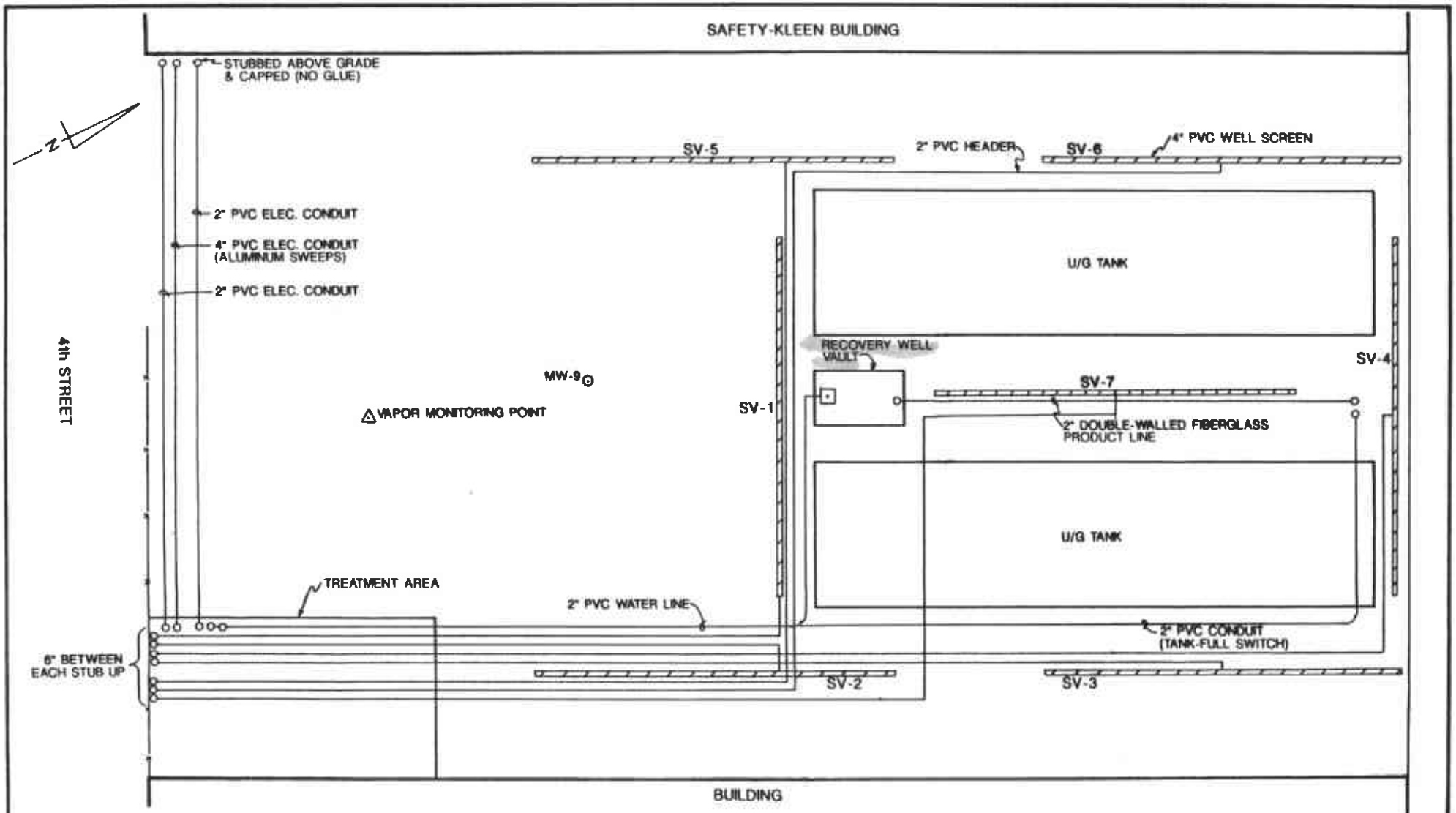

FIGURE 6
SCHEMATIC SOIL VENT SYSTEM LAYOUT

SAFETY-KLEEN
OAKLAND, CALIFORNIA

0 FEET 5

GROUNDWATER TECHNOLOGY, INC.

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The recovery well was installed using an excavator to trench approximately 4-feet below the bottom of the tank excavation (total depth of 17 feet). A 10-inch diameter by 10-foot long stainless-steel screen with 0.02-inch wire-wrapped screen openings was welded to a 10-inch diameter by 5-foot long low-carbon steel blank casing. The casing and screen was placed in the excavation so that the top of the casing was 2-feet below grade. The annular space around the recovery well was then backfilled using pea-gravel. A 3-foot by 5-foot Forni vault was installed at the surface to protect the wellhead and house future pumping equipment.

The soil-vent piping consists of seven 20-foot lengths of 4-inch diameter slotted polyvinyl chloride (PVC) pipe manifolded in the southern portion of the site. The piping was placed horizontally at a depth of approximately 6-feet below grade in the tank pit backfill and, in the case of SV-1, in a trench 5 feet deep. The piping was covered with pea-gravel, polyethylene film, and geotextile material, and the tank pit was completely backfilled to the surface. The purpose of the polyethylene film is to direct the vacuum created by the future soil-vent system away from the tank pit, to areas where native materials contain residual contamination.

Electrical conduit, water and product lines necessary for future remedial efforts were installed between the recovery well vault, the treatment area, and sources of electrical power for the facility (See Figure 6 and Sheet 4).

COMPACTION TESTING AND RESURFACING

On June 28, 1990 after finishing backfilling of the tank pit and preparing the surface for the concrete slab, compaction testing was conducted by Kleinfelder and Associates. The Safety-Kleen specifications called for 95 percent compaction or greater. A total of four tests were conducted with a Campbell MC-2 gauge. The primary backfill material consisted of 1/8-inch to 3/4-inch naturally rounded aggregate (pea-gravel). However, the final 24 inches consisted of 3/4-inch aggregate base-rock. The results of the tests yielded a 95.25 percent average compaction. A copy of the test results is included in Appendix K.

The area above the tanks was resurfaced with 6 inches of steel reinforced concrete.

TANK INTEGRITY TESTING

The newly installed tanks were pressure tested on July 2, 1990 by Timmerman Engineering Construction. Prior to tank testing, the tanks were filled with water. Both tanks tested tight using the Petro-Tite test method. A copy of the tank testing report is included in Appendix L.

WASTE OIL TANK REMOVAL

On July 2, 1990, the location of the small capacity underground tank, found during a previously conducted geophysical survey of the property north of the Oakland Service Center, was determined and excavation began. Upon uncovering the top of the tank, a sample of the sludge from inside the tank revealed that

it was used in the past for waste oil storage. The tank was removed on July 5, 1990, and transported to H&H Environmental Services for disposal. Soil samples were collected from the native soil below the tank.

A report dated September 11, 1990 was prepared describing the waste oil tank removal including soil sample laboratory analytical results. This report is included as Appendix M.

CLOSURE

This concludes the Report of Underground Storage Tank System Replacement Activities at the Safety-Kleen Oakland Service Center. Groundwater Technology, Inc. hopes that this report meets Safety-Kleen's requirements at this time. If you have any questions or comments please call our Concord office at (415) 671-2387.

APPENDIX A
CHRONOLOGY OF EVENTS

RE: Safety Kleen, Oakland Facility
Chronological List of Events
By Jamie Bethell
Field Supervisor

Date:

5-31-90 Thursday

Met with key project personnel:

Anne Lunt, Safety Kleen, Regional Engineer
Jim Knous, Safety Kleen, Branch Manager
John Dees, Universal Engineering, Site Supervisor
Paul Horton, Groundwater Technology, Inc.
Project Manager
Jamie Bethell, Groundwater Technology, Inc.
Site Project Manager

Removed sludge and debris from loading/unloading shed, see Figure 1;

Removed loading/unloading shed and transported to north north end of site, see Figures 2 and 3;

Unloaded and stockpiled deadman;

Reviewed shoring plan;

Removed product and waste from existing tanks;

Set safety standards for site;

Prepared site for shoring;

Monitored site with organic vapor monitor (OVM);

Scheduled confined space entry personnel for desludging tank;

Stored contaminated equipment on visqueen, see Figure 4.

6-1-90 Friday

Calibrated OVM and monitored site;

Set-up decontamination area;

Met with M. Mougakis, Universal Engineering of confined space entry team and defined workscope;

Removed all gauging and monitoring equipment from tanks;

Held safety meeting, see Figure 5;

Desludged tanks by confined space entry personnel, see Figure 6;

Cleaned tanks by hydroblasting, see Figure 7;

Met with Mr. K. Madoshi, Department of Health Services, (DHS);

Initiated shoring, see Figure 8;

Supervised field operations.

6-2-90 Saturday

Calibrated OVM and monitored site;

Set shoring;

Excavated soils to set shoring;

Monitored soils during excavation;

Contacted security for schedule changes;

Monitored areas off site with OVM;

Calculated amounts of soils to be removed;

Notified A. Lunt of progress and soil volume be excavated;

Supervised field operations;

Noticed product coming into shoring trench, see Figure 9;
Prepared area for stockpiling soils.

6-3-90 Sunday

Calibrated OVM and monitored site;

Contacted Local Security Services, problems with security;

Set shoring;

Supervised field operations;

Monitored soils excavated for shoring placement.

6-4-90 Monday

Calibrated and monitored site with OVM;

Built berm around soils;

Cut concrete pad atop tanks;

Stopped all shoring activities,

Met with Ralph Johnson of Ralph Johnson and Associates:
RE: Damage to inventory from vibrations of setting shoring;

Removed concrete atop tanks;

Monitored soils beneath concrete;

Released Universal Engineering crew early;

Met with Ralph Johnson:
RE: Alternate methods of setting shoring;

Sampled stockpiled soils;

Reviewed soil vent system materials, specifications;

Worked on alternate shoring plan;

Met with Ralph Johnson and Ray Sherman, Lawyer;
RE: Future shoring activities.

Met with P. Horton and C. Prokop;
RE: Site activities and soil vent design.

6-5-90 Tuesday

Calibrated OVM and monitored site;

Designed new shoring plan;

Contacted:
1) D. Byrne, Alameda County Health Agency (ACHA)
2) Inspector Hallert, Oakland Fire Department, (OFD)
3) K. Madoshi, DHS
4) S. Spears, City of Oakland Building Department.

Reviewed waste oil tank removal plan;

Scheduled existing tank removal activities;

Inspected carbon canisters for filtration systems upon arrival from vendor;

Set shoring by excavation method, see Figure 10;

Supervised field operations;

Sampled excavated soils, see Figure 11.

6-6-90 Wednesday

Calibrated OVM and monitored site;

Removed soils atop the two hazardous waste tanks, see Figure 12;

Prepared decontamination area for field personnel, see Figures 13 and 14;

Contacted Local Security, security problems;

Monitored soils and air with OVM during removal of soil above UST's;

Assessed design of soil vent system;

Removed monitoring wells No.7, SK-1, and SK-3 during excavation.

Met with Gary Long and reviewed site;

Supervised field operations, see Figure 15;

Received wastewater discharge permit;

Investigated permitting for waste oil tank removal.

6-7-90 Thursday

Calibrated OVM and monitored site;

Prepared decontamination area;

Monitored tanks with OVM and LEL, see Figure 16;

Inerted tanks with dry ice, see Figure 17;

Met with: 1. K. Madoshi DHS
2. Inspector Dawson, OFD;

Removed two 6,000 gallon UST's;

Inspected the UST's;

Transported tanks off site to disposal facility, H & H Environmental Services, see Figure 18;

Removed concrete and soil from atop virgin mineral spirits tank, see Figure 19;

Supervised field operation;

6-8-90 Friday

Calibrated OVM and monitored site;

Prepared decontamination area;

Inserted tank with dry ice;

Monitored tank with LEL and OVM;

Met with: 1. Inspector Dawson, OFD
2. D. Byrne, ACHA;

Sampled beneath the tank, see Figure 20;

Removed one 10,000 gallon UST, see Figure 21;

Inspected UST;

Constructed groundwater filtration system;

Relayed laboratory analysis on excavated soils, 6-5-90, to A. Lunt and Universal Engineering;

Received recovery well vault;

Scheduled security;

Supervised field operations.

6-9-90 Saturday

Calibrated OVM and monitored site;

Prepared decontamination area;

Constructed additional security fence for truck parking;

Constructed additional components for shoring support, see Figure 22;

Modified design of soil vent system to incorporate new changes;

Excavated and stockpiled contaminated soils;

Supervised field operations.

6-10-90 Sunday

Calibrated OVM and monitored site;

Prepared decontamination area;

Gauged on site monitoring wells;

Excavated and stockpiled contaminated soils;

Constructed sump in southwest corner of excavation for test purposes, see Figure 23;

Supervised field operations.

6-11-90 Monday

Calibrated OVM and monitored site;

Met on site with P. Horton, R. Thomasser, C. Prokop
RE: Soil Vent System Installation, and Recovery Well Installation;

Monitored soils being excavated;

Tabulated and monitored groundwater flow into test sump, see Figure 23;

Excavated to required depth, see Figure 24;

Constructed groundwater filtration system, see Figures 25 & 26;

Built berm about soil pile;
Supervised field operations.

6-12-90 Tuesday

Calibrated OVM and monitored site;

Sampled soils from excavation floor, approximately thirteen feet six inches in depth, see Figure 27;

Installed dewatering sump, see Figure 28;

Monitored soils being excavated;

Shut down filtration system due to leakage from carbon canister;

Installed interim recovery well, see Figure 29;

Started dewatering, see Figure 30;

Supervised field operations;

Installed pea gravel base in excavation;

Verified slope in trench, 2°to 3°;

Sampled filtration system's effluent.

6-13-90 Wednesday

Calibrated OVM and monitored site;

Picked up recovery well parts;

Placed deadman in excavation, see Figure 31;

Conducted holiday test on tanks, see Figure 32;

Placed tanks in excavation, see Figures 33, 34 and 35;

Inspected installation, see Figure 36 and 37;

Removed tanks from excavation and turned them 180°, then placed them back in excavation;

Restarted filtration system;

Placed pea gravel around base of tanks, see Figures 38 and 39;

Constructed recovery well, see Figure 40;

Anchored tanks to deadman, see Figure 41;

Supervised field operation.

6-14-90 Thursday

Calibrated OVM and monitored site;

Installed recovery well, see Figure 42;

Built soil vent system's subgrade components;

Continued placement of pea gravel about tanks, see Figures 43 and 44;

Supervised field operations.

6-15-90 Friday

Calibrated OVM and monitored site;

Met with K. Folks, EBMUD, EBMUD sampled effluent from filtration system;

Installed soil vent system's subgrade components, see Figure 45;

Placed pea gravel atop soil vent system, see Figure 46;

Supervised field operations.

Installed geotextile fabric/visqueen/geotextile fabric covering, see Figure 47;

Placed pea gravel atop covering, see Figure 48.

6-16-90 Saturday

Checked site for security;

Checked dewatering and filtration system.

6-17-90 Sunday

Checked site for security;

Checked dewatering and filtration system.

6-18-90 Monday

Calibrated OVM and monitored site;

Installed trenches for soil vent system connection piping, see Figures 49 and 50;

Initiated direct discharge from carbon canister filtration system to sewer;

Resolved security problems;

Met with Ralph Johnson and Associate's office manager, RE: Removal of shoring;

Supervised field operations.

6-19-90 Tuesday

Calibrated OVM and monitored site;

Sampled filtration system's effluent;

Met with J. Henry of Ralph Johnson and Associates, RE: Removal of shoring;

Sketched and documented site for as builts;

Scheduled temporary help personnel;

Stopped dewatering activities.

6-20-90 Wednesday

Calibrated OVM and monitored site;

Coordinated temporary help activities;

Met and updated geologist;

Monitored with OVM areas where shoring was being pulled;

Supervised field operations.

Started removal of shoring, see Figure 51;

Installed containment sumps on tanks, see Figures 52 and 53.

6-21-90 Thursday

Calibrated OVM and monitored site;

Removed dewatering equipment from excavation;

Constructed new berm about soil pile;

Installed trench for UST's vent line and soil vent piping, see Figure 54;

Supervised field operations.

6-22-90 Friday

Installed soil vent system piping;

Removed remainder of shoring;

Monitored area where shoring was being pulled with OVM;

Coordinated temporary help (glass catchers) activities;

Scheduled inspections for UST air tests;

Changed source tank to filtration system from Baker 1 to Baker 2;

Installed vent lines to UST;

Started installing product piping, see Figure 55;

Supervised field operation;

Installed soil vent system piping, see Figures 56 through 60.

6-23-90 Saturday

Met with G. Stout of Local Security at site to check security at site.

6-24-90 Sunday

Checked security at site.

6-25-90 Monday

Calibrated OVM and monitored site;

Surveyed site, see Figure 61;

Met with E. Young and C. Dee about contractual agreement and change orders;

Prepared recovery well vault for installation;

Completed installation of piping, see Figure 62;

Supervised field operation;

Cleaned dewatering storage tank, Baker 1.

6-26-90 Tuesday

Monitored site with OVM;

Installed trench for electric feeds to treatment compound, also see Figure 60;

Met with Inspector Hallert OFD and reviewed UST installation;

Tested UST's, failed waste tank, passed raw product tank;

Stopped discharge of treated groundwater to sewer;

Supervised field operations.

6-27-90 Wednesday

Monitored site with OVM;

Restarted discharge of treated groundwater;

Met with Inspector Hallert, OFD;

Tested tank and product lines with air; passed;

Tested hydrostatically six (6) containment sumps;

Met with J. Smith, EBMUD to review and sample discharge of filtration system;

Sampled discharge of filtration system;

Completed and passed hydrostatic test on six (6) containment sumps;

Tested secondary containment on piping; passed;

Met with Inspector G. Doyle, City of Oakland Building Department, RE: Road usage;

Decommissioned filtration system;

Formed and poured concrete pad for recovery well vault, see Figures 63, 64 and 65;

Released one of the dewatering tanks, Baker 1;

Reviewed project accounting statement;

Supervised field operations.

6-28-90 Thursday

Monitored site with OVM;

Sketched piping schematic for as builts;

Installed recovery well vault, see Figures 66 and 67;

Completed backfilling of excavation with pea gravel;

Connected piping from recovery well vault to new waste tank, see Figure 68;

Connected and sealed final section of manways on tanks, see Figure 69;

Initiated backfilling and compaction of "AB" rock, see Figures 70 and 71;

Met with Ralph Johnson and Associates,
RE: Check on vibrations from compacting machine;

Tested compaction of fill, passed, see Figure 72;

Set forms for concrete slab;

Set rebar, see Figure 73;

Supervised field operations.

6-29-90 Friday

Monitored site with OVM;

Set rebar, see Figure 74;

Completed pour and finished concrete, see Figure 75;

Supervised field operations.

7-2-90 Monday

Inspected concrete work;

Staked out location of waste oil tank;

Filled new tanks with water for testing;
Moved loading/unloading shed to concrete slab, see Figure 76;

Tested tanks using Petro-Tite, passed, see Figure 77;

Met with Mr. Madoshi, DHS and reviewed present work and soil piles;

Uncovered waste oil tank, see Figure 78;

Supervised field operations.

7-3-90 Tuesday

Calibrated OVM and LEL;

Monitored site, waste oil tank excavation and waste oil tank;

Sampled sludge from waste oil tank;

Started installing piping to and within unloading/loading shed;

Supervised field operations.

7-4-90 Wednesday

Holiday

7-5-90 Thursday

Calibrated OVM and LEL;

Monitored site and waste oil tank;

Removed waste oil and sludge from tank, see Figures 79, 80, and 81;

Met with Inspector Dawson, OFD;

Met with D. Byrne, ACHA;

Tested waste oil tank with LEL, acceptable;

Removed waste oil tank, see Figure 82;

Transported tank to H & H Environmental Services for disposal;

Inspected excavation for contamination;

Sampled soil beneath waste oil tank;

Backfilled and compacted excavation;

Continued installation of piping;

Removed the second dewatering tank, Baker II, from site;

Supervised field operations.

7-6-90 Friday

Installed electric wiring for pumps, high level alarms, and leak detection sensor;

Tested leak detection sensors;

Installed ball float valves in USTs;

Continued installation of piping;

Supervised field operations.

7-9-90 Monday

Sampled soil from stockpiled soils;

Inspected and documented leak detection equipment;

Continued installation of piping in loading/ unloading shed;

Installed drum washers into dumpsters, see Figure 83;

Supervised field operations.

7-10-90 Tuesday

Installed dumpsters into shed, see Figure 84;

Formed and poured concrete pad for treatment compound;

Continued installation and hook-up of piping to drumwashers;

Installed leak detection, high level alarm, and mineral spirits pump control panels;

Supervised field operations.

7-11-90 Wednesday

Continued installation of piping into loading/unloading dock area, see Figure 85;

Documented and sketched equipment for as builts;

Met with E. Young to review site work;

Contacted D. Byrne of ACHA to appraise him of sites progress and final site inspection;

Supervised field operations.

7-12-90 Thursday

Tested and troubleshot UST system alarms;

Met with J. Knous and reviewed UST systems;

Met with P. Horton and reviewed project;

Sampled soil from stockpiled soils.

Completed piping hook-up to dumpsters and shed, see Figure 86.

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5

FIGURE 6

FIGURE 7

FIGURE 8

FIGURE 9

FIGURE 10

FIGURE 11

FIGURE 12

FIGURE 13

FIGURE 14

FIGURE 15

FIGURE 16

FIGURE 17

FIGURE 18

FIGURE 19

FIGURE 20

FIGURE 21

FIGURE 22

FIGURE 23

FIGURE 24

FIGURE 25

FIGURE 26

FIGURE 27

FIGURE 28

FIGURE 29

FIGURE 30

FIGURE 31

FIGURE 32

FIGURE 33

FIGURE 34

FIGURE 35

FIGURE 36

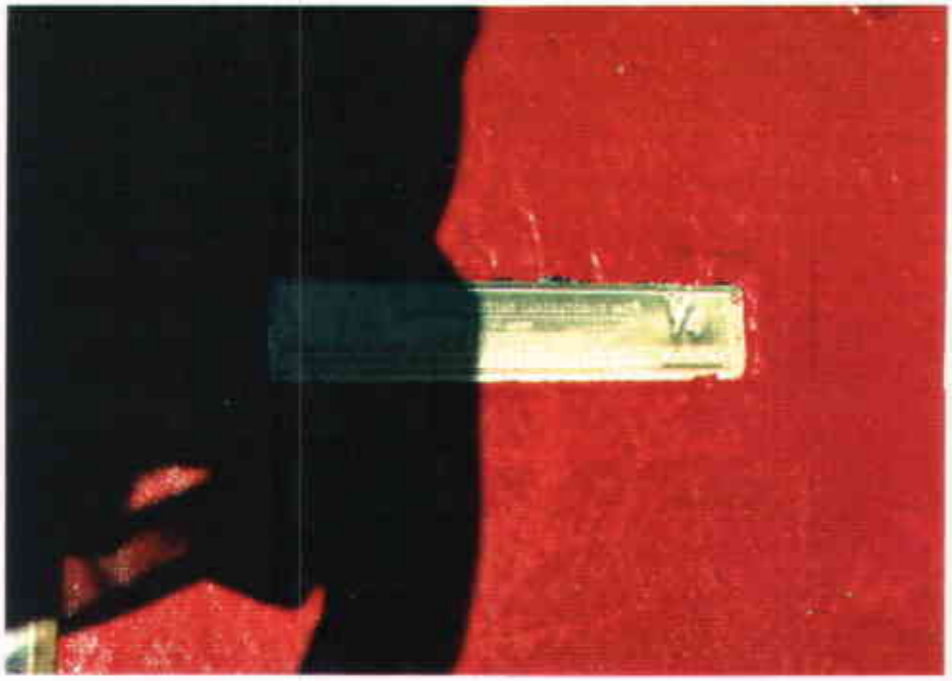


FIGURE 37

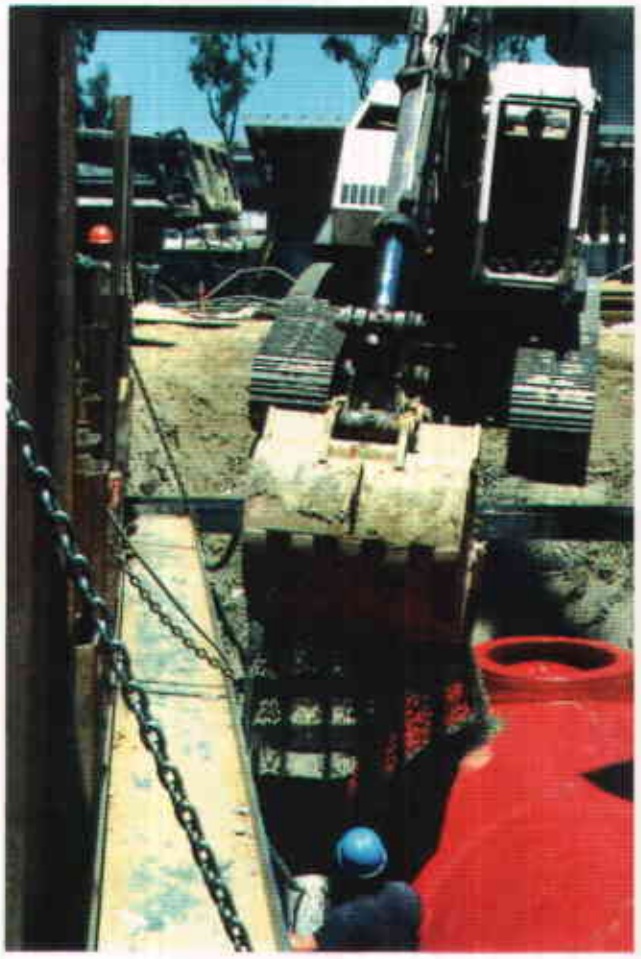


FIGURE 38

FIGURE 39

FIGURE 40

FIGURE 41

FIGURE 42

FIGURE 43

FIGURE 44

FIGURE 45

FIGURE 46

FIGURE 47

FIGURE 48

FIGURE 49

FIGURE 50

FIGURE 51

FIGURE 52

FIGURE 53

FIGURE 54

FIGURE 55

FIGURE 56

FIGURE 57

FIGURE 58

FIGURE 59

FIGURE 60

FIGURE 61

FIGURE 62

FIGURE 63

FIGURE 64

FIGURE 65

FIGURE 66

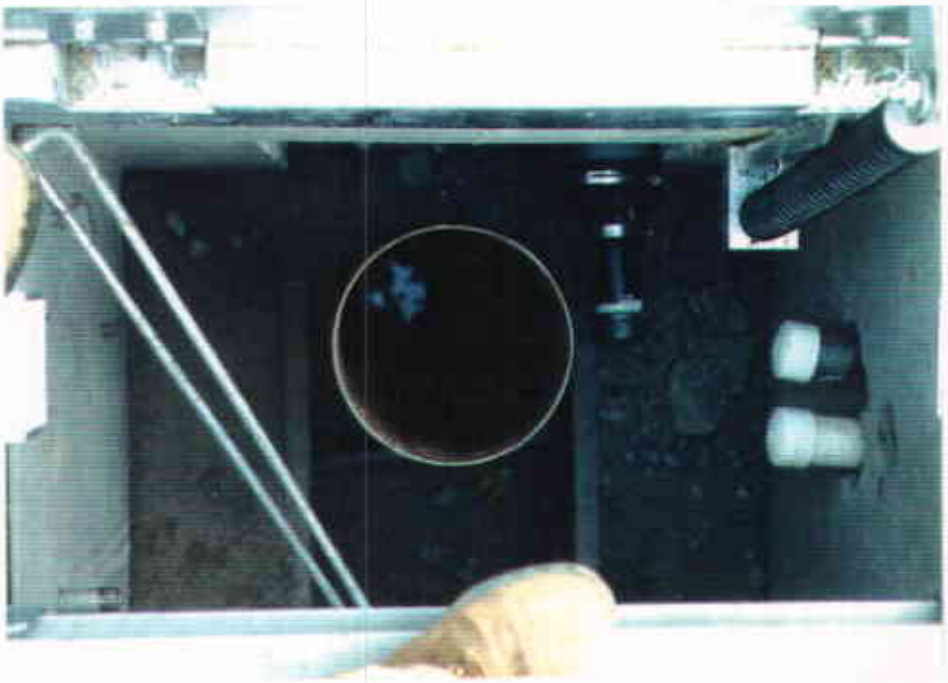


FIGURE 67

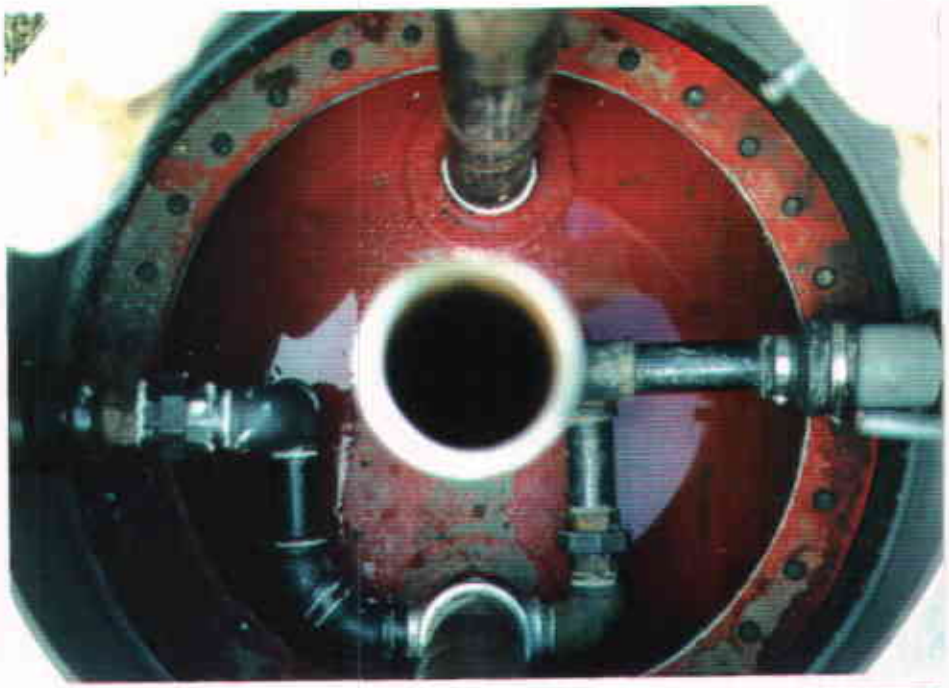


FIGURE 68

FIGURE 69

FIGURE 70

FIGURE 71

FIGURE 72

FIGURE 73

FIGURE 74

FIGURE 75

FIGURE 76

FIGURE 77

FIGURE 78

FIGURE 79

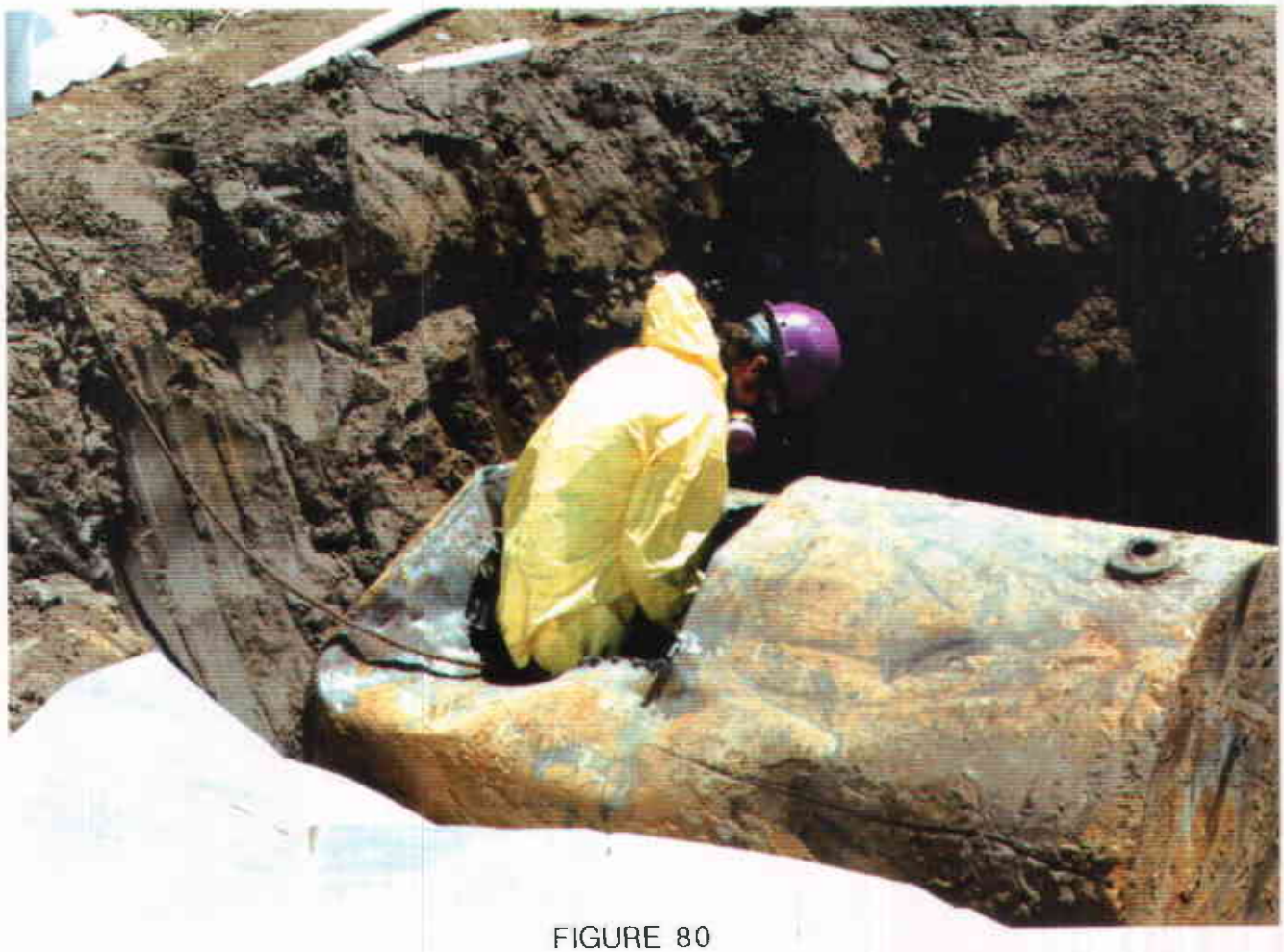


FIGURE 80

FIGURE 81

FIGURE 82

FIGURE 84

FIGURE 83

FIGURE 85

FIGURE 86

APPENDIX B
AIR MONITORING DATA

AIR MONITORING WITH OVM READINGS
(parts per million [ppm])

DATE	TIME	STATIONS				BACKGROUND	COMMENTS AND MISCELLANEOUS READINGS
		A	B	C	D		
5/31	1345	.2	12	3	.4	.2	
6/01	0615	.3	.5	.3	.3	.3	
	0750		3				
	0820		130	22			
	0920		25	110		1	
	1013		6	60	3	1	
	1740	.2	2	1	1		
6/02	0640	.3	.3	.3	.3	.3	
	0645						A top soil pile: 60
	0905		3	13	2		
	0910		21				
	0914		27				
	1415						Soils being excavated: 110
6/03	0630	.3	.3	.3	.3	.3	
	1340	.3	.3	.5	.3		
6/04	0630	.3	.3	.3	.3	.3	Off site and down wind of soil piles: .5
	0950	.3	1.4	.7	.3		
	1142	.3	.5	6	.3		
6/05	0625	.3	.5	.7	.3		
	0915	.5	4	23	3		Soil sample from pile: 125
	0945	.3	4	15	7		Soils being excavated: 125
	1045	.3	12	23	5		
	1220	.7	1.2	10	.5		Soils being excavated: 150
							In shoring trench: 30
	1440	.3	.5	18	6		

AIR MONITORING WITH OVM READINGS
(parts per million [ppm])

DATE	TIME	STATIONS				BACKGROUND	COMMENTS AND MISCELLANEOUS READINGS
		A	B	C	D		
6/06	0625	.2	ND	2	ND	ND	
	1000	ND	18	7	1.2	ND	
	1305	ND	4	3	5		Soils being excavated from atop tanks: 225
	1350	ND	18	13	3	1	In cab of excavator: 30
	1450	.2	18	18	5		
6/07	0615	1.2	4	15	1.5		In waste tank #1: 270 In waste tank #2: 265
	0935						Atop tank #3: 60
	0940			8			
	1005		45				
	1105	ND	7	13	3		
	1230	ND	.2	3	.5		
	1340	ND	3	7	.5		Soils atop tank #3: 45
	1440	ND	.7	13	3	1	
	1655	ND	.5	25	3		
6/08	0630	ND	ND	4	.5	.3	
	0835						In tank #3: 325
	0855						In tank #3: 265
	0915						In tank #3: 235
	1110	ND	.7	3	ND		
	1220	ND	6	9	.7		In excavation: 17
	1405	ND	1.5	7	4		
	1324	ND	2	13	1.5		Soils being excavated: 175
	1700	ND	5	8	3		
6/09	0610	ND	2	3	.7		Soil sample from pile: 165
	1005	ND	.7	5	3		
	1120						Soils being excavated: 165
	1355	.5	2	8	.9		
	1400						Soils being excavated: 145
	1530	ND	3	19	4		Soils being excavated: 225

AIR MONITORING WITH OVM READINGS
(parts per million [ppm])

DATE	TIME	STATIONS				BACKGROUND	COMMENTS AND MISCELLANEOUS READINGS
		A	B	C	D		
6/10	0840	ND	ND	ND	.2	ND	
	1125	ND	.5	20	4		Soils being excavated: 180
	1245	ND	ND	11	5		Soils being excavated: 195
6/11	0615	ND	ND	1.2	.3		In excavation: 30 Soil sample from pile: 120
	0740	ND	ND	5	2		
	1245	.2	20	6	5		Soils being excavated: 200
	1355	ND	.2	13	7		Soils being excavated: 315
	1740	ND	ND	.5	2		Soils being excavated: 285
6/12	0635	ND	ND	2	.5		Soil sample from pile: 155
	0850	ND	4	9	2		Soils being excavated: 220
	1055	ND	.2	5	.7		Soils being excavated: 130
	1345	ND	.5	5	2		
	1555	ND	.2	5	7		Soil sample from pile: 170 In excavation: 27
	1635	ND	ND	8	6		Soil sample from pile: 170
6/13	0610	ND	.2	.5	ND		Soil sample from pile: 220 In excavation: 25
	0925	ND	6	.5	3		Soil sample from pile: 210
	1345	ND	ND	.2	2		In excavation: 7
	1400	ND	2	.7	9		In excavation: 2
	1705	ND	.5	.2	4		In excavation: 2
6/14	0610	ND	ND	.7	.5		Soil sample from pile: 180
	1250	ND	ND	.5	2		
	1400	ND	ND	2	2		In excavation : ND

AIR MONITORING WITH OVM READINGS
(parts per million [ppm])

DATE	TIME	STATIONS				BACKGROUND	COMMENTS AND MISCELLANEOUS READINGS
		A	B	C	D		
6/15	0630	ND	ND	ND	.2		Soil sample from pile: 43 Atop recovery well: 25 In excavation: ND
	1035	ND	.2	.7	.2		Soil sample from pile: 105
	1220	ND	ND	.7	.7		In excavation: .5 Soil sample from pile: 120
	1520	ND	ND	ND	.7		In excavation: ND Soil sample from pile: 175
6/18	0635	ND	ND	ND	ND	ND	Atop recovery well: 30 In excavation: ND Soil sample from pile: 65
	1410	ND	ND	ND	ND	ND	
6/19	0705	ND	ND	ND	ND	ND	Atop recovery well: 35 In excavation: ND Soil sample from pile: 100
6/20	0545	ND	ND	ND	ND		Atop recovery well: 35 In excavation: ND Soil sample from pile: 115
	0938						In excavation: .5
	1045						In excavation: .2
	1120						In excavation by newly pulled shoring: 9.8
	1304						In excavation by newly pulled shoring: 7.4
	1345						In excavation by newly pulled shoring: 6.5
	1430						In excavation by newly pulled shoring: 5.0
	1515						In excavation by newly pulled shoring: 12.5

AIR MONITORING WITH OVM READINGS
(parts per million [ppm])

DATE	TIME	STATIONS				BACKGROUND	COMMENTS AND MISCELLANEOUS READINGS
		A	B	C	D		
6/20	1520 1630						Soil sample from pile: 85 Soil sample from pile: 87 In excavation by newly pulled shoring: 4.0
6/21	0702 0850 0905 1010	ND	ND	ND	ND		Beside soil pile: 5.6 Atop soil pile: 34 Beside soil pile: 2.6 Beside soil pile: 11 Beside soil pile: 10
6/22	0610 1105	ND ND	ND ND	.5 ND	ND ND		Atop recovery well: 7 In excavation: ND4 Soil sample from pile: 185 In excavation by newly pulled shoring: 10
6/25	0610 1750	ND ND	ND ND	ND ND	ND ND		
6/26	0645 1600	ND ND	ND ND	ND ND	ND ND		Soil sample from pile: 145
6/27	0620 1245	ND ND	ND ND	ND ND	ND ND		
7/02	1440						Soils removed from waste-oil tank excavation: ND
7/05	1435						Soils beneath waste-oil tank: ND

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
470 - 27TH ST., RM. 322
OAKLAND, CA 94612
PHONE NO. 415/874-7237

ACCEPTED 1/23/90

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job site available to all contractors and craftsmen involved in the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire Department Building Inspection Department to determine if such changes meet the requirements of State and local laws.

Notify this Department at least 48 hours prior to the following required inspections:

01/12/90 Removal of Tank and Piping
01/12/90 Sampling
01/12/90 Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable governmental regulations.

THERE IS A FINANCIAL [illegible]
OBTAIN P[illegible]

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name Safety-Kleen Corporation

   Business Owner Safety-Kleen Corporation

2. Site Address 404 Market Street

   City Oakland, CA Zip 94607 Phone (415)832-7942

3. Mailing Address 2750 Thompson Creek Road

   City Pomona, CA Zip 91767 Phone (714)593-3985

4. Land Owner Bedford Properties

   Address 3470 Mt. Diablo Blvd City, State Lafayette, CA Zip 94549

5. EPA I.D. No. CAD 053044 053

6. Contractor Groundwater Technology, Inc.

   Address 4080-D Pike Lane

   City Concord, CA 94520 Phone (415)671-2387

Subcontractor: License Type A ID# 527659

7. Other (Specify) Universal Engineering, Inc.

   Address 610 Industrial Way

   City Benicia, CA 94510 Phone (707) 746-6699

Excavation Permit Granted _____ No. _____

CITY OF OAKLAND

Permit to Excavate and Install, Repair, or Remove Inflammable Liquid Tanks

Tank Permit No. 9395

Oakland, California, May 29, 1990

PERMISSION IS HEREBY GRANTED TO ~~XXXX~~ remove ~~XXXX~~ Gasoline tank and excavate accordingly ~~XXXX~~ feet ~~XXXX~~ inches deep

on the East side of Market Street Street Avenue 100 feet n/e of 4th Street ~~XXXX~~ Street Avenue

House No. 404 Market Street Present Storage _____

Owner Safety-Kleen Corp. Address 404 Market St. Phone _____

Applicant Groundwater Technology Address 4080-D Pike Ln. Concord 94520 Phone 685-9250

Dimensions of street (sidewalk) surface to be disturbed _____ X _____ Number of Tanks 2 / 1 Capacity 6,000 / 10,000 Gallons each

Remarks: _____

This Permit is granted in accordance with existing City Ordinances.
Owner hereby agrees to remove tanks on discontinuance of use or when notified by the City Authorities.
When installing, removing or repairing tanks, no open flame to be on or near premises.

Approved _____ Fire Marshal

Approved _____ Drainage Division Engineering Dept.

EXCAVATING PERMIT

Issued in accordance with Ord. No. 278 CMS, Sec. 6-2.04

_____ square feet of digging or removal granted.

The receipt of $ _____ special deposit is hereby acknowledged.

GENERAL DEPOSIT. BUREAU OF PERMITS AND LICENSES.

CERTIFICATE OF TANK AND EQUIPMENT INSPECTION

Inspected and passed on _____

By _____ Fire Marshal

Inspection Fee Paid . . . . . $160.00 ck#30742 rec# 634379

Received by G. M. Johnson
FIRE PREVENTION BUREAU

NOTICE

Before Covering Tanks, Above Certificate Must Be Signed.

When ready for inspection notify Fire Prevention Bureau, 273-3851

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

230.00 (6-67)

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
TOXIC SUBSTANCES CONTROL PROGRAM
2151 BERKELEY WAY, ANNEX 7
BERKELEY, CA 94704

October 13, 1989

Mr. Robert Wachsmuth
Environmental Engineer
Saftey-Kleen Corporation
2750 Thompson Creek Road
Pamona, CA 91767

Dear Mr. Wachsmuth:

REPLACEMENT OF TWO UNDERGROUND STORAGE TANKS, EACH WITH A CAPACITY OF 12,000 GALLONS AT 404 MARKET STREET IN OAKLAND, CA

We are in receipt of your revised cost comparison of replacing two underground storage tanks containing new and spent mineral spirits to the cost of replacing the entire facility.

Section 66389, Article 4 of Title 22, CCR states that, "In no event shall changes be made to a hazardous waste facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste facility." Since the costs involved in replacement for your facility are less than 50% of the costs of a new facility, you may proceed with the replacement providing all other applicable regulations regarding the handling of hazardous wastes and the replacement of the tanks are followed.

Sincerely,

Salvatore Ciriello

Salvatore Ciriello
Senior Waste Management Engineer
Region 2
Toxic Substances Control Program

cc: Tom Canady, U.S. EPA, Region IX
Lisa Mc Cann, S.F. Bay, RWQCB
Lisa Swanson, Groundwater Technology
Storm Goranson, Alameda County Environmental Health
Denise Tsuji, Region 2, SEU

MK:re-21

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

REGULATION 8, RULE 40
Aeration of Contaminanted Soil and
Removal of Underground Storage Tanks

NOTIFICATION FORM

[X] Removal or Replacement of Tanks.
[X] Excavation of Contaminated Soil

FILE COPY

SITE INFORMATION

SITE ADDRESS 404 Market Street
CITY, STATE, ZIP Oakland, CA 94609
OWNER NAME Safety-Kleen Corporation
SPECIFIC LOCATION OF PROJECT Packing and Loading Area

TANK REMOVAL

SCHEDULED STARTUP DATE 5/30/90
VAPORS REMOVED BY:
[X] WATER WASH
[ ] VAPOR FREEING (CO^2)
[ ] VENTILATION

CONTAMINATED SOIL EXCAVATION

SCHEDULED STARTUP DATE 6/7/90
STOCKPILES WILL BE COVERED? YES X NO
ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):
(MAY REQUIRE PERMIT)

CONTRACTOR INFORMATION

NAME Universal Engineering CONTACT Cliff Dee's
ADDRESS 610 Industrial Way PHONE (707) 746-6699
CITY, STATE, ZIP Benecia, CA 94510

CONSULTANT INFORMATION
(IF APPLICABLE)

NAME Groundwater Technology, Inc. CONTACT Paul Horton
ADDRESS 4080 Pike Lane, Suite D PHONE (415) 671-2387
CITY, STATE, ZIP Concord, CA 94520

FOR OFFICE USE ONLY

DATE RECEIVED _____ BY _____ (INIT.)
CC: INSPECTOR NO. _____ DATE _____ BY _____ (INIT.)
TELEPHONE UPDATE: CALLER _____ CHANGE MADE _____
BAAQMD N # _____

3/89

- Notification must be postmarked at least five days prior to startup of tank removal and/or soil excavation.

- Soil aeration operations do not require a BAAQMD permit unless the project exceeds three months time, if an alternative method to spreading the soil for evaporation will be used, or if tanks are being replaced.

- Revisions to the information stated in this notice may be made by telephone.

- If the project is delayed (for no more than five working days), you may notify the District by telephone of the new startup date.

INSTRUCTIONS:

Specific Location of Project: Indicate where the tank removal or soil excavation is taking place.

Examples: Northwest corner of Gas Station lot
Pit D of South Excavation area
Fuel storage area north of Auxiliary Road

Scheduled Startup Date: Indicate a correct and accurate startup date, not a prospective date. If this date is delayed (by no more than five working days) telephone the District at (415) 771-6000, extension 300, to report the new startup date.

Tank Removal: Indicate what type method will be used to remove vapors after tank is emptied of product. (Tanks must have all liquids and sludges removed to the extent possible before decommissioning.)

Soil Excavation: Indicate whether contaminated soil stockpile will be covered. If an alternative method of aeration will be used (e.g., forced air), briefly describe.

Contractor Information: Indicate the name, address, appropriate contact person and phone number of the contractor performing and responsible for the tank removal and/or soil excavation.

Consultant Information: If applicable, indicate the name, address, appropriate contact person and phone number of any environmental consultant used.

Return this form **at least five days prior to start up** to:

Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
Attn: Enforcement Division

APPENDIX D
SURVEY OF ADJACENT STRUCTURES

LARGE MAP REMOVED

APPENDIX E
SHORING DESIGN AND MODIFICATIONS

90-15

H. V. ANDERSON ENGINEERS

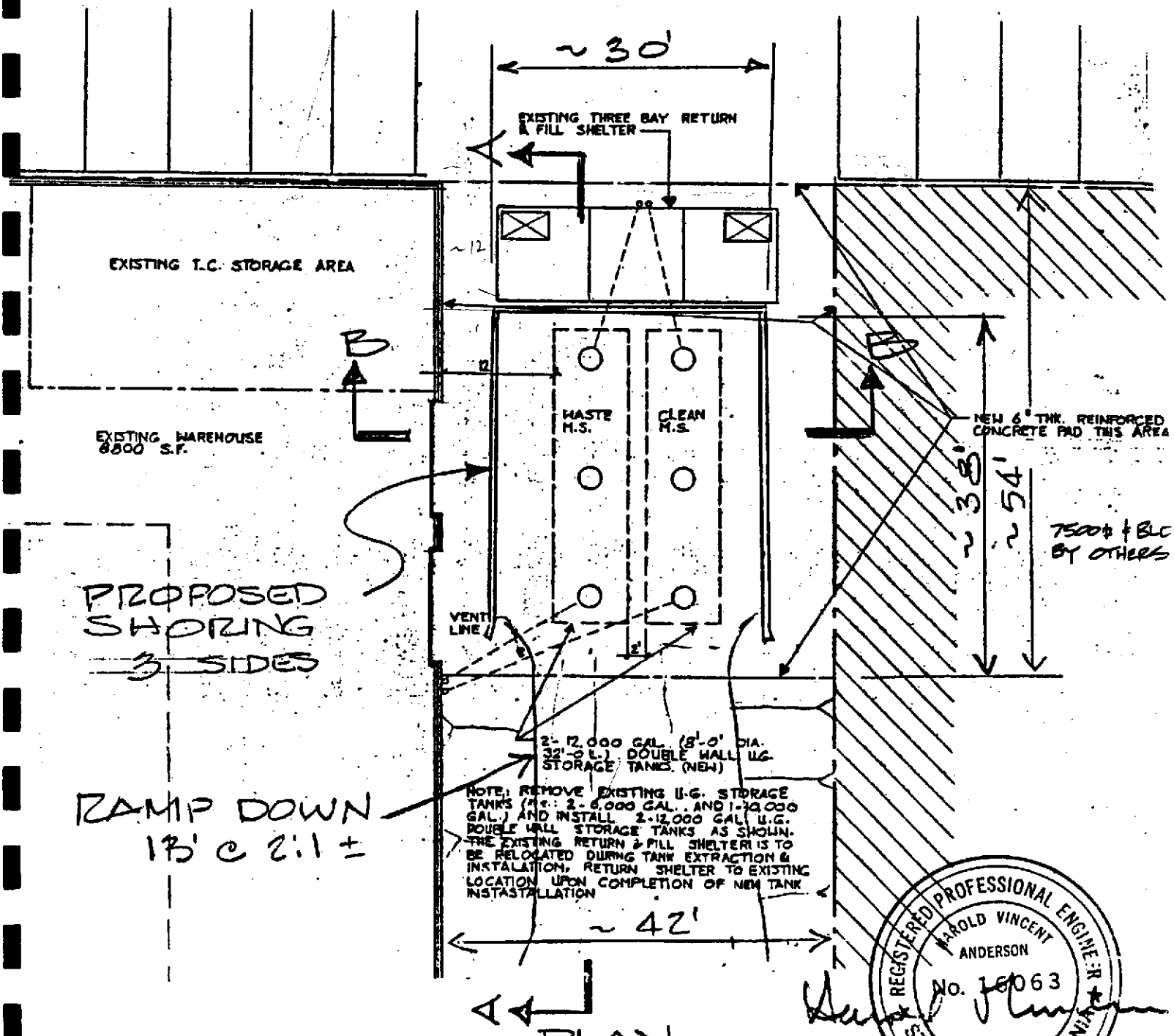
HA UNIVERSAL ENGINEERING
SAFETY-KLEEN JOB

Investigations & Reports / Conceptual Planning / Design Reviews / Construction Engineering

5/25/9C
SHEET 1 OF 8

SHORING DESIGN FOR REMOVAL & REPLACEMENT OF TANKS

1. PROPOSED INSTALLATION:



PLAN

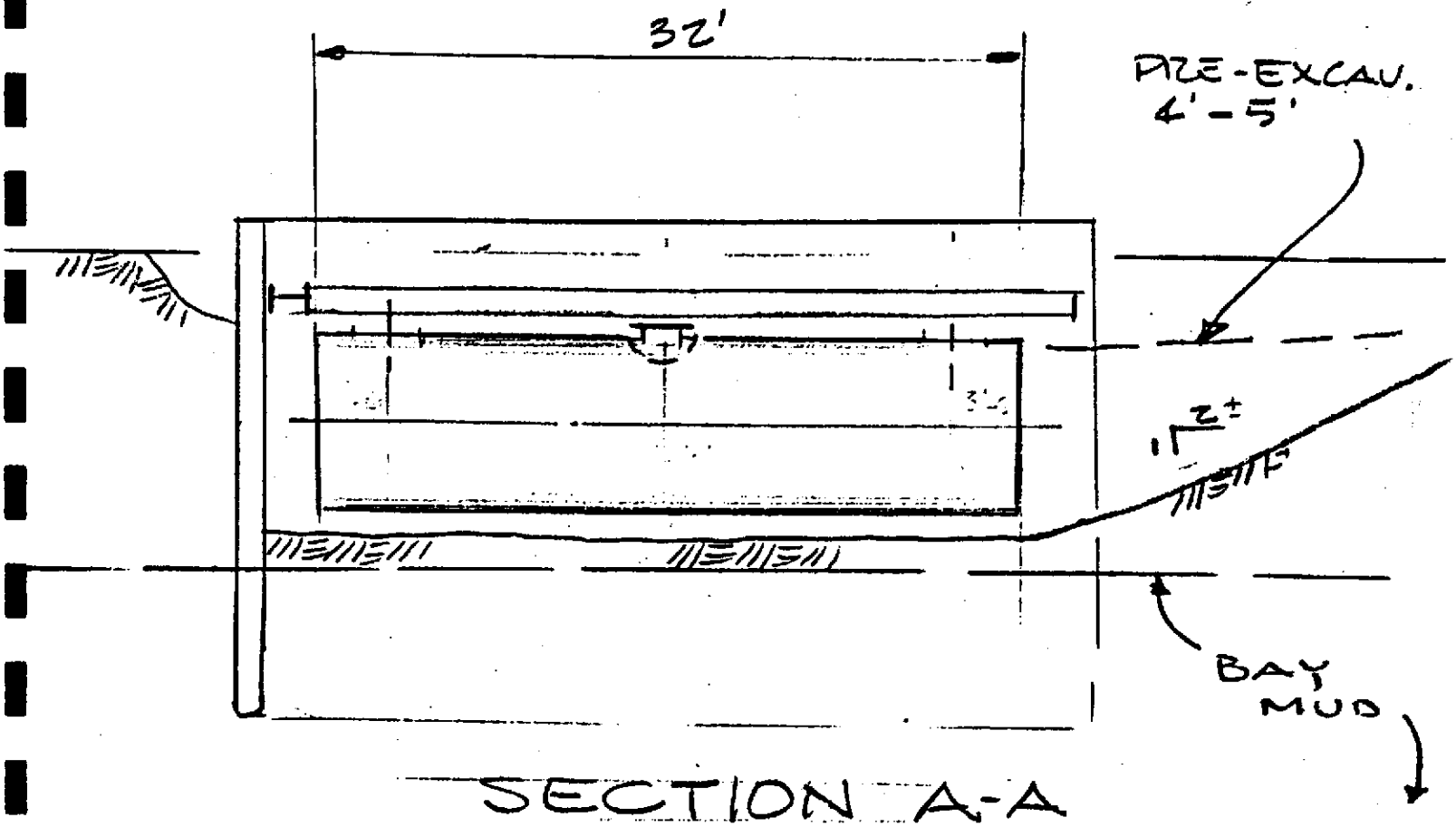
1/16" ~ 1'-0

REGISTERED PROFESSIONAL ENGINEER
HAROLD VINCENT ANDERSON
No. 16063
CIVIL
STATE OF CALIFORNIA

EXP. 6/30/93

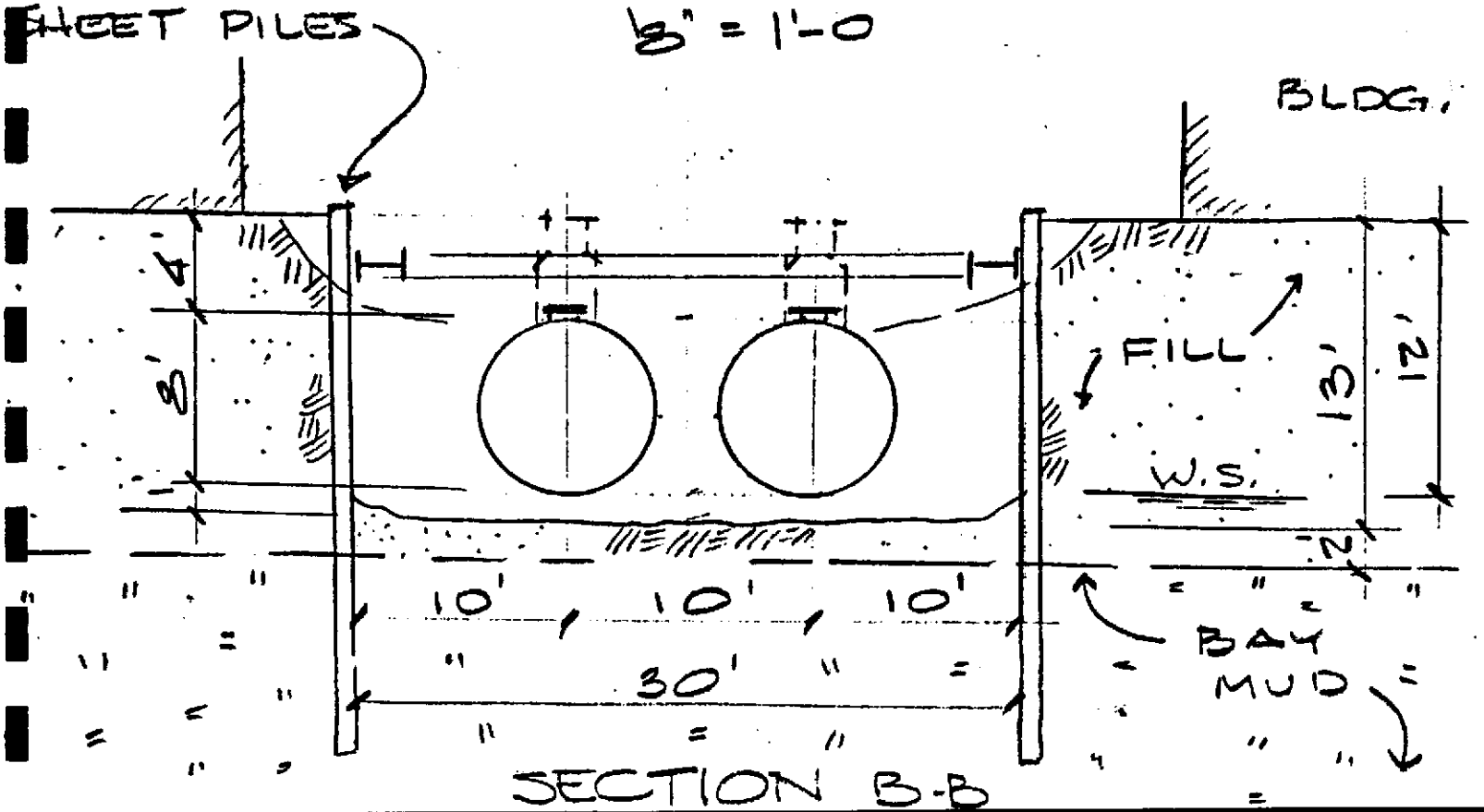
HA

Investigations & Reports / Conceptual Planning / Design Reviews / Construction Engineering



SECTION A-A

3" = 1'-0



SECTION B-B

HA

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2. PROCEDURE :

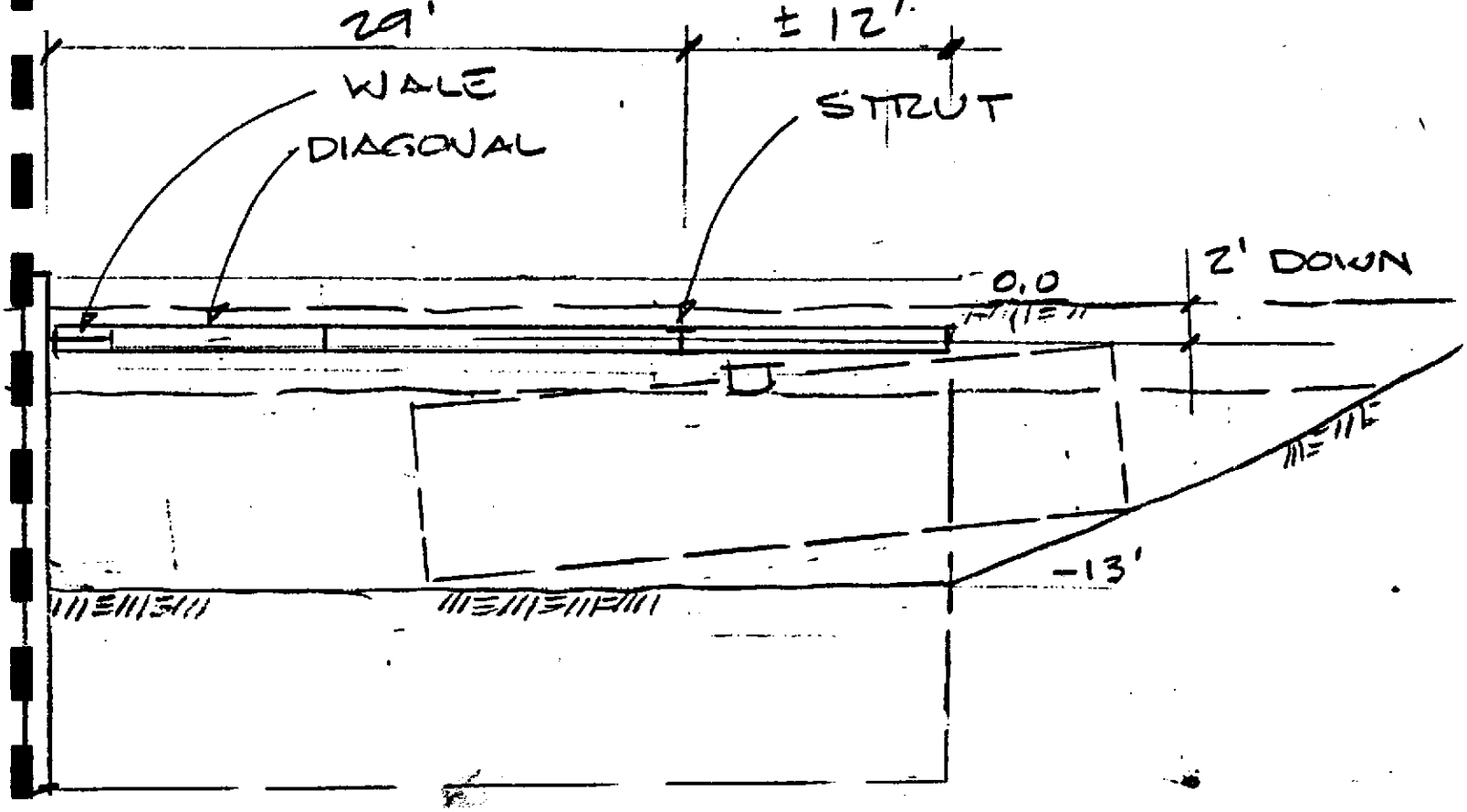
(a) PRE-EXCAVATE 4-5' TO EXPOSE TOPS OF EXISTING TANKS.

(b) SET WALE ON GROUND SURFACE AND BEGIN STABBING SHEET PILES ON 3 SIDES, DRIVE TO SPECIFIED EMBEDMENT,

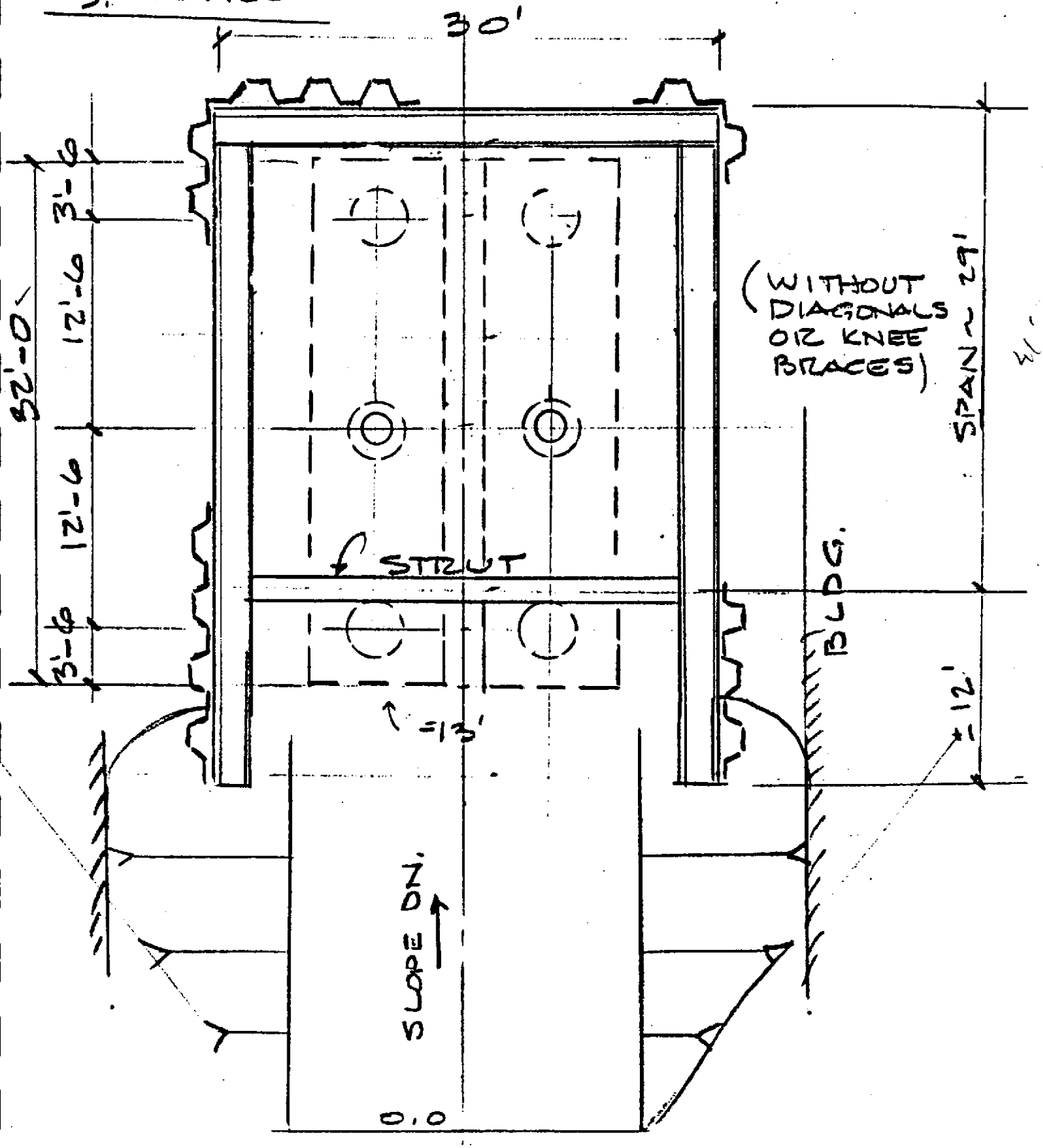
(c) EXCAVATE REMAINING 8' OR 9' TO GRADE. PUMP OUT COLLECTED WATER.

(d) MOVE IN NEW TANKS FROM 4TH ST. ENTRANCE, COMPLETE INSTALLATION.

(e) BACKFILL & REMOVE SHORING.

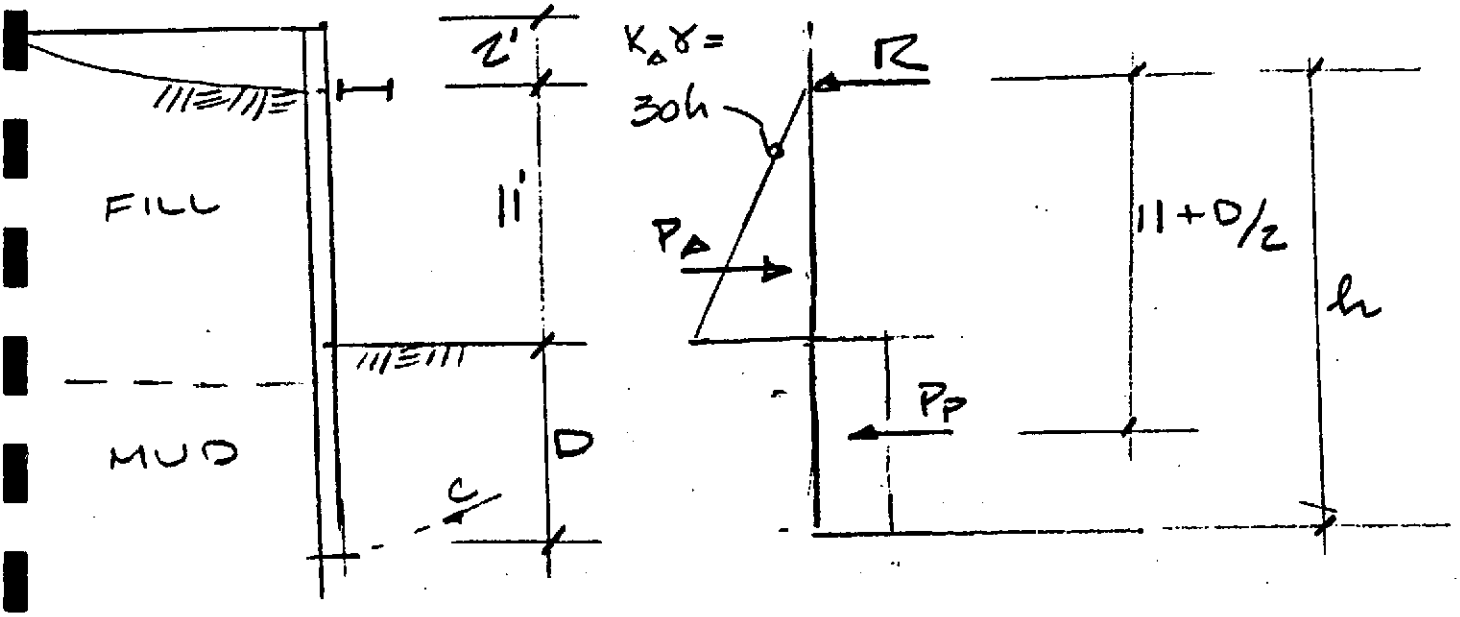


3. CONCEPT



PLAN

4. FORCES ACTING



FOR FILL MATERIALS, USE EQUIVALENT FLUID PRESSURE OF 30 h, $P_A = 0.03(11)^2/2 = 1.82^K/_{FT}$.

FOR EMBEDMENT IN BAY MUD, USE $P_p = 2C:D$ SO, FOR $C = \frac{250}{1,000}$ PSF,

$P_p = .500\,D$

ΣM @ WALE, USING S.F. = 2.0

$$(2.0)\,1.82(7.33') - \left(11 + \frac{D}{2}\right)(0.5D) = 0$$

$$26.7 - 5.5D - 0.25D^2 = 0$$

$$D^2 + 22D = 107, \qquad D = 4' +$$

THEN $P_p = \frac{0.5(4)}{2.0} = 1.0^K/_{FT}$ & FOR $\Sigma H = 0$,

$$R = 1.82 - 1.0 = 0.82^K/_{FT}.$$

FOR ACTIVE EARTH PRESSURE DUE TO FILL AT GROUND SURFACE,

$P_A = .030(13)^2/2 = 2.54$ K/FT

$\Sigma M = (2.d(2.54)(8.67') - (11 + \frac{D}{2})0.5D = 0$

$44.0 - 5.5D - 0.25D^2 = 0$

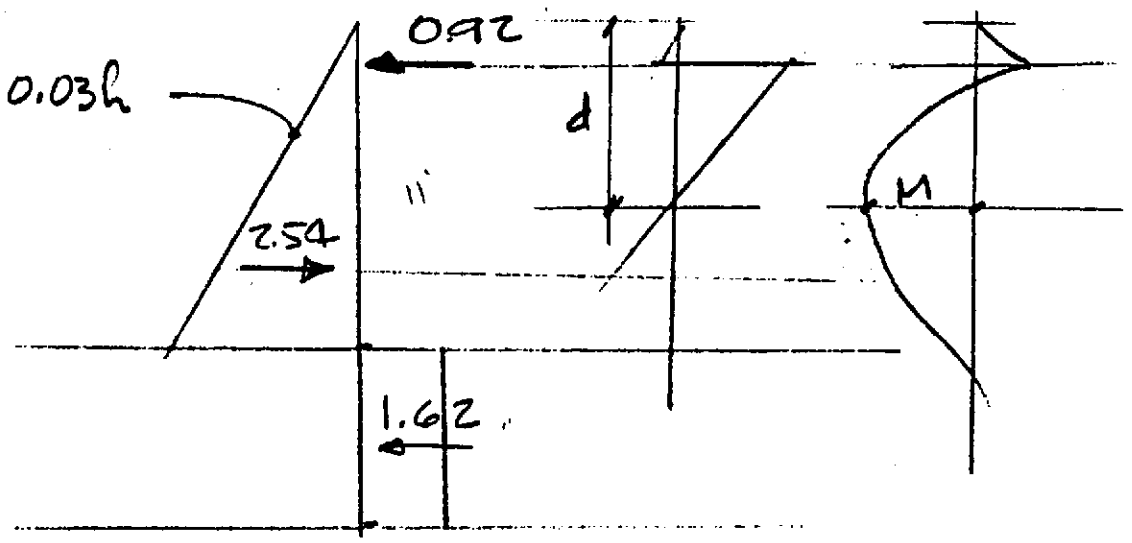
$D^2 + 22D = 176$, $D = 6.5'$

$P_p = 0.5(6.5)/2.0 = 1.62$ K

$R = 2.54 - 1.62 = 0.92$ K/FOOT ✓

5. SHEETS

USE $D = 7'$, LENGTH OF SHEETS = $13' + 7 = 20'$ MIN.



$0.92 = .03d^2/2$, $d = 7.8'$

$M = 0.92(7.8' - 2.0') - .03(7.8)^3/6$, $M = 5.336 - 2.37$

$M = 2.96$ FT-KIP/FOOT

REQ'D $S = 2.96(12)/26$ KSI $= 1.4$ IN^3,

∴ OK TO USE VERY LIGHT SHEET PILES

SUCH AS ARBED BZ-7

($S = 14.0$ IN^3)

$43.31''/12' = 3.609'$ LAYING LENGTH

MIN. DEPTH TO PRECLUDE HEAVING = $B/\sqrt{2} = 30/1.41 = 21'$!

6. WALE DESIGN

FOR AXIAL LOAD & BENDING IN SIDE WALES (18' SPAN),

$P = 0.192^K/FT\ (30'/2) = 13.8^K$, $M = 0.192(29)^2/8 = 96.7^{IK}$

OR, $M = wa^2/2$, $M = 0.192\ (12)^2/2 = 66.2^{IK}$ — WORST ↑

USING W 27 x 84 FROM STOCK -

($A_s = 24.8$, $S_{x-x} = 213\ in^3$, $r = 2.07"$)

$f_b = 96.7\ (12)/213 = 5.45\ ksi$, $F_b = 26\ ksi$

$f_a = 13.8/24.8 = 0.56\ ksi$

$KL/r = 29(12)/2.07 = 168$, $\therefore F_a = 6.9\ ksi$

$$\frac{f_a}{F_a} + \frac{f_b}{F_b} = \frac{0.56}{6.9} + \frac{5.45}{26} = 0.08 + 0.21 = 0.29\ (< 1.0)$$

IF W 27 x 84 NOT AVAILABLE, 7½" FL.

TRY W18 x 50 ($A_s = 14.7\ in^2$, $S_{x-x} = 88.9$, $r = 1.65\ in$)

$f_b = 96.7\ (12)/88.9 = 13.1\ ksi$, $F_b = 26\ ksi$

$f_a = 13.8/14.7 = 0.94\ ksi$

$KL/r = 28\ (12)/1.65 = 203$, $F_a = 6\ ksi$

SO $\frac{13.1}{26} + \frac{0.94}{6.0} = 0.50 + 0.16 = 0.66\ (< 1.0)$

$\therefore$ OK TO USE W18 x 50 FOR WALES.

7. STRUTS

$P = 0.92\left(12' + \frac{29'}{2}\right) = \underline{24.5^K}$, $L = 30' - 2(1.5') = \underline{27'}$

$\therefore$ USE W8 x 31 OR 6" ϕ SCHED 40 PIPE

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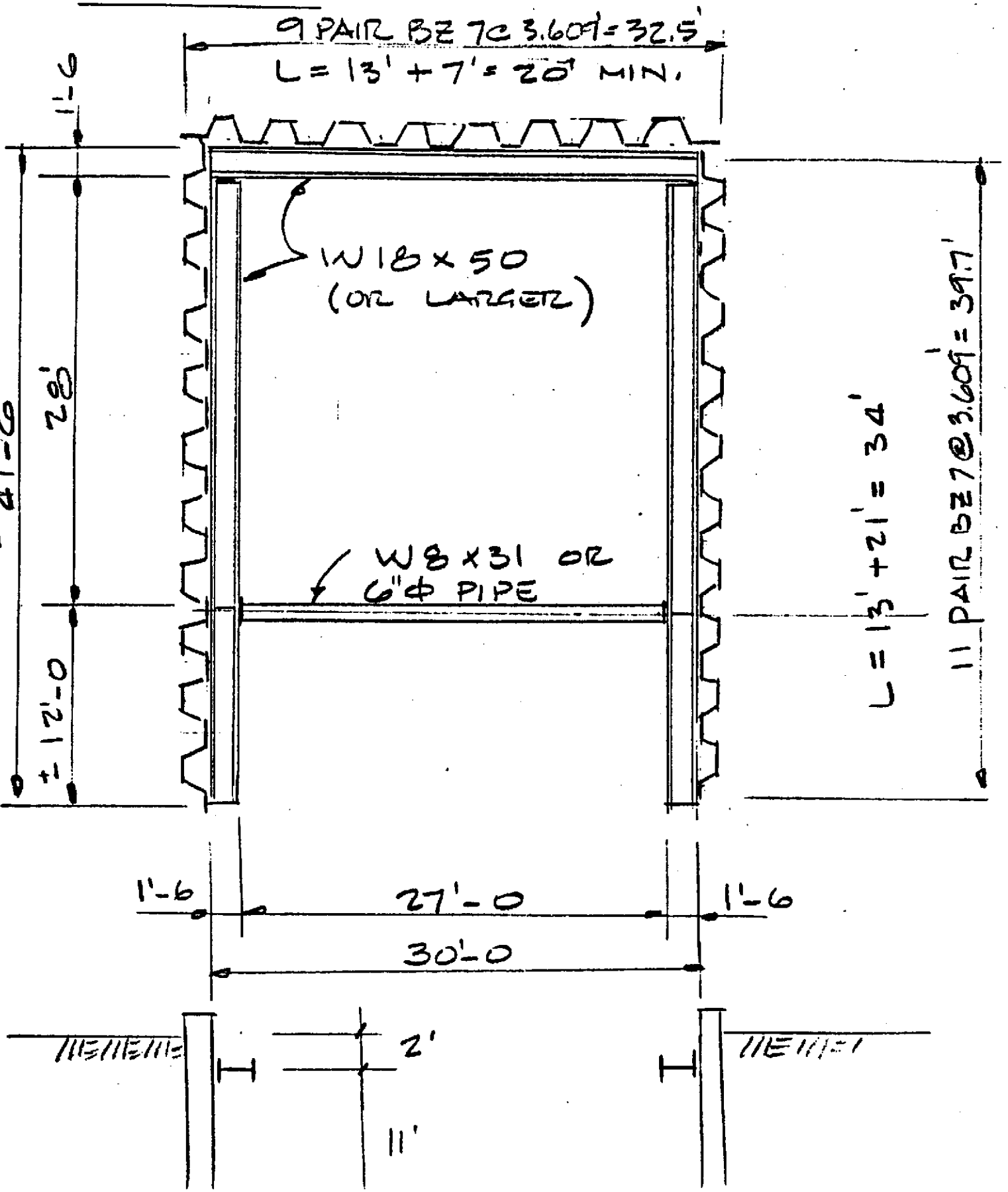
8. DESIGN



H. V. ANDERSON ENGINEERS

HA

Investigations & Reports / Conceptual Planning / Design Reviews / Construction Engineering

FACSIMILE MESSAGE

TO: JOHN DEES
UNIVERSAL ENGR.

LOCATION: OAKLAND JOB

TELEPHONE

FAX TELEPHONE (707) 746-6815

TOTAL NUMBER OF PAGES 5, NOT INCLUDING THIS COVER SHEET.

PLEASE CALL BACK IF YOU DO NOT RECEIVE ALL THE PAGES.

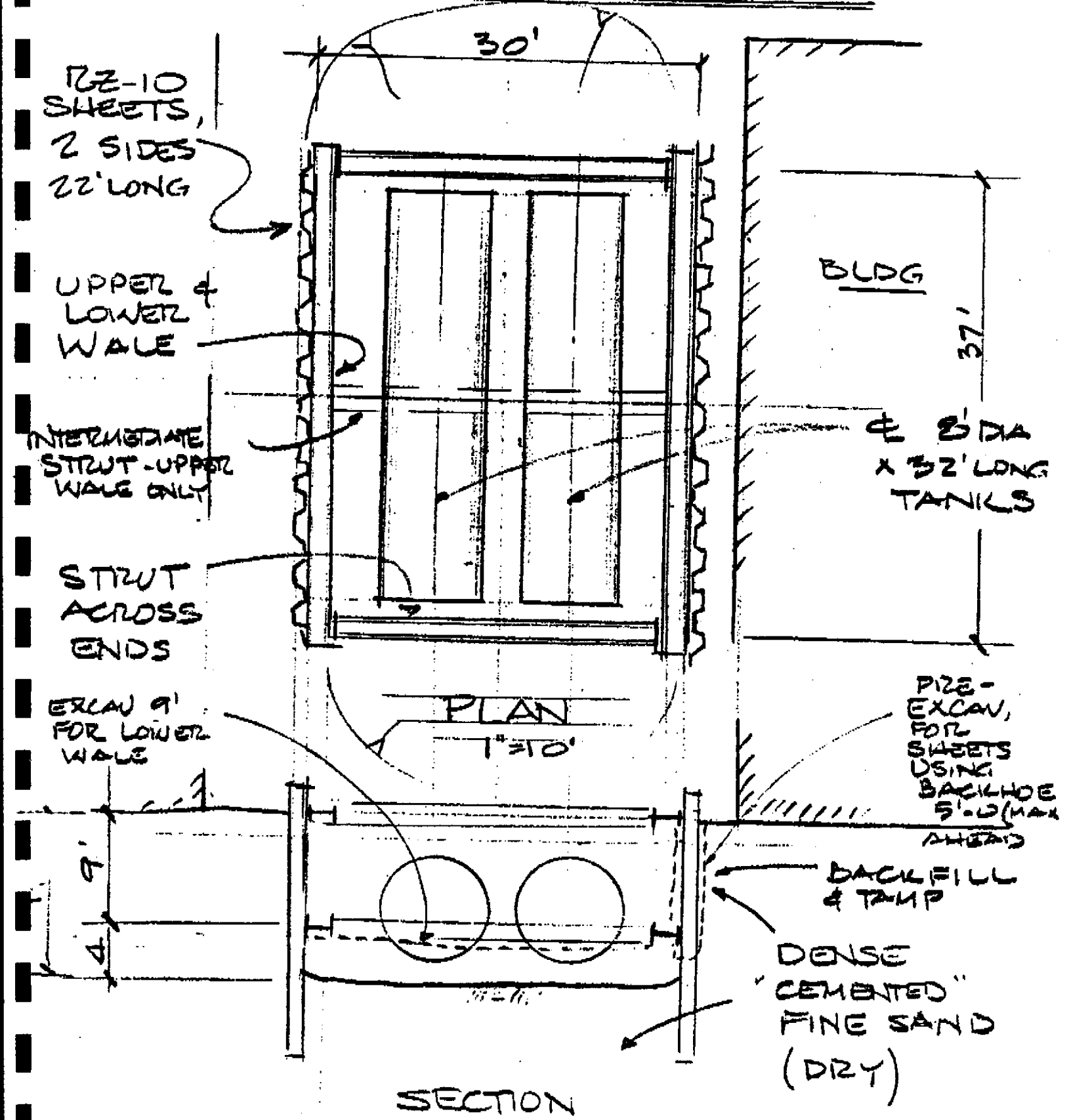
FROM: H Anderson
H.V. Anderson Engineers

DATE: June 5, 1990

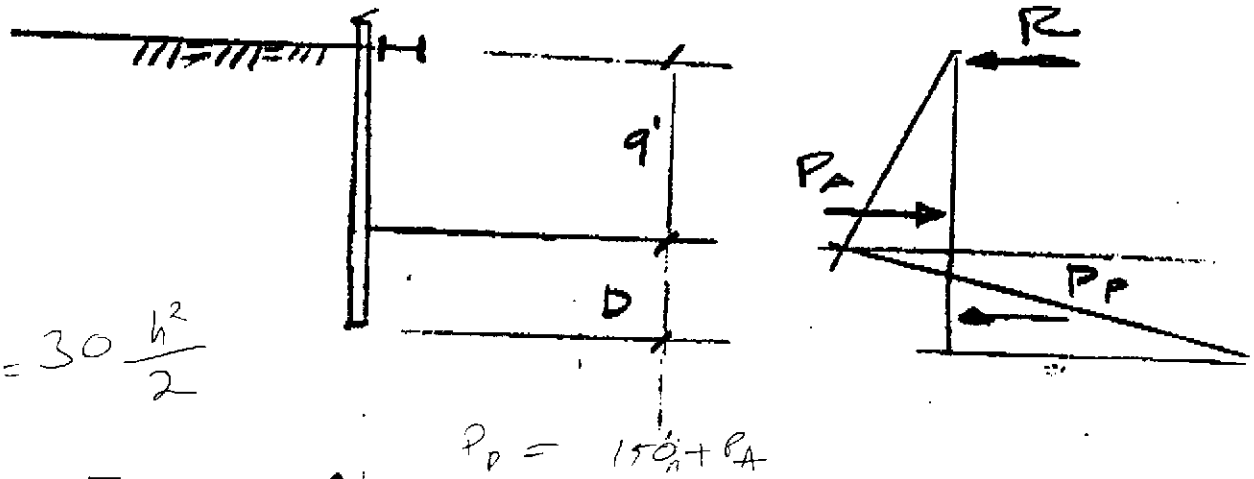
TIME: 1020 AM

NOTES: SEE SH# 11 FOR UPPER WALE
SH# 13 FOR LOWER WALE

9. ALTERNATE SHORING SCHEME



WORST LOAD ON UPPER WALE: *



USE $P_A = 30h$, $P_P - P_A = 150h$

FOR $h = 9'$

$P_A = 30(9)^2/2 = 1215$ LB/FOOT $= 1.22^K/ft$

$P_P = 150(D)^2/2 = 75D^2$

$L = 9' + 2/3\,D$

FOR Σ M @ GROUND LINE = 0, (UPPER WALE IN PLACE)

$1215(2/3 \times 9') - L(P_P)/S.F. = 0$

FOR S.F. 2.0 & SUBSTITUTING $L = 9' + 2/3\,D$

$(9 + 2/3D)\left(\frac{75D^2}{2.0}\right) = 1215(2/3 \cdot 9)$

$615D^2 + 50D^3 = 14{,}580$, $D^3 + 13.5D^2 = 292$

$\therefore$, $D = 4' +$ (64 : 216)

THEN $R = P_A - P_P$, $R = 1215 - \frac{75(4^2)}{2.0}$, $R = 615$ #/FT

* JUST PRIOR TO SETTING LOWER WALE 9' DOWN WHEN SHEETS ARE GIVEN AT LEAST 14' INTO DENSE SOILS.

FOR UPPER WALE, SPAN = 37'

$M = WL^2/8$, $M = 0.615\ (37)^2/8$, $M = 105$ FT-KIP

USING W 27 x 84 ($S = 213 IN^3$)

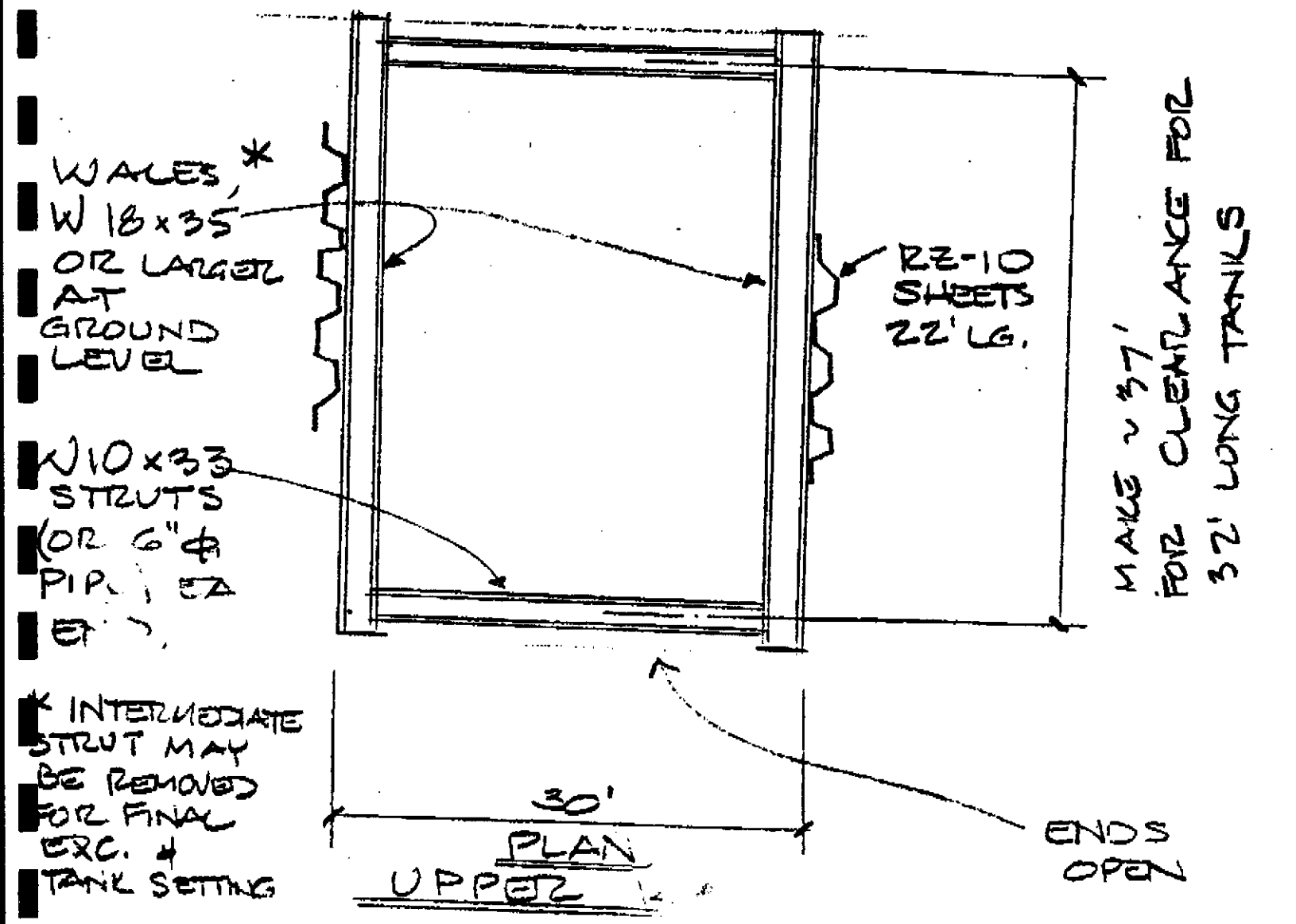
$f_b = M/S$, $f_b = 105(12)/213$, $f_b = 5.9$ ksi (low)

USING W 18 x 35 ($S = 57.6$), $f_b = 21.9$ ksi (OK)

LOAD ON UPPER STRUTS

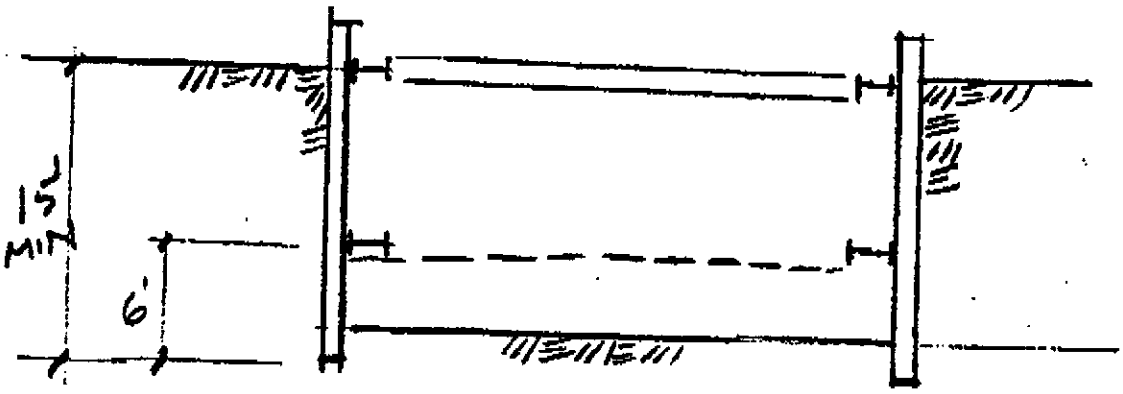
$P = 615$ LB/FT $(37'/2)$, $P = 11.4$ K (low)

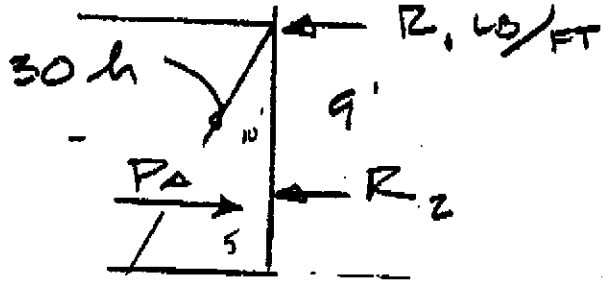
SPAN = 30', USE 6" ϕ PIPE OR LARGER
OR USE W10 x 33 OR LARGER



* INTERMEDIATE STRUT MAY BE REMOVED FOR FINAL EXC. & TANK SETTING

LOAD ON LOWER WALE





$P_A = 30 h^2/2$

WALE @ GROUND SURFACE, FOR SHEETS DRIVEN 2 FEET BEYOND BOT. OF EXCAV. INTO DENSE SOILS, $h = 15'$

$30(15)^2/2 = 3375$ LB/FT SO FOR ΣM @ LOWER WALE,

$R_1(9) + 3375(1') = 0$, $R_1 = -375$ LB/FT

$R_2 = 3375 + 375 = 3750$ LB/FT , FOR 34' SPAN

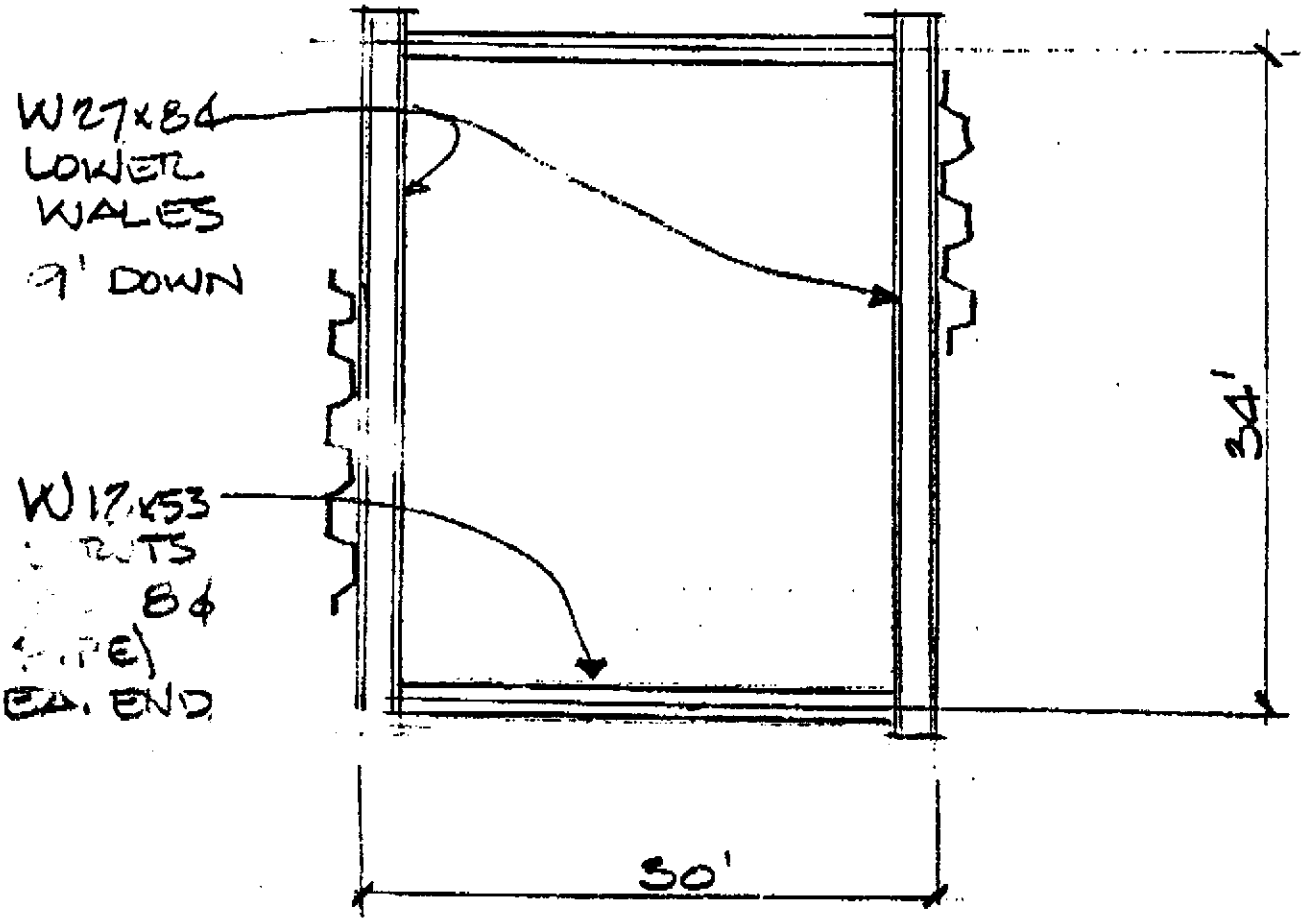
USING W 27 x 84, $M = WL^2/8$,

$M = 3750(34)^2/8 = 542$ FT-KIPS.

$f_b = 542(12)/213$, $f_b = 30$ KSI (HIGH BUT OK)

STRUT LOAD = $3.75(34')/2 = 64$ K (27' COL.)

USE W12x53 OR 8" SCHED 40 PIPE STRUTS



PLAN

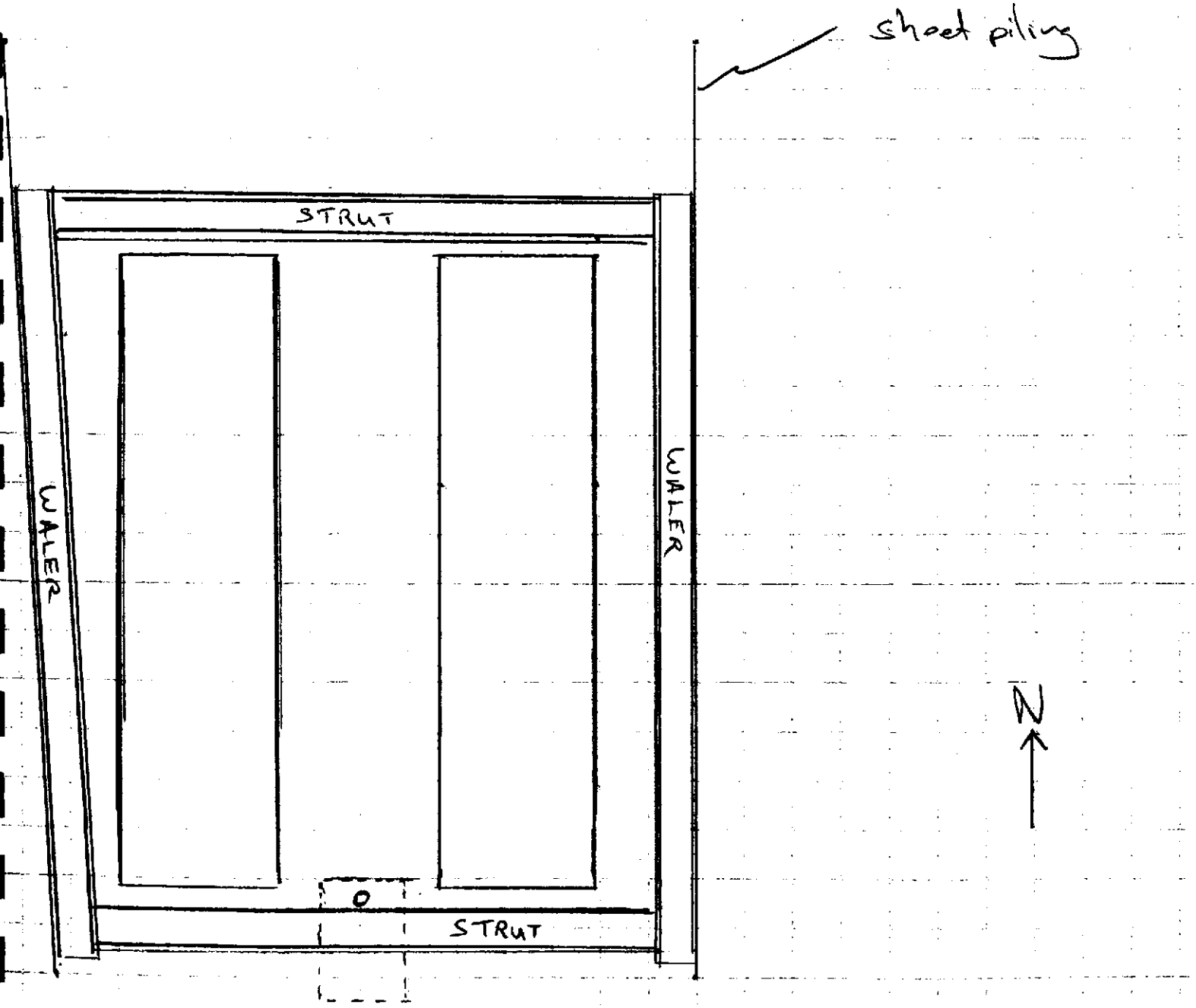
LOWER WALE

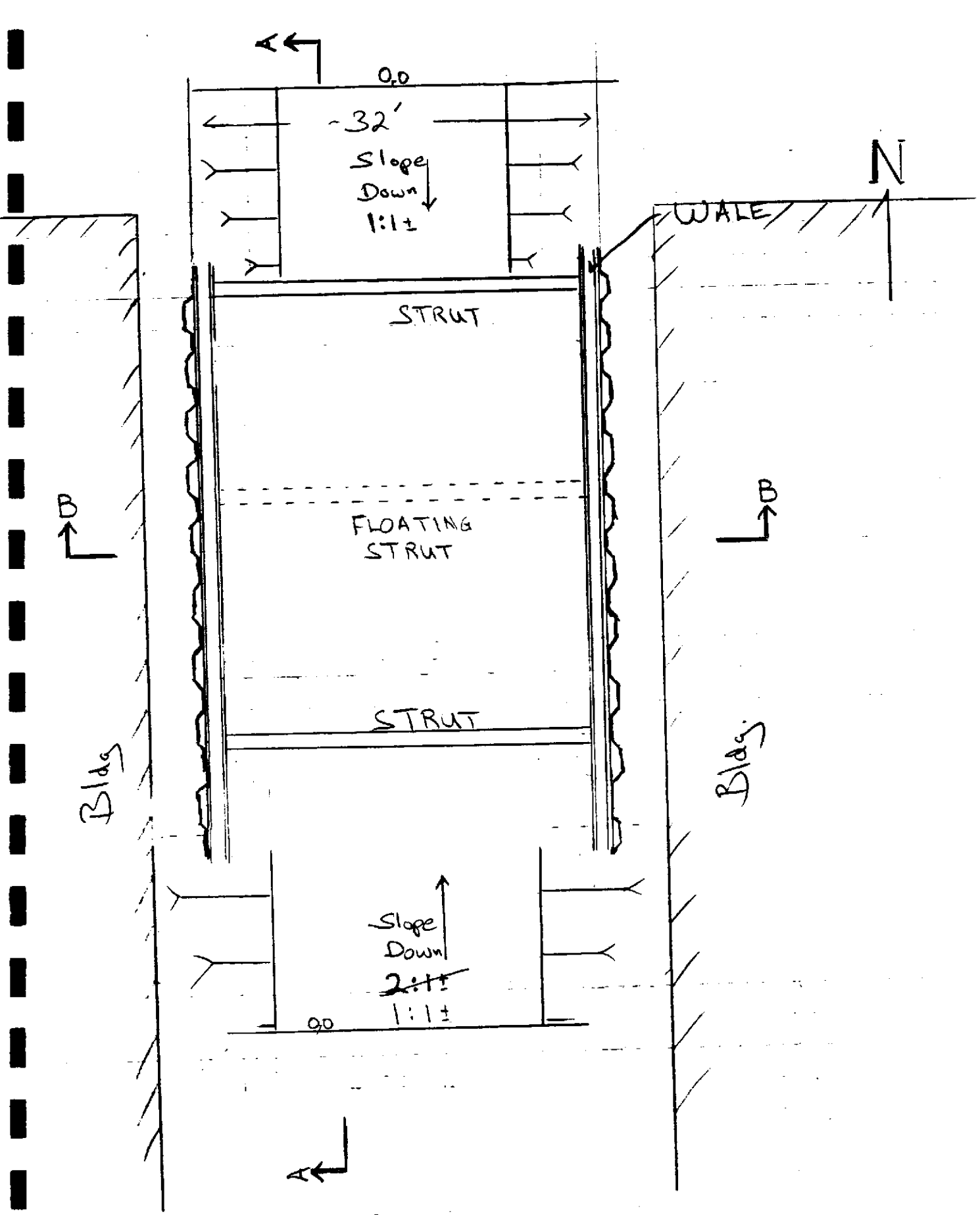
1" = 10'

NOTE:
WEDGE BETWEEN SHEETS & WALES.

Actual

Bottom Waler/Strut configuration

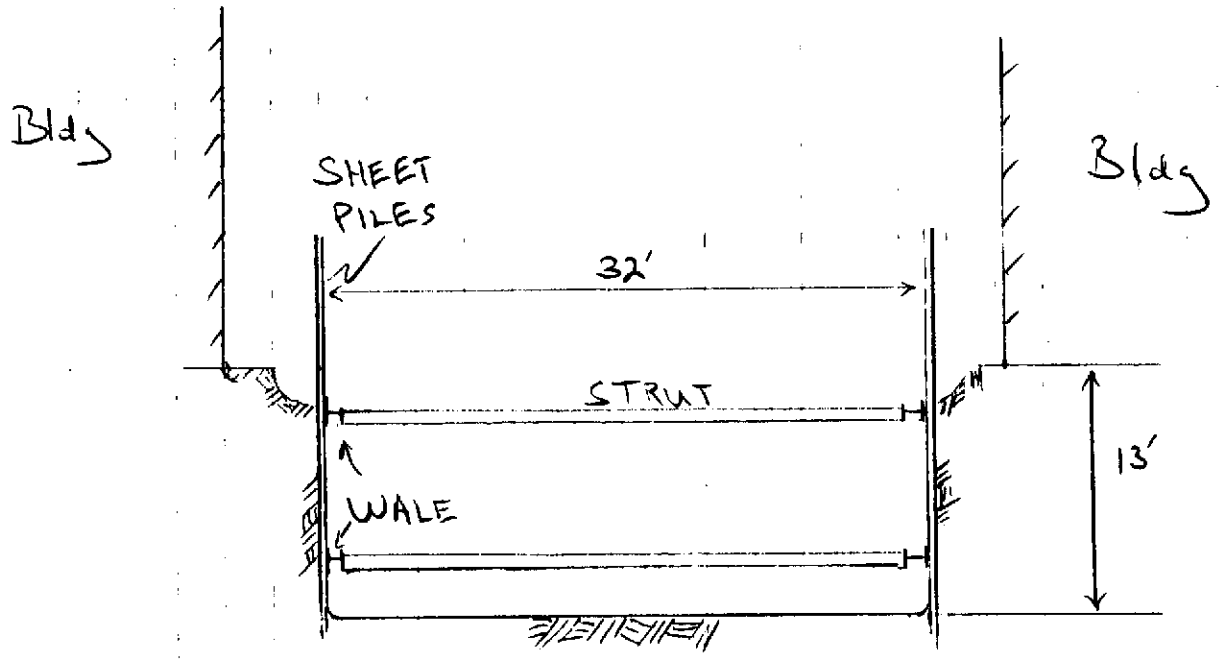




PLAN

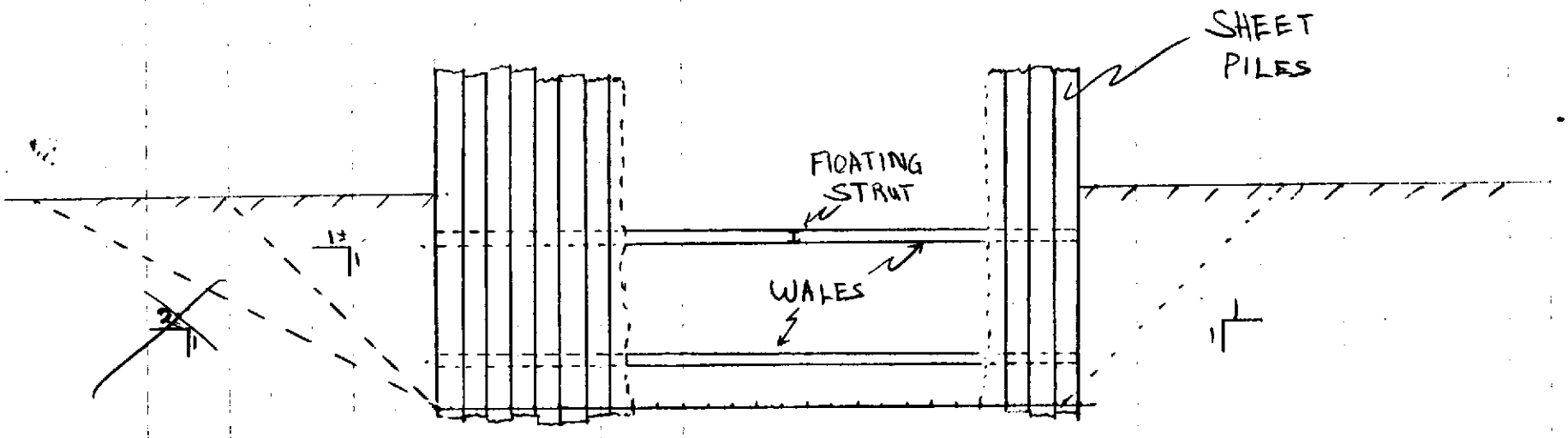
1" = 10'

4th Street



SECTION B-B

1" = 10'



SECTION A-A

1" = 10'

APPENDIX F
REPORT OF DISCHARGE ACTIVITIES TO EBMUD

GROUNDWATER TECHNOLOGY, INC.

4080-D Pike Lane, Concord, CA 94520
(415) 671-2387

FILE COPY

July 10, 1990

Job No. 203 680 5016.02

Ms. Karen Folks
East Bay Municipal Utilities District
2130 Adeline Street
Oakland, CA 94607

Re: Chronology of Discharge Activities
at 404 Market Street in Oakland, California
under EBMUD Account No. 014-23491

Dear Ms. Folks:

On Tuesday, June 12, 1990, Groundwater Technology, Inc. intiated dewatering activities of the excavation at the above-referenced site. The dewatering/wastewater discharge system included two twenty-two thousand gallon aboveground-storage tanks and a filtration system. A total of four, activated carbon drums connected in two parallel series made up the filtration system. This configuration allowed a maximum discharge rate of 10 gallons per minute.

The system was set up to have the groundwater pumped from the excavation to one of the aboveground-storage tanks which was designated Baker I. The carbon filtration system was connected to the Baker I tank. The groundwater passed from Baker I through the filtration system into the second aboveground storage tank, Baker II.

The dewatering/wastewater discharge system operated from June 12, to June 28, 1990. A total of 34,980-gallons of groundwater was processed. The following details the specific events of dewatering and subsequent discharge.

6/12 Initiated dewatering of pit pumping into Baker I tank.

Filtered approximately 1,000 gallons from Baker I to Baker II tank, then shut system down.

Sampled filtered groundwater in Baker II, see enclosed laboratory results.

6/13 Continued dewatering of excavation, pumping into Baker I tank.

6/14 Submitted initial laboratory results of filtered groundwater to East Bay Municipal Utilities District (EBMUD).

Continued to dewater excavation to Baker I tank.

Re-established filtration of groundwater from Baker I to Baker II tank.

Filtered a total of 7,730 gallons to date, and initiated discharge of filtered groundwater to new underground storage tank (UST) from Baker II tank.

6/15 EBMUD sampled water in Baker II tank.

Continued to dewater excavation, pumping into Baker I tank.

Continued to filter groundwater from Baker I to Baker II tank.

Filtered a total of 11,710 gallons of groundwater to date.

Continued to discharge filtered groundwater from Baker II tank to newly installed USTs.

6/16-17 Continued to dewater excavation, pumping into Baker I tank.

Continued to filter groundwater from Baker I to Baker II tank.

Filtered a total of 20, 920 gallons of groundwater to date.

6/18 Continued to dewater, pumping into Baker I tank.

Continued to filter groundwater from Baker I to Baker II tank.

Filtered a total of 26,640 gallons of groundwater to Baker II tank to date.

Initiated direct discharge of filtered groundwater from Baker II tank to sewer.

6/19 Continued to dewater excavation to Baker I tank.

Sampled filtered groundwater being discharged to sewer, see enclosed laboratory results.

6/20 Stopped dewatering of excavation.

Continued to pump filtered groundwater from Baker II tank to new USTs.

Completed filtration of groundwater in Baker I tank and direct discharge to sewer, total filtered and discharged 8,340 gallons.

6/21 Completed discharge of filtered groundwater to new UST.

6/22 Initiated discharge of filtered groundwater from Baker II tank to sewer.

6/23-24 No discharge or transfers of groundwater.

6/25 Continued discharge of filtered groundwater from Baker II tank to sewer.

6/26 No discharge or transfer of groundwater.

6/27 Sampled last 10,000 gallons of filtered groundwater in Baker II tank.

J. Smith of EBMUD takes sample of filtered groundwater in Baker II tank.

Completed discharge of all filter groundwater in Baker II tank.

7/5 Discharged all waters from new UST to sewer. The discharge waters were a combination of filtered groundwater from Baker II tank and potable waters.

Groundwater Technology hopes that the information presented meets your needs. If you have any questions or require additional information, please contact our Concord office at (415) 671-2387.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Paul D. Horton
Project Manager

PDH:lf
L5016J6

cc: Ms. Anne Lunt/Safety-Kleen Corporation

GTEL
ENVIRONMENTAL
LABORATORIES, INC.
Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Project Number: 203-680-5016.04
Work Order Number: D0-05-670
Location: Not Given
Date Sampled: 24-May-90

May 31, 1990

Rick Thomasser
Groundwater Techology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 05/24/90, under chain of custody number 72-7127.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any question concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Project Number: 203-680-5016.04
Work Order Number: D0-05-670
Location: Not Given
Date Sampled: 24-May-90

Table 1a

ANALYTICAL RESULTS

Priority Pollutant Metals in Water

Method: EPA 6010/7000 Series[a]

GTEL Sample Number		01			
Client Identification		MW-8-1			
Date Prepared		05/29/90			
Date Analyzed		05/29/90			
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Antimony	500	<500			
Arsenic	5	6			
Beryllium	20	<20			
Cadmium	50	<50			
Chromium, total	100	<100			
Copper	100	<100			
Lead	200	<200			
Mercury	0.2	<0.2			
Nickel	100	<100			
Selenium	10	<10			
Silver	100	<100			
Thallium	300	<300			
Zinc	100	<100			
Detection limit multiplier		1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample preparation by EPA 3005. Sample analysis by EPA 6010 except for: arsenic by EPA 7060, lead by EPA 7421, mercury by EPA 7471, and selenium by EPA 7740.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

05/31/90 rw

WORK ORD#: D005671
CLIENT: Rick Thomasser
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: 203-680-5016.04
LOCATION: Not Given

SAMPLED: 05/24/90 BY: R. Thomasser
RECEIVED: 05/24/90
ANALYZED: 05/25/90 BY: M. Ly

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW8-2			
Chloromethane	0.12		<0.12			
Vinyl chloride	0.07		<0.07			
Bromomethane	0.07		<0.07			
Chloroethane	0.05		<0.05			
Trichlorofluoromethane	0.06		<0.06			
1,1-Dichloroethylene	0.07		0.3			
Methylene chloride	0.24		<0.24			
trans-1,2-Dichloroethylene	0.06		<0.06			
1,1-Dichloroethane	0.09		0.44			
2,2-Dichloropropane	0.09		<0.09			
cis-1,2-Dichloroethene	0.16		0.93			
Bromochloromethane	0.15		<0.15			
Chloroform	0.10		<0.10			
1,1,1-Trichloroethane	0.05		0.11			
Carbon tetrachloride	0.06		<0.06			
1,1-Dichloropropene	0.06		<0.06			
Benzene	0.39		<0.39			
1,2-Dichloroethane	0.19		4.1			
Trichloroethylene	0.13		22			
1,2-Dichloropropane	0.12		<0.12			
Dibromomethane	0.17		<0.17			
Bromodichloromethane	0.12		<0.12			
cis-1,3-Dichloropropene	0.11		<0.11			
Toluene	0.83		<0.83			
trans-1,3-Dichloropropane	0.09		<0.09			
1,1,2-Trichloroethane	0.19		<0.19			
Tetrachloroethene	0.08		0.38			
1,3-Dichloropropane	0.21		<0.21			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 524.2

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D005671

CLIENT: Rick Thomasser
PROJECT#: 203-680-5016.04
LOCATION: Not Given

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 MW8-2
Dibromochloromethane	0.13		<0.13
1,2-Dibromomethane	0.19		<0.19
Chlorobenzene	0.08		1.2
1,1,1,2-Tetrachloroethane	0.11		<0.11
Ethylbenzene	0.27		<0.27
p- & m-Xylene	0.32		<0.32
o-xylene	0.37		<0.37
Styrene	0.08		<0.08
Bromoform	0.15		<0.15
Isopropylbenzene	0.08		<0.08
Bromobenzene	0.16		<0.16
1,1,2,2-Tetrachloroethane	0.20		<0.20
1,2,3-Trichloropropane	0.33		<0.33
n-Propylbenzene	0.13		<0.13
2-Chlorotoluene	0.09		<0.09
4-Chlorotoluene	0.11		<0.11
1,3,5-Trimethylbenzene	0.20		<0.20
tert-Butylbenzene	0.09		<0.09
1,2,4-Trimethylbenzene	0.20		<0.20
sec-Butylbenzene	0.10		<0.10
1,3-Dichlorobenzene	0.09		<0.09
1,4-Dichlorobenzene	0.14		<0.14
p-Isopropyltoluene	0.09		<0.09
1,2-Dichlorobenzene	0.17		<0.17
n-Butylbenzene	0.09		<0.09
1,2-Dibromo-3-chloropropane	0.23		<0.23
1,2,4-Trichlorobenzene	0.14		<0.14
Naphthalene	0.24		<0.24
Hexachlorobutadiene	0.47		<0.47
1,2,3-Trichlorobenzene	0.16		<0.16

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 524.2

Emma P. Popek
EMMA P. POPEK, Laboratory Director

DD25070

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 7127

Project Manager: Rick Thomasser
Phone #: 685-9250
FAX #:
Address: 4080 Pike Lane, Suite D. Concord
Site location:
Project Number: 203 680 5016.04
Project Name: Safety-Kleen Oak
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Rick Thomasser

ANALYSIS REQUEST — Proj. NF 1/3

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME	EPA Priority Pollutant Metals / HSL	EPA 524.2
MW-8-1	MW-8	01	1	X						X					5/24/90	10a	X	
MW-8-2	MW-8		2	X					X						5/24/90	10a		X

Analysis request options (printed): BTEX 602 ☐ 8020 ☐ with MTBE ☐; BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐; TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel; Product I.D. by GC (SIMDIS) ☐; Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐; Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐; EPA 601 ☐ 8010 ☐ DCA only ☐; EPA 602 ☐ 8020 ☐; EPA 608 ☐ 8080 ☐ PCBs only ☐; EPA 610 ☐ 8310 ☐; EPA 624 ☐ 8240 ☐ NBS +15 ☐; EPA 625 ☐ 8270 ☐ NBS +25 ☐; EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi VOA ☐; EPA Priority Pollutant Metals ☒ HSL ☐; LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐; CAM Metals ☐ STLC ☐ TTLC; Corrosivity ☐ Flashpoint ☐ Reactivity ☐; EPA 524.2

CUSTODY RECORD

	Date	Time
Relinquished by Sampler: [signature] / Received by:	5/24/90	1:10 pm
Relinquished by: / Received by:		
Relinquished by: / Received by Laboratory: [signature] W.O. #	5/24	1:10

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
☒ OTHER 5 (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D006280

CLIENT: Gary Long
PROJECT#: SFB-680-0345.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA
MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 TANK #1
Dibromochloromethane	0.13		<0.13
1,2-Dibromomethane	0.19		<0.19
Chlorobenzene	0.08		<0.08
1,1,1,2-Tetrachloroethane	0.11		<0.11
Ethylbenzene	0.27		<0.27
p- & m-Xylene	0.32		<0.32
o-xylene	0.37		<0.37
Styrene	0.08		<0.08
Bromoform	0.15		<0.15
Isopropylbenzene	0.08		0.55
Bromobenzene	0.16		<0.16
1,1,2,2-Tetrachloroethane	0.20		<0.20
1,2,3-Trichloropropane	0.33		<0.33
n-Propylbenzene	0.13		<0.13
2-Chlorotoluene	0.09		<0.09
4-Chlorotoluene	0.11		<0.11
1,3,5-Trimethylbenzene	0.20		2.00
tert-Butylbenzene	0.09		<0.09
1,2,4-Trimethylbenzene	0.20		<0.20
sec-Butylbenzene	0.10		0.55
1,3-Dichlorobenzene	0.08		<0.08
1,4-Dichlorobenzene	0.14		0.15
p-Isopropyltoluene	0.09		<0.09
1,2-Dichlorobenzene	0.17		<0.17
n-Butylbenzene	0.09		<0.09
1,2-Dibromo-3-chloropropane	0.23		<0.23
1,2,4-Trichlorobenzene	0.14		<0.14
Naphthalene	0.24		<0.24
Hexachlorobutadiene	0.47		<0.47
1,2,3-Trichlorobenzene	0.16		<0.16

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 524.2

Emma P. Popek /RMG

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/18/90 sp Page 1 of 1

WORK ORD#: D006280
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0345.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA
SAMPLED: 06/12/90 BY: P. Horton
RECEIVED: 06/13/90
ANALYZED: 06/14/90 BY: M. Ly

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	MDL	SAMPLE # I.D.	01 TANK #1
Chloromethane	0.12		<0.12
Vinyl chloride	0.07		<0.07
Bromomethane	0.07		<0.07
Chloroethane	0.05		<0.05
Trichlorofluoromethane	0.06		<0.06
1,1-Dichloroethylene	0.07		<0.07
Methylene chloride	0.24		<0.24
trans-1,2-Dichloroethylene	0.06		<0.06
1,1-Dichloroethane	0.09		<0.09
2,2-Dichloropropane	0.09		<0.09
cis-1,2-Dichloroethene	0.16		<0.16
Bromochloromethane	0.15		<0.15
Chloroform	0.10		<0.10
1,1,1-Trichloroethane	0.05		<0.05
Carbon tetrachloride	0.06		<0.06
1,1-Dichloropropene	0.06		<0.06
Benzene	0.39		<0.39
1,2-Dichloroethane	0.19		<0.19
Trichloroethylene	0.13		<0.13
1,2-Dichloropropane	0.12		<0.12
Dibromomethane	0.17		<0.17
Bromodichloromethane	0.12		<0.12
cis-1,3-Dichloropropene	0.11		<0.11
Toluene	0.83		<0.83
trans-1,3-Dichloropropane	0.09		<0.09
1,1,2-Trichloroethane	0.19		<0.19
Tetrachloroethane	0.08		0.10
1,3-Dichloropropane	0.21		<0.21

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 524.2

GTEL ENVIRONMENTAL LABORATORIES, INC

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-7148

Project Manager: Paul Horton
Phone #:
FAX #:
Address: 4080-D Pike Ln. Concord
Site location: Market - Oakland
Project Number: SF680-0354.72 / 203680 5016 02
Project Name: S-Kleen / Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): P. Horton

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
Tank 1	Baker Tank	01	2	X								X			6-12-90	

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC	Corrosivity ☒ Flashpoint ☐ Reactivity ☐
																	X EPA 524.2 X pH

R. M 6/13/90

CUSTODY RECORD

Relinquished by Sampler:	Received by:	Date	Time	Received by Laboratory:	Date	Time	Way bill #
Paul Horton				Patty Blum	6/13/90	12:30	
Relinquished by:	Received by:	Date	Time				
Relinquished by:		Date	Time				

SPECIAL HANDLING

24 HOURS ☒
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Need Verbals of results ! LBot

Lab Use Only Storage Location
Lot #: Work Order # D0062

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/15/90 mh

WORK ORD#: D006201
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
LOCATION: 404 Market Street
Oakland, CA
SAMPLED: 06/14/90 BY: J. Bethell
RECEIVED: 06/15/90
ANALYZED: 09/15/90 BY: M. Munchhof

MATRIX: Water

PARAMETER	UNITS	METHOD	SAMPLE # I.D.	01 Tank #1		
pH	pH Units	EPA 423		7.0		

Emma P. Popek/Pam Sng
EMMA P. POPEK, Laboratory Director

D006389 INV.

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080 Pike Lane
Concord, CA 94520
415-685-7852
800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72-6546

CUSTODY RECORD

Project Manager: Paul Horton
Phone #:
FAX #:
Address:
Site location: 404 Market St. / Oakland
Project Number: SFB-680-0354.72
Project Name: S-Mkt/Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): J. Bethel

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	pH	
Tank 1		01	1	X								X			6/14	4:00																			X	

Custody	Signature	Date	Time
Received by:	Paul D. Horton	7:00 AM	6-15-90
Received by:			
Received by Laboratory:	Michelle Hunt	6/15	0840
Waybill #			
Relinquished by Sampler:	J. Bethel		
Relinquished by:	Paul		
Relinquished by:	Paul D. Horton		

SPECIAL HANDLING
24 HOURS ☐ (circled)
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER ______ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)
1 hour TAT

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Ln., Concord, CA 94520
(415) 685-7852
In CA: (800) 544-3422
Outside CA: (800) 423-7143

Project Number: 203-680-0354.72
Consultant Project Number: SFB-680-0354.72
Project ID: 404 Market St. Oakland
Work Order Number: D0-06-437

June 20, 1990

Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123

Enclosed please find the analytical results report prepared by GTEL for samples received on 06/19/90, under chain of custody number 72-6536.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any question concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek

Emma P. Popek
Laboratory Director

Table 1

ANALYTICAL RESULTS

Purgeable Halocarbons in Water

EPA Method 601[a]

GTEL Sample Number		01			
Client Identification		5000 B1			
Date Sampled		06/19/90			
Date Analyzed		06/19/90			
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	< 0.5			
Bromomethane	0.5	< 0.5			
Vinyl chloride	1	< 1			
Chloroethane	0.5	< 0.5			
Methylene chloride	0.5	< 0.5			
1,1-Dichloroethene	0.2	< 0.2			
1,1-Dichloroethane	0.5	< 0.5			
trans-1,2-Dichloroethene	0.5	< 0.5			
Chloroform	0.5	< 0.5			
1,2-Dichloroethane	0.5	< 0.5			
1,1,1-Trichloroethane	0.5	< 0.5			
Carbon tetrachloride	0.5	< 0.5			
Bromodichloromethane	0.5	< 0.5			
1,2-Dichloropropane	0.5	< 0.5			
cis-1,3-Dichloropropene	0.5	< 0.5			
Trichloroethene	0.5	< 0.5			
Dichlorodifluoromethane	0.5	< 0.5			
Dibromochloromethane	0.5	< 0.5			
1,1,2-Trichloroethane	0.5	< 0.5			
trans-1,3-Dichloropropene	0.5	< 0.5			
2-Chloroethylvinyl ether	1	< 1			
Bromoform	0.5	< 0.5			
Tetrachloroethene	0.5	< 0.5			
1,1,2,2-Tetrachloroethane	0.5	< 0.5			
Chlorobenzene	0.5	< 0.5			
1,2-Dichlorobenzene	0.5	< 0.5			
1,3-Dichlbrobenzene	0.5	< 0.5			
1,4-Dichlorobenzene	0.5	< 0.5			
Trichlorofluoromethane	0.5	< 0.5			
Detection Limit Multiplier		1			

a. Federal Register, Vol. 49, October 26, 1984.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/20/90 mh
WORK ORD#: D006438
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
LOCATION: 404 Market St. Oakland, CA

SAMPLED: 06/19/90 BY: J. Bethell
RECEIVED: 06/19/90
ANALYZED: 06/19/90 BY: P. Sweet
MATRIX: Water

TEST RESULTS

PARAMETER	UNITS	MDL	METHOD	SAMPLE # I.D.	01 5000 B1
pH	pH units		SM423		7.0

Emma P. Popek
EMMA P. POPEK, Laboratory Director

DECAL 438

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-6536

pg. E-DOOR

Project Manager: Paul Horton
Phone #: 671-2387
FAX #:
Address: 4080 Pike Lane, Concord, CA
Site location: 404 Market Oakland, CA
Project Number: SFB 680-0354.72
Project Name: Safety Kleen, Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Jamie Bethell

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
5000	Baker 1		1	X					X			X			6-19	12:05
5000	Baker 1	01	1	X								X			6-19	12:06

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product LD. by GC (SIMDIS) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☒ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	pH
						X											
																	X

SPECIAL HANDLING
24 HOURS ☒
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only Storage Location
Lot #: Work Order #:

CUSTODY RECORD	Received by:	Received by:	Received by Laboratory:
Way bill #			
Date	6-19-90		6/19/90
Time	13:15		1:40
Relinquished by Sampler:	Relinquished by:		Relinquished by:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: D006687
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT #: 203-680-5016.02
LOCATION: 404 Market Street, Oakland, CA

SAMPLED: 06/27/90 BY: J. Bethell
RECEIVED: 06/27/90
ANALYZED: 06/27/90 BY: P. Sweet
MATRIX: Water

TEST RESULTS

PARAMETER	UNITS	MDL	METHOD	SAMPLE # I.D.	01 FINAL
pH	pH units		SM423		7.2

Emma P. Popek
EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/29/90 rw Page 1 of 1

WORK ORD#: D006686
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA

SAMPLED: 06/27/90 BY: J. Bethell
RECEIVED: 06/27/90
ANALYZED: 06/28/90 BY: R. Martino

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	DL	SAMPLE # I.D.	01 FINAL
Dichlorodifluoromethane	0.10		<0.10
Chloromethane	0.13		<0.13
Vinyl Chloride	0.17		2.47
Bromomethane	0.11		<0.11
Trichlorofluoromethane	0.08		<0.08
Chloroethane	0.10		<0.10
Methylene chloride	0.03		<0.03
1,1-Dichloroethene	0.12		<0.12
1,1-Dichloroethane	0.04		<0.04
trans-1,2-Dichloroethene	0.06		<0.06
Chloroform	0.03		<0.03
1,2-Dichloroethane	0.06		<0.06
2,2-Dichloropropane	0.35		<0.35
1,1,1-Trichloroethane	0.08		2.58
Carbon tetrachloride	0.21		<0.21
cis-1,2-dichloroethane	0.12		<0.12
Bromodichloromethane	0.08		<0.08
1,2-Dichloropropane	0.04		<0.04
cis-1,3-Dichloropropene	0.50		<0.50
Trichloroethene	0.19		<0.19
Dibromochloromethane	0.05		<0.05
1,1,2-Trichloroethane	0.10		<0.10
Benzene	0.04		<0.04
trans-1,3-Dichloropropene	0.50		<0.50
Bromochloromethane	0.04		<0.04
Bromoform	0.12		<0.12
Dibromomethane	0.24		<0.24
1,1 Dichloropropene	0.10		<0.10
Dibromochloromethane	0.05		<0.05

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 524

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D006686

CLIENT: Paul Horton
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA

MATRIX: Water
UNITS: ug/L (ppb)

PARAMETER	DL	SAMPLE # I.D.	01 FINAL
Tetrachloroethene	0.14		<0.14
1,1,2,2-Tetrachloroethane	0.04		<0.04
Toluene	0.11		<0.11
Chlorobenzene	0.04		<0.04
Ethylbenzene	0.06		<0.06
Styrene	0.04		<0.04
1,2-Dichlorobenzene	0.03		1.39
1,3-Dichlorobenzene	0.12		<0.12
1,4-Dichlorobenzene	0.03		<0.03
Xylene (total)	0.05		<0.05
1,3 dichloropropane	0.04		<0.04
1,2- Dibromoethane	0.06		<0.06
Isopropylbenzene	0.15		<0.15
1,1,1,2- Tetrachloroethane	0.05		<0.05
Bromobenzene	0.03		<0.03
1,2,3 Trichloropropane	0.13		<0.13
n-Propylbenzene	0.04		<0.04
2-Chlorotoluene	0.04		<0.04
4-Chlorotoluene	0.06		<0.06
1,3,5-Trimethylbenzene	0.05		<0.05
tert-Butylbenzene	0.14		<0.14
sec-Butylbenzene	0.13		<0.13
p-Isopropyltoluene	0.12		<0.12
n-Butylbenzene	0.11		<0.11
1,2-Dibromo-3-chloropropane	0.26		<0.26
1,2,4-Trichlorobenzene	0.04		<0.04
Naphthalene	0.04		<0.04
Hexachlorobutadiene	0.11		<0.11
1,2,3-Trichlorobenzene	0.03		<0.03
1,2,4-Trimethylbenzene	0.13		<0.13

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 524

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72- 6540

CUSTODY RECORD

Project Manager: Paul Horton
Phone #:
FAX #:
Address: 4080 Pike Lane
Site location: 404 Market Oakland
Project Number: 0551.72 (B.202-680-50/GW02)
Project Name: Safety Kleen Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Jamie Bethell

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
Final	Baker Tk		2	X					X			X				
Final	Baker Tk	01	2	X								X				

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	
																	X	X EPA 524.2
																	X	

SPECIAL HANDLING
24 HOURS ☒
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only
Storage Location
Lot #:
Work Order #:

Relinquished by Sampler:	Received by:	Received by Laboratory:
Date 6-27-90 Time 12:00	Date	Date 6/27 Time 2pm
Relinquished by:	Received by:	
Date	Time	
Relinquished by:		
Date	Time	

APPENDIX G
CERTIFICATION OF TANK DISPOSAL

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

CERTIFICATE OF DISPOSAL

JUNE 11, 1990

H & H Ship Service Company hereby certifies to *UNIVERSAL ENGINEERING* that:

1. The storage tank(s), size(s) *ONE (1) 10,000 GALS.*

   removed from the *SAFETY-KLEEN CORPORATION*

   facility at *766 - 4TH STREET*

   OAKLAND, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number *4662*

   have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: *LEVIN METALS CORPORATION, RICHMOND, CALIFORNIA.*

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: 543-4835

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: 543-4835

CERTIFICATE OF DISPOSAL

JUNE 11, 1990

H & H Ship Service Company hereby certifies to *UNIVERSAL ENGINEERING* that:

1. The storage tank(s), size(s) *TWO (2) 6,000 GALS.*

   removed from the *SAFETY-KLEEN CORPORATION*

   facility at *766 - 4TH STREET*
   OAKLAND, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number *4641*
   have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: *LEVIN METALS CORPORATION, RICHMOND, CALIFORNIA.*

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: 543-4835

CERTIFICATE OF DISPOSAL

JULY 09, 1990

H & H Ship Service Company hereby certifies to *UNIVERSAL ENGINEERING* that:

1. The storage tank(s), size(s) *ONE (1) 500 GALS.*

   removed from the *SAFETY KLEEN CORPORATION*

   facility at *766 - 4TH STREET*
   OAKLAND, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number *4941*

   have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: *LEVIN METALS CORPORATION, RICHMOND, CALIFORNIA.*

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Valrey
Operations Coordinator

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	CAD053044653
Manifest Document No.	01103
2. Page 1 of	1
Information in the shaded areas is not required by Federal law.	
A. State Manifest Document Number	90133403
3. Generator's Name and Mailing Address	Safety Kleen corporation [illegible] street [illegible]
4. Generator's Phone	(415) 532-7742
B. State Generator's ID	
5. Transporter 1 Company Name	UNIVERSAL ENGINERING
6. US EPA ID Number	CAT080013469
C. State Transporter's ID	002375
D. Transporter's Phone	707-746-6691
7. Transporter 2 Company Name	
8. US EPA ID Number	
E. State Transporter's ID	
F. Transporter's Phone	
9. Designated Facility Name and Site Address	H+H ENVIRONMENTAL SERVICES 220 CHINA BASIN SAN FRANCISCO CA 94107
10. US EPA ID Number	CAD004771168
G. State Facility's ID	CAD004771168
H. Facility's Phone	(415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. ~~WASTE EMPTY STORAGE TANK~~ RESIDUE MINERAL SPIRITS TANK NON RCRA HAZARDOUS WASTE SOLID	001	TP	5000	P	State 512 EPA/Other
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
10,000 Gallon underground storage tank.
TANK HYDROBLASTED CLEANED ON 6-1990

K. Handling Codes for Wastes Listed Above
a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
JOB # 4238 **H & H JOB #4652** JOB SITE SAFETY KLEEN 404 MARKET ST. OAKLAND, CALIF
APPROPRIATE CLOTHING AND RESPIRATOR

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
[illegible] Safety Kleen [illegible]	[signature]	06	08	90

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	06	08	90

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
CLEVELAND VALREY	[signature]	06	08	90

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Servic
Toxic Substances Control Divisi
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD053004655 3
Manifest Document No.:
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Safty Kleen Corporation
766 4th Street
Oakland, CA

4. Generator's Phone (415)832-7942

A. State Manifest Document Number: 90133436
B. State Generator's ID

RECEIVED

5. Transporter 1 Company Name: Universal Engineering Inc.
6. US EPA ID Number: CAT080011341699
C. State Transporter's ID: 005707
D. Transporter's Phone: 707-746-5690

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
H&H Environmental Services
220 Chinsolmstein
San Francisco, CA 94107
10. US EPA ID Number: CAD004771168
G. State Facility's ID: CAD004771161
H. Facility's Phone: 415-543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Empty Storage Tank	001	TP	00500	P	State 512 / EPA/Other N/A
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
500 Gallon Underground Storage Tank, Mineral Spir
~~(Mineral Spirits)~~ #512 oil

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
H+H M #4652
Wear protective clothing as needed.
Job# 4911

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] | Signature: [signature] | Month Day Year: [illegible] 90

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Rigo GARCIA | Signature: Rigo Garcia | Month Day Year: 07 [illegible] 90

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Cleveland Haley | Signature: [signature] | Month Day Year: 070590

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

90133436

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

GENERATOR — TRANSPORTER — FACILITY

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *(Form designed for use on elite (12-pitch typewriter).*

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CADD[illegible] | Manifest Document No. [illegible]

2. Page 1 of 2 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
SMITH-KLEIN OIL CO.
760 4TH ST
OAKLAND, CA 94607

4. Generator's Phone (415) 832-7992

A. State Manifest Document Number: 90203783

B. State Generator's ID:

5. Transporter 1 Company Name: [illegible]

6. US EPA ID Number: [illegible]

C. State Transporter's ID: [illegible]

D. Transporter's Phone: [illegible]

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
H & H SHIPYARD INCINERATOR SV.
[illegible]
[illegible]

10. US EPA ID Number: CAD[illegible]

G. State Facility's ID: CAD[illegible]

H. Facility's Phone: [illegible]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. [illegible]	[illegible]	TK	[illegible]	T	State 512 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

RECEIVED
JUN 07 1990
Ans'd.....

J. Additional Descriptions for Materials Listed Above
[illegible]

K. Handling Codes for Wastes Listed Above
a. 01 b.
c. d.

15. Special Handling Instructions and Additional Information
JOB #4641
[illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: [illegible] | Signature: [illegible] | Month Day Year: [illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Month Day Year: 06 07 90

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: | Signature: | Month Day Year:

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: CLEVELAND VALREY | Signature: [illegible] | Month Day Year: 06 07 90

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

Do Not Write Below This Line

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

GREEN: HAULER RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. (Form designed for use on elite (12-pitch typewriter).

Department of Health Serv.
Toxic Substances Control Divis
Sacramento, Californ

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

90133401

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAD0[illegible] — Manifest Document No.: [illegible]
2. Page 1 of 2
Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address: SAFETY-KLEEN CORP. [illegible] ST. OAKLAND, CA. 94607
4. Generator's Phone ( ) [illegible]-7742
5. Transporter 1 Company Name: [illegible]
6. US EPA ID Number: [illegible]
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: [illegible] SAN FRANCISCO, CA 94[illegible]
10. US EPA ID Number: [illegible]

A. State Manifest Document Number: 90133401
B. State Generator's ID:
C. State Transporter's ID: [illegible]
D. Transporter's Phone: [illegible]
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID: CAD009[illegible]
H. Facility's Phone: 415-[illegible]

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. [illegible] UNDERGROUND STORAGE [illegible] EMPTY [illegible]	[illegible]	T[illegible]	[illegible]	P	State 512 EPA/Other
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

RECEIVED
JUN 07 1990

J. Additional Descriptions for Materials Listed Above: TANK [illegible]

K. Handling Codes for Wastes Listed Above: a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
JOB #4641
[illegible] PROTECTIVE CLOTHING

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	[illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
RICHARD E DEES	[signature]	[illegible] 90

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
CLEVELAND VALREY	[signature]	06 07 90

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

GREEN: HAULER RETAINS

APPENDIX H
LABORATORY REPORTS OF SOIL SAMPLES

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/19/90 rw

WORK ORD#: D006284
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market Street, Oakland, CA
SAMPLED: 06/12/90 BY: J. Bethell
RECEIVED: 06/13/90
ANALYZED: 06/19/90 BY: F. Kha
MATRIX: Soil
UNITS: mg/Kg (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 PIT 1	02 PIT 2	03 PIT 3	04 PIT 4	05 PIT 5
Total Petroleum Hydrocarbons as Mineral Spirits	10		12000	9500	2400	10000	9700

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 8015

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D006284

CLIENT: Gary Long
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market Street, Oakland, CA
MATRIX: Soil
UNITS: mg/Kg (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE #I.D.	06 PIT 6
Total Petroleum Hydrocarbons as Mineral Spirits	10		12000

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/21/90 rw

WORK ORD#:D006282
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market Street, Oakland, CA
SAMPLED: 06/12/90 BY: J. Bethell
ANALYZED: 06/18/90 BY: M. Verona
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01 PIT 1	02 PIT 2	03 PIT 3	04 PIT 4
Benzene	0.5		<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Bromoform	0.5		<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5		<0.5	<0.5	<0.5	<0.5
Chloroethane	0.5		<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1	<1	<1
Chloroform	0.5		<0.5	<0.5	<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5		12	12	15	16
1,3-Dichlorobenzene	0.5		1.2	1.3	1.0	1.1
1,4-Dichlorobenzene	0.5		6.5	6.6	6.6	7.3
Dichlorodifluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2		1.3	2.0	0.4	0.3
trans-1,2-Dichloroethene	0.5		1.5	2.1	3.9	5.8
1,2-Dichloropropane	0.5		<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5		4.6	5.1	2.7	3.1
Methylene chloride	0.5		<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5		7.8	8.6	0.71	<0.5
Toluene	0.5		11	18	11	7.6
1,1,1-Trichloroethane	0.5		7.3	9.8	3.0	2.8
1,1,2-Trichloroethane	0.5		<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5		1.7	3.4	<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5	<0.5	<0.5
Vinyl Chloride	1		<1	<1	<1	<1
Xylenes	0.5		49	84	49	50

MDL = Method Detection Limit.

METHOD: EPA Method 8010/8020

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D006282

CLIENT: Gary Long
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market Street, Oakland, CA

MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	05 PIT 5	06 PIT 6
Benzene	0.5		<0.5	<0.5
Bromodichloromethane	0.5		<0.5	<0.5
Bromoform	0.5		<0.5	<0.5
Bromomethane	0.5		<0.5	<0.5
Carbon tetrachloride	0.5		<0.5	<0.5
Chlorobenzene	0.5		1.0	0.6
Chloroethane	0.5		<0.5	<0.5
2-Chloroethylvinyl ether	1		<1	<1
Chloroform	0.5		<0.5	<0.5
Chloromethane	0.5		<0.5	<0.5
Dibromochloromethane	0.5		<0.5	<0.5
1,2-Dichlorobenzene	0.5		15	20
1,3-Dichlorobenzene	0.5		0.9	1.6
1,4-Dichlorobenzene	0.2		6.0	9.8
Dichlorodifluoromethane	0.5		<0.5	<0.5
1,1-Dichloroethane	0.5		<0.5	<0.5
1,2-Dichloroethane	0.5		<0.5	<0.5
1,1-Dichloroethene	0.2		0.5	0.4
trans-1,2-Dichloroethene	0.5		3.8	4.0
1,2-Dichloropropane	0.5		<0.5	<0.5
cis-1,3-Dichloropropene	0.5		<0.5	<0.5
trans-1,3-Dichloropropene	0.5		<0.5	<0.5
Ethylbenzene	0.5		3.5	5.1
Methylene chloride	0.5		<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5
Tetrachloroethene	0.5		1.1	0.7
Toluene	0.5		7.5	11
1,1,1-Trichloroethane	0.5		3.6	3.3
1,1,2-Trichloroethane	0.5		<0.5	<0.5
Trichloroethene	0.5		<0.5	<0.5
Trichlorofluoromethane	0.5		<0.5	<0.5
Vinyl Chloride	1		<1	<1
Xylenes	0.5		45	78

MDL = Method Detection Limit.

METHOD: EPA Method 8010/8020

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/21/90 rw

WORK ORD#: D006283
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market St., Oakland, CA
SAMPLED: 06/12/90 BY: J. Bethell
RECEIVED: 06/13/90
ANALYZED: 06/15/90 BY: R. Heines

TITLE 22 (C.A.M.)
TOTAL THRESHOLD LIMIT CONCENTRATION
TEST RESULTS

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 PIT 1
Antimony	25		<25
Arsenic	25		<25
Barium	1		39
Beryllium	1		<1
Cadmium	3		<3
Chromium	5		41
Cobalt	5		8
Copper	5		8
Lead	10		12
Mercury	0.02		<0.02
Molybdenum	25		<25
Nickel	5		<5
Selenium	50		<50
Silver	5		<5
Thallium	13		<13
Vanadium	5		22
Zinc	5		23

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Mercury by EPA 7471; Antimony by EPA 3005/7040; Arsenic by EPA 3050/7060; Selenium by EPA 3050/7740; Silver by EPA 3005/7760; Thallium by EPA 3050/7840; Others by EPA 3050/6010.

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72- 7144

Project Manager: P. Horton

Phone #:

FAX #:

Address:

Site location: 404 Market Street, Oakland

Project Number: SFB-6805-0354 02 / 207 6805016

Project Name:

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): J. Bethell

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
Pit 1	Pit	01	1		X							X			6-12	1:00
" 2		02	1		X							X				1:05
" 3		03	1		X							X				1:10
" 4		04	1		X							X				1:45
" 5		05	1		X							X				1:20
" 6		06	1		X							X				1:25

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH as Mineral Spirits
						X 8010										X		X
						X												X
						X												X
																		X
						X												X
						X												X

SPECIAL HANDLING

24 HOURS ☐

EXPEDITED 48 Hours ☐

SEVEN DAY ☐

OTHER _____ (#) BUSINESS DAYS

QA/QC CLP Level ☐ Blue Level ☐

FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Regular TAT A-1

Lab Use Only Storage Location

Lot #: Work Order #: D006

CUSTODY RECORD

Relinquished by Sampler:	Received by:	Time	Relinquished by:	Received by:	Time	Relinquished by:	Received by Laboratory:
Date 6/12/90	Date	Time 2:10	Date	Date	Time	Date 6/13/90	Date 6/13/90
						12:30	

Way bill #

6/19/90

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.02
Project ID: 404 Market
Oakland, CA
Work Order Number: D0-06-212

June 12, 1990

Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123

Enclosed please find the analytical results report prepared by GTEL for samples received on 06/08/90, under chain of custody number 72-6535.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.02
Project ID: 404 Market
Oakland, CA
Work Order Number: D0-06-212

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics in Soil

EPA Methods 5030 and 8020[a]

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL Sample Number		01*	02*		
Client Identification		EAST END	WEST END		
Date Sampled		06/08/90	06/08/90		
Date Extracted		06/09/90	06/09/90		
Date Analyzed		06/09/90	06/09/90		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	< 0.1	0.01		
Toluene	0.005	6	4		
Ethylbenzene	0.005	< 0.1	< 0.1		
Xylene, total	0.015	34	28		
Detection Limit Multiplier		1	1		

* Detection limits raised due to matrix effect.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/12/90 rw Page 1 of 1

WORK ORD#: D006234
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market St., Oakland, CA
SAMPLED: 06/08/90 BY: J. Bethell
RECEIVED: 06/08/90
ANALYZED: 06/11/90 BY: F. Kha
MATRIX: Soil
UNITS: mg/Kg (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 EAST END	02 WEST END		
Total Petroleum Hydrocarbons as Mineral Spirits	10		16000	30000		

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Modified EPA Method 8015

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.02
Project ID: 404 Market
Oakland, CA
Work Order Number: D0-06-213

June 13, 1990

Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123

Enclosed please find the analytical results report prepared by GTEL for samples received on 06/08/90, under chain of custody number 72-6535.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any question concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek /RMB

Emma P. Popek
Laboratory Director

Table 1

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		01	02		
Client Identification		EAST END	WEST END		
Date Sampled		06/08/90	06/08/90		
Date Extracted		06/11/90	06/11/90		
Date Analyzed		06/11/90	06/11/90		
Analyte	Detection Limit, ug/Kg	Concentration, ug/Kg			
Chloromethane	500	< 500	< 500		
Bromomethane	500	< 500	< 500		
Vinyl chloride	500	< 500	< 500		
Chloroethane	500	< 500	< 500		
Methylene chloride	250	< 250	< 250		
Acetone	500	< 500	< 500		
Carbon disulfide	250	< 250	< 250		
1,1-Dichloroethene	250	< 250	< 250		
1,1-Dichloroethane	250	< 250	270		
1,2-Dichloroethene, total	250	2500	1900		
Chloroform	250	< 250	< 250		
1,2-Dichloroethane	250	< 250	< 250		
2-Butanone	500	< 500	< 500		
1,1,1-Trichloroethane	250	11000	17000		
Carbon tetrachloride	250	< 250	< 250		
Vinyl acetate	2500	< 2500	< 2500		
Bromodichloromethane	250	< 250	< 250		
1,2-Dichloropropane	250	< 250	< 250		
cis-1,3-Dichloropropene	250	< 250	< 250		
Trichloroethene	250	750	< 250		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Sample extraction by EPA method 3550.

Table 1 (Continued)

ANALYTICAL RESULTS

Volatile Organics in Soil

EPA Method 8240[a]

GTEL Sample Number		01	02		
Client Identification		EAST END	WEST END		
Date Sampled		06/08/90	06/08/90		
Date Extracted		06/11/90	06/11/90		
Date Analyzed		06/11/90	06/11/90		
Analyte	Detection Limit, ug/Kg	Concentration, ug/Kg			
Dibromochloromethane	250	< 250	< 250		
1,1,2-Trichloroethane	250	< 250	< 250		
Benzene	250	< 250	250		
trans-1,3-Dichloropropene	250	< 250	< 250		
2-Chloroethylvinyl ether	500	< 500	< 500		
Bromoform	250	< 250	< 250		
4-Methyl-2-pentanone	500	< 500	< 500		
2-Hexanone	500	< 500	< 500		
Tetrachloroethene	250	4000	8400		
1,1,2,2-Tetrachloroethane	250	< 250	< 250		
Toluene	250	12000	17000		
Chlorobenzene	250	< 250	< 250		
Ethylbenzene	250	6000	6000		
Styrene	250	< 250	< 250		
1,2-Dichlorobenzene	250	15000	10000		
1,3-Dichlorobenzene	250	7800	2400		
1,4-Dichlorobenzene	250	8200	5900		
Xylene, total	250	70000	85000		
Trichlorofluoromethane	250	< 250	< 250		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986 (method modified for additional compounds). Sample extraction by EPA method 3550.

DOUGLAS Joint

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72 6535

CUSTODY RECORD

A-2

GTEL ENVIRONMENTAL LABORATORIES, INC

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

Project Manager: Paul Horton

Phone #: 671-2387

FAX #:

Address: 4080 Pike Lane, Concord

Site location: 404 Market Oakland, CA

Project Number: SFB-680-0354.72 / 203-680-5016.02

Project Name: Safety Kleen, Oakland

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Jamie Bothell

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
EastEnd	Tank#3	01	1		✓							✓			6-8	9:50
WestEnd	Tank#3	02	1		✓							✓			6-8	9:55

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐ ✓ BTEX/TPH 8015 ☐ 8020/8015 ☐ MTBE ☐ ✓ TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel ✓ Product I.D. by GC (SIMDIS) ☐ Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐ Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐ EPA 601 ☐ 8010 ☐ DCA only ☐ EPA 602 ☐ 8020 ☐ EPA 608 ☐ 8080 ☐ PCBs only ☐ EPA 610 ☐ 8310 ☐ EPA 624 ☐ 8240 ☐ ✓ NBS +15 ☐ EPA 625 ☐ 8270 ☐ ✓ NBS +25 ☐ EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐ TCLP Metals ☐ VOA ☐ Semi VOA ☐ HSL ☐ EPA Priority Pollutant Metals ☐ LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐ CAM Metals ☐ STLC ☐ TTLC Corrosivity ☐ Flashpoint ☐ Reactivity ☐

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☒ Tues. Mon-
SEVEN DAY ☐
OTHER _____(#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: TPH as Mineral Spirits

Lab Use Only Storage Location

Lot #: Work Order #:

Relinquished by Sampler:	Received by:	Received by Laboratory:
Date 6-8-90 Time 13:45	Date	Time
Relinquished by:	Received by:	
Date	Time	
Relinquished by:		
Date	Time	

6-8 BOS

APPENDIX I
CERTIFICATE OF SOIL DISPOSAL

PORT COSTA MATERIALS, INC.
P.O. Box 50
9000 Carquinez Scenic Drive
Port Costa, California 94569
(415) 228-7266
(800) 323-2922
FAX: (415) 787-1726
Telex: 705984

CERTIFICATE OF REMEDIATION OF HYDROCARBON CONTAMINATED SOILS

Supplier: Groundwater Technology
4080 Pike Lane
Concord, CA 94520

Generator: Safety Kleen Corp.
404 Market St
Oakland, CA 94607

Certificate Number: 0009
Dated: August 30, 1990

PORT COSTA MATERIALS, INC., a California corporation ("Company"), located at and the operator of the above "Facility" hereby certifies as follows:

1. The Company has received from the above "Generator" (Safety Kleen Corp.), 984.33 tons of hydrocarbon contaminated soil ("HC Soil") as transported by or on behalf of Generator by Dillard Trucking, contracted through Groundwater Technology to such facility, and referred to as lot number 000107, which HC Soil was received at the Facility on August 14,1990, (as part of a shipment consisting of 984.33 tons in total). The Company operates its Facility and processes such HC Soil pursuant to permits issued by applicable governmental authorities.

2. In receiving and processing the HC Soil and in providing this Certificate, the Company has relied upon and is relying on (a) the representation of the Generator that the HC Soil does not contain any materials classified as, and is not classified as, "hazardous waste" under the applicable provisions of the Federal and California law and has been managed and may be treated as other than "hazardous waste" and (b) the Generator has independent written certifications from applicable governmental agencies or certified independent testing laboratories that the HC Soil does not contain any materials classified as, and is not classified as, "hazardous waste" under said applicable law.

3. The HC Soil has been treated by being introduced into the manufacturing process at the Facility (in which it may be blended with a mixture of natural shale) feeding into a rotary kiln in which at high temperature the contaminants are consumed by thermal processing and inert materials are produced. The HC Soil was processed in this manner during the period from August 15 to August 30, and all of the HC Soil covered by this Certificate was completed being processed on August 30, 1990. In the treatment of the HC Soil, releases and emissions have been in accordance with the requirements of the applicable operating permits of the Facility.

4. Upon completion of the treatment, the HC Soil has been remediated, and the end product is an inert substance which does not constitute a "hazardous waste" under the applicable provisions of the Federal and California law.

5. The Company shall indemnify, defend and hold harmless the Generator from and against any enforcement actions by any governmental authority in the event that any of the representations by the Company set forth in this Certificate are materially inaccurate; provided however that this indemnity shall be limited to a maximum of the amount paid to the Company by the Generator for processing this HC Soil.

This Certificate is executed on this 14th day of September 1990

PORT COSTA MATERIALS, INC.

By: _____
Evert N. Jones,
Assistant Secretary

PCH/8/90

SUPERIOR ANALYTICAL LABORATORIES, INC.
825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512
DOHS #319
DOHS #220

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 81394
CLIENT: Port Costa Materials
CLIENT JOB NO.: 107GT9007A

DATE RECEIVED: 08/16/90
DATE REPORTED: 08/22/90

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (mg/Kg)(mg/L) Mineral Spirits Range*	Diesel Range
1	SEAL TANK	ND<1	9
2	ROTARY DUST	240	440
3	POST KILN #1	ND<10	ND<10
4	POST KILN #2	ND<10	ND<10
5	POST KILN #3	ND<10	ND<10
6	POST KILN #4	ND<10	ND<10
7	POST KILN #5	ND<10	ND<10
8	PRE KILN	9000	ND<200
9	PILE #1	19000	ND<200
10	McCLAN #1	12000	ND<200
11	PRE SILO #1	24000	ND<200
12	POST SILO #2	21000	ND<200
13	KILN #2	20000	ND<200

mg/kg - parts per million (ppm)
* Mineral Spirits Range Hydrocarbon quantified as Gasoline.

Method Detection Limit for Gasoline and Diesel in Soil: 10 mg/Kg
Method Detection Limit for Gasoline and Diesel in Water: 1 mg/L

QAQC Summary:

Daily Standard run at 200mg/L: RPD Gasoline = 11%
RPD Diesel = 12%

MS/MSD Average Recovery = 118%: Duplicate RPD = 6%

Richard Srna, Ph.D.

Dorena Srna
Laboratory Manager

OUTSTANDING QUALITY AND SERVICE

SUPERIOR ANALYTICAL LABORATORIES, INC.
825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512
DOHS #319
DOHS #220

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 81394
CLIENT: Port Costa Materials
CLIENT JOB NO.: 107GT9007A

DATE RECEIVED:08/16/90
DATE REPORTED:08/22/90

ANALYSIS FOR TOTAL OIL AND GREASE
by Method 503E

LAB #	Sample Identification	Concentration(mg/L)(mg/Kg) Oil & Grease
1	SEAL TANK	ND<5
2	ROTARY DUST	ND<20
3	POST KILN #1	ND<20
4	POST KILN #2	ND<20
5	POST KILN #3	ND<20
6	POST KILN #4	ND<20
7	POST KILN #5	ND<20
8	PRE KILN	200

mg/L - parts per million (ppm)

Method Detection Limit for Oil and Grease in Soil: 20mg/Kg
Method Detection Limit for Oil and Grease in Water: 5mg/L

QAQC Summary: Duplicate RPD : 0%

Richard Srna, Ph.D.

Dorena Srna

Laboratory Manager

OUTSTANDING QUALITY AND SERVICE

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/08/90 rw

WORK ORD#: D006092
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA
SAMPLED: 06/05/90 BY: J. Bethell
RECEIVED: 06/05/90
ANALYZED: 06/07/90 BY: M. Ly

MATRIX: Soil
UNITS: ug/Kg (ppb)

PARAMETER	DL	SAMPLE # I.D.	01 COMP 1			
Chloromethane	500		<500			
Bromomethane	500		<500			
Vinyl chloride	500		<500			
Chloroethane	500		<500			
Methylene chloride	250		<250			
Acetone	5000		<5000			
Carbon disulfide	250		<250			
1,1-Dichloroethene	250		<250			
1,1-Dichloroethane	250		<250			
1,2-Dichloroethene, total	250		<250			
Chloroform	250		<250			
1,2-Dichloroethane	250		<250			
2-Butanone	5000		<5000			
1,1,1-Trichloroethane	250		<250			
Carbon tetrachloride	250		<250			
Vinyl acetate	2500		<2500			
Bromodichloromethane	250		<250			
1,2-Dichloropropane	250		<250			
cis-1,3-Dichloropropene	250		<250			
Trichloroethene	250		<250			
Dibromochloromethane	250		<250			
1,1,2-Trichloroethane	250		<250			
Benzene	250		<250			
trans-1,3-Dichloropropene	250		<250			
2-Chloroethylvinylether	500		<500			
Bromoform	250		<250			
4-Methyl-2-pentanone	2500		<2500			
2-Hexanone	2500		<2500			

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240

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Concord, CA 94520
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(800) 423-7143 *from outside California*

WORK ORD#:D006093

CLIENT: Gary Long
PROJECT#: SF8-680-0354.72
CONSULTANT PROJECT#: 203-680-3016.02
LOCATION: 404 Market, Oakland, CA
MATRIX: Soil
UNITS: ug/Kg (ppb)

PARAMETER	DL	SAMPLE # I.D.	01 COMP 1
Tetrachloroethene	250		<250
1,1,2,2-Tetrachloroethane	250		<250
Toluene	250		<250
Chlorobenzene	250		<250
Ethylbenzene	250		<250
Styrene	250		<250
1,2-Dichlorobenzene	250		1000
1,3-Dichlorobenzene	250		<250
1,4-Dichlorobenzene	250		260
Xylene (total)	250		420
Trichlorofluoromethane	250		<250

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/09/90 lzo Page 1 of 1

WORK ORD#: D006094
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA
SAMPLED: 06/05/90 BY: J. Bethell
RECEIVED: 06/05/90
ANALYZED: 06/07/90 BY: M .Ly

MATRIX: Soil
UNITS: mg/L (ppm)

PARAMETER	DL	SAMPLE # I.D.	01 COMP1		
Chloromethane	0.01		<0.01		
Bromomethane	0.01		<0.01		
Vinyl chloride	0.01		<0.01		
Chloroethane	0.01		<0.01		
Methylene chloride	0.005		<0.005		
Acetone	0.01		0.026		
Carbon disulfide	0.005		0.028		
1,1-Dichloroethene	0.005		<0.005		
1,1-Dichloroethane	0.005		<0.005		
1,2-Dichloroethene, total	0.005		<0.005		
Chloroform	0.005		<0.005		
1,2-Dichloroethane	0.005		<0.005		
2-Butanone	0.01		<0.01		
1,1,1-Trichloroethane	0.005		<0.005		
Carbon tetrachloride	0.005		<0.005		
Vinyl acetate	0.05		<0.05		
Bromodichloromethane	0.005		<0.005		
1,2-Dichloropropane	0.005		<0.005		
cis-1,3-Dichloropropene	0.005		<0.005		
Trichloroethene	0.005		<0.005		
Dibromochloromethane	0.005		<0.005		
1,1,2-Trichloroethane	0.005		<0.005		
Benzene	0.005		<0.005		
trans-1,3-Dichloropropene	0.005		<0.005		
2-Chloroethylvinylether	0.01		<0.01		
Bromoform	0.005		<0.005		
4-Methyl-2-pentanone	0.01		<0.01		
2-Hexanone	0.01		<0.01		

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240 (TCLP)

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Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#:D006094

CLIENT: Paul Horton
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market, Oakland, CA
MATRIX: Soil
UNITS: mg/L (ppm)

PARAMETER	DL	SAMPLE # I.D.	01 COMP 1
Tetrachloroethene	0.005		<0.005
1,1,2,2-Tetrachloroethane	0.005		<0.005
Toluene	0.005		<0.005
Chlorobenzene	0.005		<0.005
Ethylbenzene	0.005		<0.005
Styrene	0.005		<0.005
1,2-Dichlorobenzene	0.005		0.058
1,3-Dichlorobenzene	0.005		<0.005
1,4-Dichlorobenzene	0.005		0.020
Xylene (total)	0.005		0.041
Trichlorofluoromethane	0.005		<0.005

DL = Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 8240 (TCLP)
This report replaces one of the same number dated 06/08/90

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

06/12/90 rw Page 1 of 1

WORK ORD#: D006093
CLIENT: Gary Long
Safety Kleen
777 Big Timber Road
Elgin, IL 60123
PROJECT#: SFB-680-0354.72
CONSULTANT PROJECT#: 203-680-5016.02
LOCATION: 404 Market St., Oakland, CA
SAMPLED: 06/05/90 BY: J. Bethell
RECEIVED: 06/05/90
ANALYZED: 06/08/90 BY: R. Heines

MATRIX: Soil
UNITS: mg/L (ppm)

EP TOXICITY TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 COMP1			
Arsenic	0.5		<0.5			
Barium	0.02		0.85			
Cadmium	0.05		<0.05			
Chromium (total)	0.1		0.26			
Lead	0.3		0.41			
Mercury	0.0002		0.0002			
Selenium	1		<1			
Silver	0.1		<0.1			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: Mercury by EPA 1310/7471; other metals by EPA 1310/6010.

Emma P. Popek

EMMA P. POPEK, Laboratory Director

960912

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-6534

ANALYSIS REQUEST

B-2

Project Manager: Paul Horton
Phone #: 672-2387
FAX #:
Address: 4080 -Pike Lane, Concord
Site location: 404 Market Oakland, CA
Project Number: SFB-680-0354.72 ~~903-680-5016.02~~
Project Name: Safeway Kleen, Oakland
Sampler Name (Print): Jamie Bethell

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
Comp 1	20,20	01	1		X							X			6-5-92	11:55

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 X	EPA 625 ☐ 8270 ☐	EPTOX: Metals X Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA X Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐
										X		X	X				

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☒
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only Storage Location
Lot #: Work Order #:

CUSTODY RECORD

Relinquished by Sampler:	Relinquished by:	Relinquished by:
Received by:	Received by:	Received by Laboratory:
Date 6-5-92 Time 12:19	Date	Date Time

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/12/90 mh

WORK ORD#: C007223
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONS PROJ #: 203-680-5016.03
LOCATION: 404 Market St.
Oakland, CA
SAMPLED: 07/09/90 BY: J. Bethell
ANALYZED: 07/09/90 BY: M. Verona
MATRIX: Soil
UNITS: mg/kg (ppm)

TEST RESULTS

COMPOUND	MDL	LAB # I.D.#	01 COMP 2	02 COMP 3		
Benzene	0.5		<0.5	<0.5		
Bromodichloromethane	0.5		<0.5	<0.5		
Bromoform	0.5		<0.5	<0.5		
Bromomethane	0.5		<0.5	<0.5		
Carbon tetrachloride	0.5		<0.5	<0.5		
Chlorobenzene	0.5		<0.5	<0.5		
Chloroethane	0.5		<0.5	<0.5		
2-Chloroethylvinyl ether	1		<1	<1		
Chloroform	0.5		<0.5	<0.5		
Chloromethane	0.5		<0.5	<0.5		
Dibromochloromethane	0.5		<0.5	<0.5		
1,2-Dichlorobenzene	0.5		0.66	0.76		
1,3-Dichlorobenzene	0.5		<0.5	<0.5		
1,4-Dichlorobenzene	0.5		<0.5	<0.5		
Dichlorodifluoromethane	0.5		<0.5	<0.5		
1,1-Dichloroethane	0.5		<0.5	<0.5		
1,2-Dichloroethane	0.5		<0.5	<0.5		
1,1-Dichloroethene	0.2		<0.2	<0.2		
trans-1,2-Dichloroethene	0.5		<0.5	<0.5		
1,2-Dichloropropane	0.5		<0.5	<0.5		
cis-1,3-Dichloropropene	0.5		<0.5	<0.5		
trans-1,3-Dichloropropene	0.5		<0.5	<0.5		
Ethylbenzene	0.5		<0.5	<0.5		
Methylene chloride	0.5		<0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5		<0.5	<0.5		
Tetrachloroethene	0.5		<0.5	<0.5		
Toluene	0.5		<0.5	<0.5		
1,1,1-Trichloroethane	0.5		<0.5	<0.5		
1,1,2-Trichloroethane	0.5		<0.5	<0.5		
Trichloroethene	0.5		<0.5	<0.5		
Trichlorofluoromethane	0.5		<0.5	<0.5		
Vinyl Chloride	1		<1	<1		
Xylenes	0.5		<0.5	<0.5		

MDL = Method Detection Limit.
METHOD: EPA 8010/8020.

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/19/90 mh

WORK ORD#: C007224
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONS PROJ#: 203-680-5016.03
LOCATION: 404 Market St., Oakland, CA
SAMPLED: 07/09/90 BY: J. Bethell
RECEIVED: 07/09/90
ANALYZED: 07/13/90 BY: J. Gomez

TITLE 22 (C.A.M.)
TOTAL THRESHOLD LIMIT CONCENTRATION TEST RESULTS

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 COMP 2	02 COMP 3			
Antimony	25		<25	<25			
Arsenic	0.25		0.83	1.5			
Barium	1		38	47			
Beryllium	1		<1	<1			
Cadmium	2		2	2			
Chromium	1		32	35			
Cobalt	1		7	7			
Copper	2		15	12			
Lead	5		10	22			
Mercury	0.02		0.04	0.03			
Molybdenum	1		8	9			
Nickel	5		<5	<5			
Selenium	0.5		<0.5	<0.5			
Silver	1		6	<1			
Thallium	10		<10	<10			
Vanadium	2		22	25			
Zinc	2		26	42			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHODS: Mercury by EPA 7471; Antimony by EPA 3005/7040; Arsenic by EPA 3050/7060; Selenium by EPA 3050/7740; Others by EPA 3050/6010.

EMMA P. POPEK, Laboratory Director

GTEL
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Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/12/90 mh

WORK ORD#: C007225
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONS PROJ #: 203-680-5016.03
LOCATION: 404 Market St.
Oakland, CA
SAMPLED: 07/09/90 BY: J. Bethell
ANALYZED: 07/10/90 BY: F. Kha
MATRIX: Soil
UNITS: mg/Kg (ppm)

TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 COMP 2	02 COMP 3			
Total Petroleum Hydrocarbons as Mineral Spirits	10		7800	4400			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.
METHOD: Modified EPA Method 8015

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
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Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: C007325
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONS. PROJECT#: 203-680-5016.03
LOCATION: 404 Market St.,Oakland, CA

SAMPLED: 07/09/90 BY: J. Bethell
RECEIVED: 07/12/90
ANALYZED: 07/16/90 BY: P. Sweet
MATRIX: Water

TEST RESULTS

PARAMETER	UNITS	MDL	METHOD	SAMPLE # I.D.	01 COMP 2	02 COMP 3
Ignitability (Soil)	deg F		EPA1010		125	NF (160

EMMA P. POPEK, Laboratory Director

C007275

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST 72- 7146

M-2

CUSTODY RECORD

Project Manager: Paul Horton

Phone #: 671-2387

FAX #:

Address: 4080 - Pike Lane Suite "D"

Site location: 404 Market Oakland, CA

Project Number: ~~SFB-680-0354.72~~ 203-680-5016.03

Project Name: Safety Kleen, Oakland

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Jamie Bethell

ANALYSIS REQUEST

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME	BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☒ DCA only ☐	EPA 602 ☐ 8020 ☒	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC ☒	Corrosivity ☐ Flashpoint ☐ Reactivity ☐	TPH as Mineral Spirits	Ignitability
Comp2	Soil Pile	01	2		X							X			7-9	12:10							X	X									X		X	X
Comp3	Soil Pile	02	2		X							X			7-9	12:15							X	X									X		X	X

Relinquished by Sampler: [signature]	Date 7-9-90	Time 1:05 pm	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 7/9/90	Time	Received by Laboratory: [signature]

Way Bill #

Felix 7/10 Rec

SPECIAL HANDLING
~~24 Hours~~ ~~48 Hrs~~
EXPEDITED 48 Hours ~~X~~
SEVEN DAY ☐
OTHER 10 (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

* SPECIAL DETECTION LIMITS (Specify)
Ignitibility - added per P. Horton 7/12/90 [initials]

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: QM90050

Lab Use Only
Lot #:

Storage Location
Work Order #:

NEW # C007305

APPENDIX J

AS BUILT DRAWINGS
(SHEETS 1-4)

LARGE MAP REMOVED

APPENDIX K
COMPACTION TEST RESULTS

KLEINFELDER

NUCLEAR DENSITY FIELD FORM

FILE NO.: 11-9309-01 DATE: 06-27-90 RESULTS REPORTED TO: John Dees
JOB NAME: Oakland Density Testing
TECHNICIAN: E-Z TEST LOCATIONS SELECTED BY: E-Z OF: (COMPANY)

[X] COMPACTION OBSERVATION [ ] FULL-TIME OBSERVATION [ ] PART-TIME OBSERVATION

TIME: TESTS AND OBSERVATIONS _____ RETESTS _____ GAUGE NO. 6374 DENSITY _____ MOISTURE _____

TEST NO.	PROBE DEPTH (IN)	APPROXIMATE LOCATION	DEPTH BELOW FSG	FIELD		LABORATORY		CURVE NO.	PERCENT COMPACTION	SPECIFIED COMPACTION	REMARKS
				MOISTURE CONTENT	DENSITY WET / DRY	OPTIMUM MOISTURE	DENSITY WET / DRY				
		Backfill Over Solvent Storage Tanks									
1	12"	South side of New-Solvent tanks	-6"	8.6	141.9 / 130.7	6.9	140.6		93	95	
2	12"	SE corner of site	"	6.2	144.9 / 133.6	"	"		95	"	-9525 Pass
3	12"	Between the tanks	"	7.4	144.1 / 134.2	"	"		95	"	Jamie Bethell
4	12"	N. side of old-Solvent tanks.	"	5.9	145.5 / 137.3	"	"		98	"	Groundwater Tech.

Observations of grading operations indicate fill tested does (does not) meet specifications

[ ] There are no unresolved failures to date.

The following tests do not comply with project specifications and/or soils report.

Date: _____ Test No. _____

Date: _____ Test No. _____

Date: _____ Test No. _____

KLEINFELDER

TECHNICIAN'S DAILY REPORT

FILE NO: _____ ARRIVE 3:25PM DEPART _____

JOB NAME: _____ MILES _____

DATE: _____ WEATHER Sunny, Warm

AREAS TESTED: |_| BUILDING PAD |_| TRENCHES |_| LANDSCAPE |_| SG |_| ASB

|X| PARKING LOT |_| ROADWAY |_| ENG. FILL |X| AB |_| AC

OTHER (Specify): _____

SPECIFIC AREAS TESTED: _____

EQUIPMENT USED TO OBTAIN COMPACTION: |_| SHEEPSFOOT |X| STEEL-WHEEL ROLLER PA-30

|X| VIBRATORY PLATE |_| HAND WHACKER |_| HYDRAULIC HAMMER

|_| MANUFACTURER/TYPE: Wacker Turtle (large)

MATERIAL SAMPLE: Description: 3/4" AB

Location: Storage Tank area

Purpose: Curve

OPERATIONS OBSERVED: _____

REMARKS: _____

Reviewed: _____ Signed: _____

MH20-04

APPENDIX L
TANK INTEGRITY TESTING

Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☑ Tank(s) ☑	Name: SAFETY KLEEN	Address: 404 MARKET ST.	Representative: OAKLAND			Telephone:
	Name:	Address:	Representative:			Telephone:
2. OPERATOR	Name:	Address:				Telephone:
3. REASON FOR TEST (Explain Fully)	Annual compliance with State under ground storage Tank Reg ARTICLE 3					
4. WHO REQUESTED TEST AND WHEN	Name:	Title:	Company or Affiliation:			Date:
		Address:				Telephone:
5. TANK INVOLVED (Use additional lines for manifolded tanks)	Identify by Direction: EAST	Capacity: 12,000	Brand/Supplier: N/A	Grade: Water	Approx. Age: New	Steel/Fiberglass: Steel
6. INSTALLATION DATA	Location: South side BLDG (North inside driveway, Rear of station, etc.)	Cover: Concrete (Concrete, Black Top, Earth, etc.)	Fill: 4" (Size, Tite/Fill make, Drop tubes, Remote Fills)	Vents: 2" (Size, Manifolded)	Siphons: N/A (Which tanks?)	Pumps: (Suction, Remote, Make if known)
7. UNDERGROUND WATER	Depth to the water table: N/A				Is the water over the tank? ☐ Yes ☐ No	
8. FILL-UP ARRANGEMENTS	Tanks to be filled ____ hr. ____ Date ____ Arranged by ____ Name ____ Telephone					
	Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.					
	Terminal or other contact for notice or inquiry ____ Company ____ Name ____ Telephone					
9. CONTRACTOR, MECHANICS, any other contractor involved						
10. OTHER INFORMATION OR REMARKS	Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.					

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
EAST	Tight	-.015	7-2-90

12. SENSOR CERTIFICATION 10/87 Date #2017 Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians: 1. Tim B. Sowell Certification # 1066

2. ____ Certification # ____

TIMMERMAN ENGINEERING CONSTRUCTION Company. By: Signature

P.O. BOX 4479 WALNUT CREEK, CA 94596 Address

PH0827

14. SAFETY KLEEN (Name of Supplier, Owner or Dealer) 404 MARKET ST. (Address No. and Street(s)) OAKLAND (City) CA. (State) 7-2-90 (Date of Test)

15. TANK TO TEST

EAST #1 (Identify by position)

WATER (Brand and Grade)

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 12,000 Gallons

By most accurate capacity chart available 11,895 Gallons

From: ☐ Station Chart ☐ Tank Manufacturer's Chart ☐ Company Engineering Data ☐ Charts supplied with ☐ Other

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up 0 in. to ½" 0 Gallons 95 Tank Diameter in.

Inventory	Gallons	Total Gallons ea. Reading
		11,895
TOPOFF		10
		11,905

Transfer total to line 25a

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK ☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable. Check below and record procedure in log (27).

Use maximum allowable test pressure for all tests. Four pound rule does not apply to doublewalled tanks.

Complete section below

1. Is four pound rule required? Yes ☐ No ☑
2. Height to 12" mark from bottom of tank ____ in.
3. Pressure at bottom of tank ____ P.S.I.
4. Pressure at top of tank ____ P.S.I.

Depth of burial ____ in.

Tank dia. ____ in.

Water table ____ in.

NOTES: DOUBLE WALL

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade .... 147 in.
Add 30" for "T" probe assy. .... 30 in.
Total tubing to assemble — approximate .... 177 in.

20. EXTENSION HOSE SETTING

Tank top to grade .... 52 in.
Extend hose on suction tube 6" or more below tank top .... in.
*If Fill pipe extends above grade, use top of fill.

22. Thermal-Sensor reading after circulation 14321 digits
65 - 66 °F Between

23. Digits per °F in range of expected change 326 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity
Observed A.P.I. Gravity ....
Hydrometer employed .... H
Observed Sample Temperature .... °F
Corrected A.P.I. Gravity @ 60°F. From Table A ....
Coefficient of Expansion for Involved Product From Table B ....
Transfer COE to Line 25b.

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product ....
Hydrometer Employed .... H
Temperature in Tank After Circulation .... °F
Temperature of Sample .... °F
Difference (+/-) .... °F
Observed A.P.I. Gravity ....
Reciprocal ____ Page # ____

11905 ÷ ____ = ____
Total Quantity in full tank (16 or 17) ÷ Reciprocal = Volume change in this tank per °F. Transfer to Line 26a.

24c. FOR TESTING WITH WATER see Table C & D

Water Temperature after Circulation Table C .... 65.4 °F

Coefficient of Water Table D .... .0001625

Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) 11905 × (b) 0.00010625 = (c) 12.6490625 gallons
Total quantity in full tank (16 or 17) × Coefficient of expansion for involved product = Volume change in this tank per °F

26. (a) 12.6490625 ÷ 326 = 0.0388008
Volume change per °F (25 or 24b) ÷ Digits per °F in test Range (23) = Volume change per digit. Compute to 4 decimal places. This is test factor (B). 0388

27. Sensor Calibration ____ / ____ LOG OF TEST PROCEDURES		29.	30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGING EACH READING	39. ACCUMULATED CHANGE
28. DATE / TIME (24 hr.)	Record details of setting up and running test. (Use full length of line if needed.)	Reading No.	Stabilizer Level to Inches: Beginning of Reading	Stabilizer Level to Inches: Level to which Restored	32. Product in Gradient: Before Reading	32. Product in Gradient: After Reading	33. Product Replaced (+): Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher - Lower - (a)	37. Computation (a) = (a) x Expansion + Contraction -	Temperature Adjustment: Volume Minus Expansion (+) or Contraction (-) (E3)(V) — (E7)(T)	At Low Level compute Change per Hour (NFPA criteria)
0730	ARRIVED JOB SITE											
	SET UP TEST EQUIPMENT											
0930	START RECIRCULATION							.14				
10:30	START HIGH LEVEL TEST	1		42				221		.0388		
10:45	HIGH LEVEL	2	41.2	42	.965	.900	-.065	223	+2	+.078	-.143	
11:00		3	41.41	42	.900	.850	-.050	NIL	NIL	NIL	-.050	
11:15		4	41.5	42	.850	.810	-.040	NIL	NIL	NIL	-.040	
11:30		5	41.5	42	.810	.770	-.040	NIL	NIL	NIL	-.040	
11:47		6	41.8	42	.770	.750	-.020	224	+1	+.039	-.059	
12:00		7	41.8	42	.750	.730	-.020	NIL	NIL	NIL	-.020	
12:15		8	41.8	42	.730	.710	-.020	NIL	NIL	NIL	-.020	
	START CONSTANT TEST			12								
17:20	CONCLUDE	1	17.5	12	.145	.195	+.050	NIL	NIL	NIL	+.050	
17:35		2	17.0	12	.195	.195	NIL	NIL	NIL	NIL	+.000	+.000
17:50		3	17.0	12	.195	.195	NIL	NIL	NIL	NIL	+.000	+.000
18:05		4	17.1	12	.195	.200	+.005	NIL	NIL	NIL	+.005	+.005
18:20		5	17.0	12	.200	.200	NIL	NIL	NIL	NIL	+.000	+.005
18:35		6	17.0	12	.200	.200	NIL	NIL	NIL	NIL	+.000	+.005
18:50		7	17.0	12	.200	.200	NIL	225	+1	+.039	-.039	-.034
19:05		8	17.0	12	.200	.200	NIL	NIL	NIL	NIL	NIL	-.034
19:20		9	17.0	12	.200	.200	NIL	NIL	NIL	NIL	+.000	-.034
19:35		10	17.0	12	.200	.200	NIL	NIL	NIL	NIL	+.000	-.034
19:50		11	17.0	12	.200	.200	NIL	NIL	NIL	NIL	+.000	-.034
20:05		12	17.0	12	.200	.205	+.005	NIL	NIL	NIL	+.005	-.029
20:20		13	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
20:35		14	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
20:50		15	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
21:05		16	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
21:20		17	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
21:35		18	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
21:50		19	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
22:05		20	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
22:20		21	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
22:35		22	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
22:50		23	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
23:05		24	17.0	12	.205	.205	NIL	NIL	NIL	NIL	+.000	-.029
										-.029	+.2=	-.015

P-T Tank Test Data Chart
Additional Info

1. Net Volume Change at Conclusion of Precision Test: -.015 gph

- Signature of Tester: _____

Date: 7-2-90

2. Statement:

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329.

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Health Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

- Tank Owner/Operator _____

Date _____

Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☑ Tank(s) ☑	SAFETY KLEEN 404 MARKET ST, OAKLAND (Name / Address / Representative / Telephone)
2. OPERATOR	(Name / Address / Representative / Telephone)
3. REASON FOR TEST (Explain Fully)	Annual compliance with State underground Storage Tank reg ARTICLE 3
4. WHO REQUESTED TEST AND WHEN	(Name / Title / Company or Affiliation / Date / Address / Telephone)

5. TANK INVOLVED (Use additional lines for manifolded tanks.)

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
(EAST	12000	N/A	Water	New	Steel

6. INSTALLATION DATA

Location (North inside driveway, Rear of station, etc.)	Cover (Concrete, Black Top, Earth, etc.)	Fills (Size, Thrift make, Drop tubes, Remote Fills)	Vents (Size, Manifolded)	Siphons (Which tanks?)	Pumps (Suction, Remote, Make if known)
South side BLDG	Concrete	4	2"	N/A	remote

7. UNDERGROUND WATER — Depth to the Water table N/A. Is the water over the tank? ☐ Yes ☐ No

8. FILL-UP ARRANGEMENTS — Tanks to be filled ______ hr. ______ Date ______ Arranged by ______ Name ______ Telephone ______. Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead. Terminal or other contact for dates or inquiry ______ Company ______ Name ______ Telephone ______

9. CONTRACTOR, MECHANICS, any other contractor involved

10. OTHER INFORMATION OR REMARKS — Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

11. TEST RESULTS — Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
EAST	Tight	-.016	7-2-90

12. SENSOR CERTIFICATION — Date 10/87; Serial No. of Thermal Sensor #2017

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technician: Tim B. Soucie; Certification # 1066
2. ______ Certification # ______

Contractor or Company: TIMMERMAN ENGINEERING CONSTRUCTION, P.O. BOX 4479, WALNUT CREEK, CA 94596 — By: [signature] Signature; Address

PH0827

14. SAFETY KLEEN (Name of Supplier, Owner or Dealer) 404 MARKET ST. (Address (No. and Street)) OAKLAND (City) CA (State) 7-2-90 (Date of Test)

15. TANK TO TEST: EAST #2 (Identify by position); WATER (Brand and Grade)

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY — Nominal Capacity 12,000 Gallons; By most accurate capacity chart available 11,895 Gallons. From: ☐ Station Chart ☐ Tank Manufacturer's Chart ☐ Company Engineering Data ☐ Charts supplied with ☐ Other

17. FILL-UP FOR TEST — Stick Water Bottom before Fill-up ______ in. ______ Gallons; 95 in. Tank Diameter

Inventory	Gallons	Total Gallons ea. Reading
		11,895
TOPOFF		5
Transfer total to line 25a		11,900

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK ☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable. Check below and record procedure in log (27).

Use maximum allowable test pressure for all tests. Four pound rule does not apply to doublewalled tanks.

Complete section below

1. Is four pound rule required? Yes ☐ No ☑
2. Height to 12" mark from bottom of tank ______ in.
3. Pressure at bottom of tank ______ P.S.I.
4. Pressure at top of tank ______ P.S.I.

Depth of burial ______ in.
Tank dia. ______ in.
Water table ______ in.

NOTES: Double Wall

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
- Bottom of tank to grade* 125 in.
- Add 30" for "T" probe assy. 30 in.
- Total tubing to assemble — approximate 175 in.

20. EXTENSION HOSE SETTING
- Tank top to grade* 54 in.
- Extend hose on suction tube 6" or more below tank top ______ in.
- *If Fill pipe extends above grade, use top of fill.

22. Thermal-Sensor reading after circulation 13707 digits; 62.63 °F Between

23. Digits per °F in range of expected change 324 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity
- Observed A.P.I. Gravity ______
- Hydrometer employed ______ H
- Observed Sample Temperature ______ °F
- Corrected A.P.I. Gravity @ 60°F, From Table A ______
- Coefficient of Expansion for Involved Product From Table B ______
- Transfer COE to Line 25b.

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
- Type of Product ______
- Hydrometer Employed ______ H
- Temperature in Tank After Circulation ______ °F
- Temperature of Sample ______ °F
- Difference (+/-) ______ °F
- Observed A.P.I. Gravity ______
- Reciprocal ______ Page # ______
- 11500 (Total quantity in full tank (16 or 17)) ÷ ______ (Reciprocal) = ______ (Volume change in this tank per °F; Transfer to Line 26a.)

24c. FOR TESTING WITH WATER see Table C & D
- Water Temperature after Circulation Table C 62.6 °F
- Coefficient of Water Table D 0.00009666
- Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) 11900 (Total quantity in full tank (16 or 17)) × (b) 0.00009666 (Coefficient of expansion for involved product) = (c) 11.502541 gallons (Volume change in this tank per °F)

26. (a) 11.502541 (Volume change per °F (25 or 24b)) ÷ 324 (Digits per °F in test Range (23)) = 0.03550166 (Volume change per digit Compute to 4 decimal places) This is test factor (a) .0355

Sensor Calibration ____ / ____

LOG OF TEST PROCEDURES

28. DATE / TIME (24 hr.)	Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.	30. HYDROSTATIC PRESSURE CONTROL: Standpipe Level in Inches — Beginning of Reading	Level to which Restored	31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL: Product in Graduate — Before Reading	After Reading	33. Product Replaced (-) / Product Recovered (+)	34. TEMPERATURE COMPENSATION USE FACTOR (a): Thermal Sensor Reading	36. Change (Higher + Lower -) (c)	37. Computation (c) = (a) x Expansion + Contraction -	38. NET VOLUME CHANGING EACH READING: Temperature Adjustment — Volume Minus Expansion (+) or Contraction (-) (33(V) – 37(T))	39. ACCUMULATED CHANGE: At Low Level compute Change per Hour (NFPA criteria)
07:20	ARRIVED JOB SITE											
	SET UP TEST EQUIPMENT											
08:20	START RECIRCULATION							13				
10:30	START HIGH/HIGH TEST	1		42				307		0355		
10:45	HIGH CHECK	2	40.5	42	.635	.450	-.185	NIL	NIL	NIL	-.185	
11:00		3	41.0	42	.450	.350	-.100	NIL	NIL	NIL	-.100	
11:15		4	41.2	42	.350	.275	-.075	NIL	NIL	NIL	-.075	
11:30		5	41.1	42	.550	.870	-.080	NIL	NIL	NIL	-.080	
11:45		6	41.5	42	.820	.820	-.050	NIL	NIL	NIL	-.050	
12:00		7	41.8	42	.820	.400	-.020	NIL	NIL	NIL	-.020	
12:16		8	41.9	42	.900	.790	-.010	308	+1	+.036	-.046	
	START LOW CHECK TEST			12								
12:20	LOW CHECK	1	13.3	12	.100	.285	+.185	NIL	NIL	NIL	+.185	
12:25		2	12.0	12	.285	.285	NIL	NIL	NIL	NIL	+.000	+.000
12:30		3	12.0	12	.285	.285	NIL	NIL	NIL	NIL	+.000	+.000
12:35		4	12.0	12	.285	.285	NIL	305	+1	+.036	-.036	-.036
12:40		5	12.0	12	.285	.285	NIL	NIL	NIL	NIL	+.000	-.036
12:46		6	12.1	12	.285	.295	+.010	NIL	NIL	NIL	+.010	-.026
12:50		7	12.0	12	.295	.295	NIL	NIL	NIL	NIL	NIL	-.026
12:55		8	12.0	12	.295	.295	NIL	NIL	NIL	NIL	+.000	-.026
13:00		9	12.0	12	.295	.295	NIL	NIL	NIL	NIL	+.000	-.026
13:05		10	12.0	12	.295	.295	NIL	NIL	NIL	NIL	+.000	-.026
13:10		11	12.0	12	.295	.295	NIL	NIL	NIL	NIL	+.000	-.026
13:15		12	12.0	12	.295	.305	+.010	310	+1	+.036	-.026	-.052
13:20		13	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:25		14	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:30		15	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:35		16	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:40		17	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:45		18	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:50		19	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
13:55		20	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
14:00		21	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
14:05		22	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
14:10		23	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
14:15		24	12.0	12	.305	.305	NIL	NIL	NIL	NIL	+.000	-.052
										-.052	+.026	-.026

P-T Tank Test Data Chart
Additional Info

1. Net Volume Change at Conclusion of Precision Test .026 gph

Signature of Tester: _____

Date: 7-7-90

2. Statement:

☑ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329.

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Health Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____

APPENDIX M

WASTE-OIL TANK REMOVAL REPORT

GROUNDWATER TECHNOLOGY, INC.

4080-D Pike Lane, Concord, CA 94520
(415) 671-2387

September 11, 1990

Job No. 203 680 5016.03

Ms. Anne Lunt
Safety-Kleen Corporation
2411 Cabrillo Avenue No. 1
San Pedro, CA 90731

RE: Waste-Oil Tank Removal, Property Adjacent to 404 Market Street, Oakland, California

Dear Ms. Lunt:

On July 5, 1990, a small waste-oil tank was removed from the above-referenced site (See Attachment A, Figure 1). Tank excavation was conducted under authorization from the Alameda County Department of Environmental Health (ACDEH) as an addition to the permitted replacement of product storage tanks at the Safety-Kleen facility at 404 Market Street (See Attachment B, ACDEH Permit).

On July 3, prior to the tank removal, waste-oil and waste-oil sludge was removed from the tank and stored in barrels on site, and the tank was cleaned. On July 5, 1990, the tank was removed, inspected by the on-site GTI engineer, and by Dennis Byrne of the ACDEH, and transported to H & H Environmental Service for proper disposal.

Following tank removal on July 5, 1990, two soil samples were collected from the base of the tank pit at the North and South ends of the excavation. The soil samples were collected using a hand-driven soil coring sampler that was lined with 2-inch diameter by 6-inch clean brass tubes. The brass tubes were wrapped in foil, capped, taped, and labeled prior to being transported on ice to GTEL Environmental Laboratories, Inc.

(GTEL) for analysis. The soil samples were analyzed for benzene, toluene, ethylbenzene, Xylenes and total petroleum hydrocarbons (TPH)-as-gasoline by U.S. Environmental Protection Agency (EPA) Methods 5030,8020/modified 8015, for TPH by EPA Method 3550/APHA Standard 503E Infrared, for halogenated volatile organics by EPA Method 8010, and for Cadmium, Chromium, Lead, and Zinc by EPA Method 3005/6010. Laboratory reports are included in Attachment C.

Laboratory results showed no detectable BTEX compounds with only 2 parts million (ppm) TPH-as-gasoline detected. TPH analysis by infrared showed 14 and 93 ppm TPH in the north and south samples respectively. No halogenated volatile organic compounds were detected, and the only metal detected was zinc at 6 ppm. + 16 ppm

In addition to soil samples, samples of the waste-oil and the waste-oil sludge from the tank were collected. A sample of the waste-oil sludge was collected on July 3, 1990 and sent to GTEL for analysis of EPTOX metals and for a flashpoint, and reactivity analysis. A sample of the waste oil was collected on July 21, 1990. This sample was analyzed for polychlorinated biphyneyls by EPA Method 8080, and purgeable halocarbons by EPA Method 8010. Laboratory reports are included in Attachment C.

The results of these analyses showed levels of the EPTOX metals above detection limits with the only significant concentration being for lead at 25 ppm. The product did not test as reactive, and had a flashpoint of greater than 160 degrees Fahrenheit. No PCB compounds were detected. The only purgeable halocarbons detected in the sample were chloroform at 20 ppm, and tetrachloroethene at 0.88 ppm.

Groundwater Technology Inc. hopes that these services met Safety-Kleens needs and timeline. If you have any questions, or require further information, please call us at your convenience.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Paul D. Horton
Project Manager

PDH:lbm

Attachments

L5016L6.PH

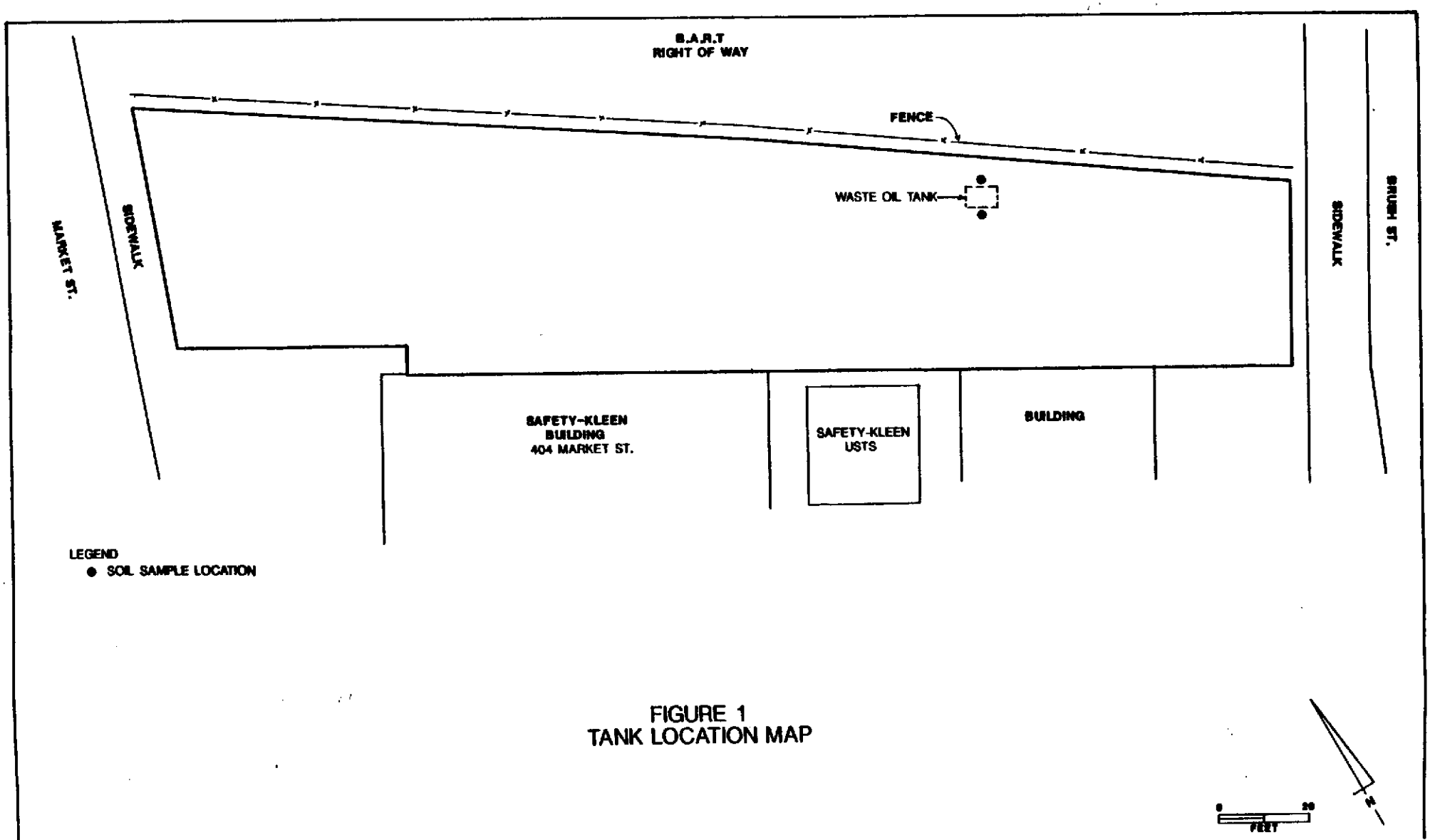

FIGURE 1
TANK LOCATION MAP

SAFETY-KLEEN CORP.
OAKLAND, CALIFORNIA

ML 9/90

GROUNDWATER TECHNOLOGY, INC.

ATTACHMENT B

ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH PERMIT

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
470 - 27TH ST., RM. 322
OAKLAND, CA 94612
PHONE NO. 415/874-7237

ACCEPTED 11/23/90

DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job site available to all contractors and craftsmen involved in the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws.

Notify this Department at least 48 hours prior to the following required inspections:

11/28 1/5/90 Removal of Tank and Piping
11/28 1/5/90 Sampling
11/28 1/5/90 Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL [illegible]
OBTAIN [illegible]

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name Safety-Kleen Corporation

   Business Owner Safety-Kleen Corporation

2. Site Address 404 Market Street

   City Oakland, CA Zip 94607 Phone (415)832-7942

3. Mailing Address 2750 Thompson Creek Road

   City Pomona, CA Zip 91767 Phone (714)593-3985

4. Land Owner Bedford Properties

   Address 3470 Mt. Diablo Blvd City, State Lafayette, CA Zip 94549

5. EPA I.D. No. CAD 053044 053

6. Contractor Groundwater Technology, Inc.

   Address 4080-D Pike Lane

   City Concord, CA 94520 Phone (415)671-2387

Subcontractor: License Type A ID# 527659

7. Other (Specify) Universal Engineering, Inc.

   Address 610 Industrial Way

   City Benicia, CA 94510 Phone (707) 746-6699

ATTACHMENT C

LABORATORY REPORTS

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.03
Project ID: 404 Market Street
Oakland, CA
Work Order Number: C0-07-182

July 24, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 07/06/90, under chain of custody number 72-6541.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.03
Project ID: 404 Market Street
Oakland, CA
Work Order Number: C0-07-182

below W.O. tank

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Soil

EPA Methods 5030, 8020, and Modified 8015[a]

GTEL Sample Number		01	02		
Client Identification		NORTH	SOUTH		
Date Sampled		07/05/90	07/05/90		
Date Extracted		07/17/90	07/17/90		
Date Analyzed		07/18/90	07/18/90		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005		
Toluene	0.005	<0.005	<0.005		
Ethylbenzene	0.005	<0.005	<0.005		
Xylene, total	0.015	<0.015	<0.015		
BTEX, total	–	–	–		
TPH as Gasoline	1	<1	2		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/11/90 lzo Page 1 of 1

WORK ORD#: C007183
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord , CA 94520
PROJECT#: SFB-680-0354.72
Cons. Project#: 203-680-5016.03
LOCATION: 404 Market Street, Oakland

SAMPLED: 07/05/90 BY: J. Bethell
RECEIVED: 07/06/90
ANALYZED: 07/09/90 BY: J. Floro

MATRIX: Soil
UNITS: mg/Kg (ppm)

PARAMETER	MDL	SAMPLE # I.D.	01 NORTH	02 SOUTH			
Total Petroleum Hydrocarbons	5		14	93			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.

METHOD: EPA 3550/APHA Standard Methods 503E/Infrared

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: SFB-680-0354.72
Consultant Project# 203-680-50016.03
Project ID: 404 Market Street, Oakland, CA
Work Order Number: C0-07-184

July 13, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 07/06/90, under chain of custody number 72-6541.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Client Number: SFB-680-0354.72
Consultant Project# 203-680-50016.03
Project ID: 404 Market Street, Oakland, CA
Work Order Number: C0-07-184

Table 1

ANALYTICAL RESULTS

Halogenated Volatile Organics in Soil

EPA Method 8010[a]

GTEL Sample Number		01	02		
Client Identification		NORTH	SOUTH		
Date Sampled		07/05/90	07/05/90		
Date Extracted		07/09/90	07/09/90		
Date Analyzed		07/10/90	07/10/90		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Chloromethane	0.5	< 0.5	< 1		
Bromomethane	0.5	< 0.5	< 0.5		
Vinyl chloride	1	< 1	< 1		
Chloroethane	0.5	< 0.5	< 0.5		
Methylene chloride	0.5	< 0.5	< 0.5		
1,1-Dichloroethene	0.2	< 0.2	< 0.2		
1,1-Dichloroethane	0.5	< 0.5	< 0.5		
trans-1,2-Dichloroethene	0.5	< 0.5	< 0.5		
Chloroform	0.5	< 0.5	< 0.5		
1,2-Dichloroethane	0.5	< 0.5	< 0.5		
1,1,1-Trichloroethane	0.5	< 0.5	< 0.5		
Carbon tetrachloride	0.5	< 0.5	< 0.5		
Bromodichloromethane	0.5	< 0.5	< 0.5		
1,2-Dichloropropane	0.5	< 0.5	< 0.5		
cis-1,3-Dichloropropene	0.5	< 0.5	< 0.5		
Trichloroethene	0.5	< 0.5	< 0.5		
Dichlorodifluoromethane	0.5	< 0.5	< 0.5		
Dibromochloromethane	0.5	< 0.5	< 0.5		
1,1,2-Trichloroethane	0.5	< 0.5	< 0.5		
trans-1,3-Dichloropropene	0.5	< 0.5	< 0.5		
2-Chloroethylvinyl ether	1	< 1	< 1		
Bromoform	0.5	< 0.5	< 0.5		
Tetrachloroethene	0.5	< 0.5	< 0.5		
1,1,2,2-Tetrachloroethane	0.5	< 0.5	< 0.5		
Chlorobenzene	0.5	< 0.5	< 0.5		
1,2-Dichlorobenzene	0.5	< 0.5	< 0.5		
1,3-Dichlorobenzene	0.5	< 0.5	< 0.5		
1,4-Dichlorobenzene	0.5	< 0.5	< 0.5		
Trichlorofluoromethane	0.5	< 0.5	< 0.5		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample prepared by EPA Method 5030 (high-level solvent extraction and purge and trap).

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

07/26/90 mh Page 1 of 1

WORK ORD#: C007185
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
CONS. PROJ #: 203-680-5016.03
PROJECT#: SFB-680-0354.72
LOCATION: 404 Market Street
Oakland, CA
SAMPLED: 07/05/90 BY: J. Bethell
RECEIVED: 07/06/90
ANALYZED: 07/23/90 BY: R. Heines
MATRIX: Soil
UNITS: mg/L (ppm)

EP TOXICITY TEST RESULTS

PARAMETER	MDL	SAMPLE # I.D.	01 NORTH	02 SOUTH			
Cadmium	0.02		<0.02	<0.02			
Chromium	0.02		<0.02	<0.02			
Lead	0.1		<0.1	<0.1			
Zinc	0.04		16	6			

MDL = Method Detection Limit; compound below this level would not be detected.
Results rounded to two significant figures.
METHOD: EPA 3005/6010.

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72- 6541

CUSTODY RECORD

Project Manager: Paul Horton

Phone #: 671-2387

FAX #:

Address: 4080 Pike Lane, Suite D

Site location: 404 Market Oakland, CA

Project Number: 203-680-5016.03 SB680-0354-01

Project Name: Safeway Kleen, Oakland

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Jamie Bethell

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
North	Beneath Tank	01	1		✓							✓			7-5	3:05
South	Beneath Tank	02	1		✓							✓			7-5	3:06

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐
	✓				✓	✓						✓					
	✓				✓	✓						✓					

Received by: | Time | Date 7-6-90

Received by: | Time | Date

Received by Laboratory: | Time 11:15 | Date 7/6/90

Way bill #

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

EP tox Metals
Only Cadmium, Chromium, Lead and Zinc.

REMARKS: QM90050

11-1

182

SPECIAL REPORTING REQUIREMENTS (Specify)

Lab Use Only

Lot #:

Storage Location

Work Order #:

Relinquished by Sampler

Relinquished by:

Relinquished by:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.05
Project ID: 404 Market St.
Oakland, CA
Work Order Number: C0-07-750

July 30, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 07/24/90, under chain of custody number 72-8998.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.05
Project ID: 404 Market St.
Oakland, CA
Work Order Number: C0-07-750

Table 1

ANALYTICAL RESULTS

Polychlorinated Biphenyls in Waste Oil

EPA Method 8080[a]

GTEL Sample Number		01			
Client Identification		WOB			
Date Sampled		07/21/90			
Date Extracted		07/26/90			
Date Analyzed		07/25/90			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
PCB-1016	0.1	< 2			
PCB-1221	0.1	< 2			
PCB-1232	0.1	< 2			
PCB-1242	0.1	< 2			
PCB-1248	0.1	< 2			
PCB-1254	0.1	< 2			
PCB-1260	0.1	< 2			
Detection Limit Multiplier		20			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3540.

This report replaces one of the same number dated 07/27/90.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72- 8099

CUSTODY RECORD

Project Manager: Paul Horton
Phone #:
FAX #:
Address: GTI Concord
Site location: 404 Market St. Oakland
Project Number: 203680016.05
Project Name: Safety Kleen Oakland
Sampler Name (Print): Brennan Fleener

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
WOB			2					✓				✓			7/21	19:30

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS) ☐	Total Oil & Grease: 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons: 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐
								X								

SPECIAL HANDLING

24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER 7 (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Room Temp
Lab Quote # QM 90050
Authorization # 0812-8801

Lab Use Only
Storage Location
Lot #:
Work Order #:

Relinquished by Sampler:	Received by:	Date: 7/21	Time: 1610
Relinquished by:	Received by:	Date	Time
Relinquished by:	Received by Laboratory:	Date: 7/21/10	Time

Waybill #

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 from inside California
(800) 423-7143 from outside California

Client Number: SFB-680-0354.72
Consultant Project Number 203-680-5016.03
Project ID: 404 Market, Oakland, CA
Work Order Number: D007086
Report Issue Date: August 27, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Dear Mr. Horton:

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories on July 3, 1990, under chain of custody number 72-7147.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to approved protocols.

If you have any questions concerning this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Client Number: SFB-680-0354.72
Consultant Project Number 203-680-5016.03
Project ID: 404 Market, Oakland, CA
Work Order Number: D007086
Report Issue Date: August 27, 1990

Table 1

ANALYTICAL RESULTS

EPTOX Metals in Sludge[1]

GTEL Sample Number		01			
Client Identification		WO Tank			
Date Sampled		07/03/90			
Date Extracted		07/10/90			
Date Analyzed		07/17/90			
Analyte	Detection Limit, mg/L	Concentration, mg/L			
Arsenic	0.005	0.090			
Barium	0.02	0.94			
Cadmium	0.02	0.08			
Chromium	0.02	0.08			
Lead	0.1	25			
Mercury	0.0002	< 0.0002			
Selenium	0.010	0.089			
Silver	0.02	< 0.02			

1 = All elements prepared by EPA Method 1310. Arsenic analyzed by EPA 7060; Mercury analyzed by EPA Method 7470; Selenium analyzed by EPA 7740; all others analyzed by EPA Method 6010.

This report replaces one of the same number dated 07/20/90.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Northwest Region
4080 Pike Lane
Concord, CA 94520
(415) 685-7852
(800) 544-3422 *from inside California*
(800) 423-7143 *from outside California*

WORK ORD#: D007087
CLIENT: Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520
PROJECT#: SFB-680-0354.72
CONS. PROJECT#: 203-680-5016.03
LOCATION: 404 Market St.
Oakland, CA
SAMPLED: 07/03/90 BY: J. Bethell
ANALYZED: 07/16/90 BY: M. Munchhof
MATRIX: Sludge

TEST RESULTS

PARAMETER	UNITS	MDL	METHOD	SAMPLE # I.D.	01 W.O.TANK
Corrosivity					N/A
Flashpoint	deg F		EPA 1010		NF (160
Reactivity					
CN-Screen	mg/L	2	C/IN01.01-90		<2
S=Screen	mg/L	2	C/IN01.01-90		<2

N/A= Not analyzed because sample forms an oily slurry with water which fouls the electrode.

Emma P. Popek

EMMA P. POPEK, Laboratory Director

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080- Pike Lane
Concord, CA 94520
415-685-7852

800-544-3422 (In CA)
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72-7147

Project Manager: Paul Horton
Phone #: 671-2397
FAX #:
Address: 4080 Pike Lane
Site location: 404 Market Oakland CA
Project Number: 203-680-501603
Project Name: Safeway Klein Oakland
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Jamie Bethell

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: +HCl	HNO3	H2SO4	ICE	NONE	OTHER	Sampling: DATE	TIME
	Water Tank	01	1				X						V		7-3-90	

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDIS ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals X Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐
												X				X

Received by: Date 7-3-90 Time 10:25
Received by: Date Time
Received by Laboratory: Date 7/3 Time 10:30

Relinquished by Sampler: Date Time
Relinquished by: Date Time
Relinquished by: Date Time

SPECIAL HANDLING
24 HOURS ☐
EXPEDITED 48 Hours ☐
SEVEN DAY ☐
OTHER _____ (#) BUSINESS DAYS
QA/QC CLP Level ☐ Blue Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS: Room Temp. QM 90050

Lab Use Only
Lot #:
Storage Location
Work Order #:

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Western Region
4080-C Pike Ln., Concord, CA 94520
(415) 685-7852
In CA: (800) 544-3422
Outside CA: (800) 423-7143

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.05
Project ID: 404 Market St.
Oakland CA
Work Order Number: C0-07-774

August 8, 1990

Paul Horton
Groundwater Technology, Inc.
4080-D Pike Lane
Concord, CA 94520

Enclosed please find the analytical results report prepared by GTEL for samples received on 07/24/90, under chain of custody number 72-8008.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Emma P. Popek
Laboratory Director

Client Number: SFB-680-0354.72
Consultant Project Number: 203-680-5016.05
Project ID: 404 Market St.
Oakland CA
Work Order Number: C0-07-774

Table 1

ANALYTICAL RESULTS

Purgeable Halocarbons in Oily Product

EPA Method 8010[a]

GTEL Sample Number		01			
Client Identification		WOB			
Date Sampled		07/21/90			
Date Analyzed		08/01/90			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Chloromethane	0.5	< 0.5			
Bromomethane	0.5	< 0.5			
Vinyl chloride	1	< 1			
Chloroethane	0.5	< 0.5			
Methylene chloride	0.5	< 0.5			
1,1-Dichloroethene	0.2	< 0.2			
1,1-Dichloroethane	0.5	< 0.5			
trans-1,2-Dichloroethene	0.5	< 0.5			
Chloroform	0.5	20			
1,2-Dichloroethane	0.5	5.6			
1,1,1-Trichloroethane	0.5	< 0.5			
Carbon tetrachloride	0.5	< 0.5			
Bromodichloromethane	0.5	< 0.5			
1,2-Dichloropropane	0.5	< 0.5			
cis-1,3-Dichloropropene	0.5	< 0.5			
Trichloroethene	0.5	< 0.5			
Dichlorodifluoromethane	0.5	< 0.5			
Dibromochloromethane	0.5	< 0.5			
1,1,2-Trichloroethane	0.5	< 0.5			
trans-1,3-Dichloropropene	0.5	< 0.5			
2-Chloroethylvinyl ether	1	< 1			
Bromoform	0.5	< 0.5			
Tetrachloroethene	0.5	0.88			
1,1,2,2-Tetrachloroethane	0.5	< 0.5			
Chlorobenzene	0.5	< 0.5			
1,2-Dichlorobenzene	0.5	< 0.5			
1,3-Dichlorobenzene	0.5	< 0.5			
1,4-Dichlorobenzene	0.5	< 0.5			
Trichlorofluoromethane	0.5	< 0.5			
Detection Limit Multiplier		1			

a. Federal Register, Vol. 49, October 26, 1984.

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800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

72- 8008

Project Manager: Paul Horton
Phone #:
FAX #:
Address: GTL Concord
Site location: 409 Market St. Oakland
Project Number: 203680916.05
Project Name: Safety Klean Oakland
Sampler Name (Print): Brennen Fleenor

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	NONE	OTHER	Sampling: DATE	TIME
WOB		01	2					✓				✓			7/21	19:31

ANALYSIS REQUEST

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/TPH Gas 602/8015 ☐ 8020/8015 ☐ MTBE ☐	TPH as ☐ Gas ☐ Diesel ☐ Jet Fuel	Product I.D. by GC (SIMDis) ☐	Total Oil & Grease 413.1 ☐ 413.2 ☐ 503A ☐	Total Petroleum Hydrocarbons 418.1 ☐ 503E ☐	EPA 601 ☐ 8010 ☐ DCA only ☐	EPA 602 ☐ 8020 ☐	EPA 608 ☐ 8080 ☐ PCBs only ☐	EPA 610 ☐ 8310 ☐	EPA 624 ☐ 8240 ☐ NBS +15 ☐	EPA 625 ☐ 8270 ☐ NBS +25 ☐	EPTOX: Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi VOA ☐	EPA Priority Pollutant Metals ☐ HSL ☐	LEAD 7420 ☐ 7421 ☐ 239.2 ☐ 6010 ☐ Org. Lead ☐	CAM Metals ☐ STLC ☐ TTLC	Corrosivity ☐ Flashpoint ☐ Reactivity ☐
						X		X									

7/26 1310, add 8010 analysis per client. Regular TAT

Need COC 774

Room Temp

1-DOC

SPECIAL HANDLING

24 HOURS ☐
48 HOURS ☐
SEVEN DAY ☐
2. OTHER 10 → 8010 (#) BUSINESS DAYS
GAMA ☐ GLP Level ☐ Blank Level ☐
FAX ☐

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:
Lab Quote # QM9005c
Authorization # 0812-8801

Lab Use Only
Storage Location
Lot #:
Work Order #:
Old # → C007-750

CUSTODY RECORD

	Received by:	Received by:	Received by Laboratory:
Time	1:28		
Date	7/21		
Relinquished by Sampler:			
Relinquished by:			
Relinquished by:			

Time: Date: 7/21/2010 @ 7:25pm