



**Weber, Hayes & Associates**  
Hydrogeology and Environmental Engineering  
120 Westgate Dr., Watsonville, CA 95076  
(831) 722-3580 (831) 662-3100  
Fax: (831) 722-1159

R047

Environmental Health  
AUG 02 2004  
Alameda County

## Letter of Transmittal

**to:** Mr. Jerry Harbert  
46765 Mountain Cove Drive  
Indian Wells, California 92210

**from:** Joe Hayes

**re:** Harbert Transportation, 19984 Meekland Avenue, Hayward, California

**date:** July 30, 2004

| <i>Number of Copies</i> | <i>Date of Documents</i> | <i>Description</i>                                 |
|-------------------------|--------------------------|--|
| 1                       | July 30, 2004            | <i>Soil and Groundwater Investigation Workplan</i> |

**c:** Ms. Donna Drogos  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502 - 6577

Mr. Jeff Lawson  
Silicon Valley Law Group  
152 N. Third Street, Suite 900  
San Jose, California 95112

Ms. Laurie Berger  
905 Emerald Hill Road  
Redwood City, California 94061

Mr. Mike Nolte  
Durham Transportation  
9011 Mountain Ridge Drive, Travis Building, Suite 200  
Austin, Texas 78759 - 7275



**Weber, Hayes & Associates**  
Hydrogeology and Environmental Engineering  
120 Westgate Dr., Watsonville, CA 95076  
(831) 722-3580 (831) 662-3100  
Fax: (831) 722-1159

Alameda County  
Environmental Health  
AUG 29 2004

## **SOIL AND GROUNDWATER INVESTIGATION WORKPLAN**

*Former Durham Transportation Facility  
19984 Meekland Avenue, Hayward, Alameda County*

*July 30, 2004*

Prepared For:

Jerry Harbert  
46765 Mountain Cove Drive  
Indian Wells, California 92210  
&  
Mike Nolte  
Durham Transportation, Inc.  
9001 Mountain Ridge Drive, Suite 200  
Austin, Texas 78759

Care Of:

Jeff Lawson  
Silicon Valley Law Group  
152 North Third Street, Suite 900  
San Jose, California 95112

For Submittal To:

Donna Drogos, Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California, 94502

Prepared By:

Weber Hayes and Associates  
Job # H9042

## TABLE OF CONTENTS

|  |   |
|--|---|
| EXECUTIVE SUMMARY .....  | 1 |
| WORKPLAN TASKS .....   | 1 |
| DESCRIPTION AND RATIONALE OF WORKPLAN TASKS .....                                      | 2 |
| Task 1: Pre-field Activities .....   | 2 |
| Task 2: Department of Water Resources (DWR) ½ Mile Well Radius Search .....            | 2 |
| Task 3: Field Verification of Wells: Permitted and Un-permitted .....                  | 2 |
| Task 4: Site Survey .....  | 3 |
| Task 5: Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone .  | 3 |
| Task 6: Confirmation Groundwater Grab Sampling at Downgradient Property Line .....     | 4 |
| Task 7: Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004 ..... | 5 |
| Task 8: Reporting of Task 1 through 7 .....  | 5 |
| SCHEDULE OF WORKPLAN TASKS .....   | 5 |

### FIGURES

Figure 1: Location Map

Figure 2: Site Map

### APPENDICES

Appendix A: Field Methodology for Hydraulic Driven Probes

Appendix B: Field Methodology for Monitoring Well Sampling

Appendix C: Site Health and Safety Plan



**Weber, Hayes & Associates**  
**Hydrogeology and Environmental Engineering**  
120 Westgate Dr., Watsonville, CA 95076  
(831) 722-3580 (831) 662-3100  
Fax: (831) 722-1159

## EXECUTIVE SUMMARY

This *Soil and Groundwater Investigation Workplan (SGIW)* describes details on the current *Workplan* tasks for the former Harbert Transportation facility at 19984 Meekland Avenue, Hayward, Alameda County, California (Figure 1).

This *Workplan* was prepared pursuant to receipt of Alameda County Environmental Health Services (ACEHS) regulatory agency letter; *SWI, SCM and Case Closure Request for Durham Transportation, 19984 Meekland Avenue, Alameda County*, dated May 13, 2004. In this letter, ACEHS denied our initial request for site closure, and required additional information for further development of the site conceptual model (SCM). A Revised SCM (WHA, July 30, 2004) has been provided as a supplemental report to go along with this report.

The purpose of this *Workplan* is designed to provide additional information to fill in the data gaps of the revised SCM. Specifically, this *Workplan* will address whether there is an impact to the next groundwater bearing zone, determine whether groundwater concentrations, specifically benzene, is below the revised groundwater cleanup goal prior to migrating offsite, complete another conduit study for permitted and un-permitted wells for determining potential impact to sensitive receptors and for updating the subsurface hydrogeology, re-surveying the site monitoring well network for horizontal orientation due to discrepancies in maps in WHA reports, (specifically 2/14/01 map and 6/24/03 map as identified by ACEHS), and conduct another round of monitoring well network sampling to show the groundwater concentrations are attenuating.

This revised SCM, along with additional information collected from the *Soil and Groundwater Investigation Workplan* will confirm the existing SCM and show;

- no significant groundwater plume migrating offsite,
- no significant residual contamination onsite,
- no contamination relating to releases from this property in the deeper groundwater bearing zone, lack of any sensitive receptors being impacted by residual contamination and,
- the clean-up goals for soil and groundwater have been met.

## WORKPLAN TASKS

The following tasks will provide additional supporting data to elaborate and support our current SCM. The following tasks will be completed upon written approval by ACEHS. The tasks include;

- Task 1: Pre-field Activities
- Task 2: Department of Water Resources (DWR) ½ Mile Well Radius Search
- Task 3: Field Verification of Wells: Permitted and Un-permitted

- Task 4: Site Survey
- Task 5: Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone
- Task 6: Confirmation Groundwater Grab Sampling at Downgradient Property Line
- Task 7: Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004
- Task 8: Reporting of Tasks 1 through 7

Once these tasks have been completed, the following information will be available:

- Well construction logs and associated lithology for permitted wells within ½ mile of the site.
- Verification of permitted and un-permitted wells within 1,000 feet of the site in the downgradient direction, and if applicable, static and pumping groundwater levels, flow rates, and daily peak demand totals.
- New site survey to confirm well location and horizontal orientation.
- Analytical results of soil samples directly adjacent to the former source area excavation for determine whether or not interim remedial actions were successful.
- Analytical results of groundwater grab sample from the deeper groundwater bearing zone.
- Analytical results, and current groundwater elevations and gradient direction for the monitoring well network at the site (onsite and offsite).

## **DESCRIPTION AND RATIONAL OF WORKPLAN TASKS**

### **Task 1: Pre-Field Activities:**

Prior to conducting field work, WHA will obtain site access, encroachment permits, if applicable, and boring permits from Alameda County Public Works Agency (ACPWA). WHA will also prepare a site health and safety plan to perform Workplan tasks. Underground Safety Alert (USA) will be contacted 48-hours prior to field work to identify any and all underground utilities that may be encountered during drilling. Project coordinating will include scheduling a Geoprobe drilling rig with a C-57 license (Enprob, C-57 License # 777007) to conduct the drilling and sampling. WHA plans to use dual tube sampling equipment to prevent downward migration of contamination during drilling. Additionally, WHA will coordinate with the county agency/inspectors so they can oversee project status and drilling operations, as well as making sure the site health and safety plan for this investigation is followed.

### **Task 2: Department of Water Resources 1/2-Mile Well Radius Search:**

This Task is already in motion. On June 21, 2004 WHA staff faxed a request for well completion reports within 1/2-mile well radius of the subject site to the Department of Water Resources (DWR), Central District. Once wells logs from the DWR are received, they will be compared against our initial well radius search results conducted through ACPWA in July 24 2003, and reported in WHA *Fuel Leak Closure Request* report, dated August 22, 2003. We anticipate that there will be overlap and/or absence of logs from agency to agency. WHA will detail which logs are duplicated and which logs are absent from either agency. These well logs will be used to supply additional information for a comprehensive site conceptual model.

### **Task 3: Field Verification of Wells: Permitted and Un-Permitted:**

WHA anticipates that there could be as many as 100 or more well logs received from the DWR. After comparing logs received from each agency, and after plotting them on a base map, WHA will

perform field verification of wells. In order to save time and money and for expediting this tasks, WHA plans to field verify well locations on wells within 1000 feet downgradient to sidegradient of the subject site. WHA will only perform field verification of wells in the upgradient direction if wells are identified less than 500 feet from the site. This task will entail mobilizing to each identified well location to confirm the well is still in existence, and if so, request from the well owner pumping data (rate and total daily use) and current static groundwater levels and pumping groundwater levels. It should be noted that well owners my decline the release of this information.

In addition to verifying permitted wells, WHA will perform a search for un-permitted wells within 500 feet of the subject site. This will be accomplished by sending letters to property owners within 500 feet radius of the site, informing them of ACEHS requirement to conduct this task.

Field verification of wells and supporting information (i.e. flow rate, total uses, pumping and static groundwater levels) will be used to further modify/support the SCM.

**Task 4: Site Survey:**

This task is being conducted to verify monitoring well locations northing and eastings. This task will include scheduling a licensed surveyor to re-survey the site monitoring well network for correct horizontal orientation.

**Task 5: Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone:**

This task is being conducted because during our revision of our SCM (WHA, July 30, 2004), it was determined that a water well used to exist onsite. The well was reported to be constructed to 67.9 feet below ground surface (bgs) with static water at 29.9 feet bgs. This water well was destroyed under permit by filling the well with grout to ground surface via tremie pipe. Prior to this well being destroyed the groundwater was sampled. The analytical results indicated that the groundwater from this well contained some elevated concentrations of TPH-g BTEX, and lead. Since there is no available construction details it is unclear if this well was screened deep, however, in order to fill the data gap we must confirm whether this well served as a conduit for deeper vertical migration. WHA will determine if this well served as a conduit for deeper vertical migration by first identifying the deeper groundwater bearing zone, followed by confirmation sampling of the deeper groundwater bearing zone.

Currently, the lithology at the site has been observed to depths of 46 feet and only one groundwater bearing zone has been penetrated. Boring logs indicate there are at least seven unconsolidated units comprising the upper 46 feet beneath the site which consists of (in depth increasing order); sand/gravel fill, clay, sandy clay and/or clayey silt, clayey and/or silty sand, fat and/or lean clay, poorly graded and/or silty sand, and lean clay as the bottom most unit (unit seven). the subsurface lithology appears fairly homogeneous beneath the site, and laterally (within 175 feet) offsite. Refer to the revised SCM (WHA, July 30, 2004) for complete hydrogeologic interpretation of the site.

It is WHA's interpretation, that the bottom most lean clay (unit 7) is believed to be a aquitard separating the Shallow Aquifer from the deeper groundwater bearing zone (Newark Aquifer). The Newark Aquifer is most likely the aquifer for which a majority of the private irrigation and domestic wells in the vicinity are withdrawing groundwater from.

Based on this information, and in order to confirm no impact to lower groundwater bearing zone,

WHA proposes to drill one deep Confirmation Driven Probe (CDP) boring directly adjacent to the former well as depicted on Figure 2. This location was chosen because if the deeper groundwater bearing zone is impacted, this location would represent a worst-case scenario location.

This boring will be drilled using either hollow stem auger drill rig or GeoProbe dual tube rods to seal off the upper groundwater bearing zone while determining the depth and thickness of the aquitard and for obtaining a discrete grab groundwater sample beneath the aquitard from the deeper groundwater bearing zone.

The analytical results from this sampling will determine whether or not groundwater in the deeper groundwater bearing zone is impacted. If analytical concentrations indicate that groundwater in the deeper bearing zone is below groundwater clean up goals, and the other information provided indicates a valid SCM, WHA will again request site closure.

Field methodology and sampling protocol is included in Appendix A. A site health and safety plan is presented in Appendix C.

**Task 6: Confirmation Groundwater Grab Sampling at Downgradient Property Line:**

This task is being conducted to verify that concentrations of benzene in groundwater migrating offsite are below the revised groundwater clean up goal of 10 parts per billion (ppb). This task will involve scheduling Enprob Environmental Probing (C-57 License # 777007), to use a truck mounted GeoProbe rig to hydraulically push rods into the subsurface. WHA proposes to drill these borings to confirm whether interim remedial action operations (large diameter auger excavation) were successful at removing source soils and minimizing the groundwater plume.

WHA proposes to drill two CDP borings (CDP-2, 3) at the downgradient property line as depicted on Figure 2. The first CDP boring (CDP-2) will be drilled immediately downgradient of MW-9. The second CDP boring (CDP-3) will be drilled between MW-9 and MW-3, directly in the long axis of the plume, at the downgradient property line. These locations were chosen based on; proximity to property line, hydraulic gradient and direction, the zone of potential remaining residual contamination above the groundwater clean up goal as identified by groundwater contaminant concentrations (i.e. highest contaminant concentrations in groundwater are from MW-5, and MW-9).

Each boring will be logged and sampled by an experienced staff geologist. An Organic Vapor Analyzer (OVA) calibrated for benzene will be used for detection of potential volatile organic vapors. The borehole will be continuously cored in 4-foot intervals until groundwater is encountered. Groundwater is expected to be approximately 32 feet, thereafter rising to static levels around 23 feet bgs, due to the semi-confined aquifer conditions present at the site. Soil samples will be collected and held for evaluation. Once groundwater is encountered, a groundwater grab sample will be obtained and analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPH-g),
- Methyl-Tert-Butyl Ether (MTBE),
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

The analytical results from this sampling will determine whether or not groundwater migrating offsite is above the groundwater clean up goal. If analytical concentrations indicate that groundwater

migrating offsite is below the groundwater clean up goals, and all other information provided indicates a complete and validated SCM, WHA will request closure.

Field methodology and sampling protocol is included in Appendix A. A site health and safety plan is presented in Appendix C.

**Task 7: Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004:**

This task will involve obtaining groundwater samples from the monitoring well network. These groundwater samples will serve as confirmation samples for the shallow groundwater bearing zone to confirm whether contaminant concentrations are continually decreasing with natural attenuation, and for demonstrating the lack of plume migration off site. If concentrations are elevated above clean-up goals and warrant additional monitoring, additional semi-annual monitoring will be conducted. Monitoring well groundwater samples obtained will be analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPH-g),
- Methyl-Tert-Butyl Ether (MTBE),
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

Field methodology for monitoring well sampling is included in Appendix B. A site health and safety plan is presented in Appendix C.

**Task 8: Reporting of Tasks 1 through 7:**

This task will detail tasks 1 through 7 by compiling all field work data, observations, and reviewing lithologic logs and groundwater analytical results. WHA will provide a written report that will document field activities, summary of findings, recommendations and conclusions for the site. This report will be prepared for our client for submittal to ACEHS, and CRWQCB.

**SCHEDULE OF WORKPLAN TASKS**

- Task 1 (Pre-Field Activities): This tasks will commence within two weeks of written approval by the lead regulatory agencies.
- Task 2 (Department of Water Resources 1/2-Mile Well Radius Search): This task was implemented on June 21, 2004. Radius results are anticipated to be received the week of July 12, 2004.
- Task 3 (Field Verification of Wells: Permitted and Un-permitted): This task will commence within two weeks of written approval by the lead regulatory agencies.
- Task 4 (Site Survey): This task will commence within two-three weeks of written approval by the lead regulatory agencies.
- Task 5 (Confirmation Sampling: Soil and Groundwater): This task will be commence within two-three weeks of written approval by the lead regulatory agencies and pending drill rig availability.
- Task 6 (Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone): This



task will be commence within two-three weeks of written approval by the lead regulatory agencies and pending drill rig availability.

- Task 7 (Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004): This task will be commence within two-three weeks of written approval by the lead regulatory agencies.
- Task 8 (Reporting of Tasks 1 through 7): This task will be completed three to four weeks following receipt of laboratory results, expected to be approximately eight weeks following written approval by the lead regulatory agencies.

All work to be conducted within this *Workplan* will be supervised by a Certified Engineering Geologist, or Registered Geologist and conform to all state and local codes and regulations. If you have any questions in regards to this *Workplan* please call us at our office.

Respectfully submitted,

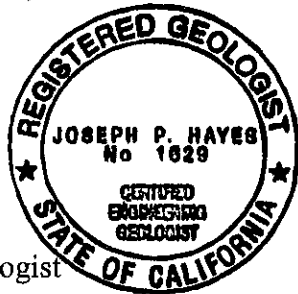


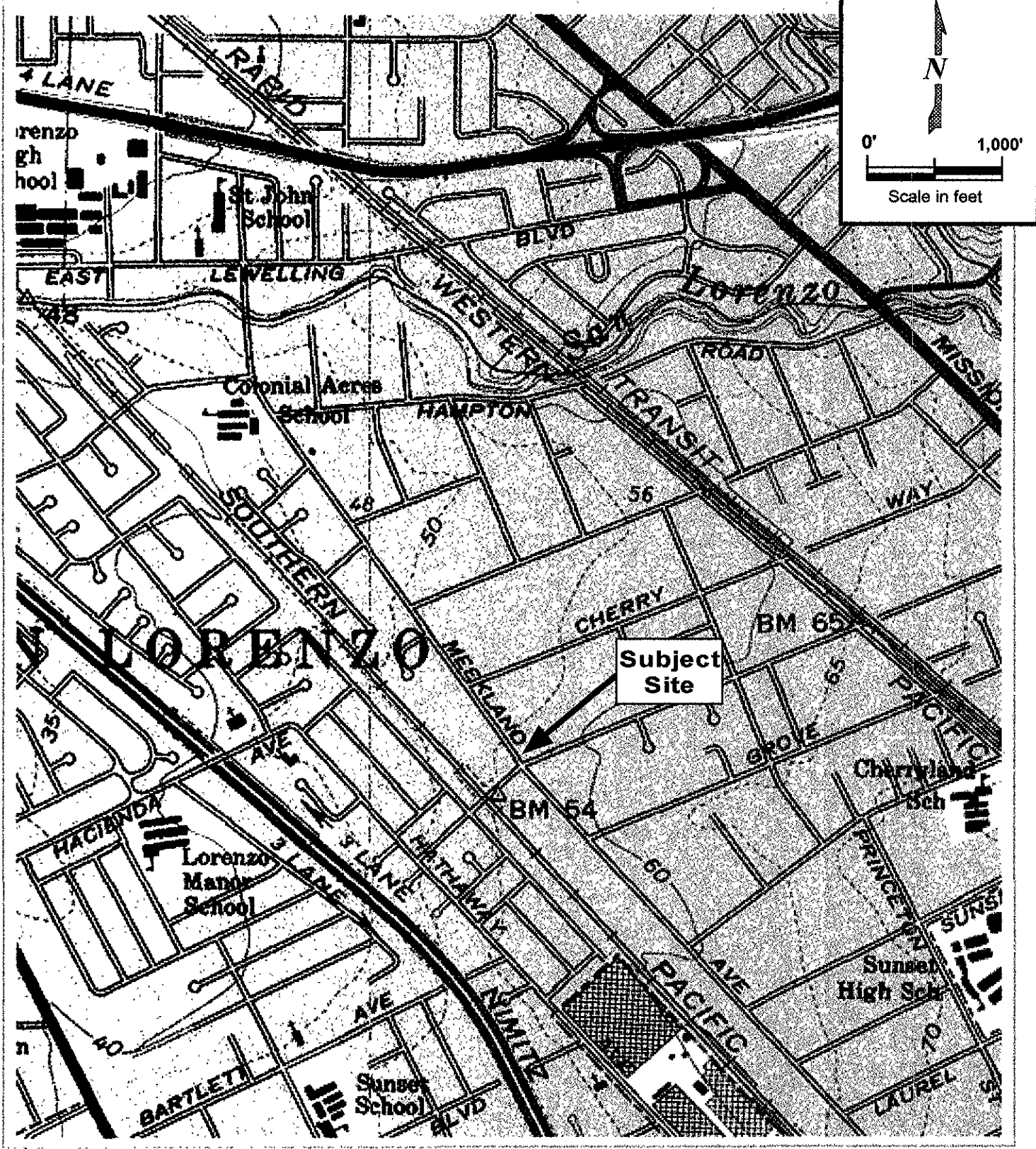
FOR:

Aaron Bierman  
Senior Staff Geologist, RG # 7490



Joseph Hayes  
Principal Hydrogeologist





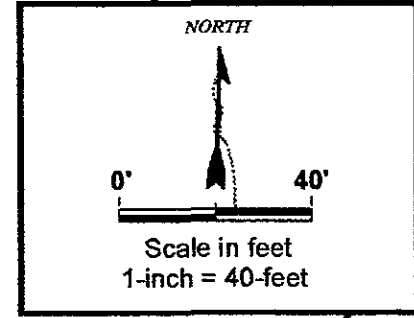
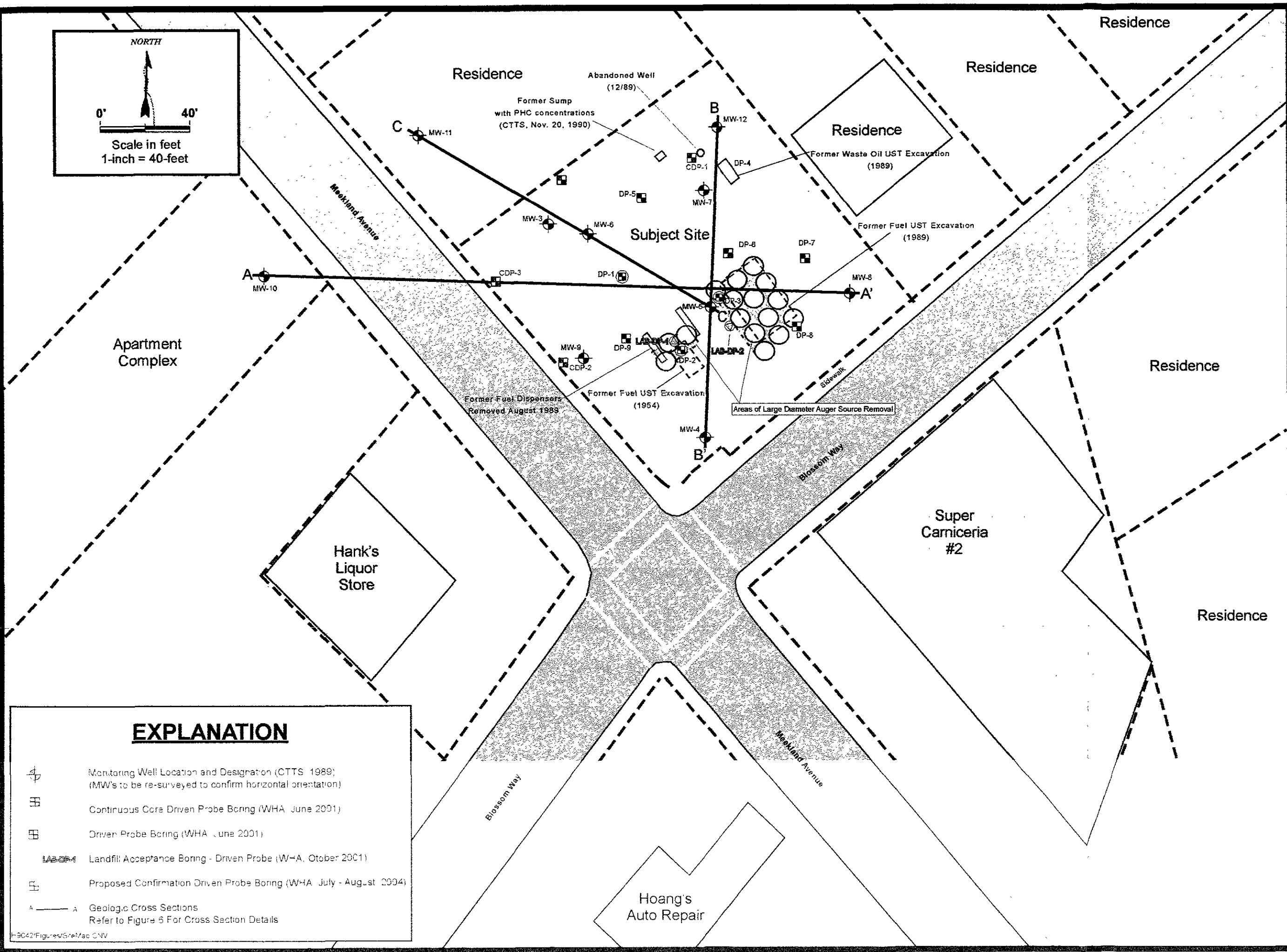
ajobth9042\figures\F1-loc.CNV



**Weber, Hayes & Associates**  
 Hydrogeology and Environmental Engineering  
 120 Westgate Drive, Watsonville, Ca. 95076  
 (831) 722 - 3580 (831) 662 - 3100

**Location Map**  
 Former Harbert Transportation Facility  
 19984 Meekland Avenue  
 Hayward, California

**Figure**  
 1  
**Job #**  
 H9042



**EXPLANATION**

- Monitoring Well Location and Designation (CTTS 1989); (MW's to be re-surveyed to confirm horizontal orientation)
- Continuous Core Driven Probe Boring (WHA June 2001)
- Driven Probe Boring (WHA June 2001)
- Landfill Acceptance Boring - Driven Probe (WHA, October 2001)
- Proposed Confirmation Driven Probe Boring (WHA July - August 2004)
- Geologic Cross Sections  
Refer to Figure 6 For Cross Section Details

H9042\Figures\SiteMap.CNV

**APPENDIX A**

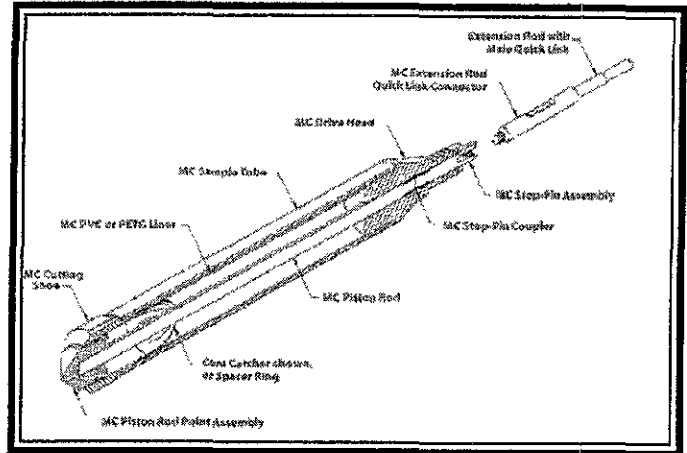
**Field Methodology for Hydraulic Driven Probes**

## Field Methodology Hydraulic Driven Probes

Using Macro-Core®, Large Bore® or Dual Tube® Hydraulic Driven Probes

Direct push exploratory borings are “drilled” Geo-Probe rig which hydraulically drives and vibrates steel probes into the soil. No drill cuttings are produced. This sampling technology has the ability for either continuous or discrete sampling using a 4-foot long nickel-plated sampling probes fitted with clear acetate liners. During coring operations, the sampler remains open as it is driven into undisturbed soil over it’s entire 4-foot sampling interval. After drilling, all exploratory boreholes are grouted according to county regulations

The soil cores are logged by an experienced geologist using the Unified Soil Classification System (USCS), noting in particular, the lithology of the soils, moisture content, and any unusual odor or discoloration. Relatively undisturbed soil samples are obtained for both lithologic logging and laboratory analysis. A portion of individual soil cores are stored in a sealed plastic bags for field screening of hydrocarbons and/or volatile organic compounds by an Organic Vapor Analyzer (Photoionization Detector, PID). Vapor readings in parts per million (ppm) are recorded on the boring logs. The PID is also used during drilling for monitoring the work area for site safety.



All drilling equipment is steam cleaned prior to arriving on-site to prevent possible transfer of contamination from another site. The sampling probe and all other soil sampling equipment are thoroughly cleaned between each sampling event by washing in a Liqui-Nox or Alconox solution followed by a double rinsing with distilled water to prevent the transfer of contamination.

Samples Targeted for Laboratory Analysis: Soil samples targeted for laboratory analysis are immediately protected at both ends with Teflon tape, sealed with non-reactive caps, taped, labeled, and immediately stored in an insulated container cooled with blue ice. A portion of the soil is placed in a baggie and the soil gas is measured using the PID. Groundwater samples are collected after temporary casing is placed in the hole and four to ten borehole volumes are purged. Relatively representative groundwater samples are collected with individual disposable acrylic bailers and dispensed directly into containers specifically prepared for the analyses. Once collected, groundwater samples are immediately placed in ice chests cooled with blue ice. Soil and groundwater samples are then transported to a State-certified laboratory under appropriate chain-of-custody documents.



## **APPENDIX B**

### **Field Methodology for Monitoring Well Sampling**

## Field Methodology Monitoring Well Groundwater Sampling

Weber, Hayes and Associates' (WHA) groundwater monitoring field methodology is based on procedures specified in the *LUFT Field Manual*. The first step in groundwater well sampling is for WHA field personnel to measure the depth-to-groundwater to the nearest hundredth (0.01) of a foot with an electric sounder. If the well appears to be pressurized, or the groundwater level is fluctuating, measurements are made until the groundwater levels stabilizes, and a final depth-to-groundwater measurement is taken and recorded. After the depth-to-groundwater is measured, the well is then checked for the presence of free product with a clear, disposable polyethylene bailer. If free product is present, the thickness of the layer is recorded, and the product is bailed to a sheen. All field data (depth-to-groundwater, well purge volume, physical parameters, and sampling method) is recorded on field data sheets. Because removing free product may skew the data, wells that contain free product are not used in groundwater elevation and gradient calculations.

After measuring the depth-to-groundwater, each well, starting with the cleanest well (based on analytical results from the last sampling event), is purged with a low flow submersible electric pump. During purging the physical parameters of temperature, conductivity, pH, dissolved oxygen (D.O.) concentration, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with a QED MP20 Micropurge Flow Through Cell equipped meter to insure that these parameters have stabilized (are within ~ 15 percent of the previous measurement). The QED MP20 meter is capable of continuously monitoring the physical parameters of the purge water via the flow through cell and providing an alarm to indicate when the physical parameters have stabilized to the users specifications. Purging is determined to be complete (stabilized aquifer conditions reached) after the removal of approximately three to five well volumes of water or when the physical parameters have stabilized. Dissolved oxygen and ORP measurements are used as an indicator of intrinsic bioremediation within the contaminant plume. All field instruments are calibrated before use.

All purge water is stored on site in DOT-approved, 55-gallon drums for disposal by a state-licensed contractor pending laboratory analysis for fuel hydrocarbons.

After purging, the water level in the well is allowed to recover to 80 percent of its original depth before a sample is collected. After water level recovery, a groundwater sample is collected from each well with a new, disposable bailer, and decanted into the appropriate laboratory-supplied sample container(s). The sample containers at this site were 40-ml. vials. Each vial was filled until a convex meniscus formed above the vial rim, then sealed with a Teflon<sup>®</sup>-septum cap, and inverted to insure that there were no air bubbles or head space in the vial. All samples are labeled in the field and transported in insulated containers cooled with blue ice to state-certified laboratories under proper chain of custody procedures.

All field and sampling equipment is decontaminated before, between, and after measurements or sampling by washing in an Liqui-Nox and tap water solution, rinsing with tap water, and rinsing with distilled water.

**APPENDIX C**  
**Site Health and Safety Plan**





**Weber, Hayes & Associates**  
 Hydrogeology and Environmental Engineering  
 120 Westgate Dr., Watsonville, CA 95076  
 (831) 722-3580 (831) 662-3100  
 Fax: (831) 722-1159

**SITE HEALTH AND SAFETY PLAN  
 FOR A  
 SOIL AND GROUNDWATER INVESTIGATION WORKPLAN  
 (JULY-AUGUST, 2004)**

**Job Name and Job Number:** *Former Harbert Transportation Facility / H9042*

**Client:** *Jerry Harbert (Harbert Transportation) & Mike Nolte (Durham Transportation)  
 c/o; Jeff Lawson, Silicon Valley Law Group  
 152 North Third Street, Suite 900  
 San Jose, California 95112*

**Site Location:** *19984 Meekland Avenue  
 Hayward, California*

**Type Of Facility/Current Usage Of Property:** *Former Maintenance and Fueling Facility / Currently Vacant Lot*

**Contractors/Subcontractors On Site:** **Enprob Environmental Probing Inc.** Contact: Dennis Ott @ (530) 589-2019  
 Exploration Geoservices Contact: Bruce McCall @ (408) 280-6822

**Lead Regulatory Agency:** *Alameda County Environmental Health Services - Environmental Protection*  
 Case Officer Contact: Scott Seery, Hazardous Materials Specialist

**SCOPE OF WORK**

*Drilling borings for obtaining soil and groundwater sample for confirming whether or not Interim Remedial Actions were successful.*

*Hazards that may be encountered with this scope of work will likely be associated with heavy equipment and noise. All workers/visitors that are on site must be aware of these potential hazards and take precautions to ensure site safety.*

**Site Activities (Check those that apply)**

|  |   |
|--|---|
| <input checked="" type="checkbox"/> Driven Probe and/or Hollow Stem Auger Drilling | Work in traffic area heavy equipment                          |
| <input checked="" type="checkbox"/> Soil Sampling                                  | Tank Excavation   |
| Trenching  | <input checked="" type="checkbox"/> Grab Groundwater Sampling |
| Soil Excavation  | Large Diameter Borehole                                       |

*If excavations or drilling is planned, call Underground Service Alert @ 1 800 642-2444 [USA Ticket No.:# pending]*

**Physical Hazards (Check and briefly describe source)**

Noise: *Heavy equipment*                      Traffic: *none anticipated*  
 Overhead Hazards: *none*                      Excavation/Trenches: *none*  
 Underground Hazards: *none anticipated*

Level Of Protection - Is OSHA training for Hazardous Waste Operations required on this job? \_\_\_ No  Yes

Hazardous/Regulated Substances Anticipated?  No; \_\_\_ Yes.

**Anticipated Hazardous or Regulated Substances**

Refer to the "Warning Concentrations" and "Health Effects" summaries stapled to this form for details on substances.

| NAME (CAS #)   | EXPECTED CONCENTRATION        |                                |                              | HEALTH EFFECTS         |
|----------------|-------------------------------|--------------------------------|------------------------------|------------------------|
|                | <input type="checkbox"/> Soil | <input type="checkbox"/> Water | <input type="checkbox"/> Air |                        |
| ▶TPH-Gas, BTEX | ▶ Low Level                   |                                |                              | ▶ dizziness, headaches |

Equipment (Check appropriate level)    A:     B:     C:     D:

**Personal Protective Equipment (R = required, A = As needed)**

|                      |                                      |
|----------------------|--------------------------------------|
| Hard Hat: A          | Eyewear (type) A                     |
| Safety Boots R       | Respirator (type) A (½-face minimum) |
| Orange Vest A        | Filter (type) A (organic vapor)      |
| Hearing Protection R | Gloves (type) A nitrile              |
| Tyvek Coveralls A    | Other                                |

Hospital/Clinic: *St. Rose Hospital*  
*27200 Calaroga Avenue, Hayward*  
*Emergency Phone: 911*

Fire Department Phone Number *911*  
 Paramedic Phone Number: *911*  
 Police Department Phone Number: *911*

Hospital Directions: *880 south to West Tennyson Exit, yield right, Hospital on corner*

Emergency/Contingency Plans and Procedures: *Mobile Phone contact with emergency personnel. (831) 334-2237*

Site Hazard Information Provided By: *Aaron Bierman, Site Safety Officer*

Cell Phone #: *(831) 334-2237*

**PRINT NAME & INITIAL**  
**FOLLOWING TAILGATE MEETING AND SAFETY INSPECTION**