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

June 18, 2001  
Project H9042.Q

Site 1879 ✓

Review 6/26/01  
(M)

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

**Subject: Additional Site Assessment and Groundwater Monitoring Report - First Quarter 2001**  
Harbert Transportation  
19984 Meekland Avenue, Hayward, California

Dear Mr. Harbert:

This report describes additional site assessment and groundwater monitoring activities conducted by Weber, Hayes and Associates at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California, during the first quarter 2001. This report has been prepared pursuant to a directive from the Alameda County Health Care Services Agency/Environmental Health Services regarding a release of petroleum hydrocarbons from underground storage tanks at the site.

The additional site assessment entailed collecting soil samples from throughout the site. Laboratory analyses of these samples indicate there are residual petroleum hydrocarbons in unsaturated soils near the removed underground storage tanks and dispensers.

Concentrations of dissolved petroleum hydrocarbons in groundwater have decreased by an order of magnitude since 1996, but remain above groundwater quality goals. **The results of the additional site assessment indicate there is a limited area of petroleum hydrocarbon contaminated soil that is a likely source of continuing groundwater degradation. We recommend that this soil be excavated as an Interim Remedial Action.**

**EXECUTIVE SUMMARY**

This report describes an additional site assessment and groundwater monitoring activities for the first quarter 2001 conducted at the former Harbert Transportation facility located at 19984 Meekland Avenue, Hayward, California. This report has been prepared pursuant to a directive from the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health) regarding a release of petroleum hydrocarbons (PHCs) from underground storage tanks (USTs) at the site.

On February 14, 2001, we collected 36 soil samples from the site to determine the extent of PHCs remaining in the unsaturated zone in accordance with our September 7, 2000 Work Plan. The Work Plan was approved by Environmental Health in letters dated November 1, 2000 and December 4, 2000.

Laboratory analyses of the soil samples indicated that low levels of Total PHCs, benzene, toluene, ethylbenzene, and xylenes (BTEX) remain in unsaturated zone soils in the central portion of the site (near the USTs that was removed in 1989). Fairly high levels of PHCs and BTEX remain in soils around the dispensers for the UST that was removed in 1989, and the UST that was removed in 1954. **MTBE was not detected in any of the soil samples.**

The groundwater monitoring event for the first quarter 2001 took place on March 29, 2001. The calculated groundwater flow direction on March 29, 2001 was to the southeast, which appears to be consistent with historical data. Groundwater analytical results from first quarter 2001 indicate that dissolved PHCs are present at concentrations that exceed water quality goals in on-site monitoring wells downgradient of the removed underground storage tanks (USTs) at the site.

**MTBE was not detected in the groundwater samples collected this quarter.** MTBE has not been detected in groundwater at the site. Groundwater samples in the third quarter 2000 were analyzed for the fuel oxygenates Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether. No fuel oxygenates were detected in these groundwater samples.

A review of historical data indicates a decrease of at least an order of magnitude in dissolved PHC concentrations at the site since September 1996.

Cleanup goals for some PHCs detected at the site have already been developed and approved by Environmental Health and the Regional Water Quality Control Board (see table, page 4). Concentrations of PHCs detected during this investigation exceed these site-specific cleanup levels in soil.

Soil removed during the 1989 UST removal was placed back into the excavation. We were unable to sample this tank backfill soil because the UST excavation is only partially backfilled, and our drill rig could not get into or drill under the partially filled tank excavation. Based on the significant concentrations of hydrocarbons in well MW-5, which is next to and immediately downgradient of the tank pit (see Figure 5) it appears likely there are significant amounts of residual PHCs in the soil in the tank backfill.

We recommend:

- Continuing quarterly groundwater monitoring of dissolved PHC concentrations at the site.
- Calculating additional cleanup levels for those PHCs which have not yet had cleanup levels set (ethylbenzene, xylenes, and TPH-g, see table, page 4), for comparison with concentrations after the interim remedial excavation.
- Excavation of source zone PHC-contaminated soils as an Interim Remedial Action.

## INTRODUCTION

This report documents additional site assessment and groundwater monitoring activities at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California (the site), during the first quarter 2001. This report has been prepared pursuant to a request from the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health, August 8, 2000) regarding a release of petroleum hydrocarbons (PHCs) from underground storage tanks (USTs) at the site.

This report describes a soil investigation to define the extent of residual PHCs in the unsaturated zone at the site and groundwater monitoring activities for the first quarter 2001.

The soil investigation included:

1. Obtaining soil boring permits from Alameda County Public Works Agency
2. Drilling nine soil borings, collecting soil samples for laboratory analyses, and preparing geologic logs of the lithology encountered
3. Submitting 36 soil samples to a state-certified analytical laboratory for analysis of PHC concentrations following proper chain-of-custody procedures
4. Preparing cross-sections of the site lithology
5. Mapping the extent of PHCs in the unsaturated zone
6. Preparing this report

Groundwater monitoring activities conducted during this quarter included:

1. Measuring groundwater levels and checking for the presence of free product in all of the monitoring wells associated with the site
2. Measuring the physical parameters of pH, temperature, electrical conductivity, and dissolved oxygen concentration in each well
3. Collecting groundwater samples from each of the monitoring wells
4. Submitting 10 groundwater samples to a state-certified analytical laboratory for analysis of dissolved PHC concentrations following proper chain-of-custody procedures
5. Determining groundwater elevations, flow direction, and gradient in the vicinity of the site
6. Mapping the extent of the dissolved PHC plume in groundwater beneath the site
7. Preparing this report

## Site Description And Background

The site is located at the corner of Meekland Avenue and Blossom Way in Alameda County California, at an elevation of approximately 55 feet above sea level (Figure 1). The site is relatively flat and is currently vacant.

The site was operated as a motor vehicle fueling station since the 1940's. Harbert Transportation used the site as a vehicle and fueling yard before selling the site to Durham Transportation in 1986.

In August 1989, four underground storage tanks (USTs) were removed from the site and properly disposed of. Soil and groundwater investigations at the site, conducted by Applied Geosystems, CTTS, and AGI Technologies, indicated that PHCs were present in soil and groundwater at the site. A list of reports documenting the soil and groundwater investigations is included in the Reference section. Ten groundwater monitoring wells currently exist at the site (Figure 2). Groundwater samples were not collected from these wells between September 1996 and September 2000. Documentation indicates that excavated soil from the UST removals was returned to the (reportedly plastic-lined) excavations (CTTS, November 1, 1992).

Documentation also indicates that two USTs were removed from the site in the early 1950's (CTTS, November 27, 1990). These USTs were located near the dispensers for the USTs removed in 1989.

## SUMMARY OF QUARTERLY ACTIVITIES

### Additional Site Assessment

On August 8, 2000, we met with Environmental Health and San Francisco Regional Water Quality Control Board (Regional Board) staff to discuss the site status and future work. Environmental Health and Regional Board staff agreed with our recommendations for soil sampling and groundwater monitoring, and suggested developing soil and groundwater cleanup goals for all PHCs detected at the site. Environmental Health and Regional Board staff conditionally approved the following cleanup levels for the site:

Approved Soil Cleanup Levels (mg/Kg, ppm)

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Surface Soil	-	0.118	150	--	--
Sub-Surface Soil	1,000	0.118	150	--	--

*actual by 11/1/00*

At the request of Environmental Health and Regional Board staff, we prepared a Work Plan (Weber, Hayes and Associates, September 7, 2000) for soil sampling to assess the current extent of PHCs in unsaturated soil at the site. The Work Plan was approved by Environmental Health in letters dated November 1, 2000 and December 4, 2000.

On February 14, 2001, we collected soil samples from the site to determine the extent of PHCs remaining in the unsaturated zone in accordance with our September 7, 2000 Work Plan. The boring locations are shown on Figure 2.

The soil samples were collected from boring drilled under permits issued by the Alameda County Public Works Agency. Copies of the Boring Permits are presented as Appendix A. The borings were drilled according to our standard soil sampling methodology which is described in Appendix B. Boring logs are presented as Appendix C.

Soils encountered at the site consisted of:

- A fat Clay from the ground surface to approximately 5 to 10 feet below the ground surface
- Sandy Clay from approximately 5 to 10 feet below the ground surface to approximately 20 feet below the ground surface
- A fat Clay from approximately 20 feet below the ground surface to a depth of approximately 45 feet below the ground surface.

Geologic cross sections are presented on Figure 3.

**MTBE was not detected in any of the soil samples.**

Laboratory analyses of the soil samples collected from borings DP-2, 3, and 9 indicate that PHCs remain in unsaturated zone soils adjacent to the USTs removed in 1989 and the dispensers removed in 1989/the USTs removed in 1954.

Boring DP-1 contained low levels of toluene and xylenes at 2 feet bgs and low levels of ethylbenzene and/or xylenes at 24 and 27 feet bgs. **We believe that the shallow (2 feet bgs) contamination in this boring defines the edge of the contamination in the former dispenser area, and that the deeper (24 to 27 feet bgs) contamination in this boring is due to PHCs in groundwater.**

Boring DP-4 was drilled in the former waste oil tank excavation. Low levels of toluene, ethylbenzene and xylenes were detected in the sample collected at 2 feet below the ground surface (bgs) in this boring. **No PHCs were detected in deeper soil samples in this boring.**

Boring DP-5 was drilled in the area identified as a sump that contained PHCs. **No PHCs were detected in the soil samples collected from this boring.**

**PHCs were not detected in borings DP-6, 7, and 8, to the northwest, northeast and southeast of the USTs removed in 1989.**

As requested by Environmental Health (December 4, 2000), a grab groundwater sample was collected from DP-9, located west (downgradient) of the apparent source area/MW-5, to check for MTBE. **MTBE was not detected in this water sample.** Concentrations of TPH-g and BTEX in this sample were similar to concentrations of these constituents in well MW-5.

The soil sample analytical results are summarized in Table 1. Laboratory analytical results are also summarized on Figures 2 and 3. The laboratory's Certified Analytical Report is presented as Appendix D.

Soil removed during the 1989 UST removal was placed back into the excavation. We planned to sample this soil, but were unable to drill in the UST excavation because it was only partially filled, and therefore we could not get the drill rig into the hole. Borings DP-3 and DP-8 were drilled next to the tank excavation. Based on the significant hydrocarbon concentrations in groundwater in well MW-5, next to the excavation, it appears likely there are significant amounts of residual PHCs in the tank backfill.

### **Groundwater Monitoring**

The groundwater monitoring event for the first quarter 2001 took place on March 29, 2001. Field methods followed Weber, Hayes and Associates' standard field methodology for groundwater monitoring, which is described in Appendix E. Groundwater samples were collected from all monitoring wells at the site in accordance with directives from Environmental Health, and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method 8015M, and benzene, toluene, ethylbenzene, and xylenes (BTEX), and Methyl tert Butyl Ether (MTBE) by EPA Method 8020. Samples with elevated detection limits or detections of MTBE were analyzed by EPA Method 8260 to confirm the presence of MTBE and provide the proper detection limit. Field data forms are also presented in Appendix E.

### Free Product

Free product was not observed in any of the monitoring wells at the site.

### Groundwater Elevation and Flow Direction

Groundwater elevations were calculated by subtracting the measured depth-to-groundwater from the top-of-casing elevations, which were surveyed by a state-licensed Land Surveyor. Field measurements and the calculated groundwater elevations for the site are summarized in Table 2. Calculated groundwater elevations from the gauging data collected on March 29, 2001 are shown on Figure 4. Data from this quarter indicate that groundwater flow is to the southwest (see Figure 4). The calculated groundwater gradient on March 29, 2001 was to the west at approximately 0.002 feet per foot. Previous reports indicate that the groundwater flow direction in the vicinity of the site

has generally been in a westerly direction. A table and figures summarizing previous depth to groundwater data is presented as Appendix F.

#### Groundwater Analytical Results

Groundwater samples were collected from all of the monitoring wells associated with the site this quarter, in accordance with directives from Environmental Health. The groundwater analytical results for this quarter are summarized below.

Summary of Groundwater Sample Analytical Results, March 29, 2001 ( $\mu\text{g/L}$ , ppb)

Well ID	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	170	1.1	ND	10	1.6	ND
MW-4	ND	ND	4.2	ND	ND	ND
MW-5	13,000	220	510	1,000	2,700	ND*
MW-6	610	2.2	ND	37	4.6	ND*
MW-7	ND	ND	ND	ND	ND	ND
MW-8	ND	ND	0.8	ND	ND	ND
MW-9	1,600	110	14	240	150	ND*
MW-10	600	2	0.65	ND	0.72	ND
MW-11	ND	ND	4.5	ND	ND	ND
MW-12	ND	ND	5.0	ND	ND	ND
AL/MCL	1,000	1	150	700	1,750	5

\* = Confirmed by GC/MS method 8260

The concentrations of TPH-g, benzene, toluene, ethylbenzene, and xylenes in well MW-5 exceed the respective groundwater quality goals/drinking water Action Levels (ALs)/ Maximum Contaminant Levels (MCLs).

The concentrations of TPH-g and benzene in well MW-9 exceed the groundwater quality goals/AL/MCLs.

The concentrations of benzene in well MW-3, 6, and 10 slightly exceed the groundwater quality goal/MCL of 1 microgram per liter ( $\mu\text{g/L}$ ).

**MTBE was not detected in any of the wells associated with the site.**

**Please see the Conclusions section for a discussion of the groundwater analytical results.**

The current groundwater sample analytical results are summarized in Table 2. PHC concentrations detected in groundwater during the current monitoring event are shown on Figure 5. The extent of dissolved PHCs greater than 1,000 ppb TPH-g and 5 ppb benzene in groundwater are shown on Figure 6.



The Certified Analytical Report for the groundwater samples is presented as Appendix G. All laboratory quality control and quality assurance data were within acceptable limits. A table and figures summarizing historical groundwater analytical results is presented as Appendix H.

### **Dissolved Oxygen Measurements**

Dissolved oxygen field measurements were collected to monitor bioremediation of PHCs in groundwater. Measurements indicate lower levels of dissolved oxygen in PHC impacted wells compared to levels in non-impacted, upgradient wells. We believe this, combined with the observed decrease in dissolved PHC concentrations over time, indicates that natural attenuation of PHCs via bioremediation is occurring in groundwater, with microbes using dissolved PHCs as a food source during aerobic respiration (see Bushek and O'Reilly, 1995, Table 2 and Figure 5).

### **SUMMARY**

- Soil samples were collected on February 14, 2001 to define the extent of residual PHCs in the unsaturated zone at the site.
- Soils encountered at the site consisted of fat Clays and sandy Clays.
- **MTBE was not detected in any of the soil samples.**
- PHCs remain in unsaturated zone soils adjacent to the USTs removed in 1989 and the dispensers removed in 1989/the USTs removed in 1954.
- Free product was not observed in any of the monitoring wells at the site.
- The groundwater flow direction on March 29, 2001 was to the west at a gradient of approximately 0.002 feet per foot. This direction is in general agreement with data collected by us in the past two quarters and previous data collected by others at the site.
- **MTBE was not detected in any of the groundwater samples collected this quarter.**
- TPH-g, and BTEX were detected above their respective AL/MCLs in on-site well MW-5, which is located downgradient of the removed USTs.
- TPH-g and benzene were detected above their respective AL/MCL in on-site well MW-9.
- Benzene was detected at a concentration slightly above the MCL in wells MW-3, 6, and 10.
- Measurements of dissolved oxygen indicated aerobic bioremediation is occurring in the PHC-impacted wells.

## SITE CONCEPTUAL MODEL

The Site Conceptual Model (SCM) provides a compilation of our understanding of the existing site conditions. Please refer to Figures 2, 3, 4, 5, and 6:

- Soils encountered at the site generally consisted of fat Clays and sandy Clays. The predominance of these fine grained materials indicate that cleanup of PHCs at the site would **NOT** be amenable to soil vapor extraction or related technologies.
- Significant concentrations of PHCs are present in the soils beneath the former dispensers and are believed present in the 1989 UST excavation which was backfilled with the excavated material. We believe that excavation of these residual PHCs as an Interim Remedial Action is appropriate.
- A review and comparison of historical groundwater analytical data with the current and recent data suggests there has been a reduction in PHC concentrations at the site of at least an order of magnitude since September 1996 (see Table 2, Figure 5, and Appendix H). However, dissolved PHC concentrations remain above ALs/MCLs twelve years after the removal of the USTs.
- PHCs are present in two on-site wells downgradient of the removed USTs at concentrations above groundwater quality goals.
- The highest concentrations of PHCs in groundwater are in well MW-5, which is located immediately downgradient of removed USTs.
- We believe that natural attenuation/bioremediation has and will continue to remove PHCs from groundwater at the site. However, the USTs were removed almost twelve years ago and groundwater at the site still exceeds ALs/MCLs/groundwater quality goals.
- **MTBE has not been detected in any of the soil or groundwater samples collected at the site.**

## RECOMMENDATIONS

Because no corrective actions have taken place at the site in the twelve years since the USTs have been removed, we **recommend that the following Interim Remedial Actions take place at the site as soon as approved by the appropriate regulatory agencies:**

- Continuing quarterly groundwater monitoring of dissolved PHC concentrations at the site.

- Calculating additional cleanup levels for those PHCs which have not yet had cleanup levels set (ethylbenzene, xylenes, and TPH-g, see table, page 4), for comparison with concentrations after the interim remedial excavation.
- Excavating the residual PHCs in unsaturated soil as shown of Figure 6. The estimated volume of soil to be removed is 980 cubic yards.
- Placing Oxygen Releasing Compound in the bottom of the excavation to stimulate natural attenuation/biodegradation of residual PHCs in groundwater.

## **WORK PLAN FOR INTERIM REMEDIAL ACTION**

Due to limited access and space at the site, we recommend that the PHC-contaminated soil be characterized for landfill acceptance before excavation begins by analyzing soil samples from the proposed excavation areas prior to excavation. After landfill acceptance is secured, the excavated soils can be loaded directly onto trucks and hauled to the landfill. This eliminates the need to handle the soil twice (once at excavation, and again to load it).

### Pre-field Services

We will prepare a site Health and Safety plan, clear underground utilities in the proposed excavation area through Underground Service Alert, coordinate with the excavation and transport contractors, and coordinate with the landfill.

### Landfill Acceptance Samples

Two soil borings will be drilled in each proposed excavation area. Soil samples will be collected from each boring at depths of approximately 5, 10, 15, and 20 feet below the ground surface (bgs). A four-point composite sample from each proposed excavation will be submitted for laboratory analysis of TPH-g and BTEX for landfill acceptance of the soil. See Figure 6 for the proposed excavation areas.

### Excavate Residual PHC-Contaminated Soil

After landfill acceptance is obtained the contaminated-soil will be excavated to a depth of approximately 25 feet bgs, or until all readily accessible PHC-contaminated soil is removed, based on soil sample analytical results and field observations. The excavation will take place in the fall (if possible) when water levels are likely lowest so soils from the smear zone will be accessible. The excavation will be dewatered as necessary to allow excavation to 25 feet bgs, which should remove the smear zone. Extracted water will be disposed of properly, either by hauling for recycling or processing through the sanitary sewer system. The total excavation volume will be approximately 980 cubic yards of soil. A field geologist from Weber, Hayes and Associates will observe the excavation and log the excavation sidewalls.

When the readily accessible PHC-contaminated soil has been removed, soil samples will be collected from each side wall and the base of each of the excavations and analyzed for TPH-g and BTEX to confirm the removal of PHC-contaminated soil. The sidewall samples will be collected at approximately 10-foot intervals. Two bottom samples will also be collected and analyzed from each excavation.

Oxygen Releasing Compound will be placed in the bottom of the excavations to stimulate natural attenuation/biodegradation of residual PHCs. The excavations will then be backfilled with clean imported fill (pea gravel in the saturated zone) and compacted.

A summary of the excavation project, including final size, disposition of removed soils and groundwater, confirmation (sidewall/base) and landfill acceptance sample analytical results will be presented in the appropriate groundwater monitoring report.

#### **SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER**

The following activities are scheduled for the next quarter:

- Quarterly groundwater monitoring of all monitoring wells as directed by Environmental Health, including measuring the depth-to-groundwater, dissolved oxygen concentration, and physical parameters, and collecting samples from all wells and analyzing them for TPH-g, BTEX and MTBE by EPA Methods 8015M and 8020. All detections of MTBE will be confirmed by EPA Method 8260.
- Calculating cleanup levels for PHCs in soil and groundwater at the site for comparison with concentrations after the interim remedial excavation.
- Beginning the Interim Remedial Action excavations, after approval by Environmental Health and cost pre-approval by the UST Cleanup Fund.

#### **LIMITATIONS**


Our service consists of professional opinions and recommendations made in accordance with generally accepted geologic and engineering principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and proposals in this report are based on sampling and testing which are necessarily limited. Additional data from future work may lead to modification of the opinions expressed herein.

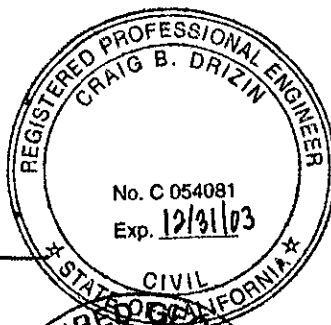
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19984 Meekland Avenue, Hayward, California  
June 18, 2001

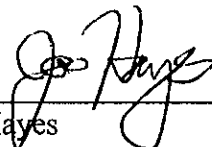
Thank you for the opportunity to aid in the assessment and cleanup of this site. If you have any questions or comments regarding this project please call us at (831) 722 - 3580.

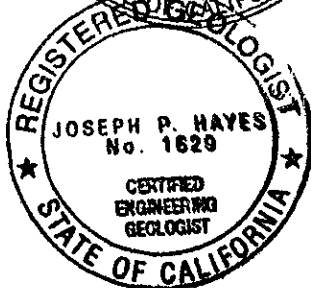
Sincerely yours,

Weber, Hayes And Associates

By:   
Craig Drizin, P.E.  
Senior Engineer



And:   
Joseph Hayes  
Certified Hydrogeologist #373



Attachments:

- Table 1: Summary of Soil Sample Analytical Results
- Table 2: Summary of Groundwater Elevation and PHC Analytical Data
- Figure 1: Location Map
- Figure 2: Site Plan with Driven Probe Locations and Soil Sample Analytical Results
- Figure 3: Geologic Cross Section AA' and BB'
- Figure 4: Site Plan with Groundwater Elevations
- Figure 5: Site Plan with PHC Concentrations in Groundwater
- Figure 6: Site Plan with Extent of TPH-g and Benzene in Groundwater
- Appendix A: Boring Permits
- Appendix B: Soil Sampling Methodology
- Appendix C: Boring Logs
- Appendix D: Certified Analytical Report - Soil Samples
- Appendix E: Field Methodology for Groundwater Monitoring and Field Data Forms
- Appendix F: Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc.
- Appendix G: Certified Analytical Report - Groundwater Samples
- Appendix H: Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.

c: Mr. Amir Gholami, Alameda County Environmental Health  
Mr. Jeff Lawson  
Ms. Laurie Berger  
Mr. Gregg Petersen, Durham Transportation  
Mr. Chuck Headlee, San Francisco Bay Regional Water Quality Control Board

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- CTTS, Inc., Toxic Technology Services, April 1, 1993. *Progress Report #20, Period Covering 3/1/93-3/31/93, Durham Transportation 19984 Meekland Avenue, Hayward, California*



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Weber, Hayes and Associates, October 29, 1999. *Clarification of Development of Risk Based Cleanup Standards - Harbert Transportation Site, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, September 7, 2000. *Work Plan for Soil and Groundwater Sampling - Harbert Transportation Site, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, November 10, 2000. *Groundwater Monitoring Report - Third Quarter 2000, 19984 Meekland Avenue, Hayward, CA*

Weber, Hayes and Associates, January 30, 2001. *Groundwater Monitoring Report - Fourth Quarter 2000, 19984 Meekland Avenue, Hayward, CA*

**Table 1: Summary of Soil Sample Analytical Results**  
**Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, CA**  
**Weber, Hayes and Associates Project H9042**

Investigation & Date	Sample ID	Sample Depth (feet, bgs)	TPH-g (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)
Soil Sampling Additional Site Assessment (February 14, 2001) Completed by Weber, Hayes and Associates and EnProbe Inc.	DP-1a	2	ND	ND	0.010	ND	0.025	ND
	f	23	ND	ND	ND	ND	ND	ND
	g @ 24'	24	ND	ND	ND	ND	0.007	ND
	g@27'	27	ND	ND	ND	0.007	0.015	ND
	DP-2a	2	ND	ND	0.019	0.020	0.13	ND
	d	13.5	1,800	< 0.5	4.5	19	270	ND*
	e	18.5	8,700	18	720	230	1,600	< 0.5*
	g	24	1,800	3.5	52	39.0	250	ND*
	DP-3a	2	ND	ND	0.017	0.006	0.054	ND
	b	7.5	ND	ND	0.063	0.020	0.12	ND
	e	18.5	ND	ND	ND	ND	ND	ND
	g	27.5	18	0.036	0.067	0.070	0.060	ND*
	DP-4a	2	ND	ND	0.014	0.008	0.058	ND
	e	19.5	ND	ND	ND	ND	ND	ND
	g @ 25'	25	ND	ND	ND	ND	ND	ND
	g @ 27'	27	ND	ND	ND	ND	ND	ND
	DP-5a	2	ND	ND	ND	ND	ND	ND
	d	12	ND	ND	ND	ND	ND	ND
	f	20	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	ND	ND	ND
	DP-6a	2	ND	ND	ND	ND	ND	ND
	d	14	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	0.009	ND	ND
	DP-7a	2	ND	ND	ND	ND	ND	ND
	d	14	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	ND	ND	ND
	DP-8a	2	ND	ND	ND	ND	ND	ND
	d	13	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	ND	ND	ND	ND	ND	ND
	DP-9a	2	ND	ND	ND	ND	ND	ND
	d	13	ND	ND	ND	ND	ND	ND
	e	18	ND	ND	ND	ND	ND	ND
	g	24	18	0.020	0.020	0.19	0.30	ND*
<i>Laboratory's Practical Quantitation Limits:</i>			1	0.005	0.005	0.005	0.005	0.05

**NOTES:**

TPH-g : Total Petroleum Hydrocarbons as gasoline

BTEX: B: Benzene, T: Toluene, E: Ethylbenzene, and X: Total Xylenes.

MTBE: Methyl-tert-Butyl Ether.

bgs: below ground surface

ND: Not detected at or above the lab's practical quantitation limit.

<X : Not detected at the elevated PQL, X. PQL elevated due to laboratory dilution.

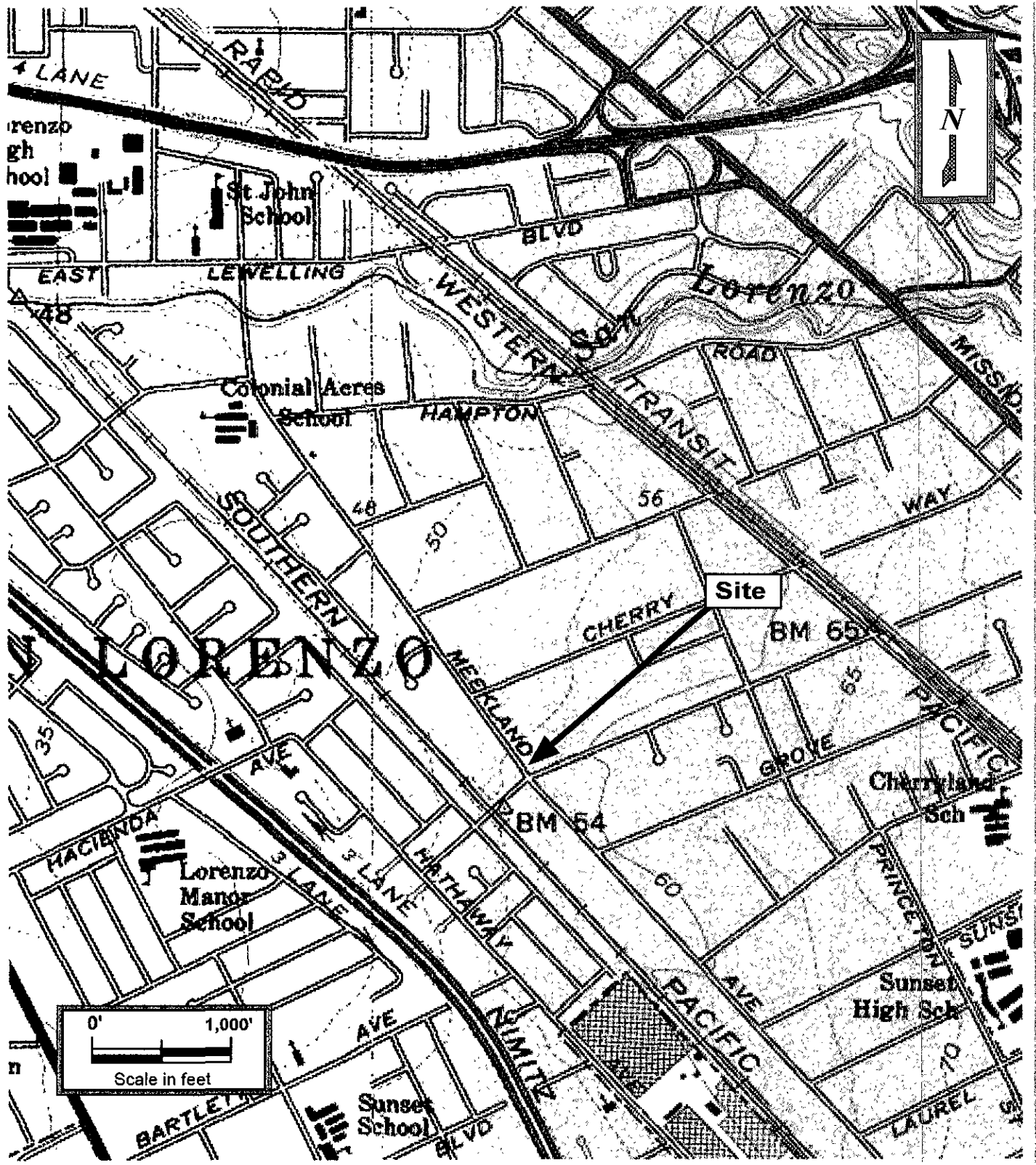
\*: MTBE Analysis confirmed by EPA Method 8260.

**Table 2: Summary of Groundwater Elevation and PHC Analytical Data**  
**Former Harbert Transportation Facility, 19984 Meekland Avenue, Hayward, Ca.**  
**Weber, Hayes and Associates Project H9042**

Well I.D.	Date	Screened Interval (feet below ground surface)	Surveyed T.O.C. Elevation (feet)	Depth to Groundwater (feet below ground surface)	Calculated Groundwater Elevation (feet)	Laboratory Analytical Results							
						TPH-g (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	F.O.'s (ug/L)	D.O. (mg/L)
MW-3	29-Mar-2001	20 - 40'	55.44	22.02	33.42	170	1.1	ND	10	1.6	ND	--	0.6
	12-Jan-2001			23.41	32.03	310	2.4	2.2	4.4	10	ND	--	0.7
	27-Sep-2000			23.09	32.35	430	ND	ND	44	ND	ND	ND	1.0
MW-4	29-Mar-2001	20 - 40'	55.71	22.22	33.49	ND	ND	4.2	ND	ND	ND	--	0.5
	12-Jan-2001			23.60	32.11	ND	ND	ND	ND	ND	ND	--	0.7
	27-Sep-2000			23.25	32.46	ND	ND	ND	ND	ND	ND	ND	2.5
MW-5	29-Mar-2001	25 - 45	56.03	22.69	33.34	13,000	220	510	1,000	2,700	ND*	--	0.4
	12-Jan-2001			23.97	32.06	1,100	62	40	150	290	ND*	--	0.3
	27-Sep-2000			23.69	32.34	18,000	840	2.9	1,200	3,500	< 30	ND	0.4
MW-6	29-Mar-2001	25 - 45	56.01	22.56	33.45	610	2.2	ND	37	4.6	ND*	--	0.5
	12-Jan-2001			23.97	32.04	2,300	16	3.5	290	83	ND*	--	0.5
	27-Sep-2000			23.56	32.45	1,300	ND	4.3	200	17	ND	ND	0.5
MW-7	29-Mar-2001	25 - 45	56.66	23.10	33.56	ND	ND	ND	ND	ND	ND	--	0.5
	12-Jan-2001			24.49	32.17	1,600	13	0.86	150	35	ND*	--	0.5
	27-Sep-2000			24.18	32.48	270	13	6.6	11	ND	ND	ND	0.5
MW-8	29-Mar-2001	20 - 40	56.16	22.56	33.60	ND	ND	0.8	ND	ND	ND	--	1.9
	12-Jan-2001			23.93	32.23	ND	ND	ND	ND	ND	ND	--	2.1
	27-Sep-2000			23.59	32.57	ND	ND	ND	ND	ND	ND	ND	1.9
MW-9	29-Mar-2001	20 - 40	55.21	21.61	33.60	1,600	110	14.0	240	150	ND*	--	0.4
	12-Jan-2001			23.17	32.04	10,000	550	110.0	1,200	2,200	ND*	--	0.5
	27-Sep-2000			22.90	32.31	1,000	40	6.7	110	55	ND	ND	0.5
MW-10	29-Mar-2001	25 - 40	54.74	21.63	33.11	600****	2	0.65	ND	0.72	ND	--	0.5
	12-Jan-2001			22.99	31.75	530	3.7	1.9	2.1	4.5	ND	--	0.6
	27-Sep-2000			22.72	32.02	880	ND	ND	ND	ND	ND	ND	0.4
MW-11	29-Mar-2001	25 - 40	55.20	21.84	32.90	ND	ND	4.5	ND	ND	ND	--	0.6
	12-Jan-2001			23.21	31.53	ND	ND	2.1	ND	ND	ND	--	0.6
	27-Sep-2000			22.43	32.31	63	ND	ND	ND	ND	ND	ND	0.6
MW-12	29-Mar-2001	25 - 40	56.49	22.91	33.58	ND	ND	5.0	ND	ND	ND	--	1.0
	12-Jan-2001			24.28	32.21	ND	ND	1.1	ND	ND	ND	--	1.0
	27-Sep-2000			23.98	32.51	ND	ND	ND	ND	ND	ND	ND	1.2
<b>Laboratory's Practical Quantitation Limit (PQL):</b>						<b>50</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>5</b>	<b>5</b>	Field Instrument
<b>State Maximum Contaminant Level (MCL):</b>						<b>1,000**</b>	<b>1</b>	<b>150</b>	<b>700</b>	<b>1,750</b>	<b>5***</b>	<b>0.5</b>	

**Notes:**

T.O.C. = Top of Casing Elevation. Calculated groundwater elevation = TOC - Depth to Groundwater. Referenced to NGVD  
 TPH-g = Total Petroleum Hydrocarbons as gasoline. MTBE = Methyl-tert-Butyl Ether  
 F.O.'s = Fuel Oxygenates = Di-isopropyl ether (DIPE), tertiary Butyl Alcohol (TBA), Ethyl tertiary Butyl Ether (ETBE), tertiary amyl Methyl Ether (TAME)  
 VOC's = Volatile Organic Compounds. D.O. = Dissolved Oxygen  
 ug/L = micrograms per liter, parts per billion, mg/L = milligrams per liter, parts per million  
 ND = Not Detected at the Practical Quantitation Limit (PQL), <X = Not Detected at the elevated PQL, X = PQL elevated because of sample dilution  
 -- = Data not collected or measured, or analysis not conducted  
 MCL = Maximum Contaminant Level for drinking water in California (Department of Health Services)  
 \* Confirmed by GC/MS method 8260  
 \*\* = Action Level  
 \*\*\* = Secondary MCL / water quality goal  
 \*\*\*\* = Laboratory Report indicates results within quantitation range, chromatographic pattern not typical of fuel



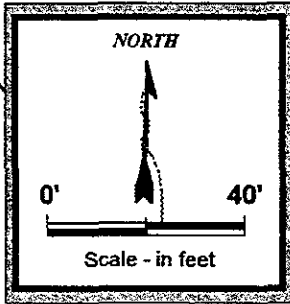
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**Weber, Hayes & Associates**  
 Hydrogeology and Environmental Engineering  
 120 Westgate Drive, Watsonville, Ca. 95076  
 (831) 722 - 3580 (831) 662 - 3100

**LOCATION MAP**  
 Former Harbert Transportation Facility  
 19984 Meekland Avenue  
 Hayward, California

**Figure 1**  
**Project H9042.Q**



Meekland Avenue

Former Waste Oil  
UST Excavation  
August 1989

**DP-4**  
Soil @ 2'  
Toluene: 0.014 ppm  
Ethylbenzene: 0.008 ppm  
Xylenes: 0.038 ppm  
Soil @ 18.5'  
No Detections  
Soil @ 25'  
No Detections  
Soil @ 27'  
No Detections

**DP-5**  
Soil @ 2'  
No Detections  
Soil @ 12'  
No Detections  
Soil @ 20'  
No Detections  
Soil @ 24'  
No Detections

**DP-6**  
Soil @ 2'  
No Detections  
Soil @ 14'  
No Detections  
Soil @ 18'  
No Detections  
Soil @ 24'  
Ethylbenzene: 0.009 ppm

**DP-7**  
Soil @ 2'  
No Detections  
Soil @ 14'  
No Detections  
Soil @ 18'  
No Detections  
Soil @ 24'  
No Detections

**DP-1**  
Soil @ 2'  
Toluene: 0.01 ppm  
Xylenes: 0.025 ppm  
Soil @ 23'  
No Detections  
Soil @ 24'  
Ethylbenzene: 0.007 ppm  
Xylenes: 0.015 ppm  
Soil @ 27'  
Xylenes: 0.007 ppm

**DP-9**  
Soil @ 2'  
No Detections  
Soil @ 13'  
No Detections  
Soil @ 18'  
No Detections  
Soil @ 24'  
Gasoline: 18 ppm  
Benzene: 0.02 ppm  
Toluene: 0.02 ppm  
Ethylbenzene: 0.19 ppm  
Xylenes: 0.30 ppm  
Groundwater @ 24'  
Gasoline: 25,000 ppb  
Benzene: 680 ppb  
Toluene: 160 ppb  
Ethylbenzene: 3,000 ppb  
Xylenes: 5,600 ppb

**DP-2**  
Soil @ 2'  
Benzene: < 0.5 ppm  
Toluene: 0.019 ppm  
Ethylbenzene: 0.02 ppm  
Xylenes: 0.13 ppm  
Soil @ 13.5'  
Gasoline: 1,800 ppm  
Toluene: 4.5 ppm  
Ethylbenzene: 19 ppm  
Xylenes: 270 ppm  
Soil @ 18.5'  
Gasoline: 8,700 ppm  
Benzene: 18 ppm  
Toluene: 720 ppm  
Ethylbenzene: 280 ppm  
Xylenes: 1,600 ppm  
MTBE: < 0.5 ppm  
Soil @ 24'  
Gasoline: 1,900 ppm  
Benzene: 3.5 ppm  
Toluene: 52 ppm  
Ethylbenzene: 39 ppm  
Xylenes: 250 ppm

**DP-3**  
Soil @ 2'  
Toluene: 0.017 ppm  
Ethylbenzene: 0.006 ppm  
Xylenes: 0.054 ppm  
Soil @ 7.5'  
Toluene: 0.063 ppm  
Ethylbenzene: 0.02 ppm  
Xylenes: 0.12 ppm  
Soil @ 18.5'  
No Detections  
Soil @ 27.5'  
Gasoline: 18 ppm  
Benzene: 0.036 ppm  
Toluene: 0.067 ppm  
Ethylbenzene: 0.07 ppm  
Xylenes: 0.06 ppm

Former Fuel UST  
Excavation  
August 1989

Blossom Way

Former  
Fuel UST  
Excavation  
1954

Fuel Dispensers  
Removed  
August 1989

**EXPLANATION**

- MW-8 Groundwater Monitoring Well.
- Hydraulic Driven Probe Location, Discrete Interval coring and sampling.
- Hydraulic Driven Probe Location, Continuous Core.

**DP-1**  
Soil @ 2'  
Toluene: 0.01 ppm  
Xylenes: 0.025 ppm  
Soil @ 23'  
No Detections  
Soil @ 24'  
Ethylbenzene: 0.007 ppm  
Xylenes: 0.015 ppm  
Soil @ 27'  
Xylenes: 0.007 ppm

Driven Probe Identification and Analytical Data. All soil and groundwater samples analyzed for Total Petroleum Hydrocarbons as gasoline, Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl Tert Butyl Ether (MTBE). Soil results presented in parts per million (ppm, mg/kg), groundwater results presented in parts per billion (ppb, ug/L). Results are shown for detected analytes only, all others Not Detected (ND), including MTBE in all locations.

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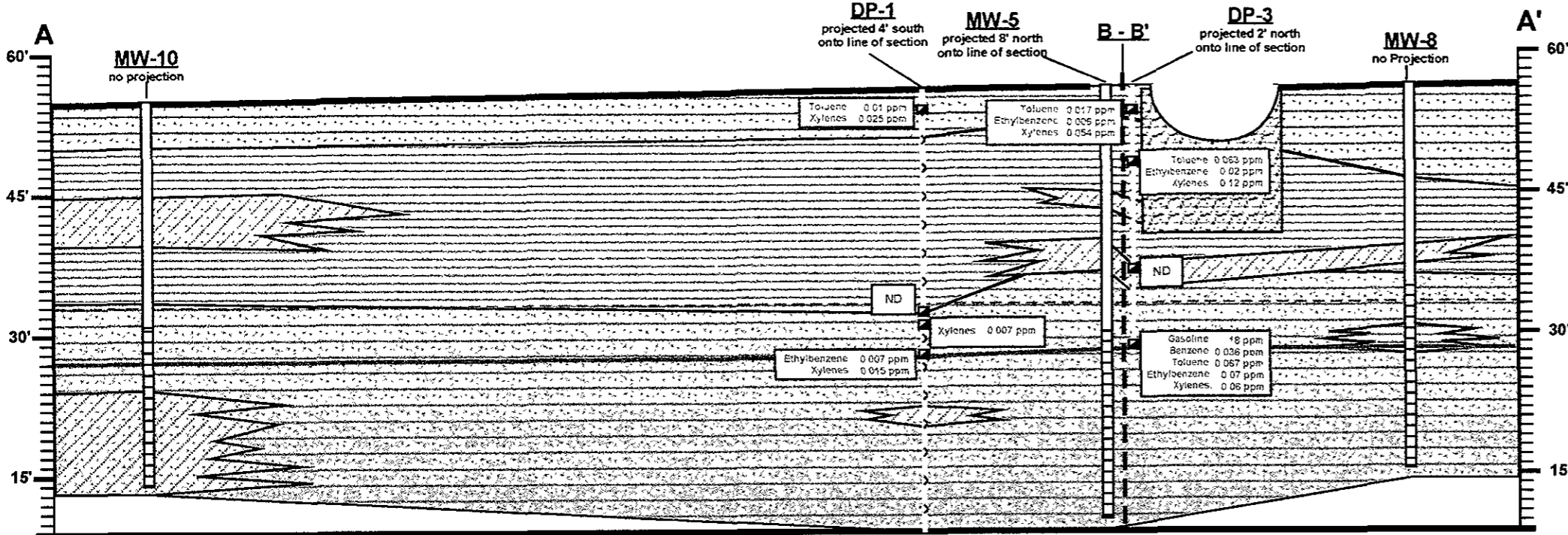


**Weber, Hayes & Associates**  
Hydrogeology and Environmental Engineering  
120 Westgate Drive, Watsonville, Ca. 95076  
(831) 722 - 3580 (831) 662 - 3100

**Site Plan with Driven Probe Locations and Soil Sample Analytical Results, February 14, 2001**  
Former Harbert Transportation Facility  
19984 Meekland Avenue, Hayward, California

**Figure 2**  
**Project H9042**

Oriented at North 88 West



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FIGURE 3  
Job # H9042

Geologic Cross-Section A-A' & B-B'  
Harbert Transportation  
19984 Meekland Avenue  
Hayward, California

LEGEND:

- Asphalt.
- Fat CLAY, very dark grayish brown to dark gray (10 YR 3/2 to 4/1), damp to wet, firm soft to firm, moderate to high plasticity, no dilatency, low toughness, dominantly clay with few fine to medium grained sands.
- Sandy CLAY, brown to very dark grayish brown (10 YR 4/3 to 3/2), dry to damp, no to moderate plasticity, no dilatency, mostly clay with some fine to medium grain sands, subangular.
- Clayey SAND, color varies, yellowish brown to dark gray (10 YR 3/6 to 5/1), dry to saturated, medium dense, mostly fine grained sands, subangular, 35-40 % clay, slight plasticity.
- Poorly Graded SAND with Gravel, fill material.
- Cement Seal, used in sealing driven probe borings.
- Excavated Native Soil used as Backfill in UST Excavation.
- Geologic contact, dashed were inferred.
- Soil sample analyzed at this depth.

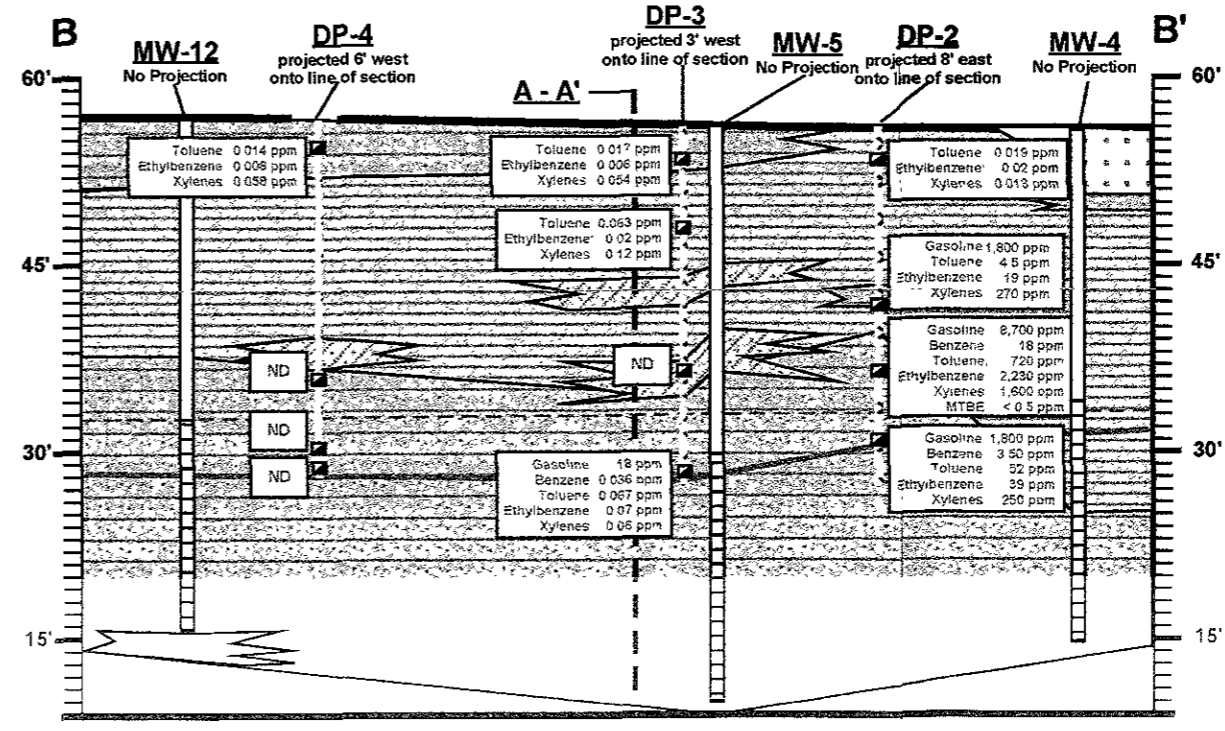
Soil Sample Analytical Results. All soil samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), Methyl Tert Butyl Ether (MTBE). Results are shown for detected analytes only, all others Not Detected (ND), including MTBE in all locations.

Monitoring well location, designation, completion depth and screened interval  
Groundwater elevation in monitoring wells from March 29, 2001 groundwater monitoring event.  
First Encountered Groundwater elevation from Hydraulic Driven Probe investigation February 14, 2001

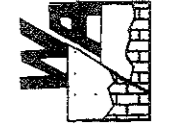
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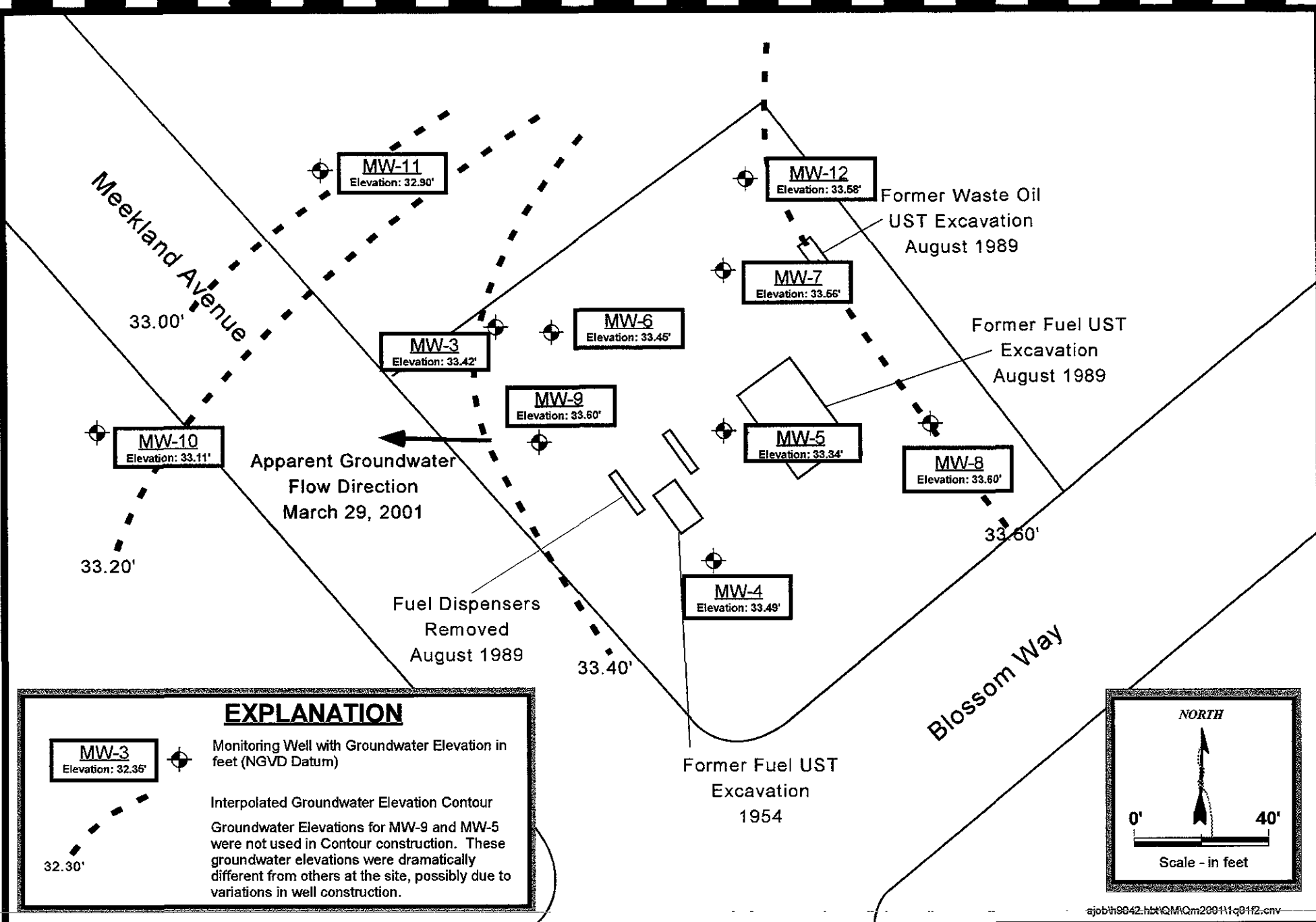
See Figure 2 for plan view of geologic cross sections A-A' and B-B'  
Lithology compiled from: Geologic Logs MW 4, 5, 8, 10 and 12 (completed by others) and DP-1-4  
All elevations are referenced to National Geodetic Vertical Datum of 1929 Mean Sea Level (MSL)

Oriented at North 3 East



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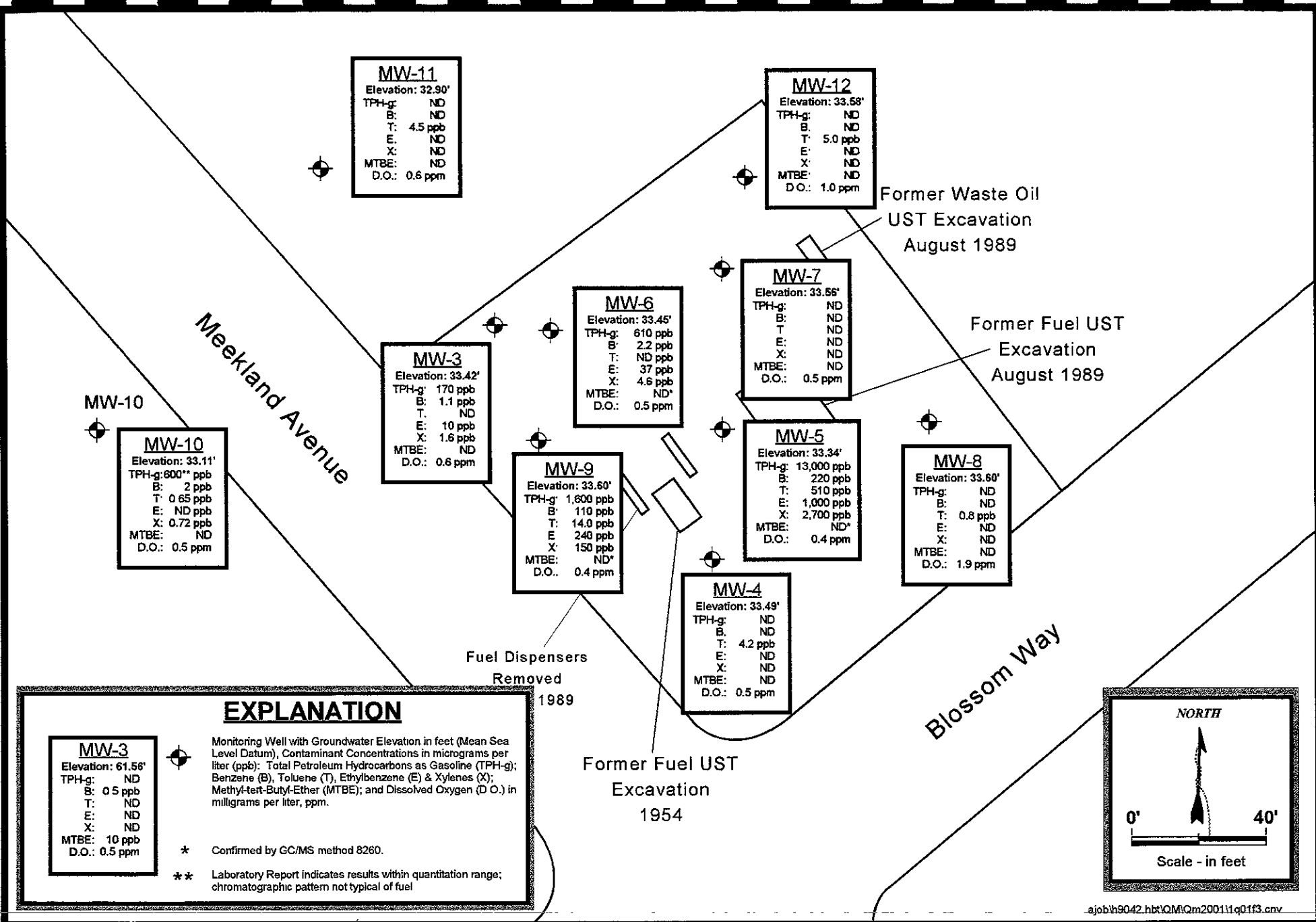




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 Hydrogeology and Environmental Engineering  
 120 Westgate Drive, Watsonville, Ca. 95076  
 (831) 722 - 3580 (831) 662 - 3100

**Site Plan with Groundwater Elevations**  
**March 29, 2001**  
 Former Harbert Transportation Facility  
 19984 Meekland Avenue, Hayward, California

**Figure**  
**4**  
**Project**  
**H9042**

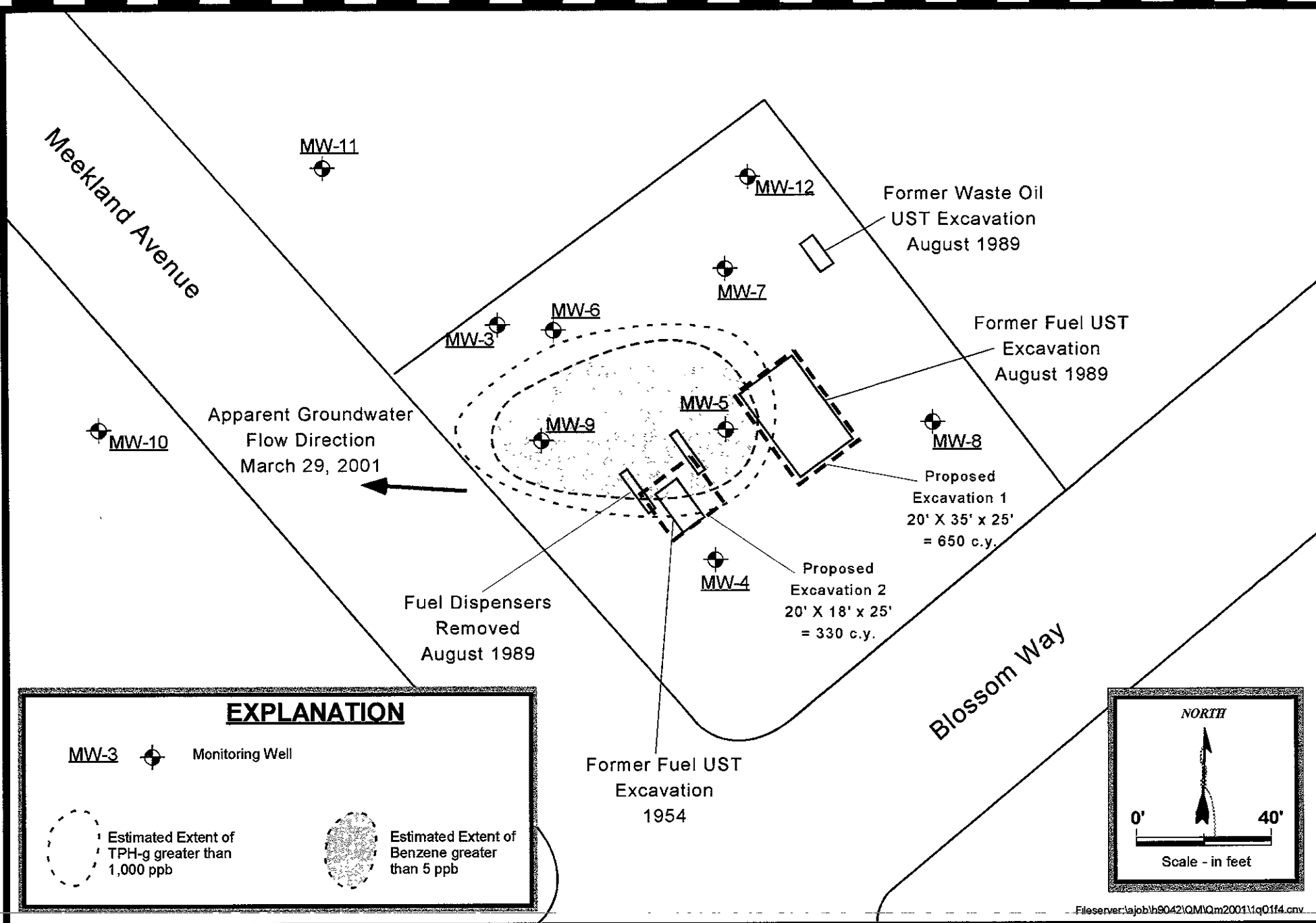


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 (831) 722 - 3580 (831) 662 - 3100

**Site Plan with PHC Concentrations in Groundwater**  
 March 29, 2001  
 Former Harbert Transportation Facility  
 19984 Meekland Avenue, Hayward, California

**Figure 5**  
**Project H9042**





**EXPLANATION**

MW-3 Monitoring Well

Estimated Extent of TPH-g greater than 1,000 ppb

Estimated Extent of Benzene greater than 5 ppb

**NORTH**

0' 40'

Scale - in feet

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 Hydrogeology and Environmental Engineering  
 120 Westgate Drive, Watsonville, Ca. 95076  
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**Site Plan with Extent of TPH-g and Benzene  
 in Groundwater, March 29, 2001**  
 Former Harbert Transportation Facility  
 19984 Meekland Avenue, Hayward, California

**Figure  
 6  
 Project  
 H9042**

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

## **Appendix A**

### **Boring Permits**



### ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
399 ELMHURST ST. HAYWARD CA. 94544-1195  
PHONE (510) 670-6554 MARLON MACALLANES/FRANK CODE (510) 705-7100  
FAX (510) 782-1939

# FILE COPY

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT  
199 BY MEEKLAND AVENUE  
HAYWARD, CALIFORNIA 94540

PERMIT NUMBER W01-095  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

CLIENT  
Name WESTSIDE GAS CO % BRIAN PEOPLES  
Address P.O. Box 2871 Phone (510) 852-4162  
City APTOS, CA Zip 95001

APPLICANT/CONSULTANT  
Name WEBER, HAYES AND ASSOCIATES FOR BRIAN PEOPLES  
Address 120 WESTGATE DRIVE Phone (925) 722-1159  
City WATSONVILLE, CA Zip 95076

TYPE OF PROJECT		CONTAMINANT	
Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input checked="" type="checkbox"/>	Contamination	<input checked="" type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE			
New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input checked="" type="checkbox"/> NA	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:  
Mud Rotary  Air Rotary  Auger   
Cable  Other  X-DRIVEN PROBES

DRILLER'S NAME ENVIRONMENTAL CENTRAL ASSOCIATES  
DRILLER'S LICENSE NO. C-57: 695970  
EXP. 9-30-02

WELL PROJECTS  
Drill Hole Diameter NA in. Maximum \_\_\_\_\_  
Casing Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.  
Surface Seal Depth \_\_\_\_\_ ft. Owner's Well Number \_\_\_\_\_

GEOTECHNICAL PROJECTS  
Number of Borings 09 Maximum \_\_\_\_\_  
Hole Diameter 1.75 in. Depth 35 ft.

ESTIMATED STARTING DATE 2/20/01  
ESTIMATED COMPLETION DATE 2/20/01

- PERMIT CONDITIONS  
Circled Permit Requirements Apply
- A. GENERAL
    1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
    2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
    3. Permit is void if project not begun within 90 days of approval date.
  - B. WATER SUPPLY WELLS
    1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
    2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
  - C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
    1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
    2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
  - D. GEOTECHNICAL
 

Backfill bore hole by tremie with cement grout or cement grout and mixture. Upper two-three feet replaced in kind or well compacted cuttings.
  - E. CATHODIC
 

Fill hole anode zone with concrete placed by tremie.
  - F. WELL DESTRUCTION
 

See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.
  - G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

*changed date - 2-27-01 called*

APPROVED [Signature] DATE 2-6-01

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-02.  
APPLICANT'S SIGNATURE Acron Bierman For Brian Peoples DATE 1/31/01  
PLEASE PRINT NAME Acron Bierman @ WEBER, HAYES Rev. 6-3-00

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

## **Appendix B**

# **Soil Sampling Methodology**

## Appendix B

### Soil Sampling Methodology

The exploratory borings were vibrated/hydraulically driven using 4-foot long Geo-Probe nickel-plated sampling probes fitted with clear acetate liners. No drill cuttings were produced using the Geo-Probe system, since the unit is hydraulically pushed into the soil. This sampling device allows for either continuous or discrete sampling.

Soil samples were obtained for lithologic logging purposes and possible laboratory analysis. The soil samples were logged by an experienced geologist or engineer using the Unified Soil Classification System (USCS). An Organic Vapor Analyzer (Photoionization Detector - PID) was used during drilling for site safety purposes and for field screening soil samples for the presence of volatile organic compounds. Vapor readings in parts per million (ppm) were recorded on the boring logs.

For a discrete core sample, the sampler remained completely sealed by using a closed piston stop-pin while it is pushed or driven to the desired sampling depth. Once at the desired depth, the piston stop-pin at the top end of the sampler was removed by means of extension rods inserted down the inside diameter of the probe. The extension rods were manually controlled from the surface and enabled the driller to open the piston. Once the piston was open and extension rods were removed, the piston was retracted into the sample probe as the probe was driven to collect the sample. For continuous sampling the sampler remained open as it was driven into undisturbed soil for its entire 4-foot length.

At this site both discrete and continuous samples were collected with the Geo-probe sampler. Materials retrieved by the sampler were logged by the field geologist, noting in particular the lithology of the soils, moisture content, and any unusual odor or discoloration. After examination, the liner containing undisturbed soils was cut at the desired sample interval (based on odor, discoloration, and/or the approved sampling plan) with a decontaminated blade. The sample was protected at both ends with Teflon tape, sealed with non-reactive caps, taped, and immediately stored in an insulated container cooled with blue ice. Selected samples were transported under appropriate chain-of-custody documentation to a State certified laboratory for analysis.

The remaining portion of the sample was stored in a sealed plastic bag for field screening of hydrocarbon odors and/or volatile organic compounds by the PID.

Upon completion of drilling, the exploratory boreholes were grouted according to county regulations with a county inspector onsite.

All drilling equipment was 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 were 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.

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

All soil sampling and handling protocol followed the guidelines presented in the October 1989 revision of the State Water Resources Control Board *LUFT Field Manual*.

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
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**Appendix C**  
**Boring Logs**



# Geologic Symbols and Terms

	Major Divisions	Symbols	Descriptions
Coarse Grained Soils	Gravels (More than 1/2 of coarse fraction > no. 4 sieve size)	GW	Well Graded Gravels, little or no fines
		GP	Poorly Graded Gravels, little or no fines
		GM	Silty Gravels, gravel-silt mixtures
		GC	Clayey Gravels, gravel-clay mixtures
	Sands (More than 1/2 of coarse fraction < no. 4 sieve size)	SW	Well Graded Sand, little to no fines
		SP	Poorly Graded Sand
		SM	Silty Sand, sand-silt mixtures
		SC	Clayey Sand, sand-clay mixtures
Fine Grained Soils	Silts and Clays Liquid Limit < 50%	ML	Silt or Very Fine Sands, rock flour, with slight plasticity
		CL	Inorganic Clay with high plasticity, lean clay
	Silts and Clays Liquid Limit > 50%	MH	Inorganic Sandy Clay or Silt, elastic silts
		CH	Inorganic Sandy Clay or Silt, with high plasticity, fat clays

## Symbols and Terms

- First encountered groundwater
  - Stabilized groundwater
  - Sample interval
  - Soil sample sent to laboratory for targeted analysis
  - Water sample sent to laboratory for targeted analysis
- Trace = < 5%  
 Few = 5 - 10%  
 Little = 15 - 20%  
 Some = 30 - 45%  
 Dominantly = > 50%

SOIL DENSITY/CONSISTENCY			
SANDS & GRAVELS	BLOWS/FT.	SILTS & CLAYS	BLOWS/FT.
VERY LOOSE	0 - 4	VERY SOFT	0 - 2
LOOSE	4 - 10	SOFT	2 - 4
MED. DENSE	10 - 30	FIRM	4 - 8
DENSE	30 - 50	STIFF	8 - 16
VERY DENSE	> 50	VERY STIFF	16 - 32
		HARD	> 32

Blow count is the number of blows required to drive a 2-inch diameter California Modified Split-Spoon Sampler the last 12 inches of an 18 inch sample interval by a 140-pound hammer free-falling 30 inches.

ags = above ground surface      bgs = below ground surface  
 PID = Photo-Ionization Detector      ppmv = parts per million by volume  
 UCS = Unified Soil Classification System

### Well Construction Details:

- Bentonite Seal
- Filter Pack
- Cement Seal
- Screened Interval





# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B      DATE: February 14, 2001  
 CLIENT: Harbert Transportation  
 LOCATION: 19984 Meekland Avenue, Hayward, California  
 LOGGED BY: C. Taylor    SAMPLED BY: C. Taylor  
 DRILLER: En Probe (Dennis)  
 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #  
**DP-1**  
 Sheet  
 1 of 2

Depth (feet)	Sampling Interval Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0					--	<b>ASPHALT</b>
1					CH	<b>Fat CLAY</b> , very dark grayish brown (10 YR 3/2), moist to wet, firm, moderate to high plasticity, no dilatency, low toughness, dominantly clay with few fine grained sands, subrounded grains, no odor, no discoloration.
2	DP-1a					- Coarsening downward, gradational contact.
3						
4						
5						
6	DP-1b				CL	<b>Sandy CLAY</b> , brown (10 YR 4/3), damp, moderate plasticity, no dilatency, contains some subrounded sands, no odor, no discoloration.
7						
8						
9						
10	DP-1c					
11						
12						
13						- Thin lenses of fine grained sands with some clays.
14	DP-1d					
15						
16						
17	DP-1e					- Thin lenses of fat clays with trace sands.
18						
19						
20						
21	DP-1f					- Color change to gray (10 YR 4/1) associated with hydrocarbon contamination, moderate hydrocarbon odor.
22						
23						
24	DP-1g				CH	<b>Fat CLAY</b> , dark -gray (10 YR 4/1), damp to moist, soft, very high plasticity, no dilatency, low toughness, trace sands, discolored due to hydrocarbons, moderate to high odor.
25						
26						
27	DP-1g					- Moisture increase to wet, groundwater encountered.
28						
29	DP-1h					
30						



# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B      DATE: February 14, 2001  
 CLIENT: Harbert Transportation  
 LOCATION: 19984 Meekland Avenue, Hayward, California  
 LOGGED BY: C. Taylor    SAMPLED BY: C. Taylor  
 DRILLER: En Probe (Dennis)  
 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #  
**DP-1**  
 Sheet  
 2 of 2

Depth (feet)	Sampling Interval Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
30						
31						
32		DP-1h			CH	<b>Fat CLAY</b> , dark-gray (10 YR 4/1), damp to moist, soft, very high plasticity, no dilatency low toughness, trace sands, discolored due to hydrocarbons, moderate to high odor.
33						
34					SC	<b>Poorly Graded Clayey SANDS</b> , gray (10 YR 5/1), wet, medium dense, slight plasticity, fine grained sands, sub rounded, 30% clays, discoloration, moderate to high odor.
35						
36		DP-1i			CH	<b>Fat CLAY</b> , brown (10YR 5/4), damp, moderate plasticity, no dilatency, contains few to some sands, no odor, no discoloration.
37						
38						
39		DP-1j				
40						
41						
42						
43						
44		DP-1k				
45						
46						Boring terminated at 46 feet bgs. Backfill with Portland Cement Slurry to ground surface.
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						



# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B    DATE: February 14, 2001  
 CLIENT: Harbert Transportation  
 LOCATION: 19984 Meekland Avenue, Hayward, California  
 LOGGED BY: C. Taylor    SAMPLED BY: C. Taylor  
 DRILLER: En Probe (Dennis)  
 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-2

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0						CL	<b>Sandy CLAY</b> , very dark grayish brown (10YR 3/2), dry, lean, very stiff, no plasticity, no dilatency, high toughness, little sands, subangular grains, no odor, no discoloration.
1							
2			DP-2a				
3							
4							- Coarsening downward,
5							
6			DP-2b				- Color change to dark yellowish brown (10 YR 4/4)
7							
8							
9							
10			DP-2c				
11							
12							- Gradational contact.
13						CH	<b>Fat CLAY</b> , gray brown (10YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, high hydrocarbon odor, blue-gray discoloration (Gley 2 5/5B).
14			DP-2d				
15						CL	<b>Sandy CLAY</b> , gray brown (10 YR 5/2), damp, soft and loose, low plasticity, no dilatency, low toughness, some sands, sands subangular and poorly graded, high hydrocarbon odor, blue gray discoloration (Gley 2 5/5B).
16							
17						CH	<b>Fat CLAY</b> , gray brown (10YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, high hydrocarbon odor, blue-gray discoloration (Gley 2 5/5B).
18			DP-2e				
19							
20							
21							
22			DP-2f				
23							
24			DP-2g				
25							- Moisture increases to wet, groundwater first encountered.
26							
27			DP-2g				
28							
29							
30							



# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B DATE: February 14, 2001

CLIENT: Harbert Transportation

LOCATION: 19984 Meekland Avenue, Hayward, California

LOGGED BY: C. Taylor SAMPLED BY: C. Taylor

DRILLER: En Probe (Dennis)

DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-3

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0						--	<b>ASPHALT</b>
1						CH	<b>Fat CLAY</b> , very dark gray brown (10YR 3/2), damp, firm, moderate plasticity, no dilatency, low toughness, trace sands, no odor, no discoloration, roots, high organic content.
2			DP-3a				
3							
4						CL	<b>Sandy CLAY</b> , very dark grayish brown (10YR 3/2), dry, lean, very stiff, no plasticity, no dilatency, high toughness, little sands, subangular grains, no odor, no discoloration.
5							
6			DP-3b				
7							
8							- Low-moderate Hydrocarbon odor detected.
9							
10			DP-3c				
11							
12							
13						SC	<b>Clayey SAND with Gravels</b> , very dark grayish brown (10YR 3/2), dry, loose, mostly medium sized sand grains, subangular, 10 % fine subangular gravels 20 % clay, no plasticity, no dilatency, moderate odor, no discoloration.
14			DP-3d				
15						CL	<b>Sandy CLAY</b> , very dark grayish brown (10 YR 3/2), dry, lean, low plasticity, no dilatency, mostly clays, 30-35 % medium grained sands, subangular grains, moderate hydrocarbon odor, slight blue-gray discoloration (Gley 2 5/5B).
16							
17			DP-3e				
18							
19							
20						SC	<b>Clayey SAND</b> , dark yellowish brown (10 YR 3/6), wet to saturated, loose to medium dense, mostly medium to fine grained sands, subangular, 25 % clays, no plasticity, 15 % silts, moderate hydrocarbon odor, no discoloration.
21							- Perched Groundwater
22			DP-3f				
23						CH	<b>Fat CLAY</b> , gray brown (10 YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, high hydrocarbon odor, blue-gray discoloration (Gley 2 5/5B).
24							
25							
26			DP-3g				
27							
28							- Moisture increases to saturated, groundwater encountered.
29							
30							



# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B DATE: February 14, 2001

CLIENT: Harbert Transportation

LOCATION: 19984 Meekland Avenue, Hayward, California

LOGGED BY: C. Taylor SAMPLED BY: C. Taylor

DRILLER: En Probe (Dennis)

DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-4

Sheet  
1 of 1

Depth (feet)	Sampling Interval Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0					CH	<b>Fat CLAY</b> , very dark gray brown (10YR 3/2), damp, firm, moderate plasticity, no dilatancy, low toughness, trace sands, no odor, no discoloration, roots, organic content.
1						
2		DP-4a				
3						
4						
5					CL	<b>Sandy CLAY</b> , grayish brown (10YR 5/2), dry, lean, very stiff, no plasticity, no dilatancy, high toughness, little fine to medium sands, subangular grains, no odor, no discoloration.
6		DP-4b				
7						
8						
9						
10		DP-4c				- Coarsening downward sequence. - Sands increase to some. - Few subrounded to rounded gravels and pebbles present.
11						
12						
13						
14		DP-4d				
15						
16						
17						
18		DP-4e			SC	<b>Clayey SAND</b> , very dark grayish brown (10YR 3/2), dry, very dense, mostly sands, fine to medium subangular grains, 35-40% clays, no plasticity, no odor, no discoloration.
19						
20					CH	<b>Fat CLAY</b> , gray brown (10 YR 5/2), moist, firm, moderate to high plasticity, no dilatancy, low toughness, trace sands, no hydrocarbon odor, no discoloration.
21						
22		DP-4f				
23						
24						
25						- Moisture increases to saturated, groundwater encountered.
26		DP-4g				
27						
28						
29						
30						



# GEOLOGIC LOG

## Exploratory Borehole

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CLIENT: Harbert Transportation

LOCATION: 19984 Meekland Avenue, Hayward, California

LOGGED BY: C. Taylor SAMPLED BY: C. Taylor

DRILLER: En Probe (Dennis)

DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-5

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0							<b>ASPHALT</b>
1						CH	<b>Fat CLAY</b> , very dark gray brown (10YR 3/2), damp, firm, moderate plasticity, no dilatency, low toughness, trace sands, no odor, no discoloration, roots, high organic content.
2			DP-5a				
3							
4							
5						CL	<b>Sandy CLAY</b> , very dark grayish brown (10YR 3/2), dry, lean, very stiff, no plasticity, no dilatency, high toughness, little sands, subangular grains, no odor, no discoloration.
6			DP-5b				
7							
8							
9							
10			DP-5c				
11							
12							
13			DP-5d				
14							
15							
16							
17						SC	<b>Clayey SAND</b> , very dark grayish brown (10YR 3/2), dry, loose, mostly medium sized sand grains, subangular, trace fine subangular gravels 20 % clay, no plasticity, no dilatency, no odor, no discoloration.
18			DP-5e				
19							
20						CH	<b>Fat CLAY</b> , gray brown (10 YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, no hydrocarbon odor, no discoloration.
21			DP-5f				
22							
23							
24							
25			DP-5g				
26							
27							
28							
29							
30							



- Moisture increases to saturated, groundwater encountered.



# GEOLOGIC LOG

## Exploratory Borehole

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 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-6

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0							<b>ASPHALT</b>
1						CH	<b>Fat CLAY</b> , very dark gray brown (10YR 3/2), damp, firm, moderate plasticity, no dilatency, low toughness, trace sands, no odor, no discoloration, roots, high organic content.
2			DP-6a				
3							
4							
5						CL	<b>Sandy CLAY</b> , very dark grayish brown (10YR 3/2), dry, lean, very stiff, no plasticity, no dilatency, high toughness, little sands, subangular grains, no odor, no discoloration.
6			DP-6b				
7							
8							
9							
10			DP-6c				
11							
12							
13							
14			DP-6d				
15							
16							
17							
18			DP-6e				
19							
20							
21						CH	<b>Fat CLAY</b> , gray brown (10 YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, no hydrocarbon odor, no discoloration.
22			DP-6f				
23							
24							
25			DP-6g				- Moisture increases to saturated, groundwater encountered.
26							
27							
28							
29							
30							



# GEOLOGIC LOG

## Exploratory Borehole

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 LOCATION: 19984 Meekland Avenue, Hayward, California  
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 DRILLER: En Probe (Dennis)  
 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-7

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0						--	<b>ASPHALT</b>
1						CH	<b>Fat CLAY</b> , very dark gray brown (10YR 3/2), damp, firm, moderate plasticity, no dilatency, low toughness, trace sands, no odor, no discoloration, roots, high organic content.
2							
3			DP-7a				
4							<b>Sandy CLAY</b> , very dark grayish brown (10YR 3/2), dry, lean, very stiff, no plasticity, no dilatency, high toughness, little sands, subangular grains, no odor, no discoloration.
5							
6			DP-7b				
7						CL	<b>Clayey SAND</b> , very dark grayish brown (10YR 3/2), dry, loose, mostly medium sized sand grains, subangular, trace fine subangular gravels 20 % clay, no plasticity, no dilatency, no odor, no discoloration.
8							
9			DP-7c				
10						SC	<b>Fat CLAY</b> , gray brown (10 YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, no hydrocarbon odor, no discoloration.
11							
12			DP-7d				
13							- Moisture increases to saturated, groundwater encountered.
14							
15			DP-7e				
16							
17							
18			DP-7f				
19							
20							
21			DP-7g				
22							
23							
24							
25							
26							
27							
28							
29							
30							





# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B    DATE: February 14, 2001  
 CLIENT: Harbert Transportation  
 LOCATION: 19984 Meekland Avenue, Hayward, California  
 LOGGED BY: C. Taylor    SAMPLED BY: C. Taylor  
 DRILLER: En Probe (Dennis)  
 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-8

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0						--	<b>ASPHALT</b>
1						CH	<b>Fat CLAY</b> , very dark gray brown (10YR 3/2), damp, firm, moderate plasticity, no dilatency, low toughness, trace sands, no odor, no discoloration, roots, high organic content.
2			DP-8a				
3							
4							
5							
6			DP-8b				
7							
8						CL	<b>Sandy CLAY</b> , very dark grayish brown (10YR 3/2), dry, lean, very stiff, no plasticity, no dilatency, high toughness, little sands, subangular grains, no odor, no discoloration.
9							
10			DP-8c				
11							
12							
13							
14			DP-8d			SC	<b>Clayey SAND</b> , very dark grayish brown (10YR 3/2), dry, loose, mostly medium sized sand grains, subangular, trace fine subangular gravels 20 % clay, no plasticity, no dilatency, no odor, no discoloration.
15							
16						CH	<b>Fat CLAY</b> , gray brown (10 YR 5/2), moist, firm, moderate to high plasticity, no dilatency, low toughness, trace sands, no hydrocarbon odor, no discoloration.
17							
18			DP-8e				
19							
20							
21							
22			DP-8f				
23							
24							
25			DP-8g				- Moisture increases to saturated, groundwater encountered.
26							
27							
28							
29							
30							



# GEOLOGIC LOG

## Exploratory Borehole

JOB NO.: H9042.B      DATE: February 14, 2001  
 CLIENT: Harbert Transportation  
 LOCATION: 19984 Meekland Avenue, Hayward, California  
 LOGGED BY: C. Taylor    SAMPLED BY: C. Taylor  
 DRILLER: En Probe (Dennis)  
 DRILL METHOD: Hydraulic Driven Large Bore and Macro-Core Probes

BORING #

DP-9

Sheet  
1 of 1

Depth (feet)	Sampling Interval	Sample Analyzed	Sample Identification & OVA Data (ppmv)	Groundwater Depth	Lithologic Pattern	USCS	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0						--	<b>ASPHALT</b>
1						CH	<b>Fat CLAY</b> , very dark grayish brown (10 YR 3/2), moist to wet, firm, moderate to high plasticity, no dilatency, low toughness, dominantly clay with few fine grained sands, subrounded grains, no odor, no discoloration.
2			DP-9a				
3							
4							
5							
6			DP-9b			CL	<b>Sandy CLAY</b> , brown (10 YR 4/3), damp, moderate plasticity, no dilatency, contains some subrounded sands, no odor, no discoloration.
7							
8							
9							
10			DP-9c				
11							
12							
13							- Thin lenses of fine grained sands with some clays.
14			DP-9d				
15							
16							
17							
18							
19			DP-9e				- Thin lenses of fat clays with trace sands.
20							
21							
22			DP-9f				
23							
24			DP-9 Groundwater DP-9g			CH	<b>Fat CLAY</b> , dark -gray (10 YR 4/1), damp to moist, soft, very high plasticity, no dilatency, low toughness, trace sands, discolored due to hydrocarbons, moderate to high odor.
25							
26							
27							
28							
29							
30							

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

## **Appendix D**

### **Certified Analytical Report - Soil Samples**

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes & Associates

March 01, 2001

Chad Taylor  
Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076

R MAR 11 2001 D  
RECEIVED

**Order:** 24432

**Date Collected:** 2/14/01

**Project Name:** Harbert Transportation

**Date Received:** 2/15/01

**Project Number:** H9042.B

**P.O. Number:**

**Project Notes:**

On February 15, 2001, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	MTBE by EPA 8260B	EPA 8260B
Solid		EPA 8260B

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,



Michelle L. Anderson  
Lab Director

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 03/01/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-006

Client Sample ID: DP-2d

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	MDL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		50	0.5	25	µg/Kg	2/27/01	SMS2010222	EPA 8260B

Comment: Sample diluted due to high concentrations of non-target hydrocarbons.

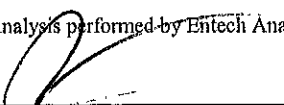
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

*Environmental Analysis Since 1983*

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 03/01/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-007

Client Sample ID: DP-2e

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	MDL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1000	0.5	500	µg/Kg	2/27/01	SMS2010222	EPA 8260B

Comment: Sample diluted due to high concentrations of non-target hydrocarbons.

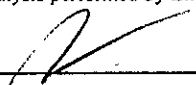
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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 03/01/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

<b>Order ID:</b> 24432	<b>Lab Sample ID:</b> 24432-008	<b>Client Sample ID:</b> DP-2g							
<b>Sample Time:</b>	<b>Sample Date:</b> 2/14/01	<b>Matrix:</b> Solid							
<b>Parameter</b>	<b>Result</b>	<b>Flag</b>	<b>DF</b>	<b>MDL</b>	<b>DLR</b>	<b>Units</b>	<b>Analysis Date</b>	<b>QC Batch ID</b>	<b>Method</b>
Methyl-t-butyl Ether	ND		100	0.5	50	µg/Kg	2/27/01	SMS2010222	EPA 8260B

**Comment:** Sample diluted due to high concentrations of non-target hydrocarbons

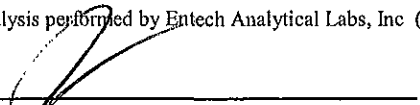
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Attn: Chad Taylor

Date: 03/01/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-012

Client Sample ID: DP-3g

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/Kg	2/27/01	SMS2010222	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	89	65 - 135
Dibromofluoromethane	95	65 - 135
Toluene-d8	97	65 - 135

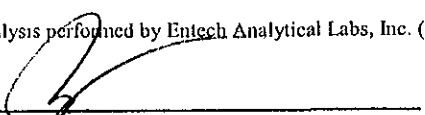
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Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 03/01/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-036

Client Sample ID: DP-9g

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	MDL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	0.5	2.5	µg/Kg	2/27/01	SMS2010222	EPA 8260B
	<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
	4-Bromofluorobenzene			88			65 - 135		
	Dibromofluoromethane			92			65 - 135		
	Toluene-d8			98			65 - 135		

Comment: Sample diluted due to high concentrations of non-target hydrocarbons

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 03/01/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-037

Client Sample ID: DP-9

Sample Time:

Sample Date: 2/14/01

Matrix: Liquid

Parameter	Result	Flag	DF	MDL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		10	0.3	3	µg/L	2/27/01	WMS2010226	EPA 8260B

Comment: Sample diluted due to high concentrations of non-target hydrocarbons.

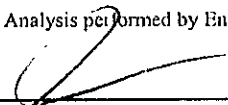
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ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

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# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

February 22, 2001

Chad Taylor  
Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076

**Order:** 24432

**Date Collected:** 2/14/01

**Project Name:** Harbert Transportation

**Date Received:** 2/15/01

**Project Number:** H9042.B

**P.O. Number:**

**Project Notes:**

On February 15, 2001, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable) EPA 8020
Solid		EPA 8015 MOD. (Purgeable) EPA 8020

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,



Michelle L. Anderson  
Lab Director

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-001

Client Sample ID: DP-1a

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	0.010		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	0.025		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		108		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		108		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD (Purgeable)
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		128		65		- 135	

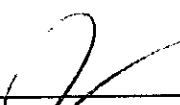
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 Michele L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432	Lab Sample ID: 24432-002	Client Sample ID: DP-1f								
Sample Time:	Sample Date: 2/14/01	Matrix: Solid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		96		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		96		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		106		65 - 135		


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Environmental Analysis Since 1983

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-003

Client Sample ID: DP-1g @ 24'

Sample Time:

Sample Date: 2/14/01

Matrix: Solid


Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Xylenes, Total	0.007		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			102			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			102			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			100			65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-005

Client Sample ID: DP-2a

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Toluene	0.019		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Ethyl Benzene	0.020		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Xylenes, Total	0.13		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		118		65 - 135			

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		118		65 - 135			

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		114		65 - 135			

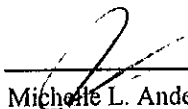
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 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-006      Client Sample ID: DP-2d  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1000	0.0005	0.5	mg/Kg	N/A	2/16/01	SGC4010216	EPA 8020
Toluene	4.5		1000	0.0005	0.5	mg/Kg	N/A	2/16/01	SGC4010216	EPA 8020
Ethyl Benzene	19		1000	0.0005	0.5	mg/Kg	N/A	2/16/01	SGC4010216	EPA 8020
Xylenes, Total	270		1000	0.001	1	mg/Kg	N/A	2/16/01	SGC4010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      78      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1000	0.005	5	mg/Kg	N/A	2/16/01	SGC4010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      78      65 - 135


Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1800		1000	0.050	50	mg/Kg	N/A	2/16/01	SGC4010216	EPA 8015 MOD. (Purgeable)

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      71      65 - 135

Comment: Sample required methanol extraction due to high concentrations of target hydrocarbons.

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-007      Client Sample ID: DP-2e  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	18		5000	0.0005	2.5	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020
Toluene	720		5000	0.0005	2.5	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020
Ethyl Benzene	230		5000	0.0005	2.5	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020
Xylenes, Total	1600		5000	0.001	5	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      94      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5000	0.005	25	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      94      65 - 135

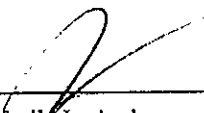
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	8700		5000	0.050	250	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8015 MOD. (Purgeable)

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      95      65 - 135

Comment: Sample required methanol extraction due to high concentrations of target hydrocarbons.

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 \_\_\_\_\_  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-008      Client Sample ID: DP-2g  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	3.5		2500	0.0005	1.25	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020
Toluene	52		2500	0.0005	1.25	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020
Ethyl Benzene	39		2500	0.0005	1.25	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020
Xylenes, Total	250		2500	0.001	2.5	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      96      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		2500	0.005	12.5	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8020

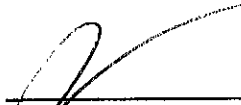
Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      96      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1800		2500	0.050	125	mg/Kg	N/A	2/17/01	SGC4010216	EPA 8015 MOD (Purgeable)

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      89      65 - 135

Comment: Sample required methanol extraction due to high concentrations of target hydrocarbons.

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit  
 Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
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 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-009      Client Sample ID: DP-3a  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

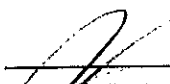
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Toluene	0.017		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Ethyl Benzene	0.006		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Xylenes, Total	0.054		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		118		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		118		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		123		65		- 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
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 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report


Order ID: 24432      Lab Sample ID: 24432-010      Client Sample ID: DP-3b  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	0.063		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	0.020		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	0.12		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 93		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 93		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 104		Control Limits (%) 65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit  
 Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-011      Client Sample ID: DP-3e  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

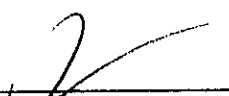
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/22/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/22/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/22/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/22/01	SGC1010216	EPA 8020
Surrogate						Surrogate Recovery			Control Limits (%)	
aaa-Trifluorotoluene						99			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/22/01	SGC1010216	EPA 8020
Surrogate						Surrogate Recovery			Control Limits (%)	
aaa-Trifluorotoluene						99			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/22/01	SGC1010216	EPA 8015 MOD. (Purgeable)
Surrogate						Surrogate Recovery			Control Limits (%)	
aaa-Trifluorotoluene						111			65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

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 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-012      Client Sample ID: DP-3g  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	0.036		25	0.0005	0.0125	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Toluene	0.067		25	0.0005	0.0125	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Ethyl Benzene	0.070		25	0.0005	0.0125	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020
Xylenes, Total	0.060		25	0.001	0.025	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      87      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		25	0.005	0.125	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8020

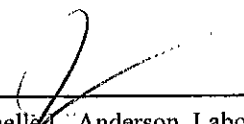
Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      87      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	18		25	0.050	1.25	mg/Kg	N/A	2/20/01	SGC4010216	EPA 8015 MOD. (Purgeable)

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      79      65 - 135

Comment: Sample required methanol extraction due to high concentrations of target hydrocarbons.

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit  
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 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-013

Client Sample ID: DP-4a

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	0.014		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	0.008		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	0.058		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		119		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		119		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		134		65 - 135		

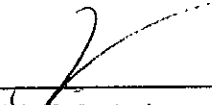
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-015

Client Sample ID: DP-4g @ 25'

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate				Surrogate Recovery		Control	Limits (%)
			aaa-Trifluorotoluene				110		65	- 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate				Surrogate Recovery		Control	Limits (%)
			aaa-Trifluorotoluene				110		65	- 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
			Surrogate				Surrogate Recovery		Control	Limits (%)
			aaa-Trifluorotoluene				133		65	- 135

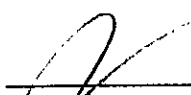
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ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc (CA ELAP #2346)

  
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Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-016

Client Sample ID: DP-4g @ 27'

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		87		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		87		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		90		65 - 135		

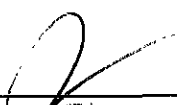
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

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 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-017

Client Sample ID: DP-5a

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control	Limits (%)	
				aaa-Trifluorotoluene		94		65	- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control	Limits (%)	
				aaa-Trifluorotoluene		94		65	- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control	Limits (%)	
				aaa-Trifluorotoluene		114		65	- 135	


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432	Lab Sample ID: 24432-018	Client Sample ID: DP-5d								
Sample Time:	Sample Date: 2/14/01	Matrix: Solid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>	
			aaa-Trifluorotoluene			111			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>	
			aaa-Trifluorotoluene			111			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
			<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>	
			aaa-Trifluorotoluene			135			65 - 135	

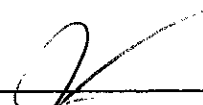
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-019      Client Sample ID: DP-5f  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

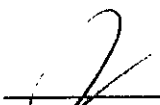
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			107			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			107			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			132			65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-020      Client Sample ID: DP-5g  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      91      65 - 135

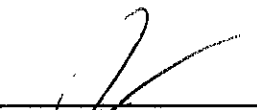
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      91      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD (Purgeable)

Surrogate      Surrogate Recovery      Control Limits (%)  
 aaa-Trifluorotoluene      109      65 - 135

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit  
 Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 \_\_\_\_\_  
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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-021

Client Sample ID: DP-6a

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
			Surrogate			Surrogate Recovery			Control	Limits (%)
			aaa-Trifluorotoluene			159			65	- 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
			Surrogate			Surrogate Recovery			Control	Limits (%)
			aaa-Trifluorotoluene			159			65	- 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control	Limits (%)
			aaa-Trifluorotoluene			194			65	- 135

Comment: Surrogate recovery out of control limits due to matrix interference.

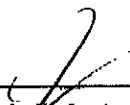
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

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 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-023

Client Sample ID: DP-6e

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		96		65		- 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		96		65		- 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		116		65		- 135

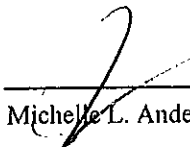
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-024

Client Sample ID: DP-6g

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
Ethyl Benzene	0.009		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			35			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			35			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216B	EPA 8015 MOD. (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			13			65 - 135	

Comment: Surrogate recovery out of control limits due to matrix interference.

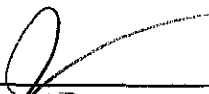
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-025

Client Sample ID: DP-7a

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		110		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		110		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/16/01	SGC1010216	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		134		65		- 135	

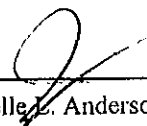
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432	Lab Sample ID: 24432-026	Client Sample ID: DP-7d								
Sample Time:	Sample Date: 2/14/01	Matrix: Solid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		100		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		100		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8015 MOD (Purgeable)
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		110		65 - 135		

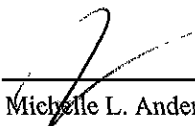
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

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 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-027      Client Sample ID: DP-7e  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid

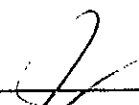
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		123		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		123		65		- 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control		Limits (%)	
			aaa-Trifluorotoluene		149		65		- 135	

Comment: Surrogate recovery out of control limits due to matrix interference.

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit  
 Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432	Lab Sample ID: 24432-028	Client Sample ID: DP-7g								
Sample Time:	Sample Date: 2/14/01	Matrix: Solid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		103		65 - 135			
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		103		65 - 135			
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		109		65 - 135			


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-029      Client Sample ID: DP-8a  
 Sample Time:      Sample Date: 2/14/01      Matrix: Solid


Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		110		65		135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		110		65		135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		134		65		135

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 \_\_\_\_\_  
 Michelle L. Anderson, Laboratory Director

*Environmental Analysis Since 1983*



# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-030

Client Sample ID: DP-8d

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			129			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8020
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			129			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216B	EPA 8015 MOD (Purgeable)
			Surrogate			Surrogate Recovery			Control Limits (%)	
			aaa-Trifluorotoluene			155			65 - 135	

Comment: Surrogate recovery out of control limits due to matrix interference.


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-032

Client Sample ID: DP-8g

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		95		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		95		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		92		65 - 135		

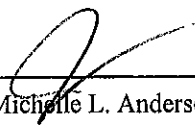
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-032

Client Sample ID: DP-8g

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							95		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							95		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8015 MOD. (Purgeable)
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							92		65 - 135	

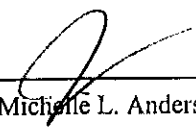
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432      Lab Sample ID: 24432-033      Client Sample ID: DP-9a  
Sample Time:      Sample Date: 2/14/01      Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
aaa-Trifluorotoluene      106      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020

Surrogate      Surrogate Recovery      Control Limits (%)  
aaa-Trifluorotoluene      106      65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8015 MOD (Purgeable)

Surrogate      Surrogate Recovery      Control Limits (%)  
aaa-Trifluorotoluene      129      65 - 135

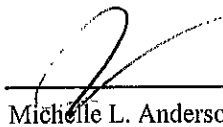
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432	Lab Sample ID: 24432-034	Client Sample ID: DP-9d								
Sample Time:	Sample Date: 2/14/01	Matrix: Solid								
<b>Parameter</b>	<b>Result</b>	<b>Flag</b>	<b>DF</b>	<b>PQL</b>	<b>DLR</b>	<b>Units</b>	<b>Extraction Date</b>	<b>Analysis Date</b>	<b>QC Batch ID</b>	<b>Method</b>
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
<b>Surrogate</b>							<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>	
aaa-Trifluorotoluene							100		65 - 135	
<b>Parameter</b>	<b>Result</b>	<b>Flag</b>	<b>DF</b>	<b>PQL</b>	<b>DLR</b>	<b>Units</b>	<b>Extraction Date</b>	<b>Analysis Date</b>	<b>QC Batch ID</b>	<b>Method</b>
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
<b>Surrogate</b>							<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>	
aaa-Trifluorotoluene							100		65 - 135	
<b>Parameter</b>	<b>Result</b>	<b>Flag</b>	<b>DF</b>	<b>PQL</b>	<b>DLR</b>	<b>Units</b>	<b>Extraction Date</b>	<b>Analysis Date</b>	<b>QC Batch ID</b>	<b>Method</b>
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8015 MOD. (Purgeable)
<b>Surrogate</b>							<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>	
aaa-Trifluorotoluene							94		65 - 135	

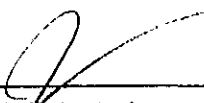
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432	Lab Sample ID: 24432-035	Client Sample ID: DP-9e								
Sample Time:	Sample Date: 2/14/01	Matrix: Solid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Toluene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Ethyl Benzene	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Xylenes, Total	ND		1	0.005	0.005	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 110		Control Limits (%) 65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	0.05	0.05	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 110		Control Limits (%) 65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	1	1	mg/Kg	N/A	2/17/01	SGC1010216	EPA 8015 MOD. (Purgeable)
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 94		Control Limits (%) 65 - 135	

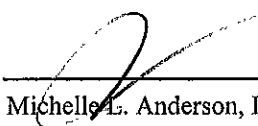
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 02/22/01  
 Date Received: 2/15/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.B  
 P.O. Number:  
 Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-036

Client Sample ID: DP-9g

Sample Time:

Sample Date: 2/14/01

Matrix: Solid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	0.020		25	0.0005	0.0125	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Toluene	0.020		25	0.0005	0.0125	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Ethyl Benzene	0.19		25	0.0005	0.0125	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Xylenes, Total	0.30		25	0.001	0.025	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 88		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		25	0.005	0.125	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 88		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	18		25	0.050	1.25	mg/Kg	N/A	2/20/01	SGC4010220	EPA 8015 MOD (Purgeable)
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 66		Control Limits (%) 65 - 135	

Comment: Sample required methanol extraction due to high concentrations of target hydrocarbons.


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

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120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 02/22/01  
Date Received: 2/15/01  
Project Name: Harbert Transportation  
Project Number: H9042.B  
P.O. Number:  
Sampled By: Client

## Certified Analytical Report

Order ID: 24432

Lab Sample ID: 24432-037

Client Sample ID: DP-9

Sample Time:

Sample Date: 2/14/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	680		200	0.5	100	µg/L	N/A	2/16/01	WGC2010216	EPA 8020
Toluene	160		200	0.5	100	µg/L	N/A	2/16/01	WGC2010216	EPA 8020
Ethyl Benzene	3000		200	0.5	100	µg/L	N/A	2/16/01	WGC2010216	EPA 8020
Xylenes, Total	5600		200	0.5	100	µg/L	N/A	2/16/01	WGC2010216	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 94		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		200	5	1000	µg/L	N/A	2/16/01	WGC2010216	EPA 8020
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 94		Control Limits (%) 65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	25000		200	50	10000	µg/L	N/A	2/16/01	WGC2010216	EPA 8015 MOD. (Purgeable)
Surrogate aaa-Trifluorotoluene							Surrogate Recovery 101		Control Limits (%) 65 - 135	

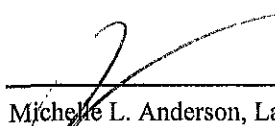
DF = Dilution Factor

ND = Not Detected

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Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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## Quality Control Results Summary

QC Batch #: SGC1010216  
Matrix: Solid

Units: mg/Kg  
Date Analyzed: 2/16/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.565	LCS	100.7			65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		104		65 - 135							
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		0.0062		0.004	LCS	64.5			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.007	LCS	89.7			65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.031	LCS	86.6			65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.040	LCS	93.0			65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		95		65 - 135							
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		0.062		0.053	LCS	85.5			65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		95		65 - 135							
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.524	LCSD	93.4	7.53	30.00	65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		98		65 - 135							
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		0.0062		0.004	LCSD	64.5	0.00	30.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.006	LCSD	76.9	15.38	30.00	65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.030	LCSD	83.8	3.28	30.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.039	LCSD	90.7	2.53	30.00	65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		88		65 - 135							
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		0.062		0.047	LCSD	75.8	12.00	30.00	65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		88		65 - 135							

# Entech Analytical Labs, Inc.

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## Quality Control Results Summary

QC Batch #: SGC1010216B  
Matrix: Solid

Units: mg/Kg  
Date Analyzed: 2/16/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.514	LCS	91.6			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			99		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		0.0062		0.004	LCS	64.5			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.006	LCS	76.9			65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.030	LCS	83.8			65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.040	LCS	93.0			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			89		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		0.062		0.043	LCS	69.4			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			89		65 - 135					
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.553	LCSD	98.6	7.31	30.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			106		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		0.0062		0.004	LCSD	64.5	0.00	30.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.007	LCSD	89.7	15.38	30.00	65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.031	LCSD	86.6	3.28	30.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.039	LCSD	90.7	2.53	30.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			95		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		0.062		0.050	LCSD	80.6	15.05	30.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			95		65 - 135					

# Entech Analytical Labs, Inc.

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## Quality Control Results Summary

QC Batch #: SGC4010216  
Matrix: Solid

Units: mg/Kg  
Date Analyzed: 2/16/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.565	LCS	100.7			65.0 - 135.0
<b>Surrogate</b>		<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>							
aaa-Trifluorotoluene		106		65 - 135							
<b>Test: BTEX+MTBE</b>											
Benzene	EPA 8020	ND		0.0062		0.006	LCS	96.8			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.007	LCS	89.7			65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.031	LCS	86.6			65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.036	LCS	83.7			65.0 - 135.0
<b>Surrogate</b>		<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>							
aaa-Trifluorotoluene		104		65 - 135							
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.529	LCSD	94.3	6.58	30.00	65.0 - 135.0
<b>Surrogate</b>		<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>							
aaa-Trifluorotoluene		104		65 - 135							
<b>Test: BTEX+MTBE</b>											
Benzene	EPA 8020	ND		0.0062		0.007	LCSD	112.9	15.38	30.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.007	LCSD	89.7	0.00	30.00	65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.031	LCSD	86.6	0.00	30.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.035	LCSD	81.4	2.82	30.00	65.0 - 135.0
<b>Surrogate</b>		<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>							
aaa-Trifluorotoluene		103		65 - 135							

# Entech Analytical Labs, Inc.

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## Quality Control Results Summary

QC Batch #: SGC4010220  
Matrix: Solid

Units: mg/Kg  
Date Analyzed: 2/20/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.505	LCS	90.0			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			104		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		0.0062		0.006	LCS	96.8			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.006	LCS	76.9			65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.030	LCS	83.8			65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.035	LCS	81.4			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			101		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		0.062		0.056	LCS	90.3			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			101		65 - 135					
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		0.561		0.497	LCSD	88.6	1.60	30.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			102		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		0.0062		0.006	LCSD	96.8	0.00	30.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		0.0078		0.006	LCSD	76.9	0.00	30.00	65.0 - 135.0
Toluene	EPA 8020	ND		0.0358		0.030	LCSD	83.8	0.00	30.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		0.043		0.034	LCSD	79.1	2.90	30.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			101		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		0.062		0.058	LCSD	93.5	3.51	30.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			101		65 - 135					

# Entech Analytical Labs, Inc.

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## Quality Control Results Summary

QC Batch #: WGC2010216  
Matrix: Liquid

Units: µg/L  
Date Analyzed: 2/16/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		561		490.0	LCS	87.3			65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		104		65 - 135							
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		6.2		7.09	LCS	114.4			65.0 - 125.0
Ethyl Benzene	EPA 8020	ND		7.8		6.98	LCS	89.5			65.0 - 135.0
Toluene	EPA 8020	ND		35.8		33.7	LCS	94.1			65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		38.6	LCS	89.8			65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		116		65 - 135							
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		54.9	LCS	104.0			65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		116		65 - 135							
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		561		467.8	LCSD	83.4	4.64	25.00	65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		102		65 - 135							
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		6.2		5.99	LCSD	96.6	16.82	25.00	65.0 - 125.0
Ethyl Benzene	EPA 8020	ND		7.8		7.46	LCSD	95.6	6.65	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		35.8		32.8	LCSD	91.6	2.71	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		37.6	LCSD	87.4	2.62	25.00	65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		103		65 - 135							
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		54.9	LCSD	104.0	0.00	25.00	65.0 - 135.0
Surrogate		Surrogate Recovery		Control Limits (%)							
aaa-Trifluorotoluene		103		65 - 135							

# Entech Analytical Labs, Inc.

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## Quality Control Results Summary

QC Batch #: SMS2010222  
Matrix: Solid

Units: µg/Kg  
Date Analyzed: 2/23/01

Parameter	Method	Blank Result	Spike Sample ID	Spk Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: EPA 8260B</b>											
1,1-Dichloroethene	EPA 8260B	ND		25		22.5	LCS	90.0			65.0 - 135.0
Benzene	EPA 8260B	ND		25		20.8	LCS	83.2			65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		25		21.9	LCS	87.6			65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		25		23.6	LCS	94.4			65.0 - 135.0
Toluene	EPA 8260B	ND		25		21.9	LCS	87.6			65.0 - 135.0
Trichloroethene	EPA 8260B	ND		25		22.0	LCS	88.0			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
4-Bromofluorobenzene			98			56 - 131					
Dibromofluoromethane			98			55 - 156					
Toluene-d8			97			65 - 141					
<b>Test: EPA 8260B</b>											
1,1-Dichloroethene	EPA 8260B	ND		25		21.8	LCSD	87.2	3.16		65.0 - 135.0
Benzene	EPA 8260B	ND		25		20.8	LCSD	83.2	0.00		65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		25		21.5	LCSD	86.0	1.84		65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		25		22.5	LCSD	90.0	4.77		65.0 - 135.0
Toluene	EPA 8260B	ND		25		21.7	LCSD	86.8	0.92		65.0 - 135.0
Trichloroethene	EPA 8260B	ND		25		21.4	LCSD	85.6	2.76		65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
4-Bromofluorobenzene			96			56 - 131					
Dibromofluoromethane			97			55 - 156					
Toluene-d8			98			65 - 141					

# Entech Analytical Labs, Inc.

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## Quality Control Results Summary

QC Batch #: WMS2010226

Units: µg/L

Matrix: Liquid

Date Analyzed: 2/27/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: EPA 8260B</b>											
1,1-Dichloroethene	EPA 8260B	ND		20		18.7	LCS	93.5			65.0 - 135.0
Benzene	EPA 8260B	ND		20		17.7	LCS	88.5			65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		20		18.1	LCS	90.5			65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		20		19.2	LCS	96.0			65.0 - 135.0
Toluene	EPA 8260B	ND		20		18.6	LCS	93.0			65.0 - 135.0
Trichloroethene	EPA 8260B	ND		20		17.4	LCS	87.0			65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94	65 - 135
Dibromofluoromethane	94	57 - 139
Toluene-d8	96	65 - 135

<b>Test: EPA 8260B</b>											
1,1-Dichloroethene	EPA 8260B	ND		20		18.4	LCSD	92.0	1.62	25.00	65.0 - 135.0
Benzene	EPA 8260B	ND		20		17.0	LCSD	85.0	4.03	25.00	65.0 - 135.0
Chlorobenzene	EPA 8260B	ND		20		17.5	LCSD	87.5	3.37	25.00	65.0 - 135.0
Methyl-t-butyl Ether	EPA 8260B	ND		20		18.6	LCSD	93.0	3.17	25.00	65.0 - 135.0
Toluene	EPA 8260B	ND		20		18.3	LCSD	91.5	1.63	25.00	65.0 - 135.0
Trichloroethene	EPA 8260B	ND		20		16.9	LCSD	84.5	2.92	25.00	65.0 - 135.0

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95	65 - 135
Dibromofluoromethane	96	57 - 139
Toluene-d8	97	65 - 135





# Weber, Hayes & Associates

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

# CHAIN -OF-CUSTODY RECORD

PAGE 1 OF 4

PROJECT NAME AND JOB #: Harbert Transportation / H9042.B

LABORATORY: Entech Analytical

SEND CERTIFIED RESULTS TO: Chad Taylor

TURNAROUND TIME: Normal 24hr Rush 48hr Rush 72hr Rush

Sample ID# & Depth	Date	SAMPLE CONTAINERS				REQUESTED ANALYSIS							
		40 mL VOAs (preserved)	1 Liter Amber Jars	___ mL Poly Bottle	Liner <u>Acetate</u> or Brass	Total Petroleum Hydrocarbons			Volatile Organics		Additional Analysis		
						Extractable Fuel-Scan (w/Standard Silica-Gel-Cleanup)	Purgeable Fuel-Scan (w/MTBE & BTEX)	Gasoline & MTBE-BTEX by EPA Method# 8015M-3-8020	MTBE by EPA Method# 8260	SOLVENTS by EPA Method# 8010	Fuel Oxygenates by EPA Method 8260	Title 22: General, Physical and Inorganic Minerals	
DP-1a ' 2'	2/14/01				1			X					2442-001
DP-1f " 2.5'					1			X					002
DP-1g @ 24' " 24'					1			X					003
DP-1g @ 27' " 27'					1			X					004
DP-2a ' 2'					1			X					005
DP-2d ' 13.5'					1			X					006
DP-2e " 18.5'					1			X					007
DP-2g " 24'					1			X					008
DP-3a " 2'					1			X					009
DP-3b " 7.5'					1			X					010
DP-3e " 18.5'					1			X					011
DP-3g ' 27.5'	✓				1			X					012

### RECEIVED BY:

Date & Time

### RELEASED BY:

Date & Time

SAMPLE CONDITION:  
(circle 1)

- 1.) Sampler: L.H.H.
- 2.) Chad Taylor
- 3.) Mara Gruber
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- 1.) 2/14/01 1700
- 2.) 2/13/01 1200
- 3.) 2/15/01 1300
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- 1.) L.H.H.
- 2.) Chad Taylor
- 3.) \_\_\_\_\_
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- 1.) 2/15/01 1200
- 2.) 2/15/01 1300
- 3.) 2/15/01 1300
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- |         |   |        |
|---------|---|--------|
| Ambient | <input checked="" type="radio"/> Refrigerated | Frozen |
| Ambient | <input checked="" type="radio"/> Refrigerated | Frozen |
| Ambient | <input type="radio"/> Refrigerated            | Frozen |
| Ambient | <input type="radio"/> Refrigerated            | Frozen |
| Ambient | <input type="radio"/> Refrigerated            | Frozen |

NOTES - Lab to complete the following if box is checked:

- If MTBE is detected by EPA Method 8020, please confirm detections by EPA Method 8260 with a detection limit of 0.05 mg/Kg, and report only confirmed 8260 detections
- For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits please confirm by EPA Method #8260, with a detection limit of 0.05 mg/Kg
- Please use MDL (Minimum Detection Limit) for MTBE for diluted samples if necessary to obtain the 0.05 mg/Kg detection limit

Additional Comments



# Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

120 Westgate Dr., Watsonville, CA 95076

(831) 722-3580 (831) 662-3100

Fax: (831) 722-1159

# CHAIN -OF-CUSTODY RECORD

PAGE 2 OF 4

PROJECT NAME AND JOB #: Harbert Transportation / H9042.B

LABORATORY: Entech Analytical

SEND CERTIFIED RESULTS TO: Chad Taylor

TURNAROUND TIME: Normal 24hr Rush 48hr Rush 72hr Rush

Sample ID# & Depth	Date	SAMPLE CONTAINERS				REQUESTED ANALYSIS						
		40 mL VOAs (preserved)	1 Liter Amber Jars	mL Poly Bottle	Liner <u>Acetate</u> or Brass	Total Petroleum Hydrocarbons			Volatile Organics		Additional Analysis	
						Extractable Fuel-Scan (w/Standard Silica-Gel-Cleanup)	Purgeable Fuel-Scan (w/MTBE & BTEX)	Gasoline & MTBE-BTEX by EPA Method# 8015M-3-8020	MTBE by EPA Method# 8260	SOLVENTS by EPA Method# 8010	Fuel Oxygenates by EPA Method 8260	Title 22: General, Physical and Inorganic Minerals
DP-4 a - 2'	2/14/01							X				24432-013
DP-4 e 11.5'								X				014
DP-4 g @ 25'	25'							X				015
DP-4 g @ 27'	27'							X				016
DP-5 a 2'								X				017
DP-5 d 12'								X				018
DP-5 f 20'								X				019
DP-5 g 24'								X				020
DP-6 a 2'								X				021
DP-6 d 14'								X				022
DP-6 e 18'								X				023
DP-6 g 24'	↓							X				024

### RECEIVED BY:

Date & Time

### RELEASED BY:

Date & Time

### SAMPLE CONDITION:

(circle 1)

1) Sampler: <u>Chad Taylor</u>	<u>2/14/01 1700</u>	→	<u>Chad Taylor</u>	<u>2/15/01 1200</u>	Ambient	<input checked="" type="radio"/> Refrigerated	Frozen
2) <u>Chad Taylor</u>	<u>2/15/01 1300</u>	→	<u>Chad Taylor</u>	<u>2/15/01 1300</u>	Ambient	<input checked="" type="radio"/> Refrigerated	Frozen
3) <u>Mara Giusi</u>	<u>2/15/01 1300</u>	→		-	Ambient	<input type="radio"/> Refrigerated	<input type="radio"/> Frozen
4) _____	-	→		-	Ambient	<input type="radio"/> Refrigerated	<input type="radio"/> Frozen
5) _____	-	→		-	Ambient	<input type="radio"/> Refrigerated	<input type="radio"/> Frozen

### NOTES - Lab to complete the following if box is checked:

### Additional Comments

- If MTBE is detected by EPA Method 8020, please confirm detections by EPA Method 8260 with a detection limit of 0.05 mg/Kg, and report only confirmed 8260 detections
- For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits please confirm by EPA Method #8260, with a detection limit of 0.05 mg/Kg
- Please use MDL (Minimum Detection Limit) for MTBE for diluted samples if necessary to obtain the 0.05 mg/Kg detection limit



# Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

120 Westgate Dr., Watsonville, CA 95076

(831) 722-3580 (831) 662-3100

Fax (831) 722-1159

# CHAIN -OF-CUSTODY RECORD

PAGE 3 OF 4

PROJECT NAME AND JOB #: Harbert Transportation / H9042.B

LABORATORY: Entech Analytical

SEND CERTIFIED RESULTS TO: Chad Taylor

TURNAROUND TIME: Normal 24hr Rush 48hr Rush 72hr Rush

Sample ID# & Depth	Date	SAMPLE CONTAINERS				REQUESTED ANALYSIS						
		40 mL	1 Liter	mL	Liner	Total Petroleum Hydrocarbons			Volatile Organics		Additional Analysis	
		VOAs (preserved)	Amber Jars	Poly Bottle	Acetate or Brass	Extractable Fuel-Scan (w/Standard Silica-Gel-Cleanup)	Purgeable Fuel-Scan (w/MTBE & BTEX)	Gasoline & MTBE-BTEX by EPA Method# 8015M-8-8020	MTBE by EPA Method# 8260	SOLVENTS by EPA Method# 8010	Fuel Oxygenates by EPA Method 8260	Title 22- General, Physical and Inorganic Minerals
DP-7a	2'	2/14/01					X					2443A-025
DP-7d	14'						X					026
DP-7e	18'						X					027
DP-7g	24'						X					028
DP-8a	2'						X					029
DP-8d	13'						X					030
DP-8e	18'						X					031
DP-8g	24'						X					032
DP-9a	2'						X					033
DP-9d	13'						X					034
DP-9e	18'						X					035
DP-9g	24'						X					036

### RECEIVED BY:

Date & Time

### RELEASED BY:

Date & Time

### SAMPLE CONDITION:

(circle 1)

- 1) Sampler: [Signature]
- 2) CHMS009
- 3) Mara Guzman
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

- 1) 2/14/01 1200
- 2) 2/15/01 1200
- 3) 2/15/01 1300
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

- 1) [Signature]
- 2) CHMS009
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

- 1) 2/15/01 1200
- 2) 2/15/01 1300
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

- |         |                     |        |
|---------|---------------------|--------|
| Ambient | <u>Refrigerated</u> | Frozen |
| Ambient | <u>Refrigerated</u> | Frozen |
| Ambient | Refrigerated        | Frozen |
| Ambient | Refrigerated        | Frozen |
| Ambient | Refrigerated        | Frozen |

### NOTES - Lab to complete the following if box is checked:

- If MTBE is detected by EPA Method 8020, please confirm detections by EPA Method 8260 with a detection limit of 0.05 mg/Kg, and report only confirmed 8260 detections
- For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits please confirm by EPA Method #8260, with a detection limit of 0.05 mg/Kg
- Please use MDL (Minimum Detection Limit) for MTBE for diluted samples if necessary to obtain the 0.05 mg/Kg detection limit

### Additional Comments



# Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

120 Westgate Dr., Watsonville, CA 95076

(831) 722-3580 (831) 662-3100

Fax: (831) 722-1159

# CHAIN -OF-CUSTODY RECORD

PAGE 4 OF 4

PROJECT NAME AND JOB #: Harbert Transportation / H9042.B

LABORATORY: Entech Analytical

SEND CERTIFIED RESULTS TO: Chad Taylor

TURNAROUND TIME: Normal 24hr Rush 48hr Rush 72hr Rush

Sample ID# & Depth	Date	SAMPLE CONTAINERS				REQUESTED ANALYSIS						
		40 mL VOAs (preserved)	1 Liter Amber Jars	___ mL Poly Bottle	Liner Acetate or Brass	Total Petroleum Hydrocarbons			Volatile Organics		Additional Analysis	
						Extractable Fuel-Scan (w/Standard Silica-Gel-Cleanup)	Purgeable Fuel-Scan (w/MTBE & BTEX)	Gasoline & MTBE-BTEX by EPA Method# 8015M-&-8020	MTBE by EPA Method# 8260	SOLVENTS by EPA Method# 8010	Fuel Oxygenates by EPA Method 8260.	Title 22: General, Physical and Inorganic Minerals
DP- 9      24'	2/14/01	5						X				24432-037

RECEIVED BY:		Date & Time	RELEASED BY:	Date & Time	SAMPLE CONDITION: (circle 1)		
1) Sampler: <u>Chad Taylor</u>		<u>2/14/01 1700</u>	<u>Chad Taylor</u>	<u>2/15/01 1200</u>	Ambient	<u>Refrigerated</u>	Frozen
2) <u>Chad Taylor</u>		<u>2/15/01 1200</u>	<u>Chad Taylor</u>	<u>2/15/01 1300</u>	Ambient	<u>Refrigerated</u>	Frozen
3) <u>Mara Grubis</u>		<u>2/15/01 1300</u>		-	Ambient	Refrigerated	Frozen
4)		-		-	Ambient	Refrigerated	Frozen
5)		-		-	Ambient	Refrigerated	Frozen

**NOTES - Lab to complete the following if box is checked:**

If MTBE is detected by EPA Method 8020, please confirm detections by EPA Method 8260 with a minimum detection limit of 5 ug/L, and report only confirmed 8260 detections

For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits please confirm by EPA Method #8260.

Please use MDL (Minimum Detection Limit) for any diluted samples

Additional Comments

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

## **Appendix E**

# **Field Methodologies for Groundwater Monitoring and Field Data Forms**

## Appendix E

### Field Methodologies for Groundwater Monitoring

Weber, Hayes and Associates' groundwater monitoring field methodology is based on procedures specified in the *LUFT Field Manual*. The first step in groundwater well sampling is for Weber, Hayes and Associates 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 stabilize, 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 (see attached). 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 of approximately three to five well volumes of water. Purging is accomplished either by hand bailing or with a low flow submersible electric pump. During purging the physical parameters of temperature, conductivity, pH, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with field instruments to insure that these parameters have stabilized (are within 15 percent of the previous measurement). The dissolved oxygen content of the groundwater from each well is measured with a YSI Model 57 field meter (equipped with a membrane covered Clark-type polarographic sensor probe, with built-in thermistors for temperature compensation). 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.



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

INDICATE ATTACHMENTS THAT APPLY

<u>X</u>	Data Sheets
<u>X</u>	COC's
---	Site Map
---	Photo Sheet
<u>X</u>	Chargeable Materials

Job Name: <b>Harbert Transportation</b>	Date: <b>3/29/01</b>
Field Location: <b>19984 Meekland Avenue, Hayward</b>	Study #: <b>H9042.Q</b>
Field Tasks: <input type="checkbox"/> Drilling <input checked="" type="checkbox"/> Sampling <input checked="" type="checkbox"/> Other <b>1<sup>st</sup> Quarter 2001 Well Sampling</b>	Weather Conditions: <b>Mostly Cloudy</b>
Personnel/Company onsite: (Weber, Hayes and Associates) <b>Chad Taylor</b>	

**FIELD WORK PLANNING:** Performed on: ~~3/29/01~~ <sup>RE of 3/29/01</sup> 3/29/01

Meet with project manager: **X** yes, or no.

Number of wells to be sampled: **Ten Wells, with D.O in all wells**  
 Sample wells: **MW-3, 4, 5, 6, 7, 8, 9, 10, 11, 12 for TPH-g, BTEX, and MTBE.**

Proposed sampling date: **3/29/01**

**TIME:** **0600**

Arrive onsite to perform 1<sup>st</sup> Quarter Monitoring Well Sampling.

**COMMENTS:**

Send all analytical to Entech Analytical Laboratory.

**INITIALS:**

- All sampling is conducted according to Standard Operating Procedure (SOP) 10I  
 -Water Quality Sampling Information for each well sampled is recorded on following pages.  
 -Upon sampling, all samples are placed immediately in coolers containing blue ice.  
 -After sampling each well all equipment is decontaminated according to SOP 10B/  
 -All purge water is properly disposed in 55-gallon drums to be purged at a later date.  
 -All samples are recorded on field Chain-of-Custody Sheets for transport to Laboratory.

**BEGIN CALIBRATION:**

pH, EC, Temp Meter # 1: Temp = 59.7°F pH = 7.00 & 10.00, EC = 1413 µ/cm

Dissolved Oxygen Meter: Red-line , Zero , Temp = 15°C  
 Therefore, 10.08 mg/L = Solubility of Oxygen in fresh water.

**BEGIN SAMPLING ALL WELLS:**

MW-3 MW-4 MW-12 MW-11 MW-8 MW-10 MW-7 MW-6 MW-5 MW-9  
 -See information below for general monitoring well information this sampling round.

**COMMENTS:**

All well will be purged of four casing volumes in the column requiring sampling (see Water Quality Sampling Field Forms for details). Wells will be purged from bottom-up and will follow standard operating procedures by WHA. Wells will be sampled using a bladder pump, or disposable bailer.

Chad Taylor 3/29/01  
 Signature of Field Personnel & Date



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Fax: (831) 722-1159

Location	GW Depth (TOC)	Total Depth of Well	D.O. (mg/L)	Floating Product (comments).
MW-3	22.02'	40'	0.6	NoFP, No Odor
MW-4	22.22'	40'	0.5	NoFP, No Odor
MW-5	22.64'	45'	0.4	NoFP, Moderate Odor
MW-6	22.56'	45'	0.5	NoFP, Slight Odor
MW-7	23.10'	40'	0.5	NoFP, No Odor
MW-8	22.56'	40'	1.9	NoFP, No Odor
MW-9	21.61'	40'	0.4	NoFP, Moderate Odor.
MW-10	21.63'	40'	0.5	NoFP, Very Slight Odor.
MW-11	21.84'	40'	0.6	NoFP, No Odor
MW-12	22.98'	40'	1.0	NoFP, No Odor
/				
or 5/29/01				

HOW MANY PURGE DRUMS WERE LEFT ONSITE 8. APPROXIMATE GAL. 345.  
 CALL <sup>Clearwater</sup> BAYSIDE OIL ON 4/2/01 TO HAVE DRUMS PURGED.  
 DRUMS WILL BE PURGED ON 4/3-6/01.

### COMMENTS:

Chad H. [Signature] 3/21/01  
 Signature of Field Personnel & Date



# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / H4042.0 Date: 3/29/01

Sample No.: MW-3 Sample Location: MW-3

Samplers Name: Chad Tyler Recorded by: CT

**Purge Equipment:**  
 \_\_\_\_\_ Bailer: Disposable or Acrylic  
X Whaler # 2  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Sample Equipment:**  
 \_\_\_\_\_ X Disposable Bailer  
 \_\_\_\_\_ Whaler # \_\_\_\_\_  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Analyses Requested (circle all that apply):**  
TPH-gas (BTEX, MTBB, 1, 2, DCA, EDB, 8260 Fuel Oxygenates) **Number and Types of Bottle Used:**  
TPH-diesel, Stoddard Solvent 5 x 40 mL VOA's

Intrinsic Bio. Parameters

Well Number: MW-3 Well Diameter: 2" with Casing Volume of:  
 Depth to Water: 22.02 TOC 2" = (0.16 Gallon/Feet)  
 Well Depth: 40' BGS or TOC 4" = (0.65 Gallon/Feet)  
 Height W-Column: 17.98' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
 Volume in Well: 2.8768 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
 Gallons to purge: 11.51 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0943	0	610	64.3	6.48	Moderate: Light Brown, Minor Fines	1.3
0944	2	622	65.0	6.54	Low: Clear-Brown, Trace Fines	1.2
0945	4	607	65.2	6.59	Low: Clear, Trace Fines	0.7
0946	6	614	65.3	6.61	↓	0.6
0947	8	605	65.4	6.62	↓	0.6
0948	10	608	65.4	6.62	↓	0.6
0949	12	615	65.4	6.65	↓ ↓ ↓	0.6
STOP - Purge Complete. W-A Air 80% Well Recovery. See Details Below.						
/ CT 3/29/01						

**Wait for 80% well volume recovery prior to sampling.**

Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:

Original Height of Water Column = 17.11' x 0.8 = 14.389' - (Well Depth) 40' = Depth to water 25.62'

Time: 0951 1st measured depth to water, 22.91' feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Time: CT 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_

### Sample Well

Time: 0951 Sample ID: MW-3 Depth: 22.91' feet below TOC

Comments: No Floating Product. No Odor

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H9042.0 Date: 3/29/01

Sample No.: Mw.4 Sample Location: Mw.4

Samplers Name: Chad Taylor Recorded by: CT

<b>Purge Equipment:</b> _____ Bailer: Disposable or Acrylic <u>X</u> _____ Whaler # <u>1</u> _____ Bladder Pump _____ Submersible Pump	<b>Sample Equipment:</b> _____ <u>Y</u> _____ Disposable Bailer _____ Whaler # _____ _____ Bladder Pump _____ Submersible Pump
--	--

Analyses Requested (circle all that apply): TPH-gas, BTEX, MTBE, 1, 2-DCA, EDB, 8200 Fuel Oxygenates  
 Number and Types of Bottle Used: 5 x 40mL VOA'S

~~TPH-diesel, Stoddard Solvent~~

~~Intrinsic Bio-Parameters~~

<b>Well Number:</b> <u>Mw.4</u> <b>Depth to Water:</b> <u>22.22'</u> TOC <b>Well Depth:</b> <u>40'</u> BGS or TOC <b>Height W-Column:</b> <u>17.78'</u> feet (well depth - depth to water) <b>Volume in Well:</b> <u>2.8448</u> gallons (casing volume X height) <b>Gallons to purge:</b> <u>11.38</u> gallons (volume X 4)	<b>Well Diameter:</b> <u>2"</u> with Casing Volume of: 2" = (0.16 Gallon/Feet) 4" = (0.65 Gallon/Feet) 5" = (1.02 Gallon/Feet) 6" = (1.47 Gallon/Feet) 8" = (2.61 Gallon/Feet)
--	---

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0734	0	495	58.3	6.47	High: Light-Brown, Many Fines	1.3
0736	2	585	62.1	6.60	Moderate: Light Brown, Minor Fines	0.8
0737	4	621	63.3	6.64	↓ ↓ ↓	0.6
0739	6	629	63.3	6.65	Low: Clear-Brown, Minor Fines	0.6
0741	8	638	63.9	6.65	Low: Clear-Brown, Trace Fines	0.6
0742	10	650	64.2	6.65	Low: Clear, Trace Fines	0.5
0744	12	651	64.2	6.64	↓ ↓ ↓	0.5
STOP - Purge Complete. Wait for 80% Well Recovery. See Details Below.						
<u>Let stabilize</u>						

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column = 17.78' x 0.8 = 14.224' - (Well Depth) 40' = Depth to water 25.78'

Time: <u>0746</u> 1st measured depth to water, <u>22.33'</u> feet below TOC.	Is well within 80% of original well casing volume: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Time: <u>Let</u> 1st measured depth to water, <u>Let</u> feet below TOC.	Is well within 80% of original well casing volume: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

### Sample Well

Time: 0746 Sample ID: Mw.4 Depth: 22.33' feet below TOC

Comments: No Floating Product. No Odor.

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbor Transportation / H9042.0 Date: 3/29/01

Sample No.: MU.5 Sample Location: MU.5

Samplers Name: Chad Taylor Recorded by: CT

**Purge Equipment:**  
 \_\_\_\_\_ Bailer: Disposable or Acrylic  
X Whaler # 3  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Sample Equipment:**  
X Disposable Bailer  
 \_\_\_\_\_ Whaler # \_\_\_\_\_  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Analyses Requested (circle all that apply):**  
TPH-gas, BTEX, MTBE, 1,2-DCA, EDB, 8260 Fuel Oxygenates

**Number and Types of Bottle Used:**  
5x40-LUOA's

TPH-diesel, Stoddard Solvent

Intrinsic Bio. Parameters

Well Number: MU.5 Well Diameter: 4" with Casing Volume of:  
 Depth to Water: 22.69' TOC 2" = (0.16 Gallon/Feet)  
 Well Depth: 45' BGS or TOC 4" = (0.65 Gallon/Feet)  
 Height W-Column: 22.31' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
 Volume in Well: 14.5015 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
 Gallons to purge: 58.00 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
<del>1347</del> <del>1351</del>	<del>0</del> <del>5</del>	<del>454</del> <del>444</del>	<del>66.0</del> <del>67.4</del>	<del>6.51</del> <del>6.57</del>	<del>High: Very Dark Gray, Mod Fines</del> <del>Medium: Dark Gray, Mod Fines</del>	<del>0.3</del> <del>0.5</del>
<del>1351</del> <del>1358</del>	<del>10</del> <del>15</del>	<del>466</del> <del>459</del>	<del>67.5</del> <del>66.8</del>	<del>6.62</del> <del>6.62</del>	<del>Low: Clear-Gray, Minor Fines</del> <del>Low: Clear-Gray, Minor Fines</del>	<del>0.6</del> <del>0.5</del>
<del>1402</del> <del>1406</del>	<del>20</del> <del>25</del>	<del>447</del> <del>451</del>	<del>66.5</del> <del>66.3</del>	<del>6.65</del> <del>6.67</del>	<del>Low: Clear-Gray, Minor Fines</del> <del>Low: Clear, Trace Fines</del>	<del>0.5</del> <del>0.5</del>
<del>1411</del> <del>1415</del>	<del>30</del> <del>35</del>	<del>460</del> <del>459</del>	<del>66.2</del> <del>66.5</del>	<del>6.69</del> <del>6.64</del>	<del>Low: Clear, Trace Fines</del> <del>Low: Clear, Trace Fines</del>	<del>0.5</del> <del>0.5</del>
1419	40	463	66.9	6.71	Low: Clear, Trace Fines	0.5
1424	45	458	66.9	6.71	↓ ↓ ↓	0.4
1429	50	472	66.0	6.70	↓ ↓ ↓	0.4
1434	55	461	66.1	6.76	↓ ↓ ↓	0.4
1440	60	450	65.1	6.72	↓ ↓ ↓	0.4

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column = 22.31' x 0.8 = 17.848' - (Well Depth) 45' = Depth to water 27.152

Time: 1441 1st measured depth to water, 22.81' feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Time: CT 1st measured depth to water, CT feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_  
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes  No \_\_\_\_\_

## Sample Well

Time: 1441 Sample ID: MU.5 Depth: 27.81' feet below TOC

Comments: No Floating Product. Moderate Odor.

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H9042.0 Date: 3/29/01

Sample No.: MW.6 Sample Location: MW.6

Samplers Name: Chad Taylor Recorded by: CT

Purge Equipment:      Bailer: Disposable or Acrylic  
  X   Whaler #   2+3    
     Bladder Pump  
     Submersible Pump

Sample Equipment:  
  X   Disposable Bailer  
     Whaler #       
     Bladder Pump  
     Submersible Pump

Analyses Requested (circle all that apply):  
  TPH-gas, BTEX, MTBE, 1, 2-DCA, EDB, 9260 Fuel Oxygenates    
~~TPH-diesel, Stoddard Solvent~~  
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used:  
  5 x 40 mL UOAS  

Well Number:   MW.6   Well Diameter:   4"   with Casing Volume of:  
Depth to Water:   22.56'   TOC   2" = (0.16 Gallon/Feet)    
Well Depth:   45'   BGS or TOC   4" = (0.65 Gallon/Feet)    
Height W-Column:   21.44'   feet (well depth - depth to water)   5" = (1.02 Gallon/Feet)    
Volume in Well:   13.136   gallons (casing volume X height)   6" = (1.47 Gallon/Feet)    
Gallons to purge:   55.74   gallons (volume X 4)   8" = (2.61 Gallon/Feet)  

Lab:   Entech   Transportation:   Courier  

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
<del>1237</del> 1241	<del>0</del> 5	<del>417</del> 440	<del>66.8</del> 67.4	<del>6.58</del> 6.65	<del>High: Gray, Many Fines</del>	<del>0.2</del>
<del>1245</del> 1249	<del>10</del> 15	<del>436</del> 424	<del>67.5</del> 66.8	<del>6.67</del> 6.77	<del>Low: Clear, Brown Turb</del>	<del>0.7</del>
<del>1253</del> 1258	<del>20</del> 25	<del>421</del> 439	<del>67.6</del> 67.4	<del>6.76</del> 6.73	<del>Low: Clear, Turb Fines</del>	<del>1.0</del>
1302	30	428	67.1	6.68	Low: Clear, Turb Fines	0.7
1306	35	445	67.5	6.72	↓	0.6
1311	40	441	67.4	6.70	↓	0.5
1316	45	435	66.8	6.67	↓	0.5
1320	50	450	66.7	6.70	↓	0.5
1324	55	450	67.0	6.65	↓	0.5

**Wait for 80% well volume recovery prior to sampling.**  
Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
Original Height of Water Column =  $21.44' \times 0.8 = 17.152'$  - (Well Depth)  $45'$  = Depth to water  $27.81'$

Time:   1326   1st measured depth to water,   22.67'   feet below TOC. Is well within 80% of original well casing volume: Yes  No   
Time:   1327   1st measured depth to water,   22.67'   feet below TOC. Is well within 80% of original well casing volume: Yes  No   
Time:   1328   1st measured depth to water,   22.67'   feet below TOC. Is well within 80% of original well casing volume: Yes  No

### Sample Well

Time:   1326   Sample ID:   MW.6   Depth:   22.67'   feet below TOC

Comments:   No Floating Product. Slight Odor.

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H 9042.0 Date: 3/27/01

Sample No.: MW-7 Sample Location: MW-7

Samplers Name: Chad Taylor Recorded by: CT

**Purge Equipment:**  
 Bailer: Disposable or Acrylic  
 Whaler # 2  
 Bladder Pump  
 Submersible Pump

**Sample Equipment:**  
 Disposable Bailer  
 Whaler # \_\_\_\_\_  
 Bladder Pump  
 Submersible Pump

**Analyses Requested (circle all that apply):**  
 TPH-gas,  BTEX,  MTBE,  1,2-DCA,  EDB,  8260 Fuel Oxygenates  
 TPH diesel,  Stoddard Solvent

**Number and Types of Bottle Used:**  
5x40ml VOA's

~~Intrinsic Bio. Parameters~~

**Well Number:** MW-7 **Well Diameter:** 4" with Casing Volume of:  
**Depth to Water:** 23.10 TOC 2" = (0.16 Gallon/Feet)  
**Well Depth:** 40' BGS or TOC **4" = (0.65 Gallon/Feet)**  
**Height W-Column:** 16.90' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
**Volume in Well:** 10.985 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
**Gallons to purge:** 43.94 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
<del>1128</del> 1131	<del>0</del> 5	<del>475</del> 454	<del>73.1</del> 70.9	<del>6.62</del> 6.78	<del>High Light Brown, Many Fines</del> High: Brown, Many Fines	<del>0.7</del> 0.6
1135	10	457	70.0	6.82	Low: Clear-Brown, Minor Fines	0.5
1138	15	460	69.4	6.80	Low: Clear, Trace Fines	0.5
1141	20	457	70.1	6.78	↓	0.6
1145	25	449	69.2	6.81	↓	0.5
1149	30	456	69.3	6.82	↓	0.5
1153	35	445	69.5	6.78	↓	0.5
1156	40	450	70.0	6.74	↓	0.5
1200	45	451	69.2	6.71	↓	0.5

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $16.90 \times 0.8 = 13.52'$  - (Well Depth)  $40' =$  Depth to water  $26.48'$

Time: 1202 1st measured depth to water, 23.48' feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: ~~\_\_\_\_\_~~ 1st measured depth to water, ~~\_\_\_\_\_~~ feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: ~~\_\_\_\_\_~~ 1st measured depth to water, ~~\_\_\_\_\_~~ feet below TOC. Is well within 80% of original well casing volume: Yes  No

## Sample Well

Time: 1202 Sample ID: MW-7 Depth: 23.48' feet below TOC

Comments: No Flow by Product, No Odor

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / H9042-G Date: 3/29/01

Sample No.: MW-8 Sample Location: MW-8

Samplers Name: Chad Taylor Recorded by: CT

**Purge Equipment:**  
 \_\_\_\_\_ Bailer: Disposable or Acrylic  
X Whaler # 1  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Sample Equipment:**  
X Disposable Bailer  
 \_\_\_\_\_ Whaler # \_\_\_\_\_  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Analyses Requested (circle all that apply):**  
TPH-gas, BTEX, MTBE, 1, 2-DGA, EDB, 0260 Fuel Oxygenates  
~~TPH diesel, Stoddard Solvent~~  
~~Intrinsic Bio. Parameters~~

**Number and Types of Bottle Used:**  
5x40mL VOA's

**Well Number:** MW-8 **Well Diameter:** 4" with Casing Volume of:  
**Depth to Water:** 22.86' TOC 2" = (0.16 Gallon/Feet)  
**Well Depth:** 40' BGS or TOC 4" = (0.65 Gallon/Feet)  
**Height W-Column:** 17.44' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
**Volume in Well:** 11.336 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
**Gallons to purge:** 45.34 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
<del>0636</del> <del>0639</del>	<del>0</del> <del>5</del>	<del>457</del> <del>467</del>	<del>59.4</del> <del>61.7</del>	<del>6.71</del> <del>6.78</del>	<del>Mudentic Brown, Mod Fines</del> <del>low: Clear, Brown, Minor Fines</del>	<del>1.7</del> <del>1.1</del>
<del>0643</del> <del>0647</del>	<del>10</del> <del>15</del>	<del>489</del> <del>490</del>	<del>62.0</del> <del>62.1</del>	<del>6.84</del> <del>6.83</del>	<del>low: Clear, Trace Fines</del> <del>low: Clear, Trace Fines</del>	<del>1.5</del> <del>1.8</del>
0651	20	488	62.1	6.79	low: Clear, Trace Fines	1.9
0655	25	479	61.8	6.81	↓ ↓ ↓ ↓ ↓ ↓ ↓	1.9
0659	30	496	61.9	6.83		1.8
0703	35	500	62.2	6.86		1.9
0707	40	504	62.3	6.84		1.9
0711	45	495	62.2	6.84		1.9
0715	50	488	62.1	6.82		1.9

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $17.44' \times 0.8 = 13.952'$  - (Well Depth) 40' = Depth to water 26.05'

Time: 0717 1st measured depth to water, 23.87' feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: CT 1st measured depth to water, CT feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: CT 1st measured depth to water, CT feet below TOC. Is well within 80% of original well casing volume: Yes  No

### Sample Well

Time: 0717 Sample ID: MW-8 Depth: 23.87' feet below TOC

Comments: No Floating Product. No Odor

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H 9042.0 Date: 3/29/11

Sample No.: MU.9 Sample Location: MU.9

Samplers Name: Chait Taylor Recorded by: CT

**Purge Equipment:**  
 Bailer: Disposable or Acrylic  
 Whaler # 3  
 Bladder Pump  
 Submersible Pump

**Sample Equipment:**  
 Disposable Bailer  
 Whaler # \_\_\_\_\_  
 Bladder Pump  
 Submersible Pump

**Analyses Requested (circle all that apply):**  
(PH-gas) (BTEX) (MTBE) 1,2-DGA, EDB, 8260 Fuel Oxygenates  
IPH diesel, Stoddard Solvent

**Number and Types of Bottle Used:**  
5 x 40mL VOA's

~~Intrinsic Bio. Parameters~~

**Well Number:** MU.9 **Well Diameter:** 4" with Casing Volume of:  
**Depth to Water:** 21.81' TOC 2" = (0.16 Gallon/Feet)  
**Well Depth:** 40' BGS or TOC 4" = (0.65 Gallon/Feet)  
**Height W-Column:** 18.39' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
**Volume in Well:** 11.935 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
**Gallons to purge:** 47.81 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
1501 / 1505	0 / 5	459 / 466	66.8 / 70.9	6.43 / 6.70	High: Dark Gray, Many Fines Low: Clear, Gray, Many Fines	0.2 / 0.3
1510 / 1515	10 / 15	466 / 458	70.7 / 67.1	6.73 / 6.71	Low: Clear, Trace Fines Low: Clear, Trace Fines	0.5 / 0.4
1527	20	469	72.1	6.69	Low: Clear, Trace Fines	0.4
1535	25	471	71.8	6.68		0.4
1543	30	467	69.5	6.69		0.5
1551	35	462	69.3	6.69		0.3
1600	40	465	67.7	6.67		0.4
1610	45	460	67.6	6.71		0.4
1620	50	458	67.4	6.69		0.4

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column = 18.39' x 0.8 = 14.712' - (Well Depth) 40' = Depth to water 25.29'

Time: 1623 1st measured depth to water, 21.85' feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: 1623 1st measured depth to water, 21.85' feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: 1623 1st measured depth to water, 21.85' feet below TOC. Is well within 80% of original well casing volume: Yes  No

### Sample Well

Time: 1623 Sample ID: MU.9 Depth: 21.85' feet below TOC

Comments: No Floating Product. Moderate Odor.

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbor Transport / H9042.0 Date: 3/29/01

Sample No.: MW-10 Sample Location: MW-10

Samplers Name: Chad Tyler Recorded by: CT

Purge Equipment: Bailer: Disposable or Acrylic  
 Whaler # 2  
 Bladder Pump  
 Submersible Pump

Sample Equipment:  Disposable Bailer  
 Whaler # \_\_\_\_\_  
 Bladder Pump  
 Submersible Pump

Analyses Requested (circle all that apply):  
 PH-gas,  BTEX,  MTBE, 1, 2-DCA, EDB, 8260 Fuel Oxygenates  
 TPH-diesel, Stoddard Solvent

Number and Types of Bottle Used: 5 x 40 mL VOA's

Intrinsic Bio. Parameters

Well Number: MW-10 Well Diameter: 4" with Casing Volume of:  
 Depth to Water: 21.63' TOC 2" = (0.16 Gallon/Feet)  
 Well Depth: 40' BGS or TOC 4" = (0.65 Gallon/Feet)  
 Height W-Column: 18.37' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
 Volume in Well: 11.9405 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
 Gallons to purge: 47.76 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Entech Transportation: Carrier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
<del>1024</del>	<del>0</del>	<del>812</del>	<del>69.1</del>	<del>6.65</del>	<del>High: Gray-Brown, Many Fines</del>	<del>0.2</del>
<del>1027</del>	<del>5</del>	<del>594</del>	<del>68.9</del>	<del>6.68</del>	<del>Low: Clear-Brown, Minor Fines</del>	<del>0.6</del>
<del>1030</del>	<del>10</del>	<del>590</del>	<del>68.1</del>	<del>6.60</del>	<del>Low: Clear-Brown, Minor</del>	<del>0.5</del>
<del>1033</del>	<del>15</del>	<del>587</del>	<del>68.2</del>	<del>6.58</del>	<del>Low: Clear, Trace Fines</del>	<del>0.5</del>
1036	20	581	66.1	6.54	Low: Clear, Trace Fines	0.4
1039	25	590	67.2	6.54	↓ ↓ ↓	0.5
1043	30	586	67.1	6.55		0.5
1047	35	587	67.0	6.56		0.3
1050	40	602	67.6	6.59		0.6
1053	45	591	67.2	6.62		0.4
1057	50	613	68.7	6.72		0.5

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column = \_\_\_\_\_ x 0.8 = 14.696' - (Well Depth) 40' = Depth to water 25.30'

Time: 1054 1st measured depth to water, 21.58' feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: \_\_\_\_\_ 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: CT 1st measured depth to water, \_\_\_\_\_ feet below TOC. Is well within 80% of original well casing volume: Yes  No

### Sample Well

Time: 1054 Sample ID: 21.58' MW-10 Depth: 21.58' feet below TOC

Comments: No Floating Product. Very slight odor.



# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / 11042.0 Date: 3/29/01

Sample No.: MW-11 Sample Location: MW-11

Samplers Name: Chad Taylor Recorded by: CT

<b>Purge Equipment:</b> <input type="checkbox"/> Bailer: Disposable or Acrylic <input checked="" type="checkbox"/> Whaler # <u>1</u> <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Submersible Pump	<b>Sample Equipment:</b> <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Whaler # _____ <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Submersible Pump
--	--

Analyses Requested (circle all that apply): TPH-gas, BTEX, MTBE, 1,2-DCA, EDB, 8260-Fuel Oxygenates Number and Types of Bottle Used: 5x40mL VOA's

~~TPH-diesel, Stoddard Solvent~~

~~Intrinsic Bio. Parameters~~

Well Number: <u>MW-11</u> Depth to Water: <u>21.84'</u> TOC Well Depth: <u>40'</u> BGS or TOC Height W-Column: <u>18.16'</u> feet (well depth - depth to water) Volume in Well: <u>2.9054</u> gallons (casing volume X height) Gallons to purge: <u>11.62</u> gallons (volume X 4)	Well Diameter: <u>2"</u> with Casing Volume of: 2" = (0.16 Gallon/Feet) 4" = (0.65 Gallon/Feet) 5" = (1.02 Gallon/Feet) 6" = (1.47 Gallon/Feet) 8" = (2.61 Gallon/Feet)
---	--

Lab: Entech Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0852	0	163	63.0	6.53	High: Light Brown, Moderate Fines	0.4
0853	2	832	64.9	6.61		1.7
0855	4	888	65.4	6.64	Moderate: Light Brown, Mod Fines	1.1
0857	6	871	65.3	6.60	Low: Clear Brown, Minor Fines	0.6
0858	8	854	65.4	6.59	Low: Clear, Trace Fines	0.6
0859	10	875	65.7	6.59	↓ ↓ ↓	0.6
0901	12	904	66.7	6.63	↓ ↓ ↓	0.6
STOP - Purge Complete. Wait for 80% well recovery - see Details Below.						

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $18.16' \times 0.8 = 14.528'$  - (Well Depth) 40' = Depth to water 25.47'

Time: <u>0903</u> 1st measured depth to water, <u>21.98'</u> feet below TOC.	Is well within 80% of original well casing volume: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Time: <u>CT</u> 1st measured depth to water, <u>CT</u> feet below TOC.	Is well within 80% of original well casing volume: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

### Sample Well

Time: 0903 Sample ID: MW-11 Depth: 21.98 feet below TOC

Comments: No Floating Product. No Odor.

# WATER QUALITY SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / H 1042.0 Date: 3/29/01

Sample No.: MU-12 Sample Location: MU-12

Samplers Name: Chad Taylor Recorded by: CT

**Purge Equipment:**  
 \_\_\_\_\_ Bailer: Disposable or Acrylic  
X Whaler # 1  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Sample Equipment:**  
X Disposable Bailer  
 \_\_\_\_\_ Whaler # \_\_\_\_\_  
 \_\_\_\_\_ Bladder Pump  
 \_\_\_\_\_ Submersible Pump

**Analyses Requested (circle all that apply):**  
TPH-gas BTEX MTBE 1,2-DCA EDB 8260 Fuel Oxygenates  
TPH diesel, Stoddard Solvent

**Number and Types of Bottle Used:**  
5 x 40ml VOA's

Intrinsic Bio. Parameters

**Well Number:** MU-12 **Well Diameter:** 2" with Casing Volume of:  
**Depth to Water:** 22.91' TOC 2" = (0.16 Gallon/Feet)  
**Well Depth:** 40' BGS or TOC 4" = (0.65 Gallon/Feet)  
**Height W-Column:** 17.09' feet (well depth - depth to water) 5" = (1.02 Gallon/Feet)  
**Volume in Well:** 2.7344 gallons (casing volume X height) 6" = (1.47 Gallon/Feet)  
**Gallons to purge:** 10.94 gallons (volume X 4) 8" = (2.61 Gallon/Feet)

Lab: Envil Transportation: Courier

Time (24 hr.)	Volume Purged (Gallons)	Conductivity (µs/cm)	Temperature (°F)	pH	Turbidity: Color, Fines	D.O. (ppm)
0804	0	466	60.0	6.49	Low: Clear-Brown, Minor Fines	2.0
0805	2	543	62.2	6.55	Low: Clear, Trace Fines	0.7
0807	4	549	63.0	6.57	↓ ↓ ↓	0.7
0809	6	554	63.3	6.59		0.8
0810	8	555	63.6	6.61		0.9
0811	10	556	63.8	6.61		1.0
0813	12	556	63.8	6.62		1.0
STOP-Purge Complete. Wait for 80% well recovery. See Details Below.						
CT 3/29/01						

**Wait for 80% well volume recovery prior to sampling.**  
 Calculate depth to water (from TOC), for 80% well volume recovery:

Calculate 80% of original well volume:  
 Original Height of Water Column =  $17.09 \times 0.8 = 13.672'$  - (Well Depth) 40' = Depth to water 26.33'

Time: 0815 1st measured depth to water, 22.90' feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: CT 1st measured depth to water, CT feet below TOC. Is well within 80% of original well casing volume: Yes  No   
 Time: CT 1st measured depth to water, CT feet below TOC. Is well within 80% of original well casing volume: Yes  No

### Sample Well

Time: 0815 Sample ID: MU-12 Depth: 22.90' feet below TOC

Comments: No Floating Product. No Odor.

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

## **Appendix F**

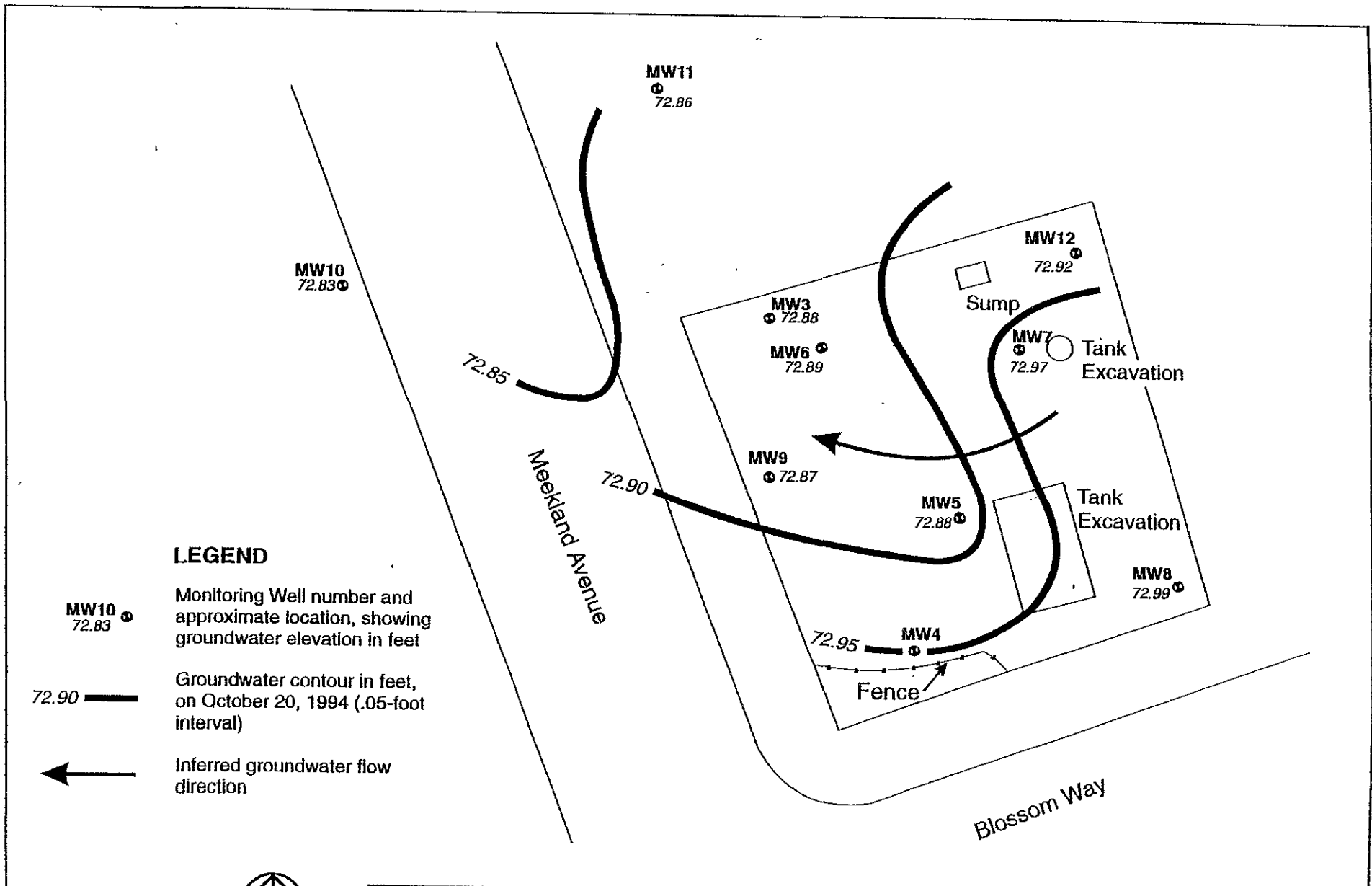
### **Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc.**

**Table 1**  
**Groundwater Elevation Data**  
Harbert Transportation/Meekland Avenue  
Hayward, California

Well Number	Date Sampled	Top of Casing Elevation (feet)	Depth to Groundwater (ft bgs)	Groundwater Elevation (feet)
MW3	10/20/94	100.00	27.12	72.88
	09/15/95		24.22	75.78
	03/14/96		19.02	80.98
	09/26/96		23.61	76.39
MW4	10/20/94	100.27	27.32	72.95
	09/15/95		24.42	75.85
	03/14/96		19.23	81.04
	09/26/96		23.85	76.42
MW5	10/20/94	100.59	27.71	72.88
	09/15/95		24.87	75.72
	03/14/96		19.95	80.64
	09/26/96		24.38	76.21
MW6	10/20/94	100.57	27.68	72.89
	09/15/95		24.79	75.78
	03/14/96		19.54	81.03
	09/26/96		24.20	76.37
MW7	10/20/94	101.22	28.25	72.97
	09/15/95		25.35	75.87
	03/14/96		20.06	81.16
	09/26/96		24.75	76.47
MW8	10/20/94	100.72	27.73	72.99
	09/15/95		24.81	75.91
	03/14/96		19.52	81.20
	09/26/96		24.13	76.59
MW9	10/20/94	99.77	26.90	72.87
	09/15/95		24.01	75.76
	03/14/96		18.80	80.97
	09/26/96		23.50	76.27
MW10	10/20/94	99.29	26.46	72.83
	09/15/95		23.79	75.50
	03/14/96		18.62	80.67
	09/26/96		23.30	75.99
MW11	10/20/94	99.75	26.89	72.86
	09/15/95		24.05	75.70
	03/15/96		18.79	80.96
	09/26/96		23.53	76.22
MW12	10/20/94	101.03	28.11	72.92
	09/15/95		25.19	75.84
	03/14/96		19.84	81.19
	09/26/96		24.57	76.46

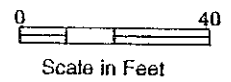
Note:

ft bgs - Feet below ground surface.

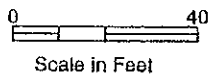
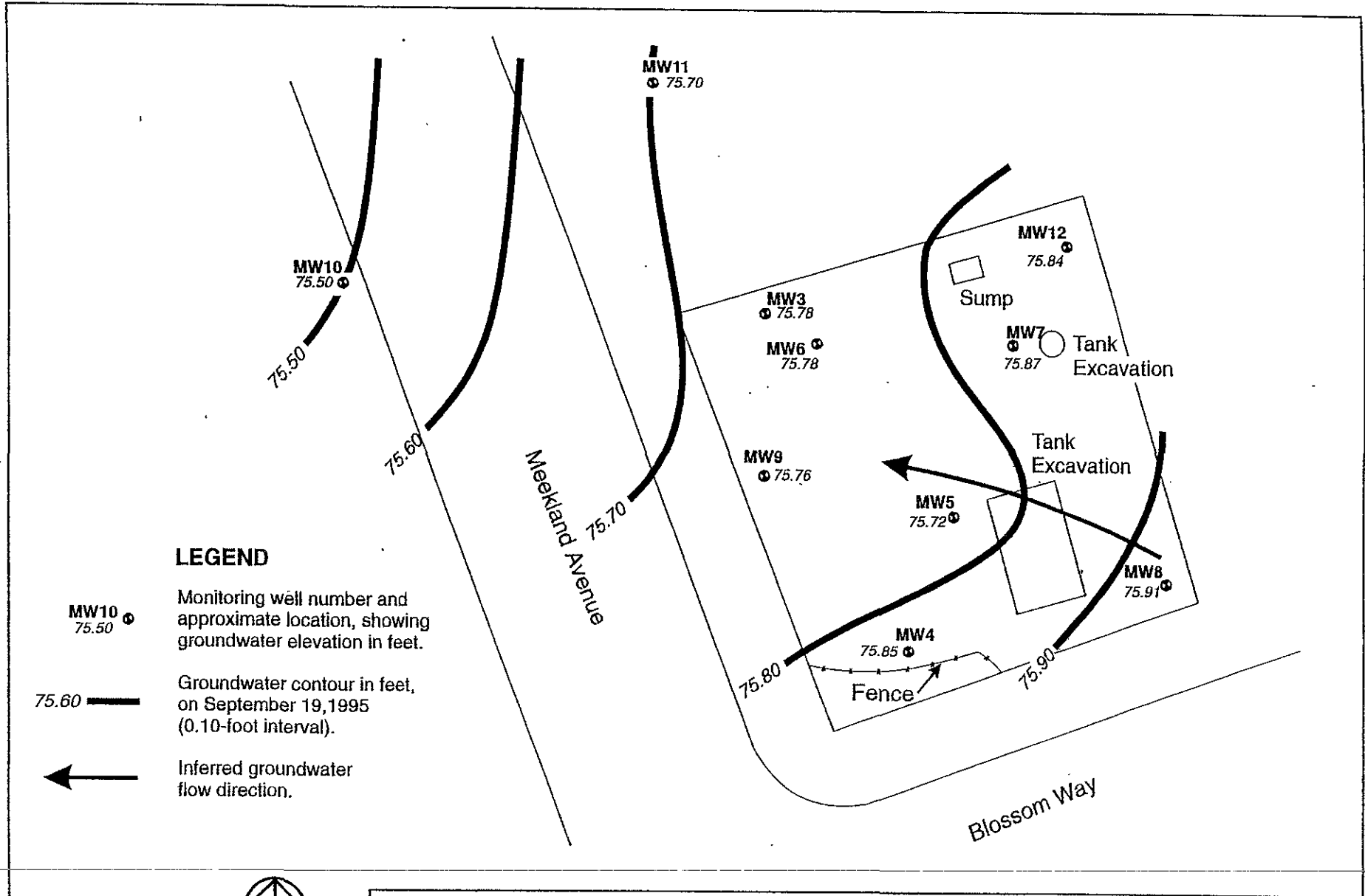


**LEGEND**

- MW10 72.83
- Monitoring Well number and approximate location, showing groundwater elevation in feet
- 72.90
- Groundwater contour in feet, on October 20, 1994 (.05-foot interval)
- 
- Inferred groundwater flow direction



<b>AGI</b> TECHNOLOGIES	<b>Groundwater Elevation and Contour Map</b> 10/20/94 <small>FIGURE</small>				<b>3</b>
	Harbert Transportation/Meekland Avenue Hayward, California				
PROJECT NO. 15,833.002	DRAWN DFF	DATE 29 August 94	APPROVED 	REVISED DFF	DATE 23 Nov 94



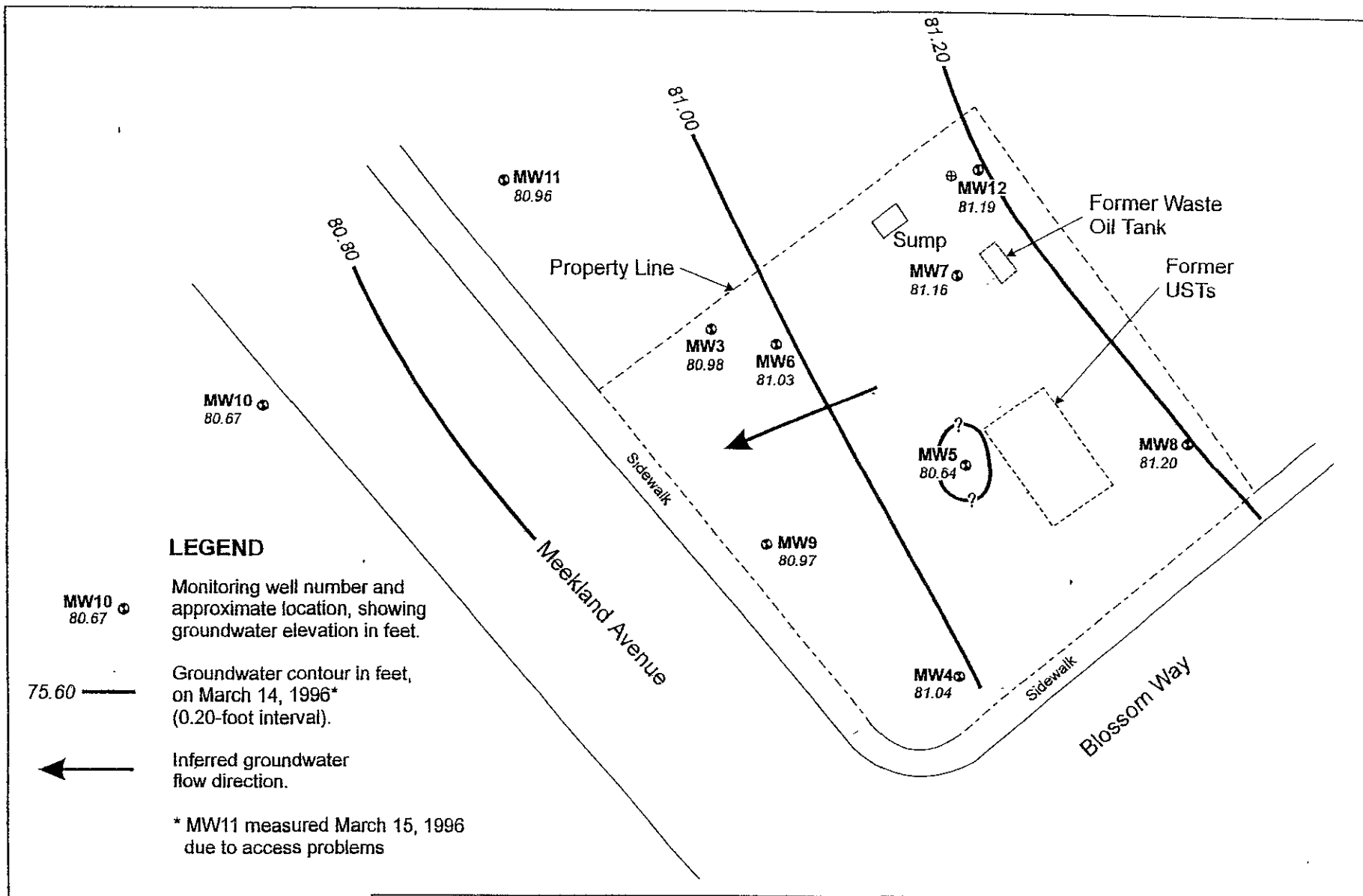
**AGI**  
TECHNOLOGIES

**Groundwater Elevation and Contour Map** 9.19.95

Harbert Transportation/Meekland Avenue  
Hayward, California

**3**

PROJECT NO 15,833.002	DRAWN DFF	DATE 29 August 94	APPROVED 	REVISED BJA	DATE 8 Nov 95
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**LEGEND**

MW10  
80.67

Monitoring well number and approximate location, showing groundwater elevation in feet.

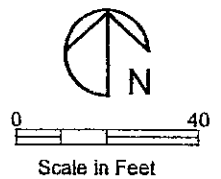
75.60

Groundwater contour in feet, on March 14, 1996\* (0.20-foot interval).



Inferred groundwater flow direction.

\* MW11 measured March 15, 1996 due to access problems



**AGI**  
TECHNOLOGIES

**Groundwater Elevation and Contour Map**

Harbert Transportation/Meekland Avenue  
Hayward, California

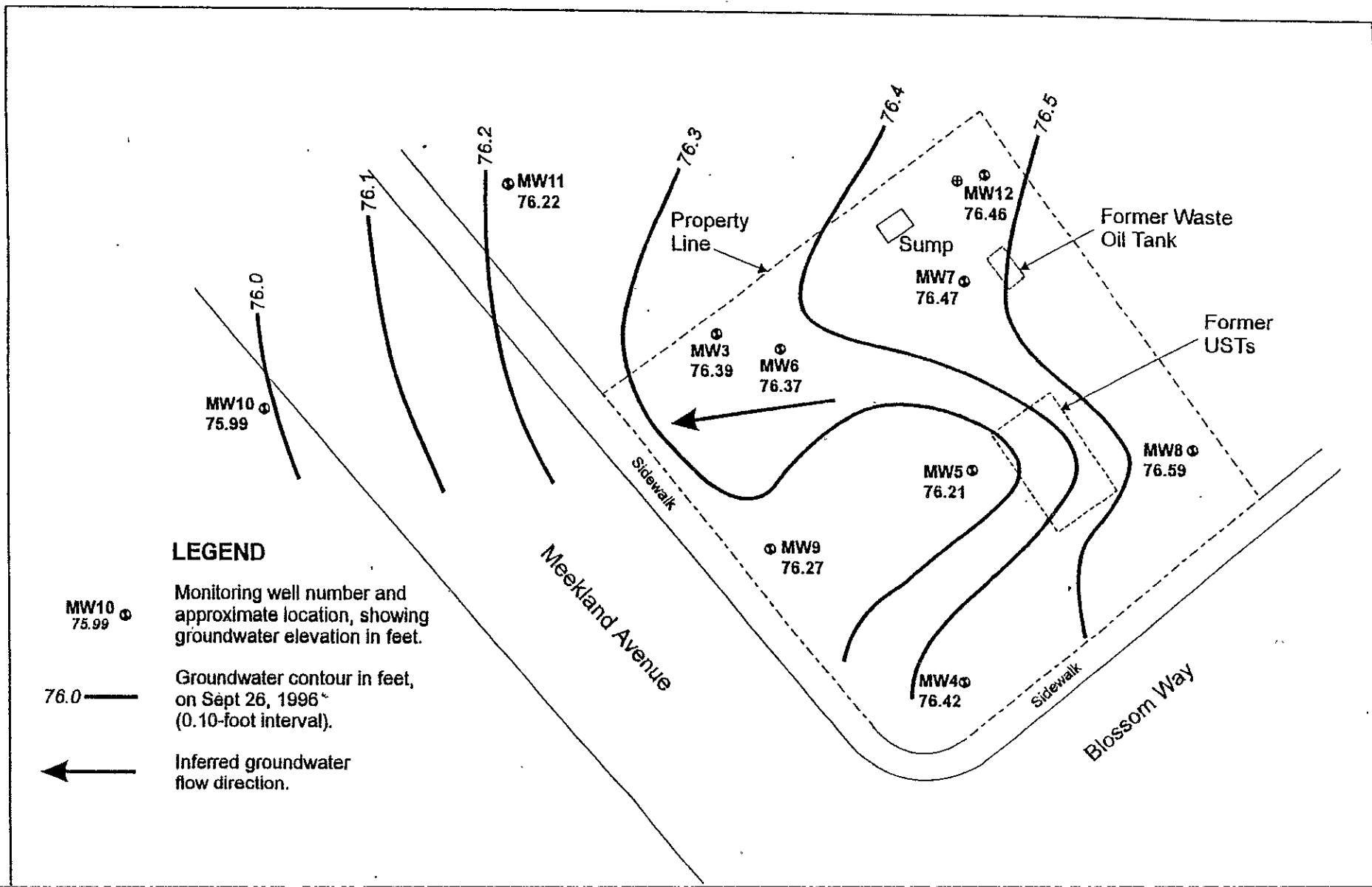
FIGURE

3.14.96




**3**

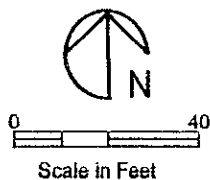
PROJECT NO 15,833.002	DRAWN DFF	DATE 29 August 94	APPROVED <i>[Signature]</i>	REVISED ALW	DATE 15 Apr 96
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gw-mar96.cdr



**LEGEND**

- MW10 75.99  Monitoring well number and approximate location, showing groundwater elevation in feet.
- 76.0  Groundwater contour in feet, on Sept 26, 1996 (0.10-foot interval).
-  Inferred groundwater flow direction.




**AGI**  
TECHNOLOGIES

**Groundwater Elevation and Contour Map**

Harbert Transportation/Meekland Avenue  
Hayward, California

FIGURE  
**3**

gw:sep96.cdr	PROJECT NO. 15,833.002	DRAWN DFF	DATE 29 August 94	APPROVED 	REVISED ALW	DATE 15 Apr 96
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9.26.96



Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

**Appendix G**  
**Certified Analytical Report - Groundwater Samples**

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

April 17, 2001

Chad Taylor  
Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076

**Order:** 25018

**Date Collected:** 3/29/01

**Project Name:** Harbert Transportation

**Date Received:** 3/30/01

**Project Number:** H9042.Q

**P.O. Number:** H9042.Q

**Project Notes:**

On March 30, 2001, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	MTBE by EPA 8260B	EPA 8260B

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,



Michelle L. Anderson  
Lab Director

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/17/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

<b>Order ID:</b> 25018	<b>Lab Sample ID:</b> 25018-003	<b>Client Sample ID:</b> MW-5							
<b>Sample Time:</b>	<b>Sample Date:</b> 3/29/01	<b>Matrix:</b> Liquid							
<b>Parameter</b>	<b>Result</b>	<b>Flag</b>	<b>DF</b>	<b>MDL</b>	<b>DLR</b>	<b>Units</b>	<b>Analysis Date</b>	<b>QC Batch ID</b>	<b>Method</b>
Methyl-t-butyl Ether	ND		10	0.3	3	µg/L	4/11/01	WMS3010410	EPA 8260B
	<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
	4-Bromofluorobenzene			112			65 - 135		
	Dibromofluoromethane			101			57 - 139		
	Toluene-d8			113			65 - 135		

**Comment:** Sample diluted due to high concentrations of non-target analytes

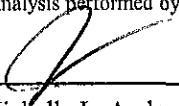
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

*Environmental Analysis Since 1983*

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/17/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

Order ID: 25018

Lab Sample ID: 25018-004

Client Sample ID: MW-6

Sample Time:

Sample Date: 3/29/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	4/11/01	WMS3010410	EPA 8260B
	<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
	4-Bromofluorobenzene			112			65 - 135		
	Dibromofluoromethane			103			57 - 139		
	Toluene-d8			113			65 - 135		


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/17/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

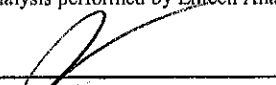
Order ID: 25018      Lab Sample ID: 25018-007      Client Sample ID: MW-9

Sample Time:      Sample Date: 3/29/01      Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	4/11/01	WMS3010410	EPA 8260B
	<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
	4-Bromofluorobenzene			112			65 - 135		
	Dibromofluoromethane			108			57 - 139		
	Toluene-d8			112			65 - 135		

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

*Environmental Analysis Since 1983*

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

April 10, 2001

Chad Taylor  
Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076

**Order:** 25018  
**Project Name:** Harbert Transportation  
**Project Number:** H9042.Q

**Date Collected:** 3/29/01  
**Date Received:** 3/30/01  
**P.O. Number:** H9042.Q

**Project Notes:**

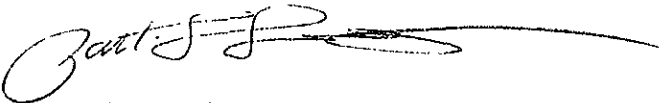
On March 30, 2001, samples were received under documented chain of custody. Results for the following analyses are attached:

<u>Matrix</u>	<u>Test</u>	<u>Method</u>
Liquid	Gas/BTEX/MTBE	EPA 8015 MOD. (Purgeable) EPA 8020

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

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Sincerely,



Michelle L. Anderson  
Lab Director

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3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/10/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

Order ID: 25018	Lab Sample ID: 25018-001	Client Sample ID: MW-3								
Sample Time:	Sample Date: 3/29/01	Matrix: Liquid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	1.1		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
Ethyl Benzene	10		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
Xylenes, Total	1.6		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		91		65 - 135			
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		91		65 - 135			
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	170		1	50	50	µg/L	N/A	4/5/01	WGC4010404	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		86		65 - 135			

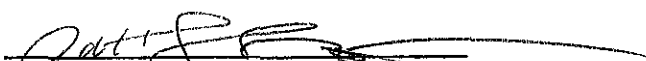
DF = Dilution Factor

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PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 04/10/01  
 Date Received: 3/30/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.Q  
 P.O. Number: H9042.Q  
 Sampled By: Client

## Certified Analytical Report

Order ID: 25018

Lab Sample ID: 25018-002

Client Sample ID: MW-4

Sample Time:

Sample Date: 3/29/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Toluene	4.2		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		98		65		- 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		98		65		- 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	4/5/01	WGC4010405	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control		Limits (%)
				aaa-Trifluorotoluene		100		65		- 135

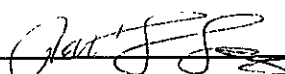
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DLR = Detection Limit Reported

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Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983



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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

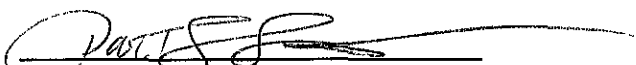
Date: 04/10/01  
 Date Received: 3/30/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.Q  
 P.O. Number: H9042.Q  
 Sampled By: Client

## Certified Analytical Report

Order ID: 25018	Lab Sample ID: 25018-003	Client Sample ID: MW-5								
Sample Time:	Sample Date: 3/29/01	Matrix: Liquid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	220		100	0.5	50	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
Toluene	510		100	0.5	50	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
Ethyl Benzene	1000		100	0.5	50	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
Xylenes, Total	2700		100	0.5	50	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
			<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>	
			aaa-Trifluorotoluene			93			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		100	5	500	µg/L	N/A	4/5/01	WGC4010404	EPA 8020
			<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>	
			aaa-Trifluorotoluene			93			65 - 135	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	13000		100	50	5000	µg/L	N/A	4/5/01	WGC4010404	EPA 8015 MOD. (Purgeable)
			<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>	
			aaa-Trifluorotoluene			95			65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Environmental Analysis Since 1983

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Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 04/10/01  
 Date Received: 3/30/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.Q  
 P.O. Number: H9042.Q  
 Sampled By: Client

## Certified Analytical Report

Order ID: 25018      Lab Sample ID: 25018-004      Client Sample ID: MW-6  
 Sample Time:      Sample Date: 3/29/01      Matrix: Liquid

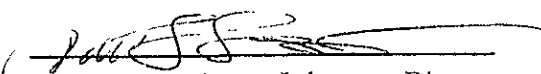
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	2.2		2	0.5	1	µg/L	N/A	4/9/01	WGC4010405	EPA 8020
Toluene	ND		2	0.5	1	µg/L	N/A	4/9/01	WGC4010405	EPA 8020
Ethyl Benzene	37		2	0.5	1	µg/L	N/A	4/9/01	WGC4010405	EPA 8020
Xylenes, Total	4.6		2	0.5	1	µg/L	N/A	4/9/01	WGC4010405	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							87		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		2	5	10	µg/L	N/A	4/9/01	WGC4010405	EPA 8020
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							87		65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	610		2	50	100	µg/L	N/A	4/9/01	WGC4010405	EPA 8015 MOD. (Purgeable)
Surrogate							Surrogate Recovery		Control Limits (%)	
aaa-Trifluorotoluene							73		65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
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Environmental Analysis Since 1983

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/10/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

Order ID: 25018	Lab Sample ID: 25018-005	Client Sample ID: MW-7								
Sample Time:	Sample Date: 3/29/01	Matrix: Liquid								
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		99		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		99		65 - 135		
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	4/5/01	WGC4010405	EPA 8015 MOD. (Purgeable)
				Surrogate		Surrogate Recovery		Control Limits (%)		
				aaa-Trifluorotoluene		101		65 - 135		

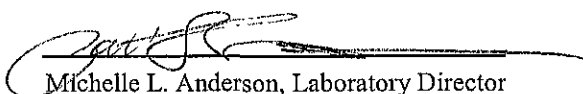
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ND = Not Detected

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PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 04/10/01  
 Date Received: 3/30/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.Q  
 P.O. Number: H9042.Q  
 Sampled By: Client

## Certified Analytical Report

Order ID: 25018

Lab Sample ID: 25018-006

Client Sample ID: MW-8

Sample Time:

Sample Date: 3/29/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Toluene	0.80		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020

Surrogate	Surrogate Recovery	Control	Limits (%)
aaa-Trifluorotoluene	103	65	- 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020

Surrogate	Surrogate Recovery	Control	Limits (%)
aaa-Trifluorotoluene	103	65	- 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	4/5/01	WGC4010405	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control	Limits (%)
aaa-Trifluorotoluene	105	65	- 135

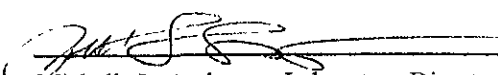
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Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/10/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

Order ID: 25018

Lab Sample ID: 25018-007

Client Sample ID: MW-9

Sample Time:

Sample Date: 3/29/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	110		10	0.5	5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
Toluene	14		10	0.5	5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
Ethyl Benzene	240		10	0.5	5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
Xylenes, Total	150		10	0.5	5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
			<b>Surrogate</b>		<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
			aaa-Trifluorotoluene		95			65 - 135		

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		10	5	50	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
			<b>Surrogate</b>		<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
			aaa-Trifluorotoluene		95			65 - 135		

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1600		10	50	500	µg/L	N/A	4/6/01	WGC4010405	EPA 8015 MOD. (Purgeable)
			<b>Surrogate</b>		<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>		
			aaa-Trifluorotoluene		93			65 - 135		


DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983



# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
120 Westgate Drive  
Watsonville, CA 95076  
Attn: Chad Taylor

Date: 04/10/01  
Date Received: 3/30/01  
Project Name: Harbert Transportation  
Project Number: H9042.Q  
P.O. Number: H9042.Q  
Sampled By: Client

## Certified Analytical Report

Order ID: 25018

Lab Sample ID: 25018-009

Client Sample ID: MW-11

Sample Time:

Sample Date: 3/29/01

Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
Toluene	4.5		1	0.5	0.5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		94		65 - 135			
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	4/6/01	WGC4010405	EPA 8020
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		94		65 - 135			
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	4/6/01	WGC4010405	EPA 8015 MOD. (Purgeable)
			Surrogate		Surrogate Recovery		Control Limits (%)			
			aaa-Trifluorotoluene		100		65 - 135			

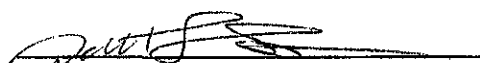
DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Weber, Hayes and Associates  
 120 Westgate Drive  
 Watsonville, CA 95076  
 Attn: Chad Taylor

Date: 04/10/01  
 Date Received: 3/30/01  
 Project Name: Harbert Transportation  
 Project Number: H9042.Q  
 P.O. Number: H9042.Q  
 Sampled By: Client

## Certified Analytical Report

Order ID: 25018

Lab Sample ID: 25018-010

Client Sample ID: MW-12

Sample Time:

Sample Date: 3/29/01

Matrix: Liquid

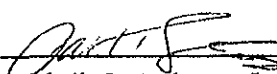
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Toluene	5.0		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Surrogate						Surrogate Recovery			Control Limits (%)	
aaa-Trifluorotoluene						95			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	N/A	4/5/01	WGC4010405	EPA 8020
Surrogate						Surrogate Recovery			Control Limits (%)	
aaa-Trifluorotoluene						95			65 - 135	

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	4/5/01	WGC4010405	EPA 8015 MOD. (Purgeable)
Surrogate						Surrogate Recovery			Control Limits (%)	
aaa-Trifluorotoluene						97			65 - 135	

DF = Dilution Factor      ND = Not Detected      DLR = Detection Limit Reported      PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

  
 Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983



# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

## STANDARD LAB QUALIFIERS (FLAGS)

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier (Flag)	Description
U	Compound was analyzed for but not detected
J	Estimated value for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

## Quality Control Results Summary

QC Batch #: WGC4010404  
Matrix: Liquid

Units: µg/L  
Date Analyzed: 4/4/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		561		452.3	LCS	80.6			65.0 - 135.0
	Surrogate		Surrogate Recovery			Control Limits (%)					
	aaa-Trifluorotoluene			97		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		6.2		5.99	LCS	96.6			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		7.10	LCS	91.0			65.0 - 135.0
Toluene	EPA 8020	ND		35.8		33.8	LCS	94.4			65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		37.2	LCS	86.5			65.0 - 135.0
	Surrogate		Surrogate Recovery			Control Limits (%)					
	aaa-Trifluorotoluene			100		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		50.7	LCS	96.0			65.0 - 135.0
	Surrogate		Surrogate Recovery			Control Limits (%)					
	aaa-Trifluorotoluene			100		65 - 135					
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		561		459.7	LCSD	81.9	1.62	25.00	65.0 - 135.0
	Surrogate		Surrogate Recovery			Control Limits (%)					
	aaa-Trifluorotoluene			96		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		6.2		6.12	LCSD	98.7	2.15	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		7.30	LCSD	93.6	2.78	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		35.8		33.2	LCSD	92.7	1.79	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		36.8	LCSD	85.6	1.08	25.00	65.0 - 135.0
	Surrogate		Surrogate Recovery			Control Limits (%)					
	aaa-Trifluorotoluene			101		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		49.5	LCSD	93.8	2.40	25.00	65.0 - 135.0
	Surrogate		Surrogate Recovery			Control Limits (%)					
	aaa-Trifluorotoluene			101		65 - 135					

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

## Quality Control Results Summary

QC Batch #: WGC4010405

Units: µg/L

Matrix: Liquid

Date Analyzed: 4/5/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		561		457.2	LCS	81.5			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			97		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		6.2		6.07	LCS	97.9			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		7.09	LCS	90.9			65.0 - 135.0
Toluene	EPA 8020	ND		35.8		33.9	LCS	94.7			65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		37.1	LCS	86.3			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			101		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		53.2	LCS	100.8			65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			101		65 - 135					
<b>Test: TPH as Gasoline</b>											
TPH as Gasoline	EPA 8015 M	ND		561		453.3	LCSD	80.8	0.86	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			95		65 - 135					
<b>Test: BTEX</b>											
Benzene	EPA 8020	ND		6.2		6.10	LCSD	98.4	0.49	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		7.8		7.13	LCSD	91.4	0.56	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		35.8		33.5	LCSD	93.6	1.19	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		43		37.1	LCSD	86.3	0.00	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			100		65 - 135					
<b>Test: MTBE by EPA 8020</b>											
Methyl-t-butyl Ether	EPA 8020	ND		52.8		52.4	LCSD	99.2	1.52	25.00	65.0 - 135.0
<b>Surrogate</b>			<b>Surrogate Recovery</b>			<b>Control Limits (%)</b>					
	aaa-Trifluorotoluene			100		65 - 135					

# Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

## Quality Control Results Summary

QC Batch #: WMS3010410  
 Matrix: Liquid

Units:  $\mu\text{g/L}$   
 Date Analyzed: 4/10/01

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
<b>Test: MTBE by EPA 8260B</b>											
Methyl-t-butyl Ether	EPA 8260B	ND		20		20.8	LCS	104.0			65.0 - 135.0
	<b>Surrogate</b>			<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			98		65	- 135				
	Dibromofluoromethane			101		57	- 139				
	Toluene-d8			98		65	- 135				
<b>Test: MTBE by EPA 8260B</b>											
Methyl-t-butyl Ether	EPA 8260B	ND		20		18.5	LCSD	92.5	11.70	25.00	65.0 - 135.0
	<b>Surrogate</b>			<b>Surrogate Recovery</b>		<b>Control Limits (%)</b>					
	4-Bromofluorobenzene			101		65	- 135				
	Dibromofluoromethane			105		57	- 139				
	Toluene-d8			99		65	- 135				



# Weber, Hayes & Associates

Hydrogeology and Environmental Engineering

120 Westgate Dr., Watsonville, CA 95076

(831) 722-3580 (831) 662-3100

Fax: (831) 722-1159

# CHAIN -OF-CUSTODY RECORD

PAGE 1 OF 1

01 MAR 30 13:21

PROJECT NAME AND JOB #: Harbert Transportation / H9042.Q

LABORATORY: Entech Analytical

SEND CERTIFIED RESULTS TO: Chad Taylor

TURNAROUND TIME: (Normal) 24hr Rush 48hr Rush 72hr Rush

Sample ID# & Depth	Date	SAMPLE CONTAINERS				REQUESTED ANALYSIS						
		40 mL VOAs (preserved)	1 Liter Amber Jars	___ mL Poly Bottle	Liner Acetate or Brass	Total Petroleum Hydrocarbons			Volatile Organics		Additional Analysis	
						Extractable Fuel-Scan (w/Standard Silica-Gel-Cleanup)	Purgeable Fuel-Scan (w/MTBE & BTEX)	Gasoline & MTBE-BTEX by EPA Method# 8015M-8-8020	MTBE by EPA Method# 8260	SOLVENTS by EPA Method# 8010	Fuel Oxygenates by EPA Method 8260	Title 22: General, Physical and Inorganic Minerals
MU-3 22.91'	3/29/01	S						X				25018-001
MU-4 22.33'		S						Y				002
MU-5 22.81'		S						X				003
MU-6 22.67'		S						X				004
MU-7 23.48'		S						X				005
MU-8 23.87'		S						X				006
MU-9 21.85'		S						X				007
MU-10 21.58'		S						X				008
MU-11 21.76'		S						X				009
MU-12 22.90'		S						X				010

### RECEIVED BY:

Date & Time

### RELEASED BY:

Date & Time

### SAMPLE CONDITION:

(circle 1)

- 1.) Sampler: L.L.H.
- 2.) SQS MIKE
- 3.) Joseph Richards
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- 1.) 3/29/01 1930
- 2.) 053001-1212
- 3.) 3/30/01 1322
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- 1.) L.L.H.
- 2.) SQS MIKE - WORLD COURIER
- 3.) \_\_\_\_\_
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- 1.) 3/30/01 1210
- 2.) \_\_\_\_\_
- 3.) \_\_\_\_\_
- 4.) \_\_\_\_\_
- 5.) \_\_\_\_\_

- Ambient  Refrigerated  Frozen
- Ambient  Refrigerated  Frozen
- Ambient  Refrigerated  Frozen
- Ambient  Refrigerated  Frozen
- Ambient  Refrigerated  Frozen

### NOTES - Lab to complete the following if box is checked:

- If MTBE is detected by EPA Method 8020, please confirm detections by EPA Method 8260 with a minimum detection limit of 5 ug/L, and report only confirmed 8260 detections
- For MTBE-analyzed samples with non-detectable results (ND) but having elevated detection limits please confirm by EPA Method #8260.
- Please use MDL (Minimum Detection Limit) for any diluted samples

### Additional Comments

Additional Site Assessment Report and Groundwater Monitoring - First Quarter 2001  
19984 Meekland Avenue, Hayward, California  
June 18, 2001

## **Appendix H**

# **Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.**

Table 2  
 Summary of Historical Groundwater Analytical Data  
 Harbert Transportation/Meekland Avenue  
 Hayward, California



Well	Date Sampled	EPA Test Methods										Other µg/L
		8015 Modified			8020				8010			
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
µg/L			µg/L				µg/L			µg/L		
MW1	07/86	42,000	NA	NA	5,500	NA	4,900	6,100	NA	NA	NA	
	03/90	27,000	NA	NA	2,700	491	840	800	ND	ND	ND	
	07/90	27,000	11,000	ND	4,000	ND	1,500	4,400	ND	ND	62	
	10/90	43,000	8,500	ND	3,400	1,200	2,700	5,300	0.4	ND	26	
	01/91	22,000	2,700	ND	3,000	990	1,800	2,800	ND	ND	27	
	04/91	42,000	3,100	NA	5,100	1,200	3,700	3,200	ND	ND	120	
	07/91	46,000	4,300	NA	6,500	830	2,900	3,700	ND	ND	64	
	10/91	27,000	4,300	NA	4,400	1,100	1,400	3,200	ND	ND	25	
	01/92	27,000	14,000	NA	3,300	1,200	1,600	3,800	ND	ND	24	
	04/92	33,000	11,000	NA	8,900	1,200	3,500	3,700	ND	ND	120	
	07/92	41,000	19,000	NA	5,600	1,300	2,600	4,000	ND	ND	49	
	10/92	33,000	3,500	NA	4,400	1,200	2,100	4,000	ND	ND	61	
MW3	11/89	29,000	NA	NA	4,600	680	1,100	1,100	ND	ND	36	Lead 40
	11/89	NA	NA	NA	NA	NA	NA	NA	ND	ND	36	Lead 40
	03/90	12,000	NA	NA	2,300	59	300	490	ND	ND	ND	
	07/90	7,300	990	ND	5,200	ND	440	480	ND	ND	67	
	10/90	6,200	970	ND	75	7.5	150	250	ND	ND	48	
	10/90	NA	NA	NA	NA	NA	NA	NA	ND	ND	22	Lead 3
	01/91	4,600	680	ND	2,200	220	110	89	ND	ND	40	
	04/91	8,300	640	NA	2,800	370	490	760	ND	ND	43	
	07/91	6,600	890	NA	2,000	250	230	380	ND	ND	29	
	10/91	6,300	1,700	NA	2,000	410	330	550	ND	ND	27	
	01/92	4,000	790	NA	1,200	250	60	200	ND	ND	22	
	04/92	7,400	1,800	NA	730	370	180	640	ND	ND	19	
	07/92	3,000	2,400	NA	190	ND	2.8	410	ND	ND	30	
	10/92	5,000	970	NA	1,300	320	.45	340	ND	ND	26	
01/93	2,300	680	NA (2)	630	180	31	330	ND	ND	13		
06/93	5,000	1,100	ND	730	240	43	380	ND	ND	13		

**Table 2**  
**Summary of Historical Groundwater Analytical Data**  
 Harbert Transportation/Meekland Avenue  
 Hayward, California



Well	Date Sampled	EPA Test Methods										
		8015 Modified			8020				8010			Other
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
µg/L			µg/L				µg/L			µg/L		
MW4	11/89	ND	NA	NA	33	1.3	1	5.2	NA	NA	NA	Lead 12
	03/90	ND	NA	NA	7.4	2	2	1.1	ND	ND	ND	
	07/90	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9	
	10/90	ND	ND	ND	ND	ND	ND	ND	0.7	ND	0.5	
	01/91	80	ND	ND	9.2	2.4	1.7	0.7	ND	ND	ND	
	04/91	1,400	130 <sup>a</sup>	NA	2,200	72	ND	17	ND	ND	ND	
	07/91	130	ND	NA	14	3.3	9.7	ND	ND	ND	0.81	
	10/91	ND	ND	NA	5.3	1	ND	0.8	ND	ND	ND	
	01/92	ND	ND	NA	6.8	1.3	ND	ND	ND	ND	ND	
	04/92	780	130 <sup>a</sup>	NA	ND	51	ND	4.8	ND	ND	1.6	
	07/92	ND	ND	NA	ND	ND	ND	ND	ND	ND	1.3	
	10/92	100	ND	NA	9.5	ND	ND	2.6	ND	ND	ND	
	01/93	960	240 <sup>a</sup>	NA	200	41	4.6	9.4	ND	ND	1	
	06/93	650	140 <sup>a</sup>	ND	150	21	ND	ND	ND	ND	3.7	
MW5	10/90	9,600	1,900	ND	1,200	70	160	520	ND	ND	22	Lead 3
	01/91	10,000	1,200	ND	1,600	720	200	510	ND	ND	33	
	04/91	18,000	860 <sup>a</sup>	NA	2,500	550	580	500	ND	ND	61	
	07/91	15,000	2,200 <sup>a</sup>	NA	4,800	610	1,100	760	ND	ND	62	
	10/91	14,000	3,300 <sup>a</sup>	NA	5,000	530	820	800	ND	ND	49	
	01/92	12,000	1,900 <sup>a</sup>	NA	4,300	390	380	590	ND	ND	56	
	04/92	23,000	6,400 <sup>a</sup>	NA	8,600	ND	2,600	1,900	ND	ND	125	
	07/92	27,000	5,900 <sup>a</sup>	NA	6,000	ND	1,500	1,600	ND	ND	93	
	10/92	13,000	2,100 <sup>a</sup>	NA	4,600	140	470	550	ND	ND	59	
	01/93	18,000	1,900 <sup>a</sup>	NA	5,800	560	1,900	1,600	ND	ND	110	
	01/93	19,000	2,100 <sup>a</sup>	NA	4,600	370	1,600	1,400	ND	ND	120	
	06/93	22,000	2,900 <sup>a</sup>	ND	8,300	740	2,500	1,900	ND	ND	110	
06/93	23,000	2,300 <sup>a</sup>	ND	9,600	730	3,000	1,900	ND	ND	110		



Table 2  
 Summary of Historical Groundwater Analytical Data  
 Harbert Transportation/Meekland Avenue  
 Hayward, California



Well	Date Sampled	EPA Test Methods										Other µg/L
		8015 Modified			8020				8010			
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
µg/L			µg/L				µg/L			µg/L		
MW6	10/90	27,000	4,700	ND	2,700	450	2,900	3,300	ND	ND	40	Lead 9
	01/91	7,200	1,600	ND	1,400	ND	200	830	ND	ND	23	
	04/91	17,000	800 <sup>a</sup>	NA	2,800	610	1,200	1,800	ND	ND	53	
	07/91	11,000	1,400 <sup>a</sup>	NA	1,200	ND	380	750	ND	ND	29	
	10/91	4,800	1,600 <sup>a</sup>	NA	380	69	340	730	ND	ND	22	
	01/92	6,100	1,200 <sup>a</sup>	NA	460	180	200	590	ND	ND	26	
	04/92	7,200	1,800 <sup>a</sup>	NA	340	350	460	920	ND	ND	30	
	07/92	8,600	1,700 <sup>a</sup>	NA	1,300	380	280	1,100	ND	ND	35	
	10/92	1,600	110 <sup>a</sup>	NA	230	70	20	88	ND	ND	24	
	01/93	13,000	2,100 <sup>a</sup>	NA	2,500	370	540	2,400	ND	ND	36	
	06/93	7,400	1,900 <sup>a</sup>	ND	1,500	480	120	1,400	ND	ND	29	
MW7	10/90	14,000	2,700	ND	390	ND	18	1,200	ND	1.3	14	Lead 11
	01/91	4,500	1,400	ND	320	42	48	350	ND	ND	10	
	04/91	2,400	NA	NA	320	77	62	130	ND	0.6	11	
	07/91	2,000	910 <sup>a</sup>	NA	470	ND	24	88	ND	ND	9.7	
	10/91	ND	370 <sup>a</sup>	NA	ND	ND	ND	ND	ND	0.68	4.5	
	01/92	1,100	290 <sup>a</sup>	NA	230	45	7	88	ND	3.5	6.4	
	04/92	1,700	520 <sup>a</sup>	NA	310	78	28	170	ND	0.5	3.2	
	07/92	1,900	590 <sup>a</sup>	NA	410	78	21	170	ND	2.1	8.7	
	07/92 (dup)	1,200	700 <sup>a</sup>	NA	21	1	2.6	90	ND	2	8.2	
	10/92	1,800	320 <sup>a</sup>	NA	410	31	11	75	ND	1	7.4	
	01/93	2,100	660 <sup>a</sup>	NA	390	100	21	270	ND	0.6	3.7	
06/93	4,400	1,100 <sup>a</sup>	ND	830	330	48	620	ND	ND	8.6		

Table 2  
 Summary of Historical Groundwater Analytical Data  
 Harbert Transportation/Meekland Avenue  
 Hayward, California



Well	Date Sampled	EPA Test Methods											
		8015 Modified			8020				8010			Other	
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA		
µg/L			µg/L				µg/L			µg/L			
MW8	02/91	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	
	04/91	ND	ND	NA	ND	ND	ND	ND	ND	ND	0.5	ND	
	07/91	ND	ND	NA	ND	ND	2	ND	ND	ND	1.2	ND	
	10/91	ND	ND	NA	ND	ND	0.6	ND	ND	ND	0.4	ND	
	01/92	ND	ND	NA	ND	ND	ND	ND	ND	ND	0.68	ND	
	04/92	ND	ND	NA	ND	ND	ND	ND	ND	ND	0.8	ND	
	07/92	ND	ND	NA	ND	ND	3.3	ND	ND	ND	1.6	ND	
	10/92	ND	ND	NA	ND	ND	ND	ND	ND	ND	1.4	ND	
	01/93	ND	ND	NA	ND	ND	ND	ND	ND	ND	0.8	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.4	ND	
MW9	02/91	6,000	1,600	NA	180	19	170	200	ND	ND		13	
	04/91	4,200	410	NA	520	130	410	580	ND	ND		26	
	07/91	1,900	180	NA	190	12	52	77	ND	6.5		12	
	10/91	880	300	NA	160	31	44	83	ND	ND		10	
	01/92	380	120	NA	14	7.6	2.2	14	ND	ND		9.6	
	04/92	2,900	700	NA	510	80	260	260	ND	ND		11	
	07/92	4,400	1,300	NA	860	210	340	640	ND	ND		22	
	10/92	200	290	NA	6.8	1.4	2.1	7.8	ND	ND		12	
	01/93	8,500	740	NA	2,400	390	620	1,500	ND	ND		29	
	06/93	8,200	1,300	ND	2,400	360	480	1,500	ND	ND		29	
MW10	01/92	13,000	3,700	NA	130	580	110	3,000	ND	ND		33	
	05/92	15,000	5,000	NA	180	ND	18	2,700	ND	ND		20	
	05/92 (dup)	13,000	7,500	NA	240	490	65	2,500	ND	ND		22	
	07/92	8,100	4,400	NA	74	360	ND	1,100	ND	ND		29	
	10/92	3,200	1,500	NA	ND	ND	ND	320	ND	ND		25	
	01/93	7,500	2,200	NA	130	170	20	710	ND	ND		18	
	06/93	8,000	2,100	ND	69	7.9	ND	490	ND	ND		16	

Table 2  
**Summary of Historical Groundwater Analytical Data**  
 Harbert Transportation/Meekland Avenue  
 Hayward, California

Well	Date Sampled	EPA Test Methods										
		8015 Modified			8020				8030			Other
		TPH-G	TPH-D	TPH-MO	Benzene	Ethylbenzene	Toluene	Total Xylenes	TCE	PCE	1,2-DCA	
µg/L			µg/L				µg/L			µg/L		
MW11	01/92	8,200	3,200 <sup>a</sup>	NA	23	250	ND	1,100	ND	ND	ND	
	04/92	160	1,200 <sup>a</sup>	NA	ND	ND	ND	ND	ND	ND	ND	
	07/92	2,100	710 <sup>a</sup>	NA	39	100	2.3	53	ND	ND	ND	
	10/92	660	220 <sup>a</sup>	NA	2.9	19	ND	3.8	ND	ND	ND	
	10/92	770	230 <sup>a</sup>	NA	3.2	26	ND	5.7	ND	ND	ND	
	01/93	780	370 <sup>a</sup>	NA	10	2.1	ND	39	ND	ND	ND	
	06/93	2,500	160 <sup>a</sup>	ND	27	99	ND	34	ND	ND	ND	
MW12	12/92	2,800	1,700 <sup>a</sup>	NA	14	ND	ND	ND	ND	ND	ND	
	06/93	1,100	750 <sup>a</sup>	ND	19	21	ND	57	ND	ND	ND	
B1	01/93	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	
	06/93	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
F3	02/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Well Abandoned	12/89	1,800	NA	NA	200	24	18	34	ND	ND	0.15	Lead 2,100
Average <sup>b</sup>		8,865	1,883	250	1,582	235	517	871	0.21	0.41	24.8	
Laboratory Detection Limit		50	50	500	0.5	0.5	0.5	0.5	0.4	0.4	0.4	

Notes:

a) The detection for petroleum hydrocarbons as diesel appears to be due to the presence of lighter hydrocarbons rather than diesel.

b) Average of sampled data, ND equals 1/2 detection limit.

µg/L - Micrograms per liter is approximately equivalent to parts per billion, depending on density of water.

NA - Not analyzed.

ND - Not detected.

TCE - Trichloroethylene.

PCE - Tetrachloroethylene.

1,2-DCA - 1,2-Dichloroethane.

TPH-G - Total petroleum hydrocarbons quantified as gasoline.

TPH-D - Total petroleum hydrocarbons quantified as diesel.

TPH-MO - Total petroleum hydrocarbons quantified as motor oil.

**Table 2**  
**Summary of Groundwater Chemical Analyses**  
 Harbert Transportation/Meekland Avenue  
 Hayward, California

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX-5030/8020				8010		
		TPH Gasoline	TPH Diesel	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA	PCE	TCE
		µg/L	µg/L	µg/L				µg/L	µg/L	µg/L
MW3	07/28/94	7,700	970 <sup>a</sup>	1,800	810	ND	600	22	ND	ND
	10/21/94	7,400	810	1,900	900	37	780	25	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW4	07/28/94	120	ND	7.9	0.7	1.1	ND	ND	ND	ND
	10/21/94	69	ND	3.4	ND	ND	ND	ND	ND	ND
	09/15/95	110	ND	2.5	ND	0.85	ND	2.3	ND	ND
	03/14/96	300	69 <sup>b</sup>	3.3	0.74	ND	ND	1.6	ND	ND
	09/26/96	ND	ND	ND	ND	ND	ND	1.2	ND	ND
MW5	07/29/94	30,000	2,200 <sup>a</sup>	9,300	1,100	1,800	2,300	110	ND	ND
	10/21/94	23,000	1,500	7,900	780	1,500	2,900	85	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW6	07/29/94	15,000	2,100 <sup>b</sup>	3,100	1,100	71	2,000	37	ND	ND
	10/21/94	18,000	1,500	3,900	1,200	170	3,200	35	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW7	07/29/94	2,600	530 <sup>c</sup>	470	220	ND	310	2.7	6	ND
	10/21/94	1,700	280	280	140	4.5	240	1.8	0.74	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS

**Table 2**  
**Summary of Groundwater Chemical Analyses**  
 Harbert Transportation/Meekland Avenue  
 Hayward, California

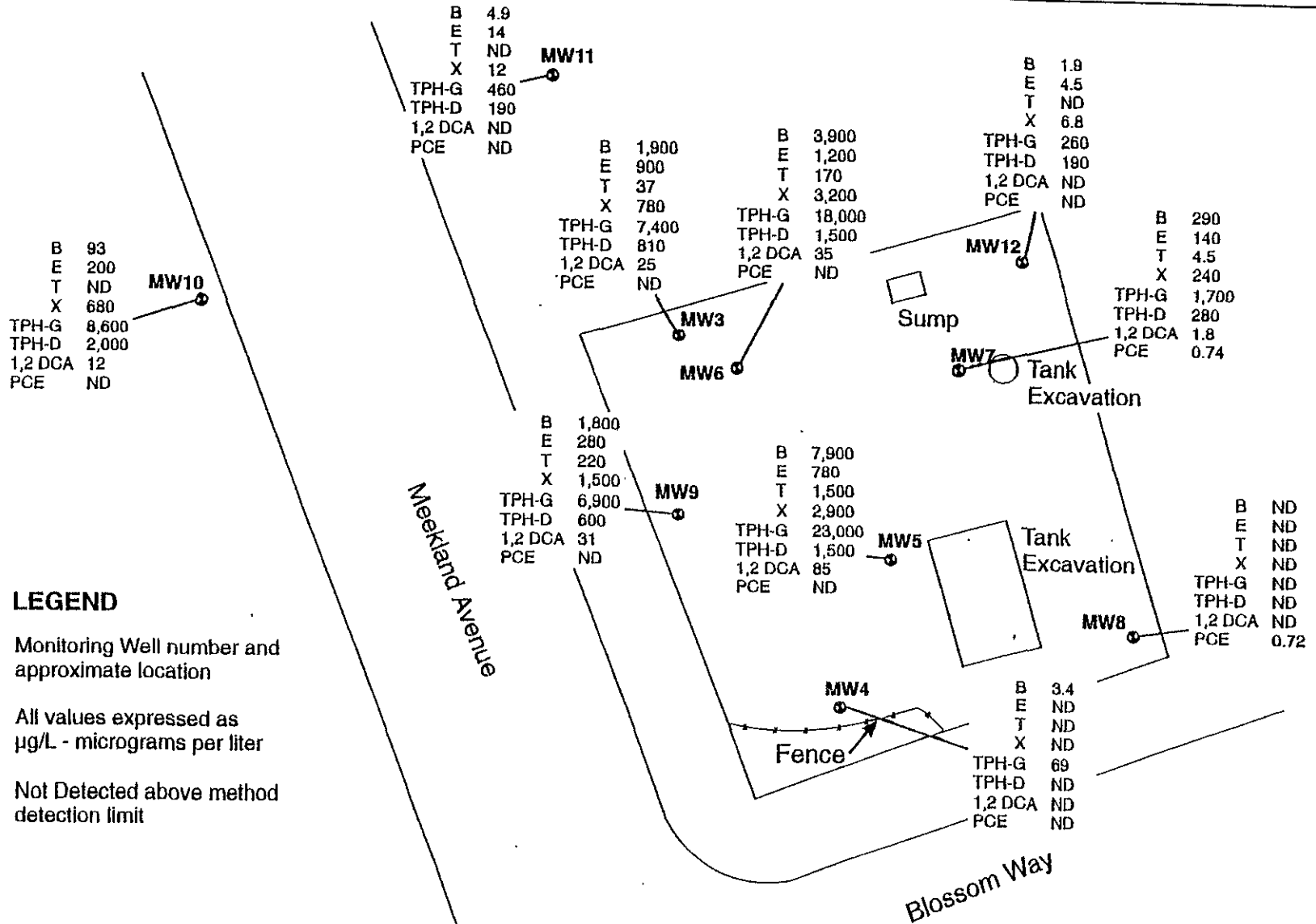
Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/5020				5010		
		TPH Gasoline µg/L	TPH Diesel µg/L	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA µg/L	PCE µg/L	TCE µg/L
MW8	07/28/94	ND	78 <sup>a</sup>	ND	ND	ND	ND	ND	ND	ND
	10/21/94	ND	ND	ND	ND	ND	ND	ND	0.72	ND
	09/15/95	ND	ND	ND	ND	ND	ND	ND	0.74	ND
	03/14/96	ND	ND	ND	ND	ND	ND	ND	0.63	ND
	09/26/96	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW9	07/28/94	6,000	1,300 <sup>c</sup>	90	170	27	370	26	ND	ND
	10/21/94	6,900	600	1,800	280	220	1,500	31	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW10	07/28/94	6,700	2,000 <sup>b</sup>	99	180	57	430	13	ND	ND
	10/21/94	8,600	2,000	93	200	ND	680	12	ND	ND
	09/15/95	2,100	1,900	9.9	49	ND	4.9	ND	ND	ND
	03/14/96	6,800	2,000 <sup>b</sup>	64	98	ND	33	6.5	ND	ND
	09/26/96	7,100	420	140	210	ND	32	9.1	ND	5.9
MW11	07/28/94	450	150 <sup>a</sup>	6.2	20	1.1	6.6	ND	ND	ND
	10/21/94	460	190	4.9	14	ND	12	ND	ND	ND
	09/15/95	9,600	550	130	180	ND	130	8.8	ND	5.6
	03/15/96	780	310 <sup>b</sup>	0.74	25	ND	1.8	ND	ND	ND
	09/26/96	480	710	ND	50	ND	ND	ND	ND	ND

**Table 2**  
**Summary of Groundwater Chemical Analyses**  
Harbert Transportation/Meekland Avenue  
Hayward, California

Well	Date Sampled	EPA Test Methods								
		8015 M		BETX 5030/8020				8010		
		TPH Gasoline µg/L	TPH Diesel µg/L	Benzene	Ethylbenzene	Toluene	Xylenes	1,2-DCA µg/L	PCE µg/L	TCE µg/L
MW12	07/28/94	240	160	1.9	12	ND	5.8	ND	ND	ND
	10/21/94	260	190	1.9	4.5	ND	6.8	ND	ND	ND
	09/15/95	NS	NS	NS	NS	NS	NS	NS	NS	NS
	03/14/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09/26/96	NS	NS	NS	NS	NS	NS	NS	NS	NS
Method Detection Limit		50	50	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Notes:

- a) Hydrocarbons quantified as diesel are primarily due to discrete peaks not indicative of diesel fuel.
  - b) Hydrocarbons quantified as diesel are primarily due to the presence of a lighter petroleum product (C<sub>6</sub>-C<sub>12</sub>), possibly gasoline.
  - c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product (C<sub>6</sub>-C<sub>12</sub>) and discrete peaks not indicative of diesel fuel.
- 1,2-DCE - 1,2-dichloroethane.  
PCE - Tetrachloroethene.  
TCE - Trichloroethene.  
ND - Not detected at or above method detection limit.  
NS - Not sampled.
- TPH-Gasoline - Total petroleum hydrocarbons quantified as gasoline.  
TPH-Diesel - Total petroleum hydrocarbons quantified as diesel.  
µg/L - Micrograms per liter, equivalent to parts per billion.



**LEGEND**

MW10

Monitoring Well number and approximate location

All values expressed as µg/L - micrograms per liter

ND Not Detected above method detection limit



10-20-94

**AGI**  
TECHNOLOGIES

**Site Plan**

Harbert Transportation/Meekland Avenue  
Hayward, California

FIGURE

**4**

siteplan.cdr

PROJECT NO.  
15,833.002

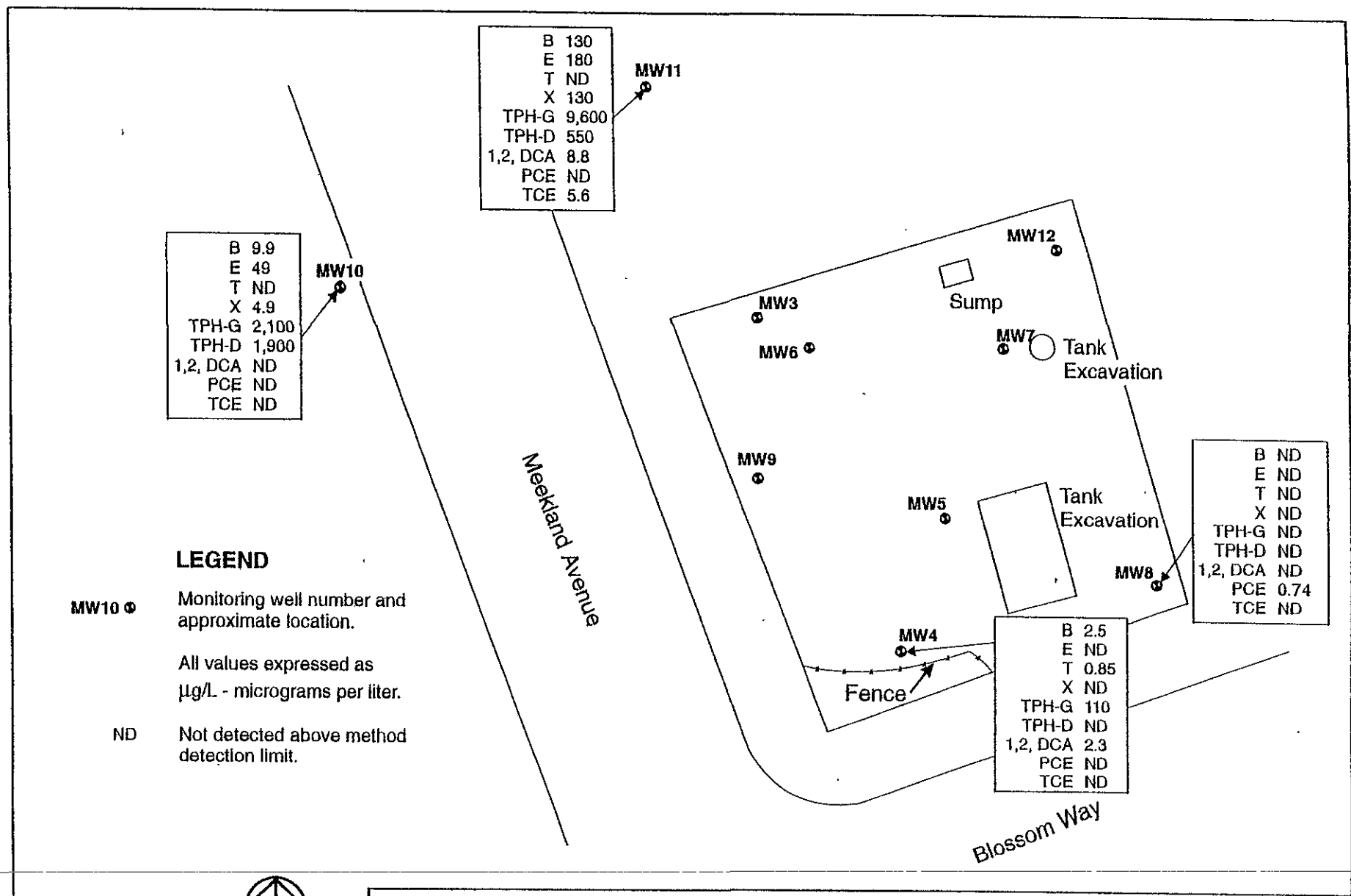
DRAWN  
DFF/ALW

DATE  
01 February 95

APPROVED

REVISED

DATE



B 9.9  
E 49  
T ND  
X 4.9  
TPH-G 2,100  
TPH-D 1,900  
1,2, DCA ND  
PCE ND  
TCE ND

B 130  
E 180  
T ND  
X 130  
TPH-G 9,600  
TPH-D 550  
1,2, DCA 8.8  
PCE ND  
TCE 5.6

B ND  
E ND  
T ND  
X ND  
TPH-G ND  
TPH-D ND  
1,2, DCA ND  
PCE 0.74  
TCE ND

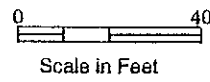
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E ND  
T 0.85  
X ND  
TPH-G 110  
TPH-D ND  
1,2, DCA 2.3  
PCE ND  
TCE ND

**LEGEND**

MW10 ● Monitoring well number and approximate location.

All values expressed as  $\mu\text{g/L}$  - micrograms per liter.

ND Not detected above method detection limit.



**AGI**  
TECHNOLOGIES

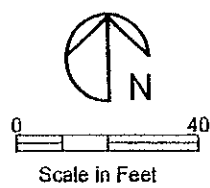
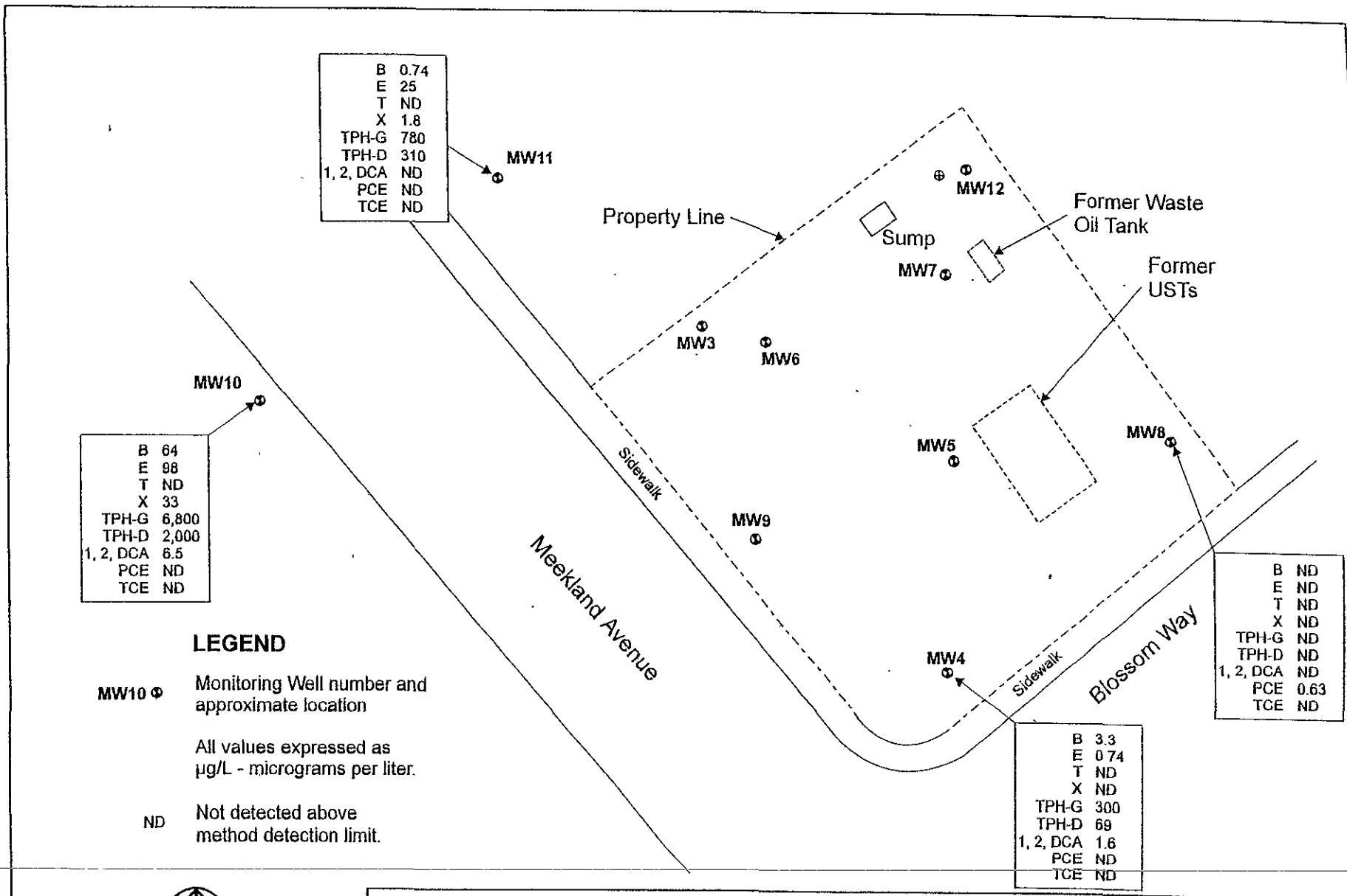
**Groundwater Chemical Analysis Results - 9/15/95**

Harbert Transportation/Meekland Avenue  
Hayward, California

FIGURE  
**4**  
DATE  
8 Nov 95

PROJECT NO 15,833.002 DRAWN DFF DATE 1 Feb 95 APPROVED DTH REVISED BJA





**AGI TECHNOLOGIES** Groundwater Chemical Analysis Results - March 1996  
 Harbert Transportation/Meekland Avenue  
 Hayward, California

PROJECT NO 15,833.002 DRAWN DFF DATE 29 August 94 APPROVED [Signature] REVISED ALW DATE 15 Apr 96

FIGURE 4

