SILICON VALLEY LAW GROUP
A LAW CORPORATION

Jeffrey S. Lawson jsl@svlg.com

September 20, 2004

Via Federal Express

Ms. Mee Ling Tung
Director of Environmental Health
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: Durham Transportation Property
19984 Meekland Avenue, Hayward California
Third Request To Transfer Oversight To The Regional Water Quality Control Board

Dear Ms. Tung:

This letter is in regard to the continuing saga of the cleanup at 19984 Meekland Avenue, Hayward, CA property. This is a relatively small petroleum underground storage tank site. It has been under investigation and remediation for well over a decade. For several reasons in July of 2001 I made a second request for transfer of oversight to the Regional Water Quality Control Board ("Board") (attached hereto as Exhibit A). Instead of transferring the oversight to the Board, you wrote on July 9, 2001 that the Board's staff recommendations would be followed and you kept the site under Alameda County oversight (attached hereto as Exhibit B). On August 22, 2003 we filed a Request for Closure in accordance with the Board's guidance (attached hereto as Exhibit C). Rather than receiving closure, on May 13, 2004 we received a directive from Alameda County to undertake additional investigation even though the site met the site specific cleanup goals agreed to by Alameda County in 2003 (attached hereto as Exhibit D). Although, the site now meets the cleanup goals agreed to with Alameda County in 2003, we prepared a Workplan to meet the new concerns Alameda County expressed in the letter rejecting closure. That Workplan was presented to Alameda County on July 30, 2004 (attached hereto as Exhibit E). To date the Workplan has not been reviewed.

My environmental consultants have been informed by Alameda County that there is no staff person currently assigned to the Meekland Avenue project and that there will be no review of the Workplan/Revised Site Conceptual Model until a new person is hired. As I have said in previous correspondence, my client is elderly and has suffered serious health problems. His retirement funds are tied up while this remediation is being conducted. It is imperative that it be resolved as soon as possible. Accordingly, since

Alameda County does not have the staff, we request that this site be immediately transferred to the Board for oversight.

Your prompt attention to this matter is requested.

Very truly yours,
Silicon Valley Law Group

JEFFREY S. LAWSON

JSL/lt

Attachments: Exhibit A – July 3, 2001 2nd Request For Transfer
Exhibit B – July 9, 2001 Alameda County Letter
Exhibit C – Request For Closure
Exhibit D – May 13, 2004 Alameda County Letter
Exhibit E - Workplan

Cc: Jerry Harbert
Steve Morse, RWQCB
Donna Drogos, Alameda County
Pat Hoban
Mike Nolte

SVLG
SILICON VALLEY LAW GROUP
A LAW CORPORATION

Jeffrey S. Lawson jsl@svlg.com

3 July 2001

VIA FACSIMILE and FEDERAL EXPRESS

Ms. Mee Ling Tung
Director of Environmental Health
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, Ca 94502

Re: Durham Transportation Property
19984 Meekland Ave. Hayward California
Second Request For Transfer to the Regional Water Quality Control Board

Dear Ms. Tung:

This letter is to request that oversite for the above referenced property be transferred to the Regional Water Quality Control Board (RWQCB). This request is necessary because of the recent threats by, Mr. Amir Gholami, the person assigned by the Department of Environmental Health to oversee the site cleanup, to impede the prompt cleanup of the site. The facts supporting this request are as follows.

On June 18, 2001 Weber Hayes & Associates filed an Additional Site Assessment and Groundwater Monitoring Report as requested by the Department of Environmental Health. On Friday of that week, June 22, 2001, I called the staff person assigned this project, Mr. Gholami, who was not in and left him a voicemail message pointing out that there had been a substantial delay in the remediation of this site, that Mr. Harbert has cancer and that I was anxious to have this site remediated as quickly as possible. I also pointed out that this site is receiving reimbursement from the Underground Storage Tank Cleanup Fund and there is a recommendation in the Weber Hayes report for additional excavation. Before we can seek pre-approval from the Cleanup Fund, we need written authorization from the Department of Health, approving the proposed work. The Cleanup Fund will not pre-approve work plans that are not directed in writing by the local environmental agency. For these reasons, I asked Mr. Gholami to provide us with that written approval as quickly as possible.

By Tuesday, June 26, 2001, I still had not received a return phone call from Mr. Gholami. I therefore called him again and when I got his voicemail again, I selected the option to speak to the operator so that I could see if he could be found. Instead of getting

Exhibit A

the operator, I was placed into another voicemail box where I left a message for Mr. Gholami asking that he expedite the written approval of the consultant's recommendations. I did not file a complaint against Mr. Gholami. My message is on someone's voice mail at your office and I suggest that you have my message transcribed.

On the afternoon of June 26, 2001, Mr. Gholami did not call me back. Rather, Mr. Gholami called two other attorneys in my firm and Mr. Harbert's environmental consultant. In each of those calls he threatened to place Mr. Harbert's project at the end of the line. Attached is a memo from Mr. Myron Brody describing the Gholami phone call he received and a transcript of the voicemail received by Mr. Rob Vantress.

This is not the first problem we have had with Mr. Gholami. I filed a complaint on June 16, 2000 regarding the lack of attention Mr. Gholami had provided in regard to the site, and pointed out the excessive delay his lack of attention had cost the project. A copy of my letter of June 16, 2000 is attached hereto. At that time we requested transferring the file to the RWQCB. After my letter there was a meeting between the RWQCB, the Department of Environmental Health and Mr. Harbert's consultant. I was not able to attend, but asked that the meeting go forward anyway to avoid delay. The upshot of the meeting was that Mr. Gholami was given another chance to try and move the case forward in an expeditious manner. In fact, he did approve the workplan on June 26, 2001. Unfortunately in his telephone calls he makes clear that he will no longer act promptly in regard to the site; but instead will take the maximum amount of time.

In light of Mr. Gholami's unprofessional conduct and his threats made against Mr. Harbert's project, we request that this file be transferred to the Regional Water Quality Control Board for oversight. Mr. Harbert has cancer and other health problems. This site has been active for a decade. In light of the fact that this is a simple non-MTBE petroleum UST site, there is no good reason for it to still be open. Since the site is funded by the Cleanup Fund, Mr. Harbert has been anxious to do the work. In the past the delay has been primarily caused by not receiving written responses to our submissions to the Department of Health. Now that Mr. Gholami is threatening to delay the project we are afraid that once again it will take years to get a response and the property will never get cleaned up.

Your prompt attention to this matter is requested.

Very truly yours,

Silicon Valley Law Group

JEFFREY S. LAWSON

JSL/cu

Enclosures: June 16, 2000 Letter
Transcribed Voice Message
Brady Memo

Cc: Jerry Herbert
Amir Gholami
Craig Drizin
Lauire Berger
Steve Morse

LAW OFFICES OF
REED, ELLIOTT, CREECH & ROTH
A PROFESSIONAL CORPORATION
99 Almaden Boulevard, Eighth Floor
San Jose, California 95113-1606
(408) 993-9911

Facsimile
(408) 993-1335

Web Page:
www.sjlegal.com

John W. Elliott
Randall C. Creech
Thomas A. Elliott
Jeffrey S. Lawson
Peter A. Liebow
Raymond A. Brinson

Nancy L. Mathis
Edward A. Kraus
Bonnie L. Portis
Phillip C. Lyman
Vinita Bali

Of Counsel

Reed & Roth, Inc.
Steven J. Roth
Chuck Reed

Thomas G. Perkins

June 16, 2000

Via Facsimile and U.S. Mail

Ms. Mee Ling Tung
Director of Environmental Health
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: Durham Transportation Property
19984 Meekland Ave., Hayward, CA
Request for Decision or Transfer to the Regional Water Quality Control Board

Dear Ms. Tung:

My client, Jerry Harbert, pursuant to an agreement with Durham Transportation Co. has been trying to remediate the Meekland Ave. site for over 10 years. During this time, we have had interminable delays that have prevented this site from being cleaned up. It is not a complex site; it is simply a petroleum release from a single underground storage tank. Our current problem preventing getting the site cleaned up relates to obtaining approval of the Risk Assessment and to perform further investigations on the site. On March 27, 1996, a final Risk Assessment prepared by AGI Technology was presented to Madhulla Logan at Environmental Health Services for review and approval. On June 17, 1999, approximately 3 years later, we finally had the response to that Risk Assessment. Not all of that delay was Madhulla Logan's fault, and as a result of delays on the part of AGI we fired them and replaced them with Weber, Hayes & Associates. However, we now have almost another year of delay in resolving the next phase of the project.

In her June 17, 1999, letter Ms. Logan asked for the following additions/modifications to the Risk Assessment:

> "Surface oil pathway was evaluated for future resident by using 2 exposure routes by inhalation and ingestion. The results of this evaluation are provided in Table 8 of the Risk Assessment Report. However, this pathway should be evaluated as a combination (sum) of ingestion, inhalation and dermal routes.
>
> Volatile organics, including PCE that has been identified in the groundwater, should also be evaluated in the Risk Assessment.
>
> Based on the information provided in Table 11 of the Report, the Federal slope factor was used to calculate the cleanup levels for benzene. This department requires that the California slope factor for benzene be used.
>
> Provide a rationale for using a porosity of 0.43cm^3 and a volumetric air contact of 0.33 cm^3 as mentioned in Table 9 of this Report to calculate the indoor air pathway."
>
> Logan letter of June 17, 1999.

Weber, Hayes & Associates responded to Ms. Logan's letter on October 27, 1999.

> They evaluated the surface soil exposure pathway as the sum of ingestion, inhalation and dermal exposure routes and presented that data.
>
> They pointed that AGI did, in fact, provide the calculations using the California slope factor for benzene.
>
> They provided the rationale for selecting values for porosity and volumetric air content.

Weber, Hayes & Associates also recommended that:

> the site specific cleanup levels proposed by AGI and Weber, Hayes be approved by Environmental Health;

that a limited soil sampling program be allowed to determine the current concentrations of benzene and subsurface soils at the site;

that a groundwater sampling program be initiated to collect current data on TPH-D, TPH-G, and BTEX groundwater concentrations; and

finally, that the soil and groundwater data should be evaluated to determined if additional cleanup or groundwater monitoring is necessary.

It is now June, of the following year, and we do not have a response from your department and, in fact, have been told that we cannot expect one in the foreseeable future. We were told all through the last quarter of 1999 that Madhulla Logan would provide the evaluation of the Weber, Hayes report. That never happened. The file is currently assigned to Amir Jholami.
Over the last month we have called Mr. Jholami once a week to try and find out the status of the review. That was after he had told us the file had been lost, and we sent it to him again on May 10, 2000. Eventually on June 8, 2000, he finally looked at the file only to tell us that in order to approve the cleanup plan he needed a toxicologist to review it because it is too technical. He further informed us that your department does not currently have a toxicologist on staff, but is looking to hire one. That, because there is no toxicologist, there will be no approval and we will have to wait indefinitely!

My client, Jerry Harbert, has the responsibility of cleanup for this property pursuant to a sale that took place over a decade ago. A large portion of his retirement fund is tied up awaiting resolution of the cleanup on this site. He has been more than patient to date, but he needs to have this site cleaned up. We cannot wait indefinitely for a toxicologist to approve a simple request to perform additional work on the site. We are also concerned that Mr. Jholami told us that we were out of compliance by not having regular groundwater monitoring when, as part of the Weber, Hayes & Associates October 27, 1999, document, we asked him to approve groundwater monitoring. This site is being funded by the Underground Storage Tank Cleanup Fund, and we need written approvals of the work that is proposed for the site to maximize reimbursement from the Cleanup Fund. There have been substantial problems on this file already.

At this time we request that this file either be transferred to the Regional Board for action or your office provide us with expeditious review and approval of the Weber, Hayes October 27, 1999, report and recommendations.

Your prompt attention to this matter is requested.

Very truly yours,

REED, ELLIOTT, CREECH & ROTH

JEFFREY S. LAWSON

JSL:mk
cc: Jerry Harbert
Joe Hayes
Raymond A. Brinson

Jill:

Message left on Voice Mail:

Gholami, I work for Alameda County Hazardous Materials Office. I'm calling regarding, I want to file a complaint against this guy Jeff Lawson. He is handling this case at Harbert Transportation at 19984 Meekland Ave. I received this work plan that there is some kind of, you know, environmental cleanup and I'm overseeing the project. We have, according to the law, Title 23 Chapter 11 Section 2726; 60 days to respond to these plans. This guy calls me, I just got this plan; he calls me, then he you know, actually he wrote the letter yesterday. Then he called me. He's got the nerve to call over here and file a complaint. So if that is going to be the case, I'm just going to deal with it like any other case, then I'm not going to give any priority to it. The reason I did this is because I felt sorry for this individual. Because the responsible party has cancer and I felt sorry him and I put him right in front of everybody else. But if he is going to act like an idiot calling over here and filing complaints, when he doesn't appreciate anything I did, I'm not going to do that anymore. You know. Just to let him know. My number is: (510) 567-6876.

From: Myron Brody
To: Jeff Lawson
Date: 6/27/01 10:16AM
Subject: Telephone call from Gholami

I received an unusual call yesterday from a man named Gholami. He had asked to speak to your "supervisor." I advised him that you did not have a supervisor, but that as CEO of this Firm I would discuss whatever he wanted to speak about.

He asserted that you had filed a complaint about him for which he was quite agitated. He stated that you were working on a plan submitted to him for approval for a client that had cancer; that he had felt sorry for this client and had, "as a favor" started reviewing the plan immediately. He further stated that because of your "complaint", from now on you would receive no further "favors" and you would have to wait at the end of the line regardless of future exigencies and that he had the right to hold you up for 60 days under California Code of Regulations, Title 23, Article 11, section 2726 and that he would in fact hold you up in the future because of your "Complaint."

I told him I would pass his comments on to you.

Myron L. Brody
Silicon Valley Law Group
152 N. Third street
San Jose, Ca, 95112
286-6100
fax-286-1400
cell-605-3449
area code 408

SILICON VALLEY LAW GROUP
A LAW CORPORATION

152 NORTH THIRD STREET
SUITE 900
SAN JOSE, CA 95112

TELEPHONE: (408) 286-6100
FACSIMILE: (408) 286-1400
www.svlg.com

FACSIMILE COVER SHEET

DATE: July 3, 2001

TO: Ms. Mee Ling Tung, Director of Environmental Health

FROM: **Jeff Lawson**

RE: **Durham Transportation Property**
19984 Meekland Ave. Hayward California

FACSIMILE NO.: 510-337-9335 TELEPHONE NO.: 510-567-6700

Number of pages including Facsimile Cover Sheet: **10**

COMMENTS: Please refer to the attached.

* - * COMMUNICATION RESULT REPORT (JUL. 3. 2001 3:23PM) * * *

TTI

FILE MODE	OPTION	ADDRESS (GROUP)	RESULT	PAGE
6323 MEMORY TX		15103379335	OK	10/10

REASON FOR ERROR
E-1) HANG UP OR LINE FAIL
E-2) BUSY
E-3) NO ANSWER
E-4) NO FACSIMILE CONNECTION

SILICON VALLEY LAW GROUP
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152 NORTH THIRD STREET
SUITE 900
SAN JOSE, CA 95112

TELEPHONE: (408) 286-6100
FACSIMILE: (408) 286-1400
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FACSIMILE COVER SHEET

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TO: Ms. Mee Ling Tung, Director of Environmental Health

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RE: **Durham Transportation Property**
19984 Meekland Ave. Hayward California

FACSIMILE NO.: 510-337-9335 TELEPHONE NO.: 510-567-6700

Number of pages including Facsimile Cover Sheet: **10**

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

STID 1879 / RO # 47

July 9, 2001

Mr. Jeffrey S. Lawson
Silicon Valley Law Group
152 North Third Street, Suite 900
San Jose, California 95112

RE: Durham Transportation Property
19984 Meekland Avenue, Hayward, CA 94541

Dear Mr. Lawson:

I am in receipt of your letter dated July 3, 2001, requesting transfer of regulatory oversight for the above referenced site to the San Francisco Bay Regional Water Quality Control Board (RWQCB). I understand your concerns and have discussed the contents of the letter with Mr. Gholami. I would like to assure you that there would not be any intentional delay by this office regarding the above referenced site. We apologize for any misunderstanding. Let me assure you that this office has no intentions in delaying closure of sites that meet the criteria for low risk soil and groundwater cases per RWQCB guidance document dated January 5, 1996. We would like to assist and facilitate expedient site closure to the extent possible. However, this office must follow certain laws, regulations and guidelines in dealing with all cases including the above referenced site.

I understand that in August 2000, there was meeting a attended by your client's consultant, RWQCB's staff and Mr. Gholami to discuss the risk assessment and cleanup goals for the site. Subsequent to this meeting, RWQCB staff sent a memo to Mr. Gholami, recommending certain guidelines for the case to proceed toward site closure. A copy of the memo is attached for your reference.

This office is following up on the guidelines and recommendations provided by the RWQCB staff. Additionally, the report dated June 18, 2001 submitted by your consultant, which included a workplan proposal to conduct overexcavation at the site was approved on June 26, 2001 as stated in a letter from this office.

This office is working with RWQCB in the cleanup and eventual case closure of the subject site. The RWQCB has to approve our recommendation for case closure.

Exhibit B

I am confident that Mr. Gholami will handle this case in a professional manner and will work with the RWQCB so that the site can meet the criteria of a low risk fuel case and can be recommended for case closure.

If you have any questions, please call me at (510) 567-6700.

Sincerely,

Mee Ling Tung , Director
Department of Environmental Health

attachment

c: Steve Morse, San Francisco Bay RWQCB
Chuck Headlee, San Francisco Bay RWQCB
Mr. Jerry Herbert, 46765 Mountain Cove Drive, Indian Wells, CA 92210
Mr. Craig Drizon, Weber Haze & Asso., 120 Westgate Dr., Watsonville, CA 95076
AG / SH / files

California Regional Water Quality Control Board
San Francisco Bay Regional Water Quality Control Board

Winston H. Hickox
Secretary for Environmental Protection

Internet Address http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 FAX (510) 622-2460

Gray Davis
Governor

TO: Amir Gholmi
Alameda Couny Environmental Health Agency

FROM: Roger Brewer, Chuck Headlee
Bay Area Regional Water Quality Control Board
Toxics Cleanup Division

DATE: August 8, 2000

SUBJECT: Review of Risk Assessment and Site Investigation Reports for Durham Transportation, 19984 Meekland Avenue, Hayward

Below are comments on the AGI September 25, 1998, and Weber, Hayes and Associates October 27, 1999, risk assessments and proposed cleanup levels for the Durham Transportation site at 19984 Meekland Avenue, Hayward. Please contact our office if you have any questions.

1. **Conditional approval of proposed soil cleanup levels.** Based on my review of the combined AGI/Weber, Hayes and Associates risk assessments, the following soil cleanup levels have been proposed:

Chemical	Surface Soils (0-5.5' bgs)	Subsurface Soils (>5.5' bgs)
Benzene	-	0.118 mg/kg
Ethylbenzene	-	-
Toluene	-	150 mg/kg
Xylenes	-	-
1,2 DCA	0.032 mg/kg	0.032 mg/kg
PCE	0.49 mg/kg	0.49 mg/kg
TCE	0.17 mg/kg	0.17 mg/kg
TPH-Gasoline	-	1000 mg/kg
TPH-Diesel	-	1000 mg/kg

The proposed soil cleanup levels for benzene, 1,2 DCA, PCE and TCE are adequate for protection of human health through direct and indirect exposure. Although not specifically addressed in the risk assessments, the cleanup levels are also adequate for protection of groundwater quality (as a potential source of drinking water) due to potential leaching of chemicals from soil. The cleanup levels were originally developed for a commercial/industrial land use scenario. Based on a review of USEPA Region IX Preliminary Remediation Goals (October 1999) and in-house screening levels for protection of indoor air quality, the proposed soil cleanup levels for these chemicals are also adequately protective of potential, future residential use of the property. The proposed cleanup level for benzene in subsurface soil should, however, also be applied to surface soils. (If concentrations of benzene in surface soil are already below this level, additional cleanup is obviously not required.)

The proposed cleanup levels for toluene and TPH and the lack of cleanup levels for ethylbenzene and xylenes do not address the need to protect groundwater quality due to potential leaching of chemicals from soil. Soil cleanup criteria that address this concern should be developed and presented for review. As an alternative, a more stringent TPH cleanup level could be used (e.g., 100 mg/kg).

In accordance with the Basin Plan, shallow groundwater beneath the site should be considered a potential source of drinking water. Final cleanup goals for groundwater should reflect drinking water standards or correlative criteria in the absence of regulatory standards (e.g., 100 ug/L TPH).

2. **Initiate regular sampling of groundwater; define extent of groundwater impacted above cleanup goals to extent practical and needed.** As proposed by Weber, Hayes and Associates, groundwater should be sampled and tested on a quarterly basis unless otherwise approved. A sampling plan should be submitted for review. The sampling plan should describe the wells to be sampled. Samples should be tested for TPH and volatile organic compounds, including MTBE. Contoured maps depicting the extent of groundwater impacted above cleanup goals should be prepared.

3. **Conduct additional soil sampling between ground surface and water table; define extent of soil impacted above proposed cleanup standards; develop remedial action plan.** Additional soil sampling should be carried out in order to determine the extent of soil impacted above proposed cleanup levels. Note that this should be done for all chemicals detected at the site and not only for benzene as proposed by Weber, Hayes and Associates. Soil samples should be tested for TPH and volatile organic compounds, including MTBE. Maps and cross sections that depict the lateral and vertical extent of impacted soil should be prepared and presented.

4. **Evaluate need for additional remediation of impacted soil and groundwater at the site.** Continuing heavy impacts to shallow groundwater at the site suggest that additional removal of impacted soil is necessary. The need for active remediation of impacted groundwater in the source area should also be evaluated. The applicability of monitored natural attenuation should be evaluated with respect to the extent and magnitude of impacts, the proximity of downgradient wells and bodies of surface water, and the presence of vertical conduits that could cause impacts to deeper aquifers.

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

RECEIVED SEP 05 2003

Letter of Transmittal

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

from: Craig Drizin

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

date: August 29, 2003

Number of Copies	*Date of Documents*	*Description*
1	August 29, 2003	*Fuel Leak* *Case Closure Report*

c: Mr. Scott Seery
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502 - 6577

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

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

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

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Hayes-01

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

August 22, 2003
Project H9042.Q/D

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

Subject: **FUEL LEAK CASE CLOSURE REQUEST**
Groundwater Monitoring Report - Second Quarter 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Dear Mr. Harbert:

This report presents our request for closure of the fuel leak case at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California. This report also documents groundwater monitoring activities at the former Harbert Transportation facility during the second quarter 2003.

This request is based on:

- **Removing petroleum hydrocarbon-contaminated soil from the source area around the removed underground storage tanks and appurtenant piping to below site-specific cleanup goals**
- **Six consecutive quarters of post-cleanup groundwater monitoring indicating that dissolved petroleum hydrocarbon concentrations are below site-specific cleanup goals**
- **A Well/Conduit Search indicating that shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater**

The site-specific cleanup goals for soil and groundwater are based on Risk Based/Environmental Screening Levels developed by the San Francisco Bay Regional Water Quality Control Board. Natural attenuation will complete the cleanup of groundwater by reducing the residual dissolved petroleum hydrocarbon concentrations to below water quality goals.

Confirmation that shallow groundwater near the site is not a drinking water source and that there are no nearby conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater is the final piece of information necessary to request closure of the fuel leak case at this site.

EXECUTIVE SUMMARY

In the second quarter 2003, we completed a Well/Conduit Study that indicated shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater.

Harbe-01

The horizontal conduit portion of the Well/Conduit Study entailed contacting all utility companies in the area of the site to obtain maps of their underground utilities, field checking depths and locations of utility trenches near the site, and preparing a map summarizing the depths and locations of utilities near the site. The deepest utility trench near the site reaches a depth of approximately eight feet below the ground surface (bgs). Shallow groundwater beneath the site is found at a depth of approximately 22 to 23 feet bgs. **Therefore, Utility trenches near the site could not serve as a horizontal conduit for the movement of petroleum hydrocarbon (PHC)-degraded groundwater.**

The vertical conduit portion of the Well/Conduit Study entailed contacting the Alameda County Public Works Agency (ACPWA) to obtain information on any type of well within a ½-mile radius of the site, field checking the location of all wells within ½-mile of the site, and preparing a table and map summarizing the well locations, construction, and use, where available. **There are no drinking water wells near the site. There are no wells near or downgradient of the site that could serve as a vertical conduit for the movement of PHC-degraded groundwater.**

Confirmation that shallow groundwater near the site is not a drinking water source and that there are no nearby conduits that could serve as paths for PHCs to reach deeper groundwater is the final piece of information necessary to request closure of the fuel leak case at this site. This information confirms that it is appropriate to use Risk Based/Environmental Screening Levels (ESLs) for residential indoor air impacts from PHC-degraded groundwater as the site-specific cleanup goals for groundwater. Please see our March 27, 2003 *Report* for the criteria used to select the site-specific cleanup goals.

Groundwater samples from the first quarter 2003 were analyzed for Halogenated Volatile Organic Compounds (HVOCs), because trace levels of these compounds had been detected in the original site investigation. The only HVOC detected was 1, 1, 2-trichloroethane, at a maximum concentration of 9 micrograms per liter (µg/L, parts per billion, ppb). This concentration is well below the ESL for Residential Indoor Air Impacts which we use as the site-specific cleanup goal. Please see our July 2, 2003 *Report* for details.

The groundwater monitoring event for the second quarter 2003 took place on June 24, 2003. Groundwater elevations at the site fell an average of approximately 0.14 feet since the previous quarter (March 2002). The calculated groundwater flow direction on June 24, 2003 was to the west, which is consistent with historical data. Groundwater analytical results from the second quarter 2003 indicate that dissolved PHC concentrations fluctuated somewhat; but were generally lower. **For the sixth consecutive quarter, dissolved PHC concentrations were below the site-specific cleanup goals.**

Methyl - tert - Butyl Ether (MTBE) was not detected in the groundwater samples collected this quarter. MTBE has not been detected in soil or 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.

At this time we recommend closing the fuel leak case at this site. Site investigations, groundwater monitoring, and comparison of site data to ESLs show that residual PHCs in soil and groundwater do not threaten human health or groundwater resources. Residual PHCs in shallow groundwater at the site will degrade to groundwater quality goals (drinking water Action Levels/Maximum Contaminant Levels), and there are no conduits for transport of residual PHCs in groundwater.

INTRODUCTION

This report presents our request for closure of the fuel leak case at the former Harbert Transportation facility, 19984 Meekland Avenue, Hayward, California.

This request is based on:

- Removing petroleum hydrocarbon-contaminated soil from the source area around the removed underground storage tanks and appurtenant piping to below site-specific cleanup goals (Please see our March 27, 2003 *Proposed Site Specific Cleanup Goals - Revised, Groundwater Monitoring Report)*

- Six consecutive quarters of post-cleanup groundwater monitoring indicating that dissolved petroleum hydrocarbon concentrations are below site-specific cleanup goals (including the second quarter 2003 described in this report)

- A Well/Conduit Search indicating that shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater (also described in this report)

The site-specific cleanup goals for soil and groundwater are based on Risk Based/Environmental Screening Levels developed by the San Francisco Bay Regional Water Quality Control Board. Natural attenuation will complete the cleanup of groundwater by reducing the residual dissolved petroleum hydrocarbon concentrations to below water quality goals.

This report also documents groundwater monitoring activities at the former Harbert Transportation facility during the second quarter 2003. Groundwater monitoring has been required by the Alameda County Health Care Services Agency/Environmental Health Services (Environmental Health) pursuant to a release of petroleum hydrocarbons (PHCs) from underground storage tanks (USTs) at the site.

Environmental Health concurred with our first quarter 2002 recommendation to decrease the sampling frequency at selected monitoring wells. The current sampling schedule is:

Quarterly	Monitoring Wells MW-3, 5, 6, 9, and 10
Semi-Annually	Monitoring Wells MW-3, 5, 6, 7, 9, and 10 (Second Quarter)
Annually	All Wells, MW-3 - 12 (Fourth Quarter)

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 the appropriate monitoring wells
4. Submitting the 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 technical report

SITE DESCRIPTION AND BACKGROUND

The site is located at the corner of Meekland Avenue and Blossom Way, a highly urbanized area in Alameda County, California (Figure 1). The site is located at an elevation of approximately 55 feet above sea level. The site is relatively flat. The area of the site is approximately 21,000 square feet. The site is located approximately 2,500 feet south of San Lorenzo Creek, and approximately 15,000 feet east of the San Francisco Bay (see Figure 1). There are no ecologically sensitive areas (such as surface water or wetlands) or homes to endangered species within 1,000 feet of the site. Domestic water at the site and in the vicinity is provided by the East Bay Municipal Utilities District.

Past, Current and Anticipated Future Site Activities and Uses

The site was used primarily for commercial activities in the past. It has 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. Durham used the site for similar activities.

The site is currently vacant. Anticipated future site uses are residential, so all Risk-Based/Environmental Screening for contaminants at the site was based on residential land use. Residual concentrations of PHCs are below the residential Risk-Based/Environmental Screening Levels, so no formal land use restrictions are necessary to protect human health (see below).

Summary of Site Investigations and Interim Remedial Actions

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. Twelve groundwater monitoring wells were installed by the former consultants. Ten of the monitoring wells still exist at the site (see Figure 2). Documentation from other consultants indicates the other two monitoring wells were properly destroyed, however this is not reflected in Alameda County well records - see the Well/Conduit Search section, below). Groundwater samples were not collected from the site 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.

Weber, Hayes and Associates initiated a groundwater monitoring program at the site in the third quarter 2000. The groundwater monitoring program continued on a quarterly basis to the present. **Analytical data from the groundwater monitoring program indicate that shallow groundwater at the site has been impacted by PHCs. However, neither Methyl tert Butyl Ether (MTBE) nor other fuel oxygenates (Di-isopropyl Ether, tertiary Butyl Alcohol, Ethyl tertiary Butyl Ether, and tertiary Amyl Methyl Ether) have ever been detected in groundwater at the site.**

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 Work Plan was approved by Environmental Health on November 1, 2000. **Analysis of the data collected indicated that the soils at the site were predominately fine grained, and confirmed that significant concentrations of PHCs remained in soils beneath the former dispensers and in the 1989 UST excavation which was backfilled with the excavated material.** We recommended excavation of these residual PHCs as an Interim Remedial Action (Weber, Hayes and Associates, June 18, 2001). Environmental Health concurred with this recommendation in a letter dated June 26, 2001.

On January 7 - 10, 2002 we conducted an interim remedial action excavation using six foot diameter augers to remove contaminated soils from the subsurface. Approximately 670 cubic yards (yds^3) of soil was removed from the subsurface. Approximately 594 yds^3 of PHC-impacted soil was transported to an appropriate landfill for disposal. The remaining soil was verified not to contain any detectable PHCs, and was reused on-site as backfill material. A pump was installed in one of the large diameter boreholes and 3,000-gallons of PHC impacted water was removed from the subsurface and properly disposed of. Oxygen Release Compound® (ORC) was added to the saturated zone in each borehole to promote microbial growth and enhance the ability of aerobic microbes to degrade contaminants. Each borehole was backfilled with control density fill and clean

fill soil to ground surface. This work was described in our February 8, 2002 report, *Large Diameter Excavation and 4th Quarter 2001 Quarterly Groundwater Monitoring*. The highest residual PHC concentrations in soil at the site after the source zone excavation are summarized in the table below.

Summary of Maximum Residual PHC Concentrations in Soil After Source Zone Excavation (mg/kg, ppm)

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Highest Site Soil Concentrations	34	0.041	0.014	0.12	0.62

The highest residual PHC concentrations at the site are from a single confirmation soil sample collected after the source excavation in January 2002 (sample LD#16 SW-W). The majority of the confirmation samples collected after the source excavation did not contain any detectable PHCs.

In the fourth quarter 2002 (Weber, Hayes, and Associates, March 27, 2003) we presented site-specific soil and groundwater cleanup goals based on the California Regional Water Quality Control Board, San Francisco Bay Region's publication: *Application of Risk-Base Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater* (these are denoted as RBSLs). In July 2003, the California Regional Water Quality Control Board, San Francisco Bay Region updated their publication and re-titled it: *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* (these are denoted as ESLs) The changes to the site specific cleanup goals for contaminants of concern at this site are minor (**and do not affect our request for closure**):

Comparison of Site Specific Cleanup Goals/Tier 1 RBSLs/ESLs to Site Data

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Highest Site Soil Concentrations	34 mg/kg	0.041 mg/kg	0.014 mg/kg	0.12 mg/kg	0.62 mg/kg
Soil Cleanup Goal - RBSL	100 mg/kg	0.045 mg/kg	2.6 mg/kg	2.5 mg/kg	1.0 mg/kg
Soil Cleanup Goal - ESL	100 mg/kg	0.044 mg/kg	2.9 mg/kg	3.3 mg/kg	1.5 mg/kg

Comparison of the site-specific cleanup goals (both RBSLs and ESLs) for PHCs in soil with the highest residual concentrations of PHCs in soil indicate that residual concentrations of PHCs in soil were below site-specific cleanup goals and do not pose a threat to human health (see Table 1 for a summary of soil sample analytical results). There are no sensitive ecological habitats, such as surface water or wetlands, within three miles of the site, so the residual PHCs in soil do not pose a

threat to the environment, either. PHC concentrations in groundwater were also below site-specific cleanup goals and do not pose a threat to human health (see below).

In the fourth quarter 2002 we also presented a Work Plan for the Well/Conduit Search to confirm our assumption that shallow groundwater near the site is not a drinking water source and that there are no nearby abandoned wells that could serve as conduits to deeper groundwater. Environmental Health concurred with our Work Plan on April 15, 2003, and requested that the search be expanded to identify the presence of all wells within ½ mile radius of the site (i.e., monitoring and production wells; active, inactive, standby, destroyed, abandoned), provide details of their construction (where available), and an interpretation of their possible contribution to plume dispersal, should there be any. Environmental Health also requested that the Conduit Search include an evaluation of all potential preferential pathways (e.g.,utilities, storm drains, etc.).

The Well/Conduit Study was completed in the second quarter 2003, and indicated that shallow groundwater near the site is not a drinking water source and that there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater.

The groundwater samples collected in the first quarter 2003 were analyzed for Halogenated Volatile Organic Compounds (HVOCs) because trace levels of the HVOCs trichloroethylene, tetrachloroethylene and 1, 2-dichloroethane had been detected in the original site investigation. None of these compounds were detected in the groundwater samples collected in the first quarter 2003. Only 1, 1, 2-trichloroethane was detected, at a maximum concentration of 9 micrograms per liter (µg/L, parts per billion, ppb) in the samples collected in the first quarter 2003. This concentration is well below both the Risk Based Screening Level of 930 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils which we propose to use as the site-specific cleanup goal. The 9 ppb concentration is also well below the Environmental Screening Level of 350 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils. We note that soils at the site are fine grained.

GROUNDWATER MONITORING - SECOND QUARTER 2003

The groundwater monitoring event for the second quarter 2003 took place on June 24, 2003. Field methods followed Weber, Hayes and Associates' standard field methodology for groundwater monitoring, which is described in Appendix A. Groundwater samples were collected from monitoring wells MW-3, 5, 6, 9 and 10 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 A.

Free Product

Free product was not observed in any of the monitoring wells at the site. Free product has never been observed 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 1. Groundwater elevations at the site fell an average of approximately 0.14 feet since the previous quarter (March 2002). Calculated groundwater elevations from the gauging data collected on June 24, 2003 are shown on Figure 2. Data from this quarter indicate that groundwater flow is to the west (see Figure 2). The calculated groundwater gradient on June 24, 2003 was 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 depth to groundwater data collected by previous consultants are presented as Appendix B.

Groundwater Analytical Results

Groundwater samples were collected from five of the ten 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 and on Figure 3.

Summary of Petroleum Hydrocabon Groundwater Sample Analytical Results, June 24, 2003 (µg/L, ppb)

Well ID	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	260	ND	ND	5.6	2.8	ND*
MW-5	3,800	100	58	310	670	< 1.5*
MW-6	1,500	< 5	< 5	35	15	< 0.6*
MW-9	2,900	25	9.1	230	270	< 1.5*
MW-10	750	< 2.5	< 2.5	< 2.5	< 5	< 1.5*
PQLs	50	0.5	0.5	0.5	1	1
Groundwater Cleanup Goal	5,000 - 50,000	1,900	530,000	52,000	160,000	NA

* = Confirmed by GC/MS method 8260, PQL = Laboratory's Practical Concentration Limit

The concentrations of benzene in wells MW-5 and 9 exceed the groundwater quality goal/drinking water MCL of 1 part per billion (ppb), but were below the site-specific groundwater cleanup goal of 1,900 ppb, which is the updated Environmental Screening Level (ESL). The concentrations of TPH-g and benzene in wells MW-5, 6, and 9 exceed the respective groundwater quality goal/drinking water Action Level (AL) / Maximum Contaminant Level (MCL), but were below their respective site-specific groundwater cleanup goals. We expect the concentrations of benzene to continue to decline, and to drop below MCLs over time, because dissolved oxygen levels at the site indicate biodegradation of organic compounds in shallow groundwater is occurring (see Dissolved Oxygen section).

No other PHCs exceed their respective groundwater quality goals/ALs or MCLs.

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

Please see the Site Conceptual Model section for further discussion of the groundwater analytical results.

Analytical results for the groundwater samples collected by Weber, Hayes and Associates since the third quarter 2000 are summarized in Table 2. PHC concentrations detected in groundwater during the current monitoring event are shown on Figure 3. The extent of dissolved PHCs greater than 1,000 ppb TPH-g and 10 ppb benzene in groundwater are shown on Figure 4. A dissolved oxygen concentration contour map is presented as Figure 5. The decreasing trend in TPH-g and benzene concentrations in wells MW-5 and 9, along with groundwater elevations over time, are shown on Figures 6 and 7.

The laboratory's Certified Analytical Reports for the groundwater samples is presented as Appendix C. All laboratory quality control and quality assurance data were within acceptable limits. A table and figures summarizing analytical results of groundwater samples collected by previous consultants is presented as Appendix D (review of analytical data collected by previous consultants further illustrates the decreasing trend in dissolved PHC concentrations).

Dissolved Oxygen Measurements

Current and historic dissolved oxygen measurements collected at the site indicate generally lower levels of dissolved oxygen in PHC-impacted wells compared to levels in non-impacted, upgradient wells. The decrease in dissolved oxygen in the impacted wells is shown on the dissolved oxygen concentration contour map, Figure 5. We believe the depletion of dissolved oxygen in PHC-impacted wells, combined with the observed decrease in dissolved PHC concentrations over time (see Figures 6 and 7), indicates that natural attenuation of PHCs via biologic activity (bioremediation) is occurring in groundwater, with microbes using dissolved PHCs as a food source during aerobic respiration (Bushek and O'Reilly, 1995).

Summary of Quarterly Groundwater Monitoring Results

- Free product was not observed in any of the monitoring wells at the site.
- Groundwater elevations at the site fell an average of approximately 0.14 feet since the previous quarter (March 2002).
- The groundwater flow direction on June 24, 2003 was to the west at a gradient of approximately 0.002 feet per foot. This direction is in agreement with data collected by us and previous data collected by others at the site.
- Concentrations of dissolved PHCs generally decreased compared to last quarter.
- **MTBE was not detected in any of the groundwater samples collected this quarter.**
- TPH-g was detected at a concentration above the drinking water Action Level in on-site wells MW-5, 6, and 9. The concentrations of TPH-g were below the appropriate Risk Based/Environmental Screening Level/site-specific cleanup level.
- Benzene was detected at a concentration above the drinking water MCL in wells MW-5 and 9. The concentrations of benzene were below the appropriate Risk Based/Environmental Screening Level/site-specific cleanup level.
- No other PHCs were detected above their respective water quality goals/drinking water Action Levels/Maximum Contaminant Levels.

- Current and historic measurements of dissolved oxygen collected at the site indicate aerobic bioremediation is occurring in the PHC-impacted groundwater.

WELL/CONDUIT STUDY

A well/conduit study was implemented for the site following the approval of our *Work Plan for Conduit Study* (Weber, Hayes, and Associates, March 27, 2003) by Environmental Health in their e-mail dated April 15, 2003. Environmental Health also requested that the search be expanded to identify the presence of all wells within ½ mile radius of the site (i.e., monitoring and production wells; active, inactive, standby, destroyed, abandoned), provide details of their construction (where available), and an interpretation of their possible contribution to plume dispersal, should there be any. The results of this study were used to refine our three-dimensional Site Conceptual Model (SCM) and determine whether or not utility conduits or offsite wells would allow the spread of PHC-contaminated groundwater.

We implemented the *Work Plan* by contacting all utility companies which have underground or above ground utilities near the site, as well as contacting the Alameda County Public Works Agency (ACPWA) to obtain information on any type of well within ½-mile radius of the site.

Three utility companies (Oraloma Sewer, East Bay Mud, and Pacific Gas & Electric) as well as three departments within ACPWA (Land Development Department, Maintenance & Operations Department and Water Resources Section) were contacted to obtain the information necessary to complete our well/conduit study.

On July 19, 2003 ACPWA Water Resources Section sent us their query results on wells within ½-mile radius of our site. This data was compiled onto Table 3 according to well number (Township, Section, and Range). Included in the query, if available were; site addresses and city; well owners; drilling dates; elevations of well heads; total depth of wells; groundwater depths; well diameters; well types; and whether or not there was a drilling log associated with the well. A total of 78 wells were identified within ½ mile of our subject site by ACPWA Water Resources Section. The well use identified by ACPWA were either: domestic well; monitoring well; irrigation well (irrigation well could also be domestic well); boring; abandoned well (but not destroyed through permit); destroyed well (destroyed through permit); test well; or, unknown type of well (well use not reported).

On July 28th, 2003 Weber, Hayes and Associates staff mapped above ground and below ground utilities in the intersection of Blossom Way and Meekland Avenue. Each manhole cover was identified and mapped, as was all street lighting and overhead electrical. It should be noted that utility companies do not provide information on depth to utilities because of liability, if they were to incorrectly provide the depth. Utility installation depths depend on other utilities in the area, and

depth to groundwater, and installation depths are determined in the field on a site by site basis. In trying to determine depths of the utilities in our area, each utility manhole cover identified was opened to observe the utility lines in the subsurface and measure their respective depths. Based on our field observations, traffic lighting, and traffic signal lighting were the shallowest, less than (<) 1 foot below ground surface (bgs). Other utilities were deeper, and are listed in order of depth. PG&E natural gas lines were observed at approximately 2 feet bgs, water lines were observed at approximately 3 feet bgs, storm drain lines were observed at approximately 6 feet bgs, and sewer lines were observed at approximately 8 feet bgs.

Following field mapping and after receiving utility maps from the utility companies, a utility map was created and is presented as Figure 8. This map depicts all utilities around the site. Our field mapping operations concurred with the utility maps obtained from the utility companies. Although there are many utilities within the subsurface around the site, all of the utilities are relatively shallow as compared to the regional groundwater table. Groundwater is encountered at approximately 22 to 23 feet bgs. Based on our field inspections the deepest conduit at the site is approximately 8 feet bgs, approximately 14 feet from the groundwater table. **We do not believed that any of the utility conduits near the subject site could serve as a horizontal conduit for transporting PHC-contaminated groundwater**.

After completing the utility mapping at the site, WHA staff confirmed the location of each well identified by ACPWA within ½ mile radius of the site by driving by and looking for pump houses or electrical poles which service the pump house. Generally, the irrigation wells were located at a large residential complex (mobile home, apartments, or condominiums), while the monitoring wells were located at active or abandoned gasoline stations. Domestic wells were generally noted by observing a pump house on the property. A ½-mile well radius map showing well locations was compiled and is presented as Figure 9. Particular attention was given to those wells which were near the site, especially domestic and irrigation wells. The closest two wells (3S2W17C1; 3S2W17C2) were approximately 600 feet northwest (cross-gradient) of the site, and were listed by ACPWA to be irrigation wells. Although neither depth to groundwater nor sanitary seal depths were reported for these wells, they are not located within the limits of the sites' dissolved PHC plume and therefore are not believed to be vertical conduits for transport of PHC-impacted groundwater. We also note that well MW-11 is northwest of the site and does not contain any PHCs. The groundwater plume at the subject site is estimated to be at a maximum, 120 feet long (see Figure 4). None of the other wells are close to the subject site, and therefore **there are no wells that could serve as vertical conduits for transporting PHC-contaminated groundwater**.

Based on all field work conducted and information obtained, no utility conduits, nor any wells identified within ½-mile radius of the site appear to be conduits that could allow transport of PHC-contaminated groundwater.

SITE CONCEPTUAL MODEL

The Site Conceptual Model provides a compilation of our understanding of the existing site conditions:

- Soils encountered at the site generally consisted of fine grained materials: fat Clays and sandy Clays.

- Source zone PHC-impacted soil was removed from the site in January 2002. Approximately 594 yds^3 of PHC-impacted soil was removed from the subsurface and transported to an appropriate landfill for disposal. The maximum residual PHC concentrations in soil are **below** the appropriate Environmental Screening Levels/site-specific cleanup levels. See the Summary Table below and our March 27, 2003 *Report*.

- **MTBE has not been detected in any of the soil or groundwater samples collected at the site.**

- Dissolved PHCs are present in groundwater beneath the site, downgradient of the removed USTs, at concentrations that exceed groundwater quality goals/drinking water Action Levels and/or MCLs. The maximum residual PHC concentrations in groundwater are **below** the appropriate Environmental Screening Levels/site-specific cleanup levels. See the Summary Table below and our March 27, 2003 *Report*.

- The groundwater samples collected in the first quarter 2003 were analyzed for Halogenated Volatile Organic Compounds (HVOCs) because trace levels of HVOCs had been detected in the original site investigation. In the first quarter 2003 only 1, 1, 2-trichloroethane was detected at a maximum concentration of 9 ppb. This concentration is well **below** both the Risk Based Screening Level of 930 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils which we selected as the site-specific cleanup goal. See our July 2, 2003 *Report*. The 9 ppb concentration is also well below the Environmental Screening Level of 350 ppb for Residential Indoor Air Impacts from groundwater in coarse grained soils. We note that soils at the site are fine grained.

- Dissolved PHC concentrations show a general downward trend (see Table 2 and Figures 6 and 7).

- Shallow groundwater near the site is not a drinking water source and there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater.

- **Natural attenuation/bioremediation has and will continue to remove PHCs from groundwater at the site, as evidenced by the general downward trend in PHC concentrations.**

Comparison of Site Specific Cleanup Goals/ESLs to Site Data

Chemical	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
Highest Site Soil Concentrations	34 mg/kg	0.041 mg/kg	0.014 mg/kg	0.12 mg/kg	0.62 mg/kg
Soil Cleanup Goal - ESL	100 mg/kg	0.044 mg/kg	2.9 mg/kg	3.3 mg/kg	1.5 mg/kg
Highest Current Groundwater Concentration	3,800 µg/L	100 µg/L	58 µg/L	310 µg/L	670 µg/L
Groundwater Cleanup Goal - ESL	5,000 - 50,000 µg/L	1,900 µg/L	530,000 µg/L	52,000 µg/L	160,000 µg/L

RECOMMENDATIONS

At this time we recommend closing the fuel leak case at this site. Site investigations, groundwater monitoring, and comparison of site data to ESLs show that residual PHCs in soil and groundwater do not threaten human health or groundwater resources. Residual PHCs in shallow groundwater at the site will degrade to groundwater quality goals (drinking water Action Levels/Maximum Contaminant Levels), and there are no conduits for transport of residual PHCs in groundwater.

SCHEDULE OF ACTIVITIES FOR THE FOLLOWING QUARTER

No monitoring, investigative, or cleanup activities are scheduled for the next quarter at the site.

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.

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:_____
Chad N. Taylor
Staff Geologist

And:_____
Aaron Bierman
Senior Staff Geologist

And:_____
Craig B. Drizin, P.E.
Senior Engineer

c: Mr. Scott Seery, Alameda County Environmental Health
Mr. Jeff Lawson
Ms. Laurie Berger
Mr. Gregg Petersen, Durham Transportation

Attachments

Table 1	Summary of Soil Sample Analytical Results
Table 2	Summary of Groundwater Elevation and PHC Analytical Data
Table 3	½ Mile Radius Well Search
Figure 1	Location Map
Figure 2	Site Plan with Groundwater Elevations
Figure 3	Site Plan with PHC Concentrations in Groundwater
Figure 4	Site Plan with Extent of TPH-g and Benzene in Groundwater
Figure 5	Site Plan with Dissolved Oxygen Contours
Figure 6	TPH-g and Groundwater Elevation MW-5 and MW-9
Figure 7	Benzene and Groundwater Elevation MW-5 and MW-9
Figure 8	Utilities Map
Figure 9	½ Mile Radius Well Map
Appendix A	Field Methodology for Groundwater Monitoring and Field Data Forms
Appendix B	Summary of Historical Depth to Groundwater Measurements, Groundwater Elevations, and Groundwater Flow Direction - AGI Technologies, Inc.
Appendix C	Certified Analytical Report - Groundwater Samples
Appendix D	Summary of Historical Groundwater Analytical Results - AGI Technologies, Inc.

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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)*
Proposed Cleanup Levels	--	--	100	0.045	2.6	2.5	1.0	NA
Interim Remedial Action Large Diameter Auger Drilling & Source Removal (January 7, 8, 9, 10, 2002)	Soil Reuse #1a,b,c,d	4-point composite (0 - 10')	ND	ND	ND	ND	ND	ND
	Soil Reuse #2a,b,c,d	4-point composite (0 - 20')	ND	ND	ND	ND	ND	ND
	Soil Reuse #3a,b,c,d	4-point composite (0 - 20')	ND	ND	ND	ND	ND	ND
	LD#1 SW-E	35'	ND	ND	ND	0.005	0.011	ND
	LD#2 SW-W	35'	ND	ND	ND	ND	ND	ND
	LD#3 BC-N	40'	ND	ND	ND	ND	ND	ND
	LD#4 SW-N	40'	1.2	ND	0.012	0.005	0.006	ND
	LD#5 SW-N	40'	ND	ND	ND	ND	ND	ND
	LD#8 SW-S	40'	ND	ND	ND	ND	ND	ND
	LD#9 SW-E	40'	ND	ND	ND	ND	ND	ND
	LD#10 SW-E	40'	ND	ND	ND	ND	ND	ND
	LD#11 SW-W	40'	ND	ND	0.014	0.013	0.062	ND
	LD#12 SW-E	18'	ND	ND	ND	ND	ND	ND
	LD#13 SW-E	18'	ND	ND	ND	ND	ND	ND
	LD#13 SW-E	40'	ND	ND	0 006	ND	0.022	ND
	LD#14 SW-W	40'	ND	ND	ND	ND	ND	ND
	LD#15 BC-S	40'	ND	ND	ND	ND	ND	ND
	LD#16 SW-W	18'	ND	ND	ND	ND	ND	ND
	LD#16 SW-W	40'	34	0.041	ND	0.12	0.62	ND
Landfill Acceptance Borings (October 18, 2001)	DP-1c,d,e,f	4-point composite (15-30')	ND	ND	ND	ND	ND	ND
	DP-2c,d,e,f	4-point composite (15-30')	130	ND	0.13	0 37	1.2	ND
Soil Sampling Additional Site Assessment (February 14, 2001)	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*
Laboratory's Practical Quantitation Limits			1	0.005	0.005	0.005	0.005	0.05

NOTES:

Proposed Cleanup Levels: RBSLs for Surface and Subsurface Soils from *Application of Risk Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater*, SFBay RWQCB, December 2001

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

Monitoring Point Information						Laboratory Analytical Results							Field Measurements	
						Total Petroleum Hydrocarbons	Volatile Organic Compounds							
Well I.D.	TOC Elevation (feet, NGVD)	Screen Interval (feet, bgs)	Date Sampled	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, NGVD)	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Fuel Oxygenates (ug/L)	Dissolved Oxygen (mg/L)	Redox Potential (ORP) (mV)
MW-3	55.44	20 - 40?												
			06/24/03	22.53	32.91	260	ND	ND	5.6	2.8	ND*	--	0.18	-2
			03/21/03	22.41	33.03	460	3.3	1.4	5.6	< 2.5	ND*	--	0.15	-34
			12/30/02	21.32	34.12	70	ND	ND	2.1	< 1	ND*	--	0.14	536
			08/27/02	23.87	31.57	350	0.56	1.1	14	3.4	ND	--	0.13	216
			06/13/02	22.92	32.52	300	1.1	1.4	4	1.8	ND	--	0.14	194
			03/21/02	21.96	33.48	240	0.94	2.5	12	11.7	ND	--	0.1	--
			12/18/01	23.59	31.85	270	1.6	1.7	13	5.4	ND	--	--	--
			09/20/01	24.16	31.28	380	1.7	2.6	32	8.9	ND	--	0.4	--
			06/20/01	23.55	31.89	760	4.4	2.4	62	23	ND*	--	--	--
			03/29/01	22.02	33.42	170	1.1	ND	10	1.6	ND	--	0.6	--
			01/12/01	23.41	32.03	310	2.4	2.2	4.4	10	ND	--	0.7	--
			09/27/00	23.09	32.35	430	ND	ND	44	ND	ND	ND	1	--
MW-4	55.71	20 - 40?												
			06/24/03	22.74	32.97	--	--	--	--	--	--	--	1.01	22
			03/21/03	22.49	33.22	--	--	--	--	--	--	--	1.03	18
			12/30/02	21.50	34.21	ND	ND	ND	ND	< 1	ND	--	0.41	368
			08/27/02	24.07	31.64	--	--	--	--	--	--	--	0.21	187
			06/13/02	23.15	32.56	ND	ND	ND	ND	ND	ND	--	0.20	392
			03/21/02	22.15	33.56	ND	ND	ND	ND	ND	ND	--	0.2	--
			12/18/01	23.80	31.91	ND	ND	0.9	ND	ND	ND	--	--	--
			09/20/01	24.32	31.39	ND	ND	ND	ND	ND	ND	--	0.4	--
			06/20/01	23.74	31.97	ND	ND	ND	ND	ND	ND	--	--	--
			03/29/01	22.22	33.49	ND	ND	4.2	ND	ND	ND	--	0.5	--
			01/12/01	23.60	32.11	ND	ND	ND	ND	ND	ND	--	0.7	--
			09/27/00	23.25	32.46	ND	ND	ND	ND	ND	ND	ND	2.5	--
MW-5	56.03	25 - 45												
			06/24/03	23.08	32.95	3,800	100	58	310	670	< 1.5*	--	0.05	-67
			03/21/03	22.99	33.04	4,800	190	82	370	700	< 5*	--	0.07	-72
			12/30/02	21.88	34.15	130	5.8	1.0	9.9	5.9	ND*	--	0.14	251
			08/27/02	24.42	31.61	1,900	170	14	210	93	ND*	--	0.43	207
			06/13/02	23.57	32.46	1,500	24	16	120	110	ND*	--	0.06	144
			03/21/02	24.69	31.34	360	11	9.4	28	62	ND	--	0.1	--
			12/18/01	23.15	32.88	780	21	12	86	94	ND*	--	--	--
			09/20/01	24.75	31.28	2,300	46	41	280	330	ND*	--	0.3	--
			06/20/01	24.15	31.88	6,500	120	130	740	940	ND*	--	--	--
			03/29/01	22.69	33.34	13,000	220	510	1000	2700	ND*	--	0.4	--
			01/12/01	23.97	32.06	1,100	62	40	150	290	ND*	--	0.3	--
			09/27/00	23.69	32.34	16,000	840	2.9	1200	3500	< 30	ND	0.4	--
MW-6	56.01	25 - 45												
			06/24/03	23.06	32.95	1,500	< 5	< 5	35	15	< 0.6*	--	0.09	-23
			03/21/03	22.96	33.05	1,200	6.3	< 5	54	< 10	ND*	--	0.09	-45
			12/30/02	21.91	34.10	670	2.5	< 1.25	29	2.7	ND*	--	0.15	321
			08/27/02	24.44	31.57	1,300	< 2.5	7.2	210	55	ND*	--	0.14	231
			06/13/02	23.53	32.48	1,600	<1.25	4.7	67	5.3	< 1.5*	--	0.53	233
			03/21/02	23.11	32.90	750	0.77	1.2	39	3.2	ND*	--	0.1	--
			12/18/01	24.16	31.85	3,700	33	8.7	320	110	< 1.5*	--	--	--
			09/20/01	24.72	31.29	2,500	11	8.6	240	94	ND*	--	0.3	--
			06/20/01	24.13	31.88	1,800	14	4.6	160	79	ND*	--	--	--
			03/29/01	22.56	33.45	610	2.2	ND	37	4.6	ND*	--	0.5	--
			01/12/01	23.97	32.04	2,300	16	3.5	290	83	ND*	--	0.5	--
			09/27/00	23.56	32.45	1,300	ND	4.3	200	17	ND	ND	0.5	--

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

Monitoring Point Information						Laboratory Analytical Results							Field Measurements	
						Total Petroleum Hydrocarbons	Volatile Organic Compounds							
Well I.D.	TOC Elevation (feet, NGVD)	Screen Interval (feet, bgs)	Date Sampled	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, NGVD)	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Fuel Oxygenates (ug/L)	Dissolved Oxygen (mg/L)	Redox Potential (ORP) (mV)
MW-7	56.66	25 - 45												
			06/24/03	23.62	33.04	--	--	--	--	--	--	--	0.58	32
			03/21/03	23.50	33.16	--	--	--	--	--	--	--	0.51	20
			12/30/02	22.34	34.32	ND	ND	ND	ND	< 1	ND*	--	0.17	370
			08/27/02	24.98	31.68	--	--	--	--	--	--	--	0.22	369
			06/13/02	24.07	32.59	ND	ND	ND	ND	ND	ND	--	0.20	370
			03/21/02	23.05	33.61	ND	ND	ND	ND	ND	ND	--	0	--
			12/18/01	24.70	31.96	290	ND	ND	119	4.6	ND	--	--	--
			09/20/01	25.27	31.39	290	0.98	ND	12	4.5	ND*	--	0.4	--
			06/20/01	24.68	31.98	430	2.4	0.96	30	9.7	ND*	--	--	--
			03/29/01	23.10	33.56	ND	ND	ND	ND	ND	ND	--	0.5	--
			01/12/01	24.49	32.17	1,600	13	0.86	150	35	ND*	--	0.5	--
			09/27/00	24.18	32.48	270	13	6.6	11	ND	ND	ND	0.5	--
MW-8	56.16	20 - 40												
			06/24/03	23.03	33.13	--	--	--	--	--	--	--	1.71	12
			03/21/03	22.91	33.25	--	--	--	--	--	--	--	1.62	15
			12/30/02	21.79	34.37	ND	ND	ND	ND	< 1	ND*	--	1.36	365
			08/27/02	24.43	31.73	--	--	--	--	--	--	--	1.98	402
			06/13/02	23.54	32.62	ND	ND	ND	ND	ND	ND	--	1.96	394
			03/21/02	22.51	33.65	ND	ND	ND	ND	ND	ND	--	2.4	--
			12/18/01	24.16	32.00	ND	ND	ND	ND	ND	ND	--	--	--
			09/20/01	24.68	31.48	ND	ND	ND	ND	ND	ND	--	1.6	--
			06/20/01	24.09	32.07	ND	ND	ND	ND	ND	ND	--	--	--
			03/29/01	22.56	33.60	ND	ND	0.8	ND	ND	ND	--	1.9	--
			01/12/01	23.93	32.23	ND	ND	ND	ND	ND	ND	--	2.1	--
			09/27/00	23.59	32.57	ND	ND	ND	ND	ND	ND	ND	1.9	--
MW-9	55.21	20 - 40												
			06/24/03	22.30	32.91	2,900	25	9.1	230	270	< 1.5*	--	0.08	-66
			03/21/03	22.17	33.04	5,900	190	24	470	630	< 5*	--	0.10	-84
			12/30/02	21.09	34.12	2,800	140	25	200	370	ND*	--	0.15	276
			08/27/02	23.69	31.52	310	27	2.5	20	20	ND*	--	0.18	154
			06/13/02	22.76	32.45	5,100	140	21	490	300	< 1.5*	--	0.14	135
			03/21/02	21.76	33.45	510	26	4.6	50	52	ND	--	0.1	--
			12/18/01	23.38	31.83	6,400	640	120	630	1300	< 1.5*	--	--	--
			09/20/01	23.94	31.27	3,400	270	38	390	430	ND*	--	0.3	--
			06/20/01	23.36	31.85	8,300	330	88	850	1700	< 0.6*	--	--	--
			03/29/01	21.61	33.60	1,600	110	14	240	150	ND*	--	0.4	--
			01/12/01	23.17	32.04	10,000	550	110	1200	2200	ND*	--	0.5	--
			09/27/00	22.90	32.31	1,000	40	6.7	110	55	ND	ND	0.5	--
MW-10	54.74	25 - 40												
			06/24/03	22.21	32.53	750	< 2.5	< 2.5	< 2..5	< 5	< 1.5*	--	0.09	-22
			03/21/03	22.00	32.74	700	3.4	1.4	0.71	1	ND*	--	0.06	-62
			12/30/02	20.78	33.96	1,200	5 6	< 5	< 5	< 10	ND*	--	0.18	267
			08/27/02	23.46	31.28	1,800	< 2.5	15	3.9	5	ND*	--	0.14	183
			06/13/02	22.56	32.18	1,700	0.77	6.2	3.3	2.9	< 0.3*	--	0.28	201
			03/21/02	21.53	33.21	1,500	ND	11	3.1	ND	ND*	--	0.1	--
			12/18/01	21.11	33.63	1,500	7.9	2.9	ND	ND	< 0.6*	--	--	--
			09/20/01	23.70	31.04	1,200	6	9.9	1.2	3.9	ND*	--	0.4	--
			06/20/01	23.17	31.57	810****	3	1.6	5.1	13	ND*	--	--	--
			03/29/01	21.63	33.11	600****	2	0.65	ND	0.72	ND	--	0.5	--
			01/12/01	22.99	31.75	530	3.7	1.9	2.1	4.5	ND	--	0.6	--
			09/27/00	22.72	32.02	880	ND	ND	ND	ND	ND	ND	0.4	--

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

Monitoring Point Information						Laboratory Analytical Results							Field Measurements	
						Total Petroleum Hydrocarbons	Volatile Organic Compounds							
Well I.D.	TOC Elevation (feet, NGVD)	Screen Interval (feet, bgs)	Date Sampled	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, NGVD)	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Fuel Oxygenates (ug/L)	Dissolved Oxygen (mg/L)	Redox Potential (ORP) (mV)
MW-11	55.20	25 - 40												
			06/24/03	22.37	32.83	--	--	--	--	--	--	--	0.43	21
			03/21/03	22.24	32.96	--	--	--	--	--	--	--	0.32	24
			12/30/02	21.11	34.09	ND	ND	ND	ND	< 1	ND	--	0.16	374
			08/27/02	23.68	31.52	--	--	--	--	--	--	--	0.13	369
			06/13/02	22.78	32.42	ND	ND	ND	ND	ND	ND	--	0.15	380
			03/21/02	21.76	33.44	ND	ND	ND	ND	ND	ND	--	0.1	--
			12/18/01	23.39	31.81	ND	ND	0.56	ND	ND	ND	--	--	--
			09/20/01	23.87	31.33	ND	ND	ND	ND	ND	ND	--	0.4	--
			06/20/01	23.39	31.81	ND	ND	ND	ND	ND	ND	--	--	--
			03/29/01	21.84	33.36	ND	ND	4.5	ND	ND	ND	--	0.6	--
			01/12/01	23.21	31.99	ND	ND	2.1	ND	ND	ND	--	0.6	--
			09/27/00	22.43	32.77	63	ND	ND	ND	ND	ND	ND	0.6	--
MW-12	56.49	25 - 40												
			06/24/03	23.41	33.08	--	--	--	--	--	--	--	1.25	29
			03/21/03	23.28	33.21	--	--	--	--	--	--	--	1.23	22
			12/30/02	22.16	34.33	ND	ND	ND	ND	< 1	ND	--	0.77	372
			08/27/02	24.68	31.81	--	--	--	--	--	--	--	0.60	410
			06/13/02	23.86	32.63	ND	ND	ND	ND	ND	ND	--	0.51	400
			03/21/02	22.86	33.63	ND	ND	ND	ND	ND	ND	--	0.7	--
			12/18/01	24.49	32.00	ND	ND	0.86	ND	ND	ND	--	--	--
			09/20/01	24.95	31.54	ND	ND	ND	ND	ND	ND	--	0.7	--
			06/20/01	24.47	32.02	ND	ND	ND	ND	ND	ND	--	--	--
			03/29/01	22.91	33.58	ND	ND	5	ND	ND	ND	--	1	--
			01/12/01	24.28	32.21	ND	ND	1.1	ND	ND	ND	--	1	--
			09/27/00	23.98	32.51	ND	ND	ND	ND	ND	ND	ND	1.2	--
Practical Quantitation Limit:						50	0.5	0.5	0.5	0.5	1	0.5	--	--
Site-Specific Cleanup Goals						5,000 - 50,000	1,900	530,000	52,000	160,000	NA	NA	--	--

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 = Methy - 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*

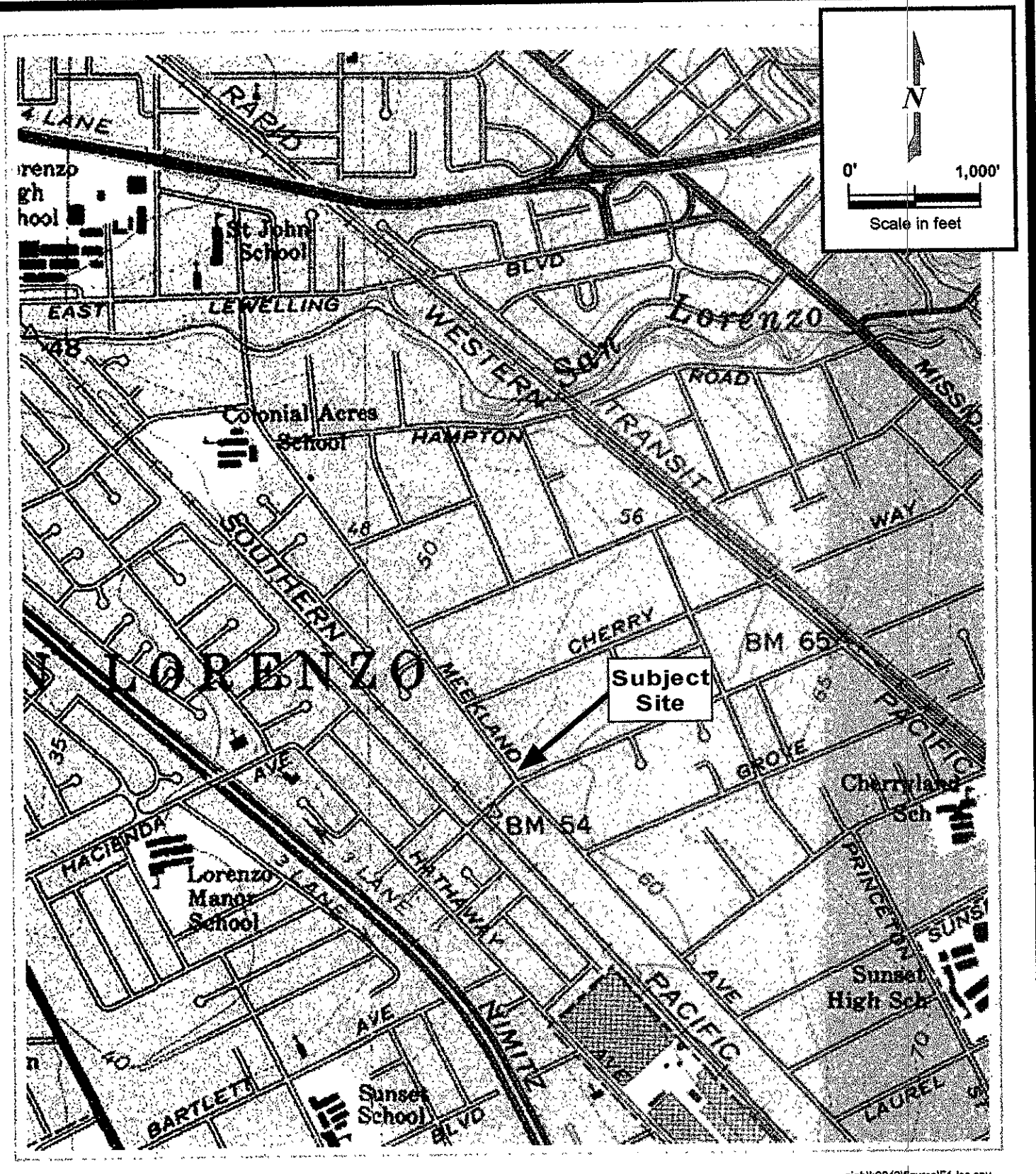
*** = Action Level *** = Secondary MCL / water quality goal*

***** = Laboratory Report indicates results within quantitation range; chromatographic pattern not typical of fuel*

TABLE 3
1/2-Mile Radius Well Search
19984 Meekland Avenue
Hayward, California

Township	Section	Address	City	Owner	Updated	Drill Date	Elevation	Total Depth	Waterdepth	Diameter	Use	Log
3S/2W	8K 1	654 HAMPTON RD	San Leandro	G. FREITAS	8/3/1984	/55	60	60	0	6	IRR	?
3S/2W	8L 1	451 HAMPTON RD	San Leandro	GREENFIELD	8/3/1984	?	0	75	25	8	IRR	?
3S/2W	8L 2	18381 HAVEN ST	San Leandro	KINSEY	8/3/1984	/50	60	50	0	0	IRR	?
3S/2W	8L 3	988 LEWELLING BLVD	San Leandro	KNAPP'S NURSERY	8/3/1984	/42	57	211	0	10	IRR+	?
3S/2W	8M	17771 Meekland Ave.	Hayward	Jocson Auto Electric	7/27/1993	6/92	0	22	18	0	BOR	G
3S/2W	8M 1	477 E. LEWELLING BLVD	San Leandro	SCHRAGL	8/3/1984	/41	42	70	0	10	IRR	?
3S/2W	8M 2	16980 HARVARD AVE	San Leandro	SHIMAMURA	8/3/1984	?	50	58	0	8	IRR	?
3S/2W	8M 3	17662 MEEKLAND AV	Hayward	BURTON BUSK	12/12/1984	/68	48	85	22	8	DOM+	D
3S/2W	8M 4	29517 SHASTA RD	Hayward	CHARLES A. TAYLOR	8/3/1984	5/56	0	40	6	6	DOM	D
3S/2W	8M 5	171 Hampton Road	Hayward	Cherryland Homes	7/3/1990	Oct-89	0	40	0	0	DES	D
3S/2W	8M 6	171 Hampton Road	Hayward	Cherryland Homes	7/3/1990	Oct-89	0	0	0	0	DES	D
3S/2W	8M 7	17771 Meekland Ave	Hayward	Jocson Auto Electric MW-1	7/27/1993	6/92	0	31	20	2	MON	G
3S/2W	8M 8	17771 Meekland Ave.	Hayward	Jocson Auto Electric MW-2	7/27/1993	6/92	0	31	18	2	MON	G
3S/2W	8M 9	17771 Meekland Ave.	Hayward	Jocson Auto Electric MW-3	7/27/1993	6/92	0	31	22	2	MON	G
3S/2W	8N 1	18286 MEEKLAND AVE	Hayward	BITTNER	8/3/1984	/40	47	85	0	0	IRR	?
3S/2W	8N 2	17754 MEEKLAND AVE	Hayward	HOFFMAN	8/3/1984	/45	48	156	0	8	DES	?
3S/2W	8P 1	19231 LOWELL AVE	Hayward	VANDERBURG	8/3/1984	/55	56	50	0	0	IRR	?
3S/2W	8P 2	203 MEDFORD AVE	Hayward	R.A. PAGE	8/3/1984	/36	56	64	0	0	IRR	?
3S/2W	8P 3	219 MEDFORD AVE	Hayward	NANCY SMITH	8/3/1984	1/78	0	80	26	6	IRR	D
3S/2W	8Q 1	546 CHERRY WAY	Hayward	DEXTER'S HATCHERY	8/3/1984	1/43	58	86	24	10	IRR	D
3S/2W	8Q 2	19751 WESTERN BLVD	Hayward	DEXTER'S HATCHERY	8/3/1984	9/42	57	88	0	8	IRR	D
3S/2W	8Q 3	361 SAINT GEORGE AVE	Hayward	R.J. CHASTAIN	8/3/1984	6/77	0	50	0	0	?	?
3S/2W	8Q 4	326 CHERRY WAY	Hayward	WILLIAM MATHEWS	8/3/1984	6/79	0	83	25	6	IRR	D
3S/2W	8Q 5	310 CHERRY WAY	Hayward	WILLIE DEDEK	8/3/1984	4/80	0	81	23	6	IRR	D
3S/2W	8Q 6	268 CHERRY WAY	Hayward	GUENTER MAHLER	4/1/1987	Mar-81	0	83	27	6	IRR	D
3S/2W	8R 1	839 CHERRY WAY	Hayward	HEITMAN	8/3/1984	/24	68	100	0	0	IRR	?
3S/2W	8R 2	823 BLOSSOM WAY	Hayward	BURROWES	12/18/1984	/08	69	90	0	6	IRR	?
3S/2W	8R 3	859 MEDFORD RD	Hayward	O. HIGGINS	8/3/1984	/39	68	85	0	10	IRR	?
3S/2W	8R 5	21070 WESTERN BLVD	Hayward	M. VIERRA	8/3/1984	?	64	85	0	12	DOM+	?
3S/2W	8R 6	559 CHERRY WAY	Hayward	MANUEL GONSALVES	8/3/1984	4/77	0	84	31	5	IRR	D
3S/2W	8R 8	850 CHERRY WAY	Hayward	LELAND DE QUADROS	8/3/1984	Oct-77	0	100	41	6	IRR	D
3S/2W	8R 9	21065 WESTERN	Hayward	RON BAXTER	8/3/1984	Oct-78	0	100	33	0	IRR	D
3S/2W	8R10	21031 Western Blvd	Hayward	William and Kathy Florenc	3/12/1998	Dec-95	0	35	25	2	MON	D
3S/2W	8R11	21031 Western Blvd	Hayward	William and Kathy Florenc	3/12/1998	Dec-95	0	35	25	2	MON	D
3S/2W	8R12	21031 Western Blvd	Hayward	William and Kathy Florenc	3/12/1998	Dec-95	0	35	25	2	MON	D
3S/2W	17A 1	448 GROVE WAY	Hayward	NEVES	8/3/1984	/28	68	108	0	0	IRR	?
3S/2W	17A 2	854 BLOSSOM WAY	Hayward	SOUSA	8/3/1984	/28	67	76	0	0	IRR	?
3S/2W	17A 3	21671 HAVILAND AVE	Hayward	DAVID PEARSON	8/3/1984	5/77	0	72	40	5	IRR	D
3S/2W	17B 1	204 GROVE WAY	Hayward	COATES	12/19/1984	/48	62	88	0	8	IRR	?
3S/2W	17B 2	294 GROVE WY	Hayward	WILDE	7/30/1984	/33	61	100	0	0	IRR	?
3S/2W	17C	19984 Meekland Ave.	Hayward	Durham Transportation	3/14/1991	8/90	55	45	30	4	MON	G
3S/2W	17C	19984 MEEKLAND AVE	Hayward	HARBERT TRANSPORTATION	10/3/1986	Jun-86	0	23	0	0	BOR	G
3S/2W	17C 1	162 CHERRY LN [1]	Hayward	DEASON	7/30/1984	/40	53	72	0	6	IRR	?
3S/2W	17C 2	19126 MEEKLAND AV	Hayward	HARTWELL	1/29/1985	/31	52	91	0	8	IRR	?
3S/2W	17C 3	183 CHERRY WAY	Hayward	FRED DEADMAN	8/3/1984	5/77	0	56	28	6	IRR	D
3S/2W	17C 4	21005 MEEKLAND AVE	Hayward	ABREV EGG CO.	8/3/1984	7/77	0	77	37	6	IRR	D
3S/2W	17C 5	19984 MEEKLAND AVE	Hayward	HARBERT TRANSPORTATION	10/3/1986	Jun-86	0	42	24	2	MON	G
3S/2W	17C 5	19984 Meekland Ave.	Hayward	Durham Transp. MW1	7/21/1993	Dec-92	0	42	24	2	ABN	E
3S/2W	17C 6	19984 Meekland Road	Hayward	Durham Transportation	6/7/1990	Nov-89	0	68	0	4	ABN	?
3S/2W	17C 7	19984 Meekland Road	Hayward	Durham Transportation	6/7/1990	Nov-89	54	40	28	2	MON	?
3S/2W	17C 8	19984 Meekland Road	Hayward	Durham Transportation	6/7/1990	Nov-89	55	40	28	2	MON	?
3S/2W	17C 9	19984 Meekland Ave.	Hayward	Durham Transportation	3/14/1991	4/90	0	65	0	0	BOR	G
3S/2W	17C10	19984 Meekland Ave.	Hayward	Durham Transportation	3/14/1991	Oct-90	55	45	31	4	MON	G
3S/2W	17C11	19984 Meekland Ave.	Hayward	Durham Transportation	3/14/1991	8/90	55	45	30	4	MON	G
3S/2W	17C11	19984 Meekland Ave	Hayward	Durham Transportation	8/2/1991	2/91	14	14	9	2	MON	G
3S/2W	17C12	19984 Meekland Ave	Hayward	Durham Transportation	8/2/1991	2/91	14	0	9	0	MON	G
3S/2W	17C13	19984 Meekland Ave	Hayward	Durham TransportationMW10	9/23/1992	1/92	0	40	30	4	MON	G
3S/2W	17C14	19984 Meekland Ave	Hayward	Durham TransportationMW11	9/23/1992	1/92	0	40	30	2	MON	G
3S/2W	17C15	19515 Meekland Ave.	Hayward	Jon Otteson	6/17/1993	7/91	0	27	0	2	DES	E
3S/2W	17C16	19984 Meekland Ave	Hayward	Durham Trans. MW12	7/15/1993	Dec-92	0	40	32	2	MON	G
3S/2W	17D 1	24 VIA HERMOSA	Hayward	GHIGLIONE	7/30/1984	/53	45	50	0	10	IRR	?
3S/2W	17D 2	19288 MEDFORD CT	Hayward	LEDBETTER	7/30/1984	/55	52	45	0	6	IRR	?
3S/2W	17D 3	No address [2]	Hayward	R.P. KING	8/3/1984	Oct-47	46	180	0	12	IRR	D
3S/2W	17D 4	No address [2]	San Lorenzo	R.P. KING	8/3/1984	5/30	0	273	0	0	?	D
3S/2W	17E 1	1330 SOLANO ST	San Lorenzo	DONALD H. RUDE	8/3/1984	4/53	0	61	18	0	DOM	D
3S/2W	17E 2	1338 SOLANO ST	San Leandro	ALEX FARKAS	8/3/1984	4/53	40	61	11	4	DOM	D
3S/2W	17E 3	No address [2]	Hayward	TOM CAWATA	8/3/1984	4/49	0	104	0	0	?	D
3S/2W	17F 1	20161 TIMES AV	Hayward	URBANSKI	7/30/1984	/52	54	55	0	8	IRR	?
3S/2W	17F 2	20987 MEEKLAND AV	Hayward	SHIMAMURA	7/30/1984	/52	58	75	0	8	IRR	?
3S/2W	17F 3	20165 HATHAWAY	Hayward	PERKINS	7/30/1984	6/31	55	200	0	0	IRR	D
3S/2W	17F 4	310 Bartlett	Hayward	Anderson Lift Truck MW1	9/23/1992	4/92	52	37	23	2	MON	D
3S/2W	17F 5	310 Bartlett Ave	Hayward	Anderson Lift Truck MW-2	9/23/1992	4/92	52	38	22	2	MON	G
3S/2W	17F 6	310 Bartlett Ave	Hayward	Anderson Lift Truck MW-3	9/23/1992	4/92	52	38	22	2	MON	G
3S/2W	17G	21123 Meekland Blvd	Hayward	Beck Roofing B-1	9/30/1992	Oct-91	0	26	0	0	BOR*	G
3S/2W	17G	21580 MEEKLAND AVE	Hayward	JACA CONSTRUCTION	12/14/1988	Jun-88	0	25	0	0	DES	D
3S/2W	17G 2	21568 MEEKLAND AV	Hayward	FUENTES	7/30/1984	5/34	60	92	0	8	IRR	D
3S/2W	17G 3	21455 MEEKLAND	Hayward	JOHN DE NOBRIGA	8/3/1984	Oct-77	0	80	37	6	IRR	D
3S/2W	17G 4	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	Oct-91	0	39	32	2	MON	D
3S/2W	17G 5	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	Oct-91	0	38	32	2	MON	D
3S/2W	17G 6	21123 Meekland Avenue	Hayward	Beck Roofing	3/9/1992	Oct-91	0	38	32	2	MON	D
3S/2W	17G 7	21123 Meekland Ave	Hayward	Beck Roofing MW-1	10/3/1992	Oct-91	0	46	31	2	MON	G
3S/2W	17G 8	21123 Meekland Ave	Hayward	Beck Roofing MW-2	10/3/1992	Oct-91	0	38	33	2	MON	G
3S/2W	17G 9	21123 Meekland Ave	Hayward	Beck Roofing MW-3	10/3/1992	Oct-91	0	38	33	2	MON	G
3S/2W	17G10	21454 Meekland Ave.	Hayward	Jon Otteson	6/17/1993	8/91	0	36	0	2	DES	E
3S/2W	17G11	21123 Meekland Ave	Hayward	Beck Roofing MW-4	4/17/1995	7/94	0	40	28	2	MON	D
3S/2W	17H 1	308 SUNSET BLVD	Hayward	CRITES	7/30/1984	/56	71	75	0	6	IRR	?
3S/2W	17H 2	447 WILLOW AV	Hayward	KANE	7/30/1984	/52	72	62	0	8	IRR	?
3S/2W	17H 3	815 POPLAR ST	Hayward	J.F. TAWNEY	12/19/1984	?	75	100	0	8	STO	?
3S/2W	17H 4	231 SUNSET	Hayward	E. BILLENGER	8/3/1984	9/54	0	63	0	6	DOM	D
3S/2W	17H 5	22008 Meekland Ave	Hayward	Kid Cedar MW-1	9/18/1992	7/91	0	49	36	2	MON	D
3S/2W	17H 6	22008 Meekland	Hayward	Kid Cedar MW2	9/18/1992	7/91	0	49	36	2	MON	D
3S/2W	17H 7	22008 Meekland	Hayward	Kid Cedar MW-3	9/18/1992	7/91	0	49	36	2	MON	D
3S/2W	17K2	W. A ST & HATHAWAY ST	Hayward	HUNT FOOD PRODUCTS INC.	8/3/1984	7/65	0	680	0	0	TES	D
3S/2W	17L 1	21335 HATHAWAY AV	Hayward	BRANELLA	7/30/1984	/51	55	70	0	8	IRR	?
3S/2W	17L 2	442 SUNSET BLVD	Hayward	SILVERA	7/30/1984	/51	52	80	0	8	DOM	?
3S/2W	17M	21134 ROYAL AVE.	Hayward	STAN FELSON	2/2/1988	6/82	0	65	0	8	DES	D
3S/2W	17M 1	421 BARTLETT ST	Hayward	LEYMURA	8/8/1984	/48	46	60	0	8	DOM	?
3S/2W	17M 2	20555 GARDEN AV	Hayward	FERNANDES	8/8/1984	/53	49	72	30	6	IRR	D

NOTES:
[1] Cherry Lane is not a listed road in Hayward. WHA assumed well listed as being on Cherry Lane should be on Cherry Way
[2] Wells could not be located due to insufficient information.



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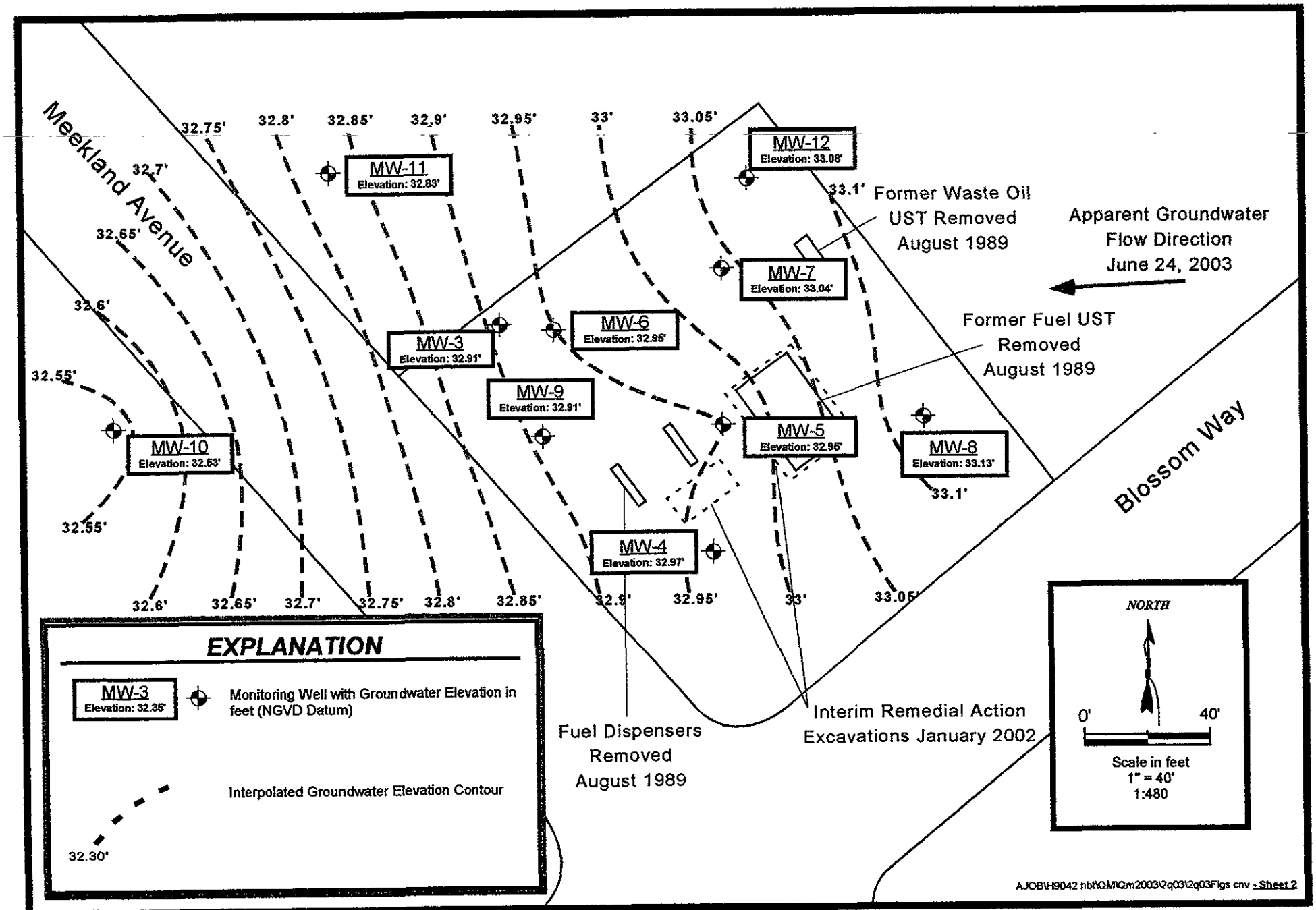
Weber, Hayes & Associates
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

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

Figure 1
Job # H9042



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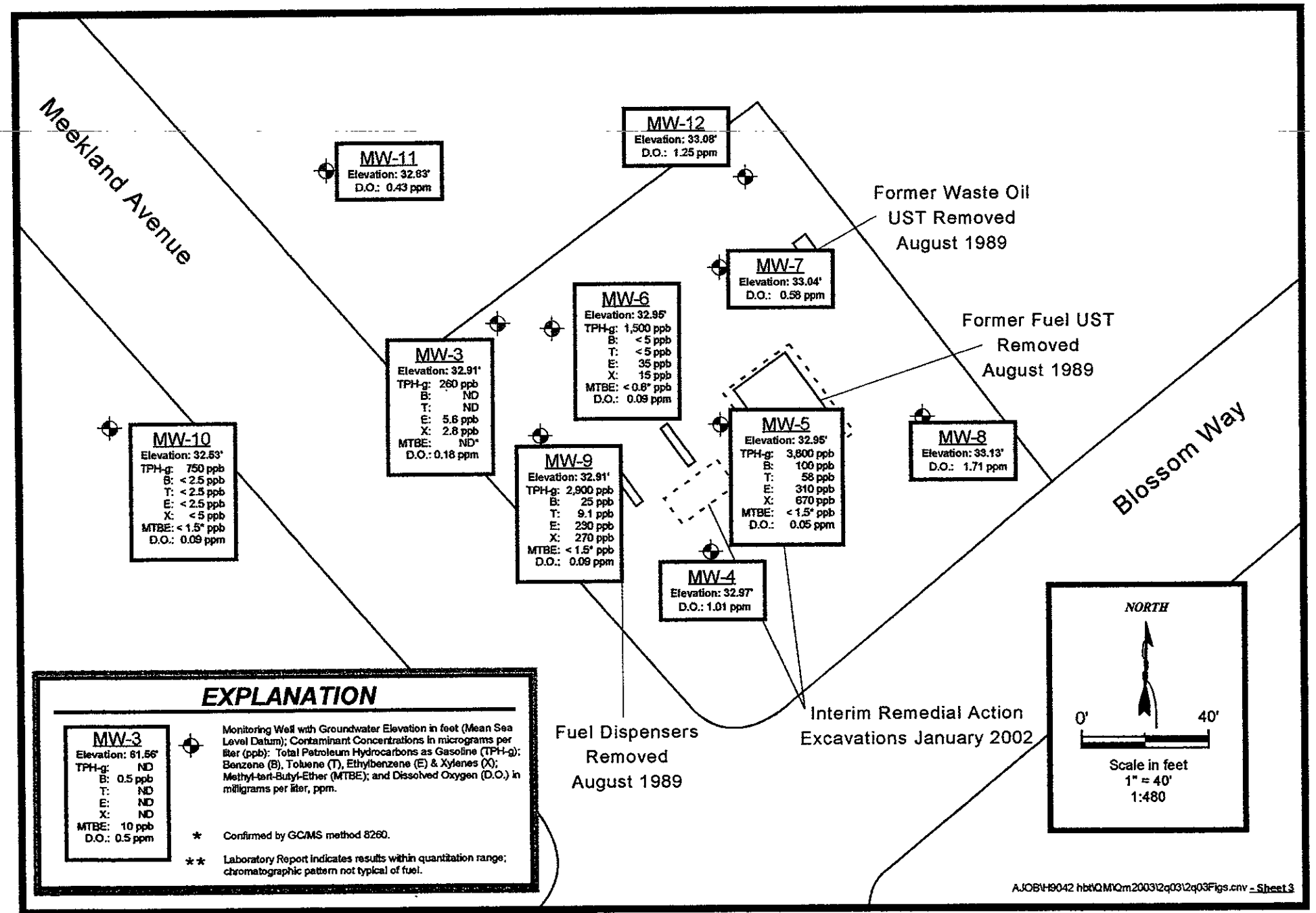
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with Groundwater Elevations
June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 2
Project H9042



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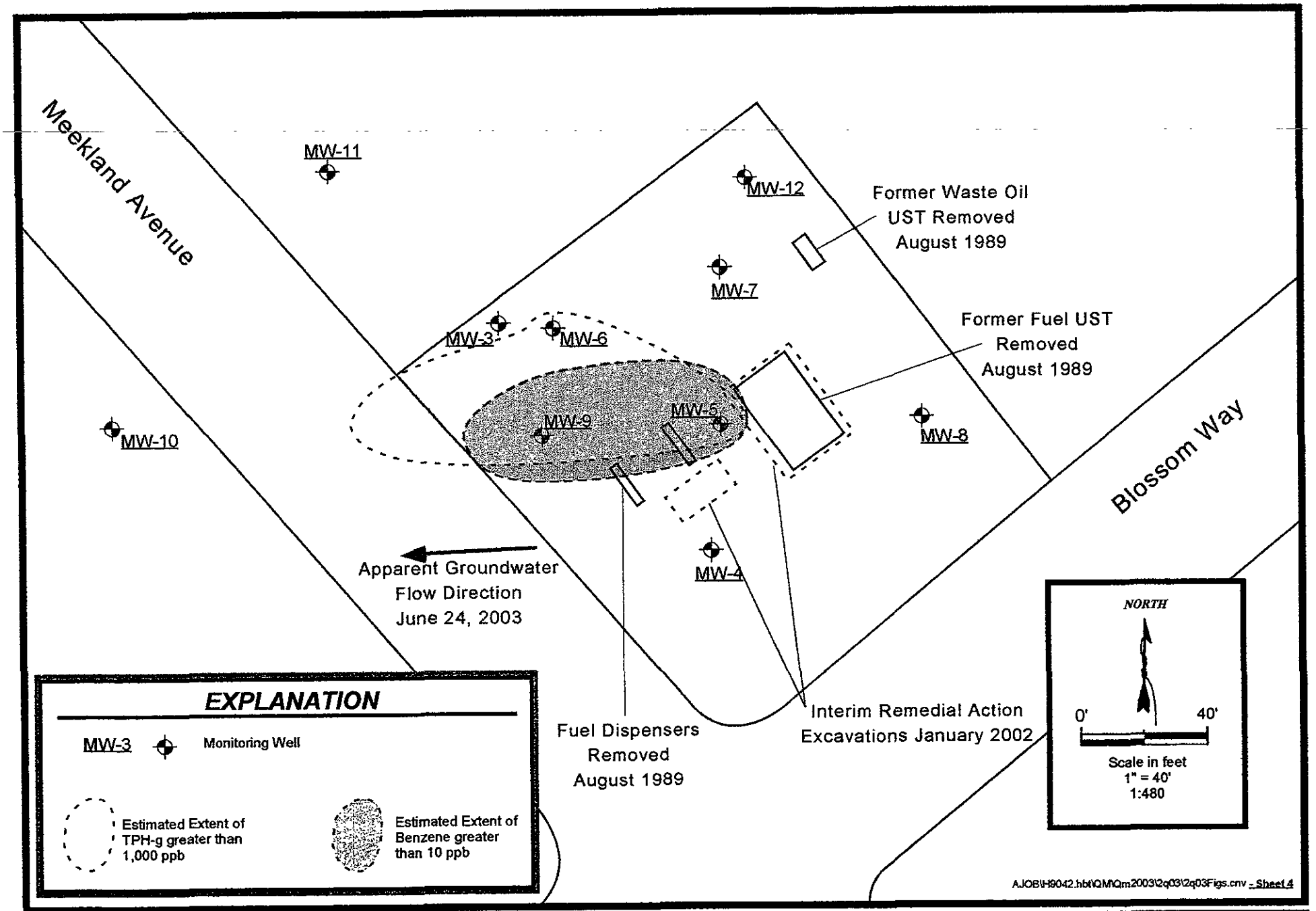
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with PHC Concentrations in Groundwater
June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 3
Project H9042



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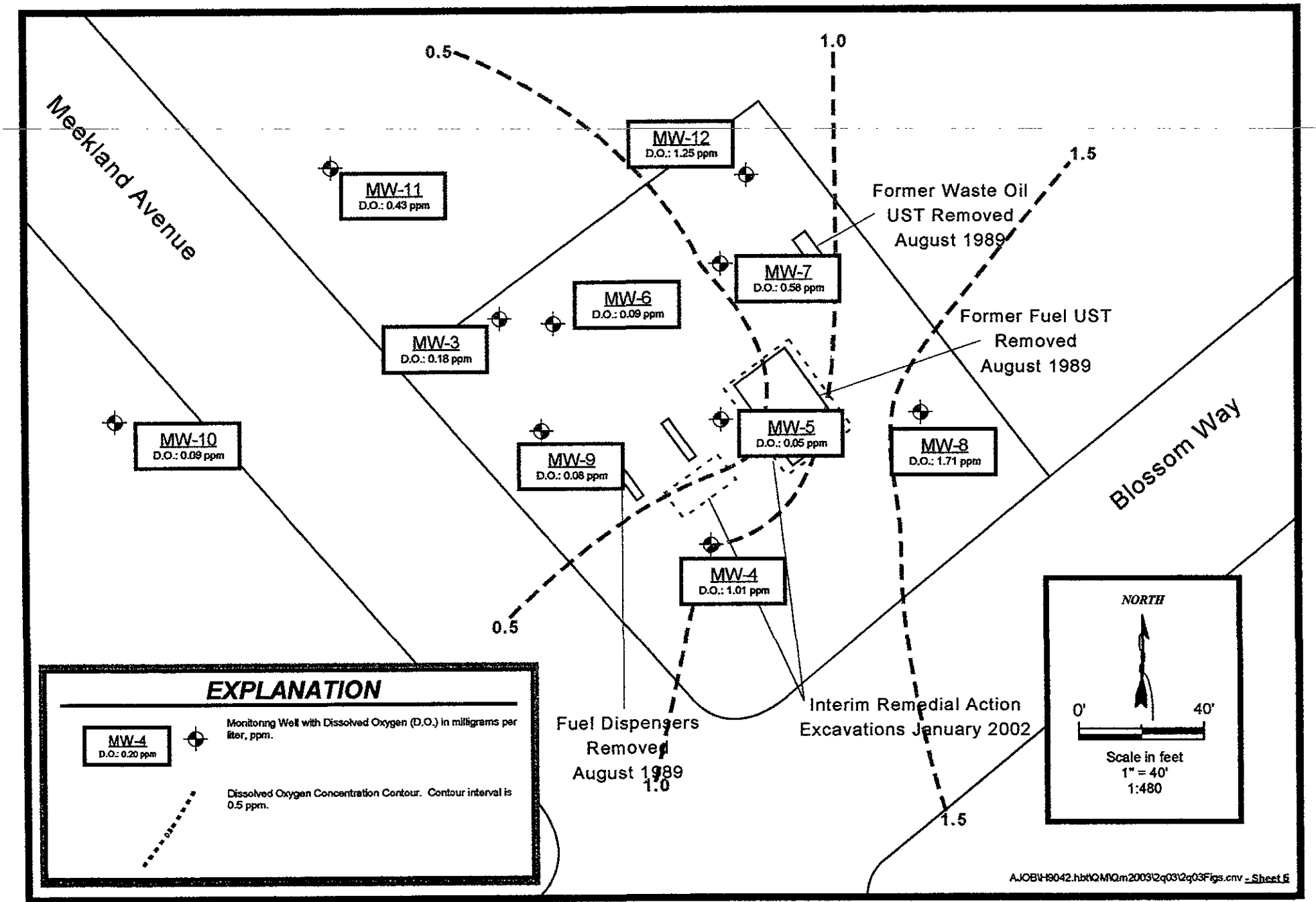
Hydrogeology and Environmental Engineering
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with Extent of TPH-g and Benzene in Groundwater, June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 4 Project H9042



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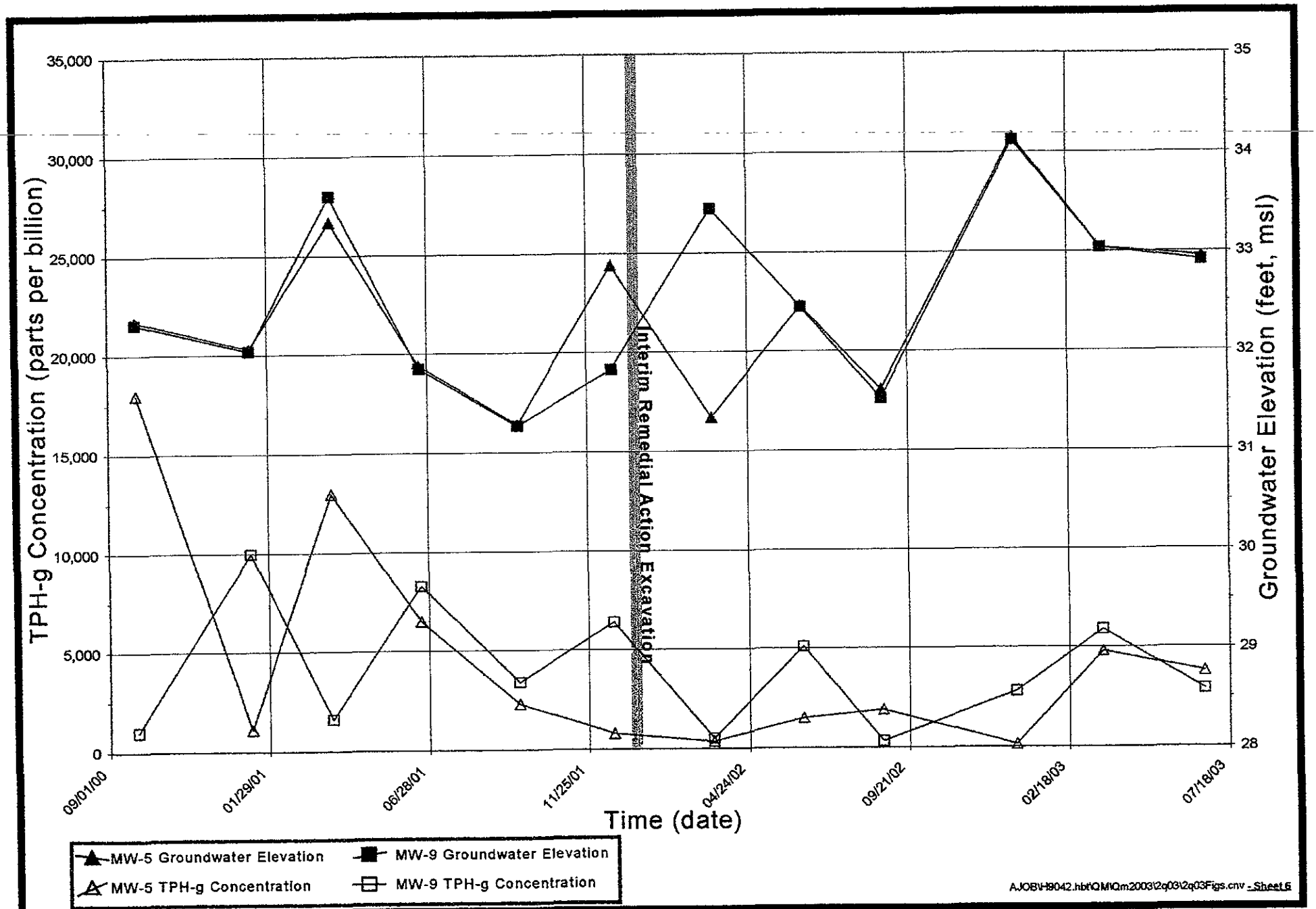
120 Westgate Drive, Watsonville, Ca. 95076
(831) 722 - 3580 (831) 662 - 3100

Site Plan with Dissolved Oxygen Contours
June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

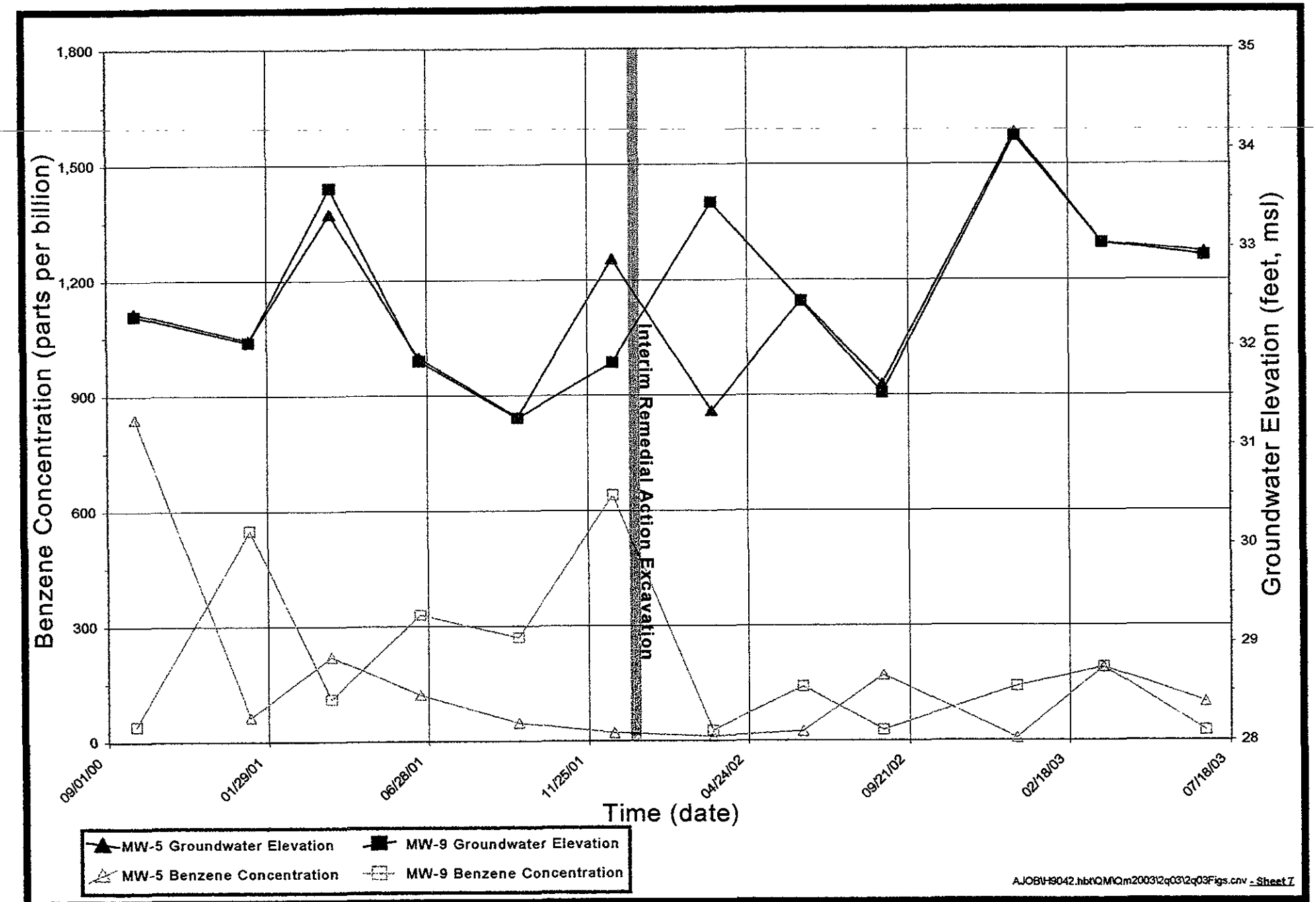
Figure 5
Project H9042



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

TPH-g and Groundwater Elevation in MW-5 and MW-9 Through June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 6 Project H9042



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

Benzene and Groundwater Elevation in MW-5 and MW-9 Through June 24, 2003
Former Harbert Transportation Facility
19984 Meekland Avenue, Hayward, California

Figure 7
Project H9042

EXPLANATION

Underground Utilities Listed According To Depth
(Approximate Depths Given Shallowest to Deepest)

- Gas Line (approximately 2 feet bgs)
- Gas Manhole
- Water Line (approximately 3 feet bgs)
- Water Chirsty Box
- Water Box with Meter
- Storm Drain Line (approximately 6 feet bgs)
- Storm Drain Manhole
- Storm Drain Inlet (DI)
- Sewer Line (approximately 8 feet bgs)
- Sewer Manhole

Above Ground Utilities

- Street Lighting
- Overhead Electrical

Misc. Objects

- MW-8 Groundwater Monitoring Well
- Approximate Property Line

Residential
Residential
Residential
Residential
MW-7
MW-3
MW-6
Subject Site
MW-9
MW-5
MW-8
MW-4
Residential
Sidewalk
Maxfield Avenue
Blossom Way
Super
Carniceria
#2
Hank's
Liquor
Store
Residential
Commercial
Pet
Grooming
Shop
Blossom Way
Maxfield Avenue
Hoang's
Auto Repair

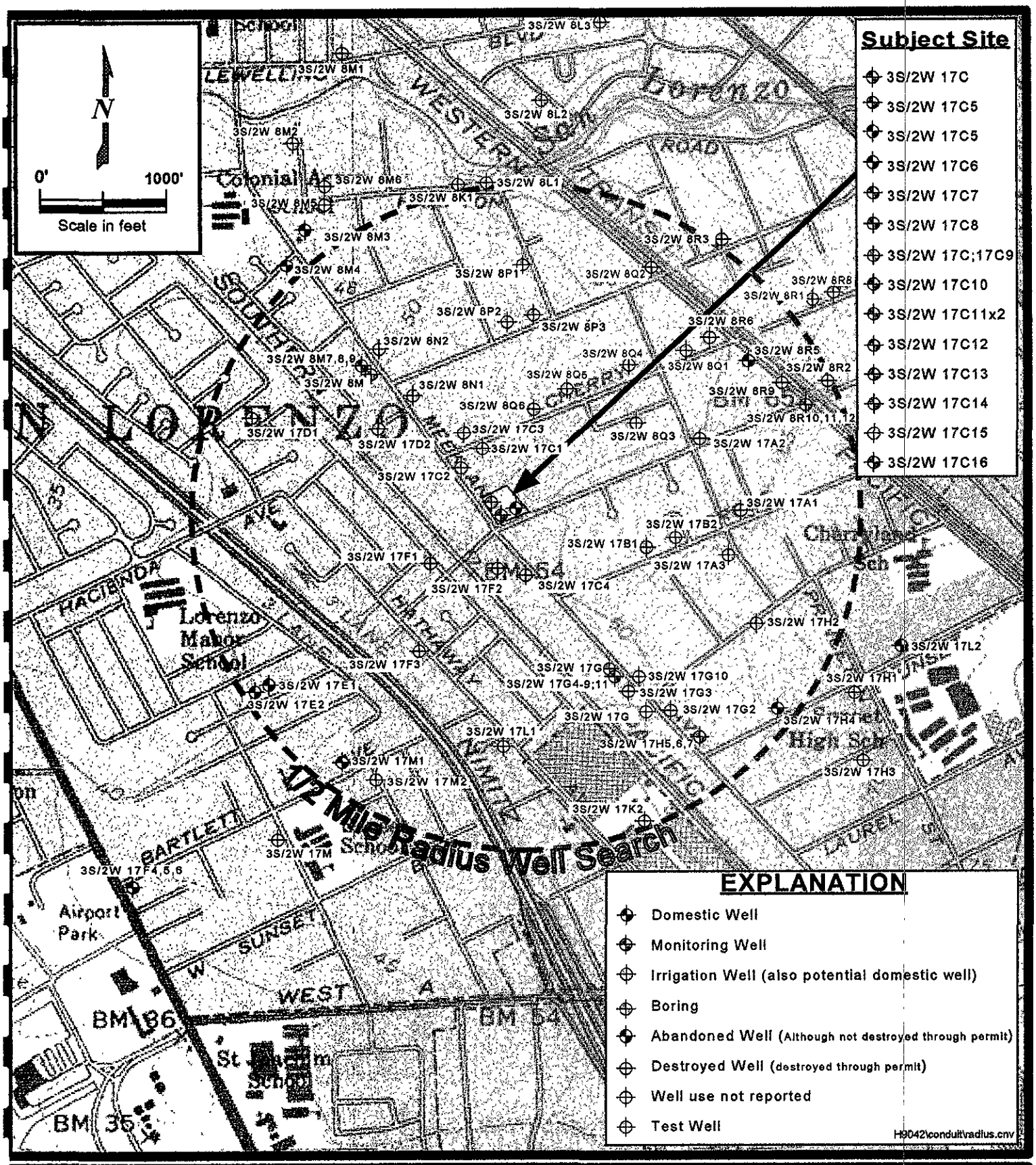
NORTH
0'
40'
Scale in feet
1-inch = 40-feet

H9042/conduit/utilities.cnv

FIGURE
8
Job #
H9042

Utilities Map
Former Harbert Transportation Facility
19984 Meekland Avenue
Hayward, California

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



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

1/2-Mile Radius Well Map
Former Harbert Transportation Facility
19984 Meekland Avenue
Hayward, California

Figure 9
Job # H9042

Appendix A

Field Methodologies for Groundwater Monitoring and Field Data Forms

Appendix A
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 stabilizes, and a final depth-to groundwater measurement is taken and recorded. After the depth-to-groundwater is measured, the well is then checked for the presence of free product with a clear, disposable polyethylene bailer. If free product is present, the thickness of the layer is recorded, and the product is bailed to a sheen. All field data (depth-to-groundwater, well purge volume, physical parameters, and sampling method) is recorded on field data sheets (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 with a low flow submersible electric pump. During purging the physical parameters of temperature, conductivity, pH, dissolved oxygen (D.O.) concentration, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with a QED MP20 Micropurge Flow-Through-Cell and Meter to insure that these parameters have stabilized (are within ~ 15 percent of the previous measurement). The QED MP20 Meter is capable of contiguously monitoring the physical parameters of the purge water via the flow through cell and providing an alarm to indicate when the physical parameters have stabilized to the users specifications. Purging is determined to be complete (stabilized aquifer conditions reached) after the removal of approximately three to five well volumes of water or when the physical parameters have stabilized. Dissolved oxygen and ORP measurements are used as an indicator of intrinsic bioremediation within the contaminant plume. All field instruments are calibrated before use.

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

After purging, the water level in the well is allowed to recover to 80 percent of its original depth before a sample is collected. After water level recovery, a groundwater sample is collected from each well with a new, disposable bailer, and decanted into the appropriate laboratory-supplied sample container(s). The sample containers at this site were 40-ml. vials. Each vial was filled until a convex meniscus formed above the vial rim, then sealed with a Teflon®-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

____ Data Sheets
____ COC's
____ Site Map
____ Photo Sheet
____ Chargeable Materials

Job Name: **Harbert Transportation**	*Date:* **June 24, 2003**
Field Location: **19984 Meekland Avenue, Hayward**	*Study #:* **H9042.Q**
Field Tasks: ☐ *Drilling* ☑ *Sampling* ☑ *Other* *2nd Quarter 2003 Well Sampling*	*Weather Conditions:* Clear + Warm
Personnel/Company onsite: (Weber, Hayes and Associates) **Chad Taylor**	

FIELD WORK PLANNING: Performed on: **June 23, 2003**

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

Number of wells to be sampled: ~~Six~~ 5 **Wells, with D.O. in all wells**
Sample wells: **MW-3, 5, 6, 9, and 10 for TPH-g, BTEX, MTBE.**

Proposed sampling date: **June 24, 2003**

TIME: 0645
Arrive onsite to perform 2nd Quarter Monitoring Well Sampling.

COMMENTS:
Send all analytical to Entech Analytical Laboratory.

INITIALS:

CT -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:

QED MP20 Flow Through Cell: Temp = 11.49°C pH = 7.00 & 10.00, EC = 1.413 mS Barometric Pressure = 760
D.O. % Saturation = 100%, ORP = N/A

BEGIN SAMPLING ALL WELLS:

MW-3 MW-10 MW-6 MW-5 MW-9 ____ ____ ____ ____ ____ ____ ____
-See information below for general monitoring well information this sampling round.

COMMENTS:
All well will be purged until the QED MP20 unit indicates that the water quality parameters (pH, Conductivity, Temp, D.O., and ORP) have stabilized to within ~ 15 % or once four casing volumes in the column requiring sampling have been removed(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.

CT 6/24/03

E:\AJOB\H9042.hbt\QM\QM2003\2q03\QMFIELD.WPD *Signature of Field Personnel & Date*

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

Location	GW Depth (TOC)	Total Depth of Well	D.O. (mg/L)	ORP (mV)	Floating Product (comments).
MW-3	22.55'	40'	0.18	-2	No FP, No Odor
MW-4	22.74'	40'	1.01	22	No FP, No Odor
MW-5	23.08'	45'	0.03	-67	No FP, Mod Odor
MW-6	23.06'	45'	0.09	-23	No FP, Very Slight Odor.
MW-7	23.62'	40'	0.58	32	No FP, No Odor
MW-8	23.03'	40'	1.71	12	No FP, No Odor
MW-9	22.30'	40'	0.08	-66	No FP, Mod Odor
MW-10	22.12'	40'	0.09	-22	No FP, Very Slight Odor
MW-11	22.37'	40'	0.43	21	No FP, No Odor
MW-12	23.41'	40'	1.29	29	No FP, No Odor

CT
6/24/03

HOW MANY PURGE DRUMS WERE LEFT ONSITE 7. APPROXIMATE GAL. 350.
CALL ~~BAYSIDE~~ OIL ON 6/25/03 TO HAVE DRUMS PURGED.
DRUMS WILL BE PURGED ON ??.

COMMENTS:

1/24/03

E:\AJOB\H9042.hbt\QM\QM2003\2q03\QMFIELD.WPD

Signature of Field Personnel & Date

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / 19042.0 **Date:** 6/24/05

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

Samplers Name: Chad Taylor **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 (cricle all that apply):

(TPH-gas) (BTEX) (MTBE) ~~1, 2-DCA, EDB, 8260 Fuel Oxygenates~~

~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3x40-VOA's

Well Number: MW-3

Depth to Water: 22.53' TOC

Well Depth: 40' BGS or TOC

Height W-Column: 17.47' feet (well depth - depth to water)

Volume In Well: 2.7952 gallons (casing volume X height)

Gallons to purge: 11.18 gallons (volume X 4)

Well Diameter: 2" 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: Enteh **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
0810	0	18.37	0.726	2.74	7.15	94	Moderate: Gray, Mod Fines	
0811	1	18.69	0.731	1.97	7.12	33	Low: Clear-Gray, Mod Fines	
0811	2	18.72	0.732	1.29	7.17	26	Low: Clear, Trace Fines	
0812	3	18.77	0.733	0.51	7.25	17	↓	
0813	4	18.77	0.737	0.47	7.21	13	↓	
0815	5	18.79	0.735	0.44	7.20	7	↓	
0815	7	18.82	0.734	0.32	7.16	2	↓	
0817	10	18.85	0.701	0.21	7.13	-1	↓	
0818	12	18.85	0.732	0.18	7.13	-2	↓	

Wait for 80% well volume recovery prior to sampling.

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

Calculate 80% of orginal well volume:

Orginal Height of Water Column = 17.47' x 0.8 = 13.976' - (Well Depth) 40' = Depth to water 26.02'

Time: 0821 1st measured depth to water, 23.41' 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: 0821 Sample ID: MW-3 Depth: 23.41' feet below TOC

Comments: No Floaty Product, No Odor

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H9042.4 **Date:** 6/24/03

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

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) (MTBE) ~~1,2 DCA, EDB, 8260 Fuel Oxygenates~~

~~TPH diesel, TPH Motor Oil, TPH Heating Oil~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3x40 VOA's

Well Number: MW-10

Depth to Water: 22.12' TOC

Well Depth: 40' BGS or TOC

Height W-Column: 17.88 feet (well depth - depth to water)

Volume in Well: 11.622 gallons (casing volume X height)

Gallons to purge: 46.49 gallons (volume X 4)

Well Diameter: 4" 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: Entrix **Transportation:** Courier

Time (24 hr.)	Volume Purged (Gallons)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
0845	0	18.40	0.959	1.50	7.07	49	Moderate Gray, Mod Fines	
0846	2	18.57	0.912	0.77	7.01	12	↓ ↓ ↓	
0847	4	18.75	0.870	0.47	7.04	-1	Low; Clear-Gray, Mod Fines	
0848	6	18.81	0.867	0.33	7.02	-21	↓ ↓ ↓	
0849	8	18.82	0.866	0.28	7.01	-24	Low; Clear, Trace Fines	
0851	10	18.85	0.863	0.25	7.01	-25		
0857	20	18.88	0.862	0.23	7.05	-22		
0910	40	18.88	0.865	0.09	7.08	-22		
0911	42	19.88	0.865	0.09	7.08	-22	↓ ↓ ↓	✓

Wait for 80% well volume recovery prior to sampling.

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

Calculate 80% of orginal well volume:

Orginal Height of Water Column = 17.88' x 0.8 = 14.304' - (Well Depth) 40' = Depth to water 25.70'

Time: 0913 1st measured depth to water, 23.10' 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: 0913 Sample ID: MW-10' Depth: 23.10' feet below TOC

Comments: No Floating Product, Very Slight Odor.

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Harbert Transportation / H9042.Q **Date:** 6/24/03

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

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~~

~~TPH-diesel~~, ~~TPH-Motor Oil~~, ~~TPH-Heating Oil~~

~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3 x 40-mL VOA's

Well Number: MW.6

Depth to Water: 23.06' TOC

Well Depth: 45' BGS or TOC

Height W-Column: 21.94' feet (well depth - depth to water)

Volume in Well: 14.261 gallons (casing volume X height)

Gallons to purge: 57.04 gallons (volume X 4)

Well Diameter: 4" 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)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
0954	0	19.10	0.702	3.93	7.04	70	Hgh: Dark Gry, Many Fines	
0956	2	18.70	0.702	0.64	7.01	23	Low: Clear-Gry, Min Fines	
0957	4	18.79	0.702	0.43	7.02	48	Low: Clear, Trace Fines	
0958	6	18.90	0.701	0.30	7.02	61	↓	
1001	16	18.98	0.700	0.21	7.02	73	↓	
1008	20	19.03	0.692	0.80	7.01	12	↓	
1014	30	19.04	0.710	0.16	6.85	-17	↓	
1019	36	19.04	0.717	0.09	6.83	-23	↓	—
STOP-	Parameters Stabilized, Purge Complete.							

Wait for 80% well volume recovery prior to sampling.

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

Calculate 80% of orginal well volume:

Original Height of Water Column = 21.94' x 0.8 = 17.552' - (Well Depth) 45' = Depth to water 27.45'

Time: 1021 1st measured depth to water, 24.02' 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: 1021 Sample ID: MW.6 Depth: 24.02 feet below TOC

Comments: No Floating Product. Very Slight Odor

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Harbert Transportation | H9042.9 **Date:** 6/24/03

Sample No.: MW-5 **Sample Location:** MW-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 (cricle all that apply):
~~(TPH-gas) (BTEX) (MTBE), 1, 2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used: 3x40mL VOA's

Well Number: MW-5
Depth to Water: 23.08 TOC
Well Depth: 45' BGS or TOC
Height W-Column: 21.92' feet (well depth - depth to water)
Volume in Well: 14.248 gallons (casing volume X height)
Gallons to purge: 56.99 gallons (volume X 4)

Well Diameter: 4" 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)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Paramaters Stabilized
1042	0	18.75	0.574	0.69	6.82	-19	High: Dark Gry, Many Fins	
1043	2	18.73	0.571	0.37	6.82	-11	Moderate: Gry, Mod Fins	
1045	4	18.86	0.566	0.15	6.82	-15	↓ ↓ ↓	
1046	6	18.94	0.548	0.10	6.82	-51	↓ ↓ ↓	
1049	10	18.98	0.484	0.07	6.80	-83	Low: Clear-Gry, Min Fins	
1056	20	18.97	0.436	0.29	6.84	-71	↓ ↓ ↓	
1105	30	18.90	0.510	0.08	6.84	-65	↓ ↓ ↓	
1110	38	18.86	6.550	0.05	6.84	-67	↓ ↓ ↓	✓
SDP- Parameters Stabilized. Purge Complete.								

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

Calculate 80% of orginal well volume:
Original Height of Water Column = 21.92' x 0.8 = 17.536' - (Well Depth) 45' = Depth to water 27.46

Time: 1113 1st measured depth to water, 24.09' 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: 1113 Sample ID: MW-5 Depth: 24.09' feet below TOC

Comments: No Floaty Product. Moderate Odor.

GROUNDWATER MONITORING WELL SAMPLING INFORMATION

Project Name/No.: Herbert Transportation / H9042.Q **Date:** 6/24/03

Sample No.: MW-9 **Sample Location:** MW-9

Samplers Name: Chad Taylor **Recorded by:** CT

Purge Equipment:

_____ Bailer: Disposable or Acrylic
X Whaler # 8
_____ Bladder Pump
_____ Submersible Pump

Sample Equipment:

X Disposable Bailer
_____ Whaler # _____
_____ Bladder Pump
_____ Submersible Pump

Analyses Requested (cricle all that apply):

(TPH-gas) BTEX (MTBE) ~~1, 2-DCA, EDB, 8260 Fuel Oxygenates~~
~~TPH-diesel, TPH-Motor Oil, TPH-Heating Oil~~
~~Intrinsic Bio. Parameters~~

Number and Types of Bottle Used:

3x40-VOA's

Well Number: MW-9
Depth to Water: 22.30' TOC
Well Depth: 40' BGS or TOC
Height W-Column: 17.70' feet (well depth - depth to water)
Volume in Well: 11.505 gallons (casing volume X height)
Gallons to purge: 46.02 gallons (volume X 4)

Well Diameter: 4" 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)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH	ORP (mV)	Turbidity: Color, Fines	Micropurge Parameters Stabilized
1136	0	20.62	0.541	3.80	6.74	-9	Moderate: Grey, Mod Fines	
1137	2	19.18	0.598	0.26	6.91	-77	Low: Clear, Trace Fines	
1139	4	19.28	0.586	0.19	6.96	-62	↓	
1140	6	19.24	0.586	0.10	6.98	-59	↓	
1143	10	19.32	0.584	0.09	6.99	-59	↓	
1150	20	19.34	0.581	0.22	6.96	-64	↓	
1157	30	19.33	0.602	0.10	6.92	-66	↓	
1201	4036	19.34	0.603	0.09	6.89	-66	↓	✓
STOP- Parameters Stabilized. Purge Complete.								

Wait for 80% well volume recovery prior to sampling.

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

Calculate 80% of orginal well volume:

Original Height of Water Column = 17.70' x 0.8 = 14.16' - (Well Depth) 40' = Depth to water 25.84'

Time: 1203 1st measured depth to water, 23.42' 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: 1203 Sample ID: MW-9 Depth: 23.42' feet below TOC

Comments: No Floaty Product. Moderate Odor

Appendix B

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

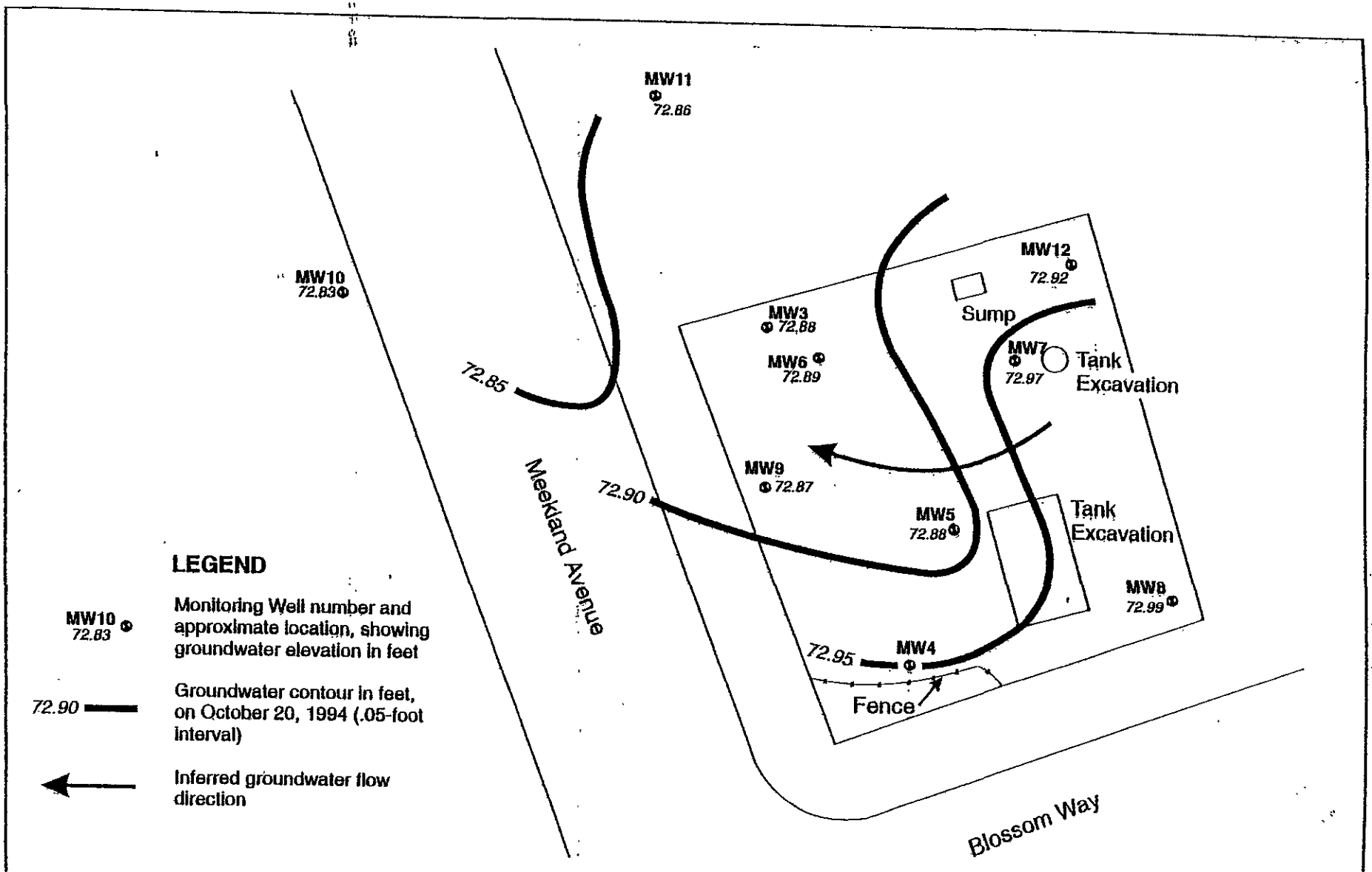
AGI TECHNOLOGIES

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.



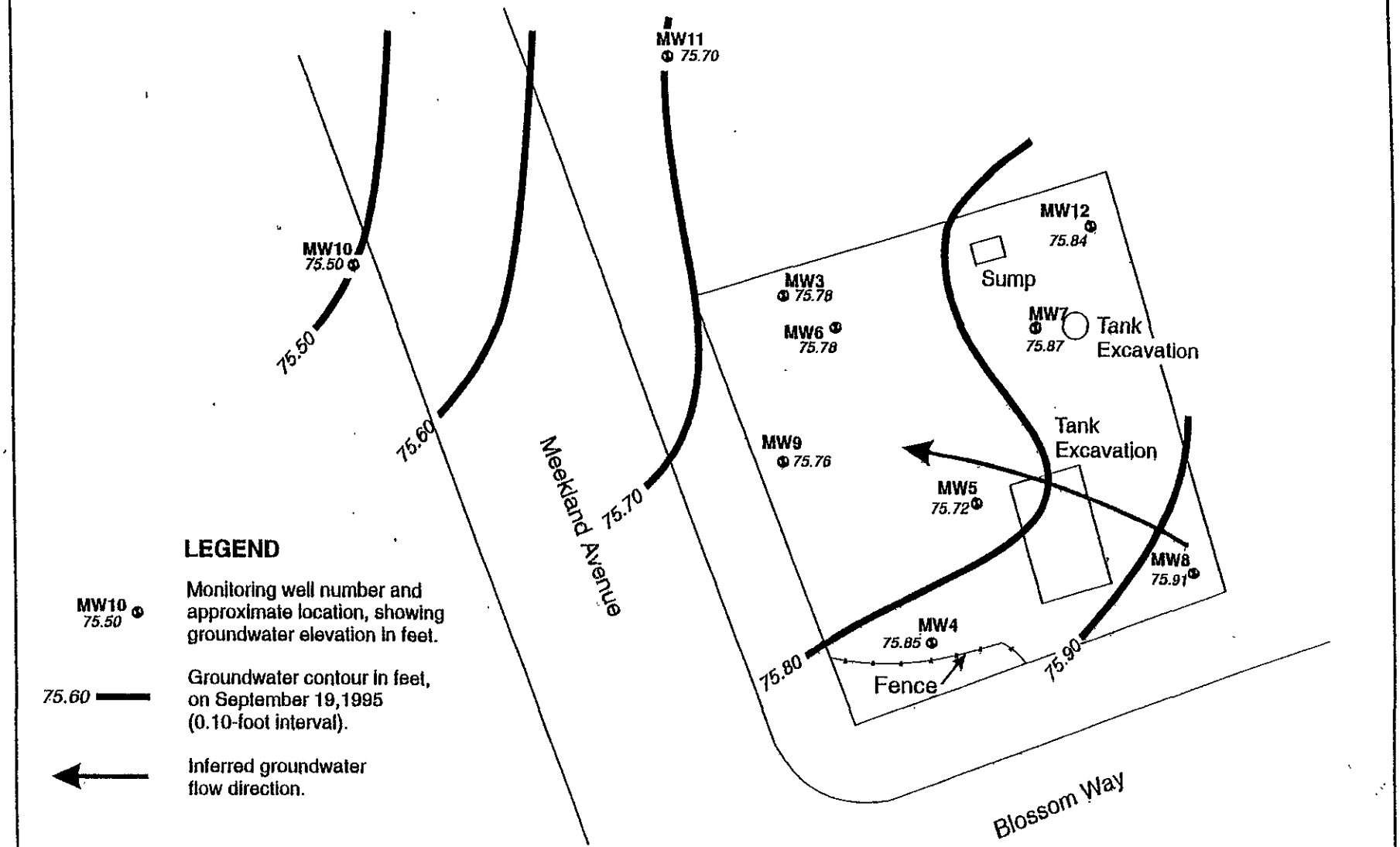
AGI TECHNOLOGIES

Groundwater Elevation and Contour Map 10/20/94

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE **3**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
grdwat.cdr	15,833.002	DFF	29 August 94	DFF	23 Nov 94



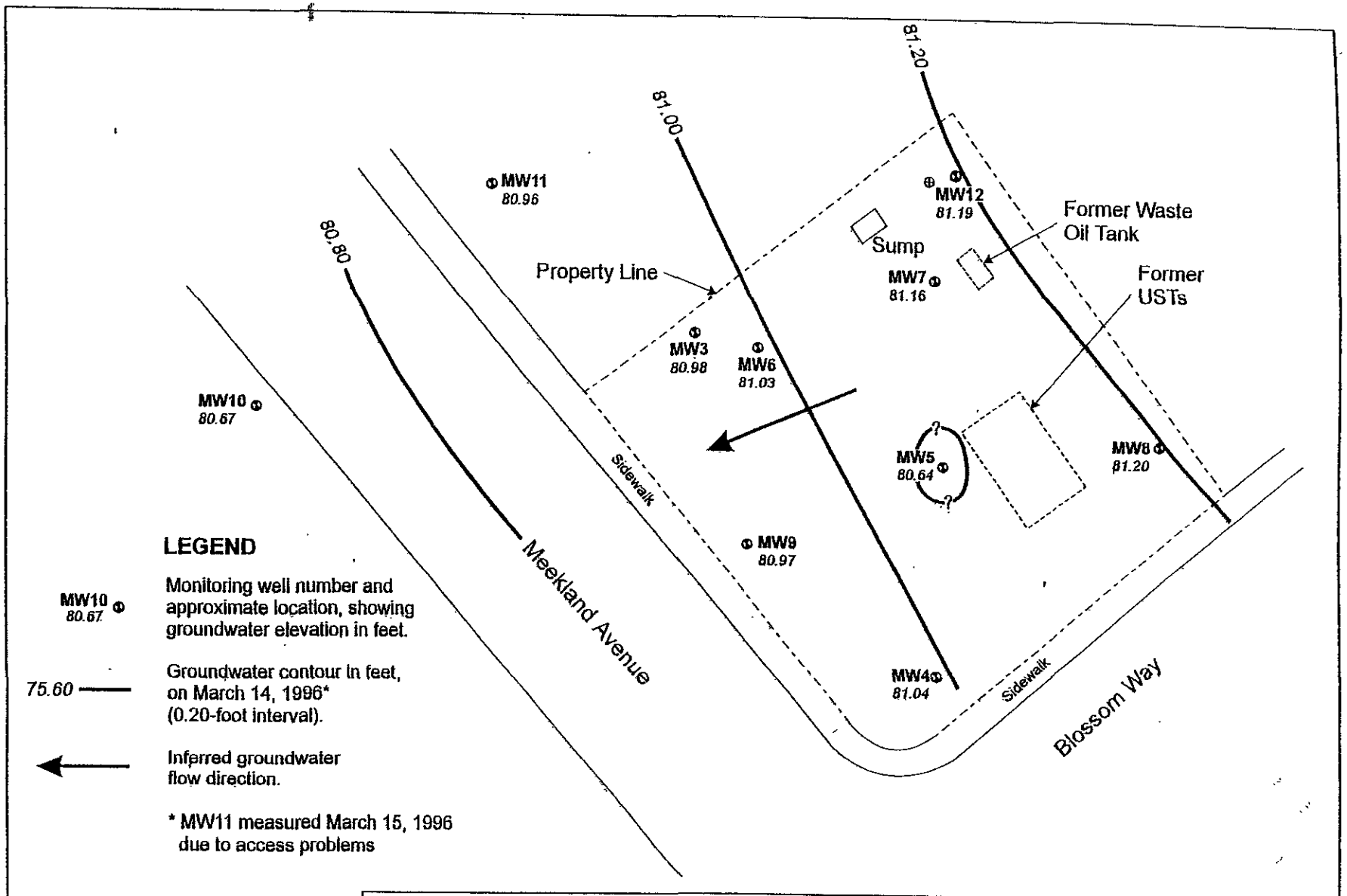
AGI TECHNOLOGIES

Groundwater Elevation and Contour Map 9.19.95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 3

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
grdwat.cdr	15,833.002	DFF	29 August 94	BJA	8 Nov 95



AGI TECHNOLOGIES

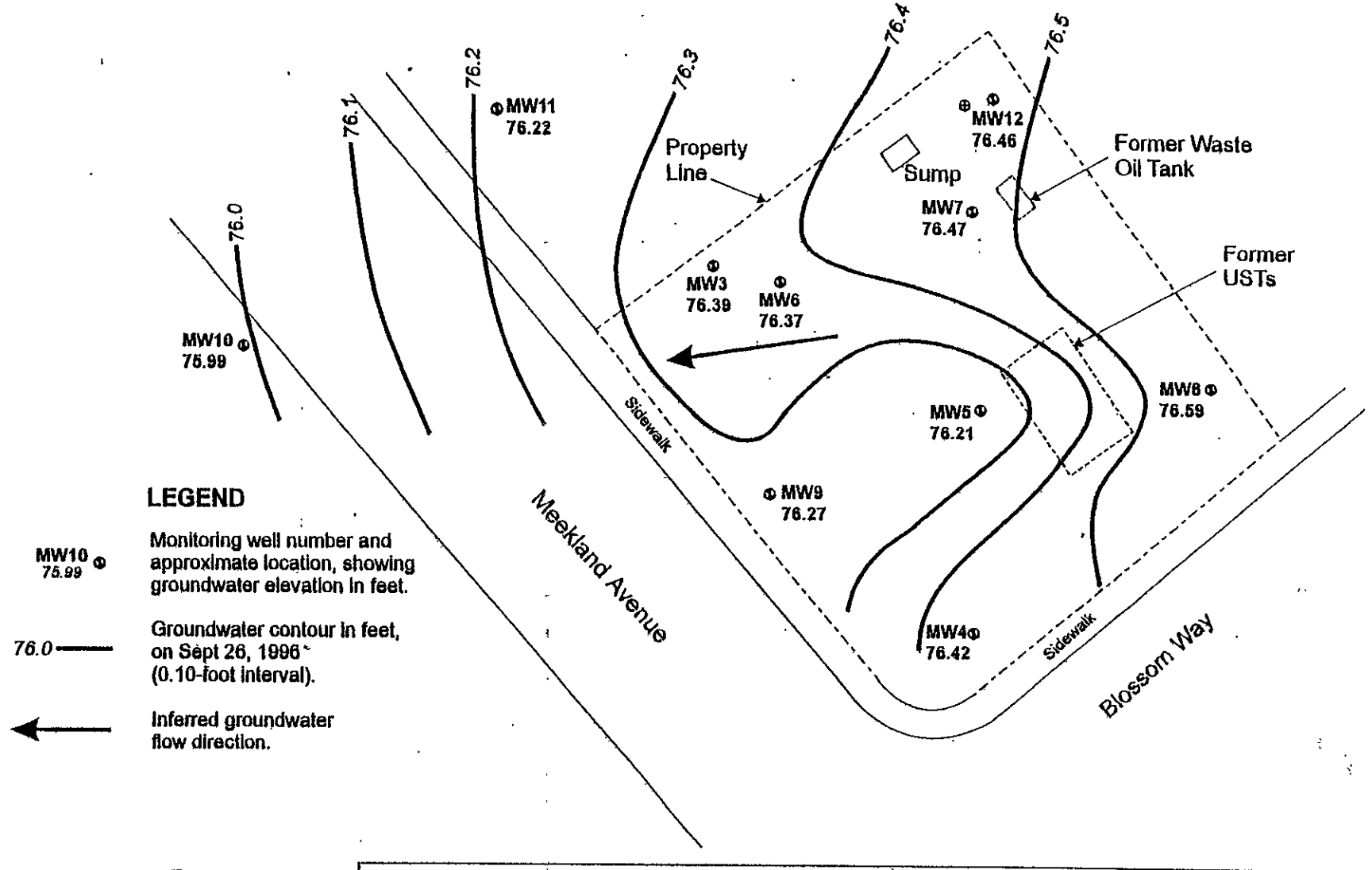
Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

3.14.96

FIGURE **3**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
gw-mar96.cdr	15,833.002	DFF	29 August 94		ALW	15 Apr 96



AGI TECHNOLOGIES

Groundwater Elevation and Contour Map

Harbert Transportation/Meekland Avenue
Hayward, California

9.26.96

FIGURE 3

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

Appendix C

Certified Analytical Report - Groundwater Samples

Entech Analytical Labs, Inc.

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

July 02, 2003

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

Order:	34905	**Date Collected:**	6/24/2003
Project Name:	Harbert Transportation	**Date Received:**	6/25/2003
Project Number:	H9042.Q	**P.O. Number:**	H9042.Q
Project Notes:			

On June 25, 2003, samples were received under documentented chain of custody. Results for the following analyses are attached:

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

Patti Sandrock
QA/QC Manager

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: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-001 **Client Sample ID:** MW-3

Sample Time: 8:21 AM **Sample Date:** 6/24/2003 **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	6/27/2003	WGC62869B	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	5.6		1	0.5	0.5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	2.8		1	1	1	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	87.8	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	260		1	50	50	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	120.4	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)

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

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

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-002 **Client Sample ID:** MW-5

Sample Time: 11:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	100		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	58		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	310		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	670		10	1	10	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	77.0	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	3800		10	50	500	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	82.0	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: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-003 **Client Sample ID:** MW-6

Sample Time: 10:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	ND		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	35		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	15		10	1	10	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	78.2	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1500		10	50	500	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.9	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: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-004 **Client Sample ID:** MW-9

Sample Time: 12:03 PM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	25		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Toluene	9.1		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Ethyl Benzene	230		10	0.5	5	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020
Xylenes, Total	270		10	1	10	µg/L	N/A	6/27/2003	WGC62869B	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	65.4	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	2900		10	50	500	µg/L	N/A	6/27/2003	WGC62869B	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	81.5	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)

Patti Sandrock, QA/QC Manager

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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: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-005 **Client Sample ID:** MW-10

Sample Time: 9:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		5	0.5	2.5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020
Toluene	ND		5	0.5	2.5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020
Ethyl Benzene	ND		5	0.5	2.5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020
Xylenes, Total	ND		5	1	5	µg/L	N/A	6/30/2003	WGC62875	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	105.7	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	750		5	50	250	µg/L	N/A	6/30/2003	WGC62875	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	128.6	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)

Patti Sandrock, QA/QC Manager

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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-001 **Client Sample ID:** MW-3

Sample Time: 8:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	1	1	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99.2	73 - 151
Dibromofluoromethane	90.9	57 - 156
Toluene-d8	95.8	77 - 150

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: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-002 **Client Sample ID:** MW-5

Sample Time: 11:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	1	5	0.3	1.5	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	86.6	73 - 151
Dibromofluoromethane	87.0	57 - 156
Toluene-d8	85.4	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

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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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-003 **Client Sample ID:** MW-6

Sample Time: 10:21 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		2	1	2	0.3	0.6	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.8	73 - 151
Dibromofluoromethane	89.0	57 - 156
Toluene-d8	94.8	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

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

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

Patti Sandrock, QA/QC Manager

Environmental Analysis Since 1983

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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-004 **Client Sample ID:** MW-9

Sample Time: 12:03 PM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	1	5	0.3	1.5	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	86.6	73 - 151
Dibromofluoromethane	87.5	57 - 156
Toluene-d8	86.9	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

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

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

Patti Sandrock, QA/QC Manager

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Attn: Chad Taylor

Date: 07/02/03
Date Received: 6/25/2003
Project Name: Harbert Transportation
Project Number: H9042.Q
P.O. Number: H9042.Q
Sampled By: Client

Certified Analytical Report

Order ID: 34905 **Lab Sample ID:** 34905-005 **Client Sample ID:** MW-10

Sample Time: 9:13 AM **Sample Date:** 6/24/2003 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	PQLR	MDL	MDLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		5	1	5	0.3	1.5	µg/L	6/30/2003	WMS110133	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.1	73 - 151
Dibromofluoromethane	87.3	57 - 156
Toluene-d8	96.0	77 - 150

Comment: Sample diluted due to high concentration of non-target compounds.

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

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

Patti Sandrock, QA/QC Manager

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Quality Control Results Summary

QC Batch #: WGC62869B
Matrix: Liquid
Units: µg/L
Date Analyzed: 6/26/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		221.3	LCS	88.5			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			92.3			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		7.3	LCS	91.3			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.	LCS	100.0			65.0 - 135.0
Toluene	EPA 8020	ND		8		7.5	LCS	93.8			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		25.2	LCS	105.0			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			90.4			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.4	LCS	92.5			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			90.4			65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		220.4	LCSD	88.2	0.41	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			86.4			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		8.3	LCSD	103.8	12.82	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.8	LCSD	110.0	9.52	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		8		8.	LCSD	100.0	6.45	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		26.3	LCSD	109.6	4.27	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			104.5			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.9	LCSD	98.8	6.54	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			104.5			65 - 135					

Entech Analytical Labs, Inc.

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Quality Control Results Summary

QC Batch #: WGC62875 **Units:** µg/L
Matrix: Liquid **Date Analyzed:** 6/30/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		223.	LCS	89.2			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			82.1			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		7.7	LCS	96.3			65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.4	LCS	105.0			65.0 - 135.0
Toluene	EPA 8020	ND		8		7.9	LCS	98.8			65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		26.1	LCS	108.8			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			93.2			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.7	LCS	96.3			65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			93.2			65 - 135					
Test: TPH as Gasoline											
TPH as Gasoline	EPA 8015 M	ND		250		233.4	LCSD	93.4	4.56	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			91.1			65 - 135					
Test: BTEX											
Benzene	EPA 8020	ND		8		7.6	LCSD	95.0	1.31	25.00	65.0 - 135.0
Ethyl Benzene	EPA 8020	ND		8		8.3	LCSD	103.8	1.20	25.00	65.0 - 135.0
Toluene	EPA 8020	ND		8		7.7	LCSD	96.3	2.56	25.00	65.0 - 135.0
Xylenes, total	EPA 8020	ND		24		25.7	LCSD	107.1	1.54	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			91.6			65 - 135					
Test: MTBE by EPA 8020											
Methyl-t-butyl Ether	EPA 8020	ND		8		7.7	LCSD	96.3	0.00	25.00	65.0 - 135.0
Surrogate			**Surrogate Recovery**			**Control Limits (%)**					
4-Bromofluorobenzene			91.6			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 #: WMS110133
Matrix: Liquid

Units: µg/L
Date Analyzed: 6/30/2003

Parameter	Method	Blank Result	Spike Sample ID	Spike Amount	Sample Result	Spike Result	QC Type	% Recovery	RPD	RPD Limits	Recovery Limits
Test: MTBE by EPA 8260B											
Methyl-t-butyl Ether	EPA 8260B	ND		20		17.5	LCS	87.5			54.0 - 130.5

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.0	73 - 151
Dibromofluoromethane	90.8	57 - 156
Toluene-d8	93.5	77 - 150

Test: MTBE by EPA 8260B											
Methyl-t-butyl Ether	EPA 8260B	ND		20		18.	LCSD	90.0	2.82	25.00	54.0 - 130.5

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.4	73 - 151
Dibromofluoromethane	89.6	57 - 156
Toluene-d8	93.9	77 - 150

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

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

SEND CERTIFIED RESULTS TO: Chad Taylor

ELECTRONIC DELIVERABLE FORMAT: [X] YES [ ] NO

LABORATORY: Entech

TURNAROUND TIME: (Standard Five-Day) 24hr Rush 48hr Rush 72hr Rush

GLOBAL I.D.: T0600100475

Sampler: JHH

Date: 6/25/03

Field Point Name (GeoTracker)	Sample Identification	Sample Depth	Date Sampled	Time Sampled	Matrix	SAMPLE CONTAINERS: 40 mL VOAs (preserved)	1 Liter Amber Jars	___mL Poly Bottle	Liner Acetate or Brass	REQUESTED ANALYSIS: Total Petroleum Hydrocarbons: Diesel	Purgeable Fuel-Scan	Gasoline & BTEX-MTBE by EPA Method# 8015M-S-8020	Volatile Organics: Fuel Oxygenates EPA Method# 8260	Tributyl Alcohol EPA Method# 8260	1,2-DCA by EPA Method# 8260	Additional Analysis: Lead Lab to Filter and Acidify	Total Suspended Solids	
MW-3	MW-3	23.91'	6/25/03	0821	W	3		34905-001				X						
MW-5	MW-5	24.04'	"	1113	"	3			002			X						
MW-6	MW-6	24.82'	"	1021	"	3			003			X						
MW-9	MW-9	23.42'	"	1203	"	3			004			X						
MW-10	MW-10	23.10'	"	0913	"	3			005			X						

	RELEASED BY:	Date & Time	RECEIVED BY:	Date & Time	SAMPLE CONDITION: (circle 1)		
1.)	JHH	6/25/03	Jodi Costa	6/25/03 @ 15:10	Ambient	Refrigerated	Frozen
2.)	Jodi Costa	6/26/03			Ambient	Refrigerated	Frozen
3.)					Ambient	Refrigerated	Frozen
4.)					Ambient	Refrigerated	Frozen
5.)					Ambient	Refrigerated	Frozen

NOTES:

[X] *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.*

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

[X] *Please use MDL (Minimum Detection Limit) for any diluted samples.*

ADDITIONAL COMMENTS

- Please produce and e-mail an EDF of these results to frances@weber-hayes.com.

Appendix D

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

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

AGI TECHNOLOGIES

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			
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 a	NA	5,100	1,200	3,700	3,200	ND	ND	120	
	07/91	46,000	4,300 a	NA	6,500	830	2,900	3,700	ND	ND	64	
	10/91	27,000	4,300 a	NA	4,400	1,100	1,400	3,200	ND	ND	25	
	01/92	27,000	14,000 a	NA	3,300	1,200	1,600	3,800	ND	ND	24	
	04/92	33,000	11,000 a	NA	6,900	1,200	3,500	3,700	ND	ND	120	
	07/92	41,000	19,000 a	NA	5,600	1,300	2,600	4,000	ND	ND	49	
	10/92	33,000	3,500 a	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 a	NA	2,800	370	490	760	ND	ND	43	
	07/91	6,600	890 a	NA	2,000	250	230	380	ND	ND	29	
	10/91	6,300	1,700 a	NA	2,000	410	330	550	ND	ND	27	
	01/92	4,000	790 a	NA	1,200	250	60	200	ND	ND	22	
	04/92	7,400	1,600 a	NA	730	370	180	640	ND	ND	19	
	07/92	3,000	2,400 a	NA	190	ND	2.8	410	ND	ND	30	
	10/92	5,000	970 a	NA	1,300	320	45	340	ND	ND	26	
	01/93	2,300	680 a	NA (2)	630	180	31	330	ND	ND	13	
	06/93	5,000	1,100 a	ND	730	240	43	380	ND	ND	13	

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

AGI TECHNOLOGIES

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 [a]	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 [a]	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 [a]	NA	200	41	4.6	9.4	ND	ND	1	
	06/93	650	140 [a]	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 [a]	NA	2,500	550	580	500	ND	ND	61	
	07/91	15,000	2,200 [a]	NA	4,800	610	1,100	760	ND	ND	62	
	10/91	14,000	3,300 [a]	NA	5,000	530	820	800	ND	ND	49	
	01/92	12,000	1,900 [a]	NA	4,300	390	380	590	ND	ND	56	
	04/92	23,000	6,400 [a]	NA	8,600	ND	2,600	1,900	ND	ND	125	
	07/92	27,000	5,900 [a]	NA	6,000	ND	1,500	1,600	ND	ND	93	
	10/92	13,000	2,100 [a]	NA	4,600	140	470	550	ND	ND	59	
	01/93	18,000	1,900 [a]	NA	5,800	560	1,900	1,600	ND	ND	110	
	01/93	19,000	2,100 [a]	NA	4,600	370	1,600	1,400	ND	ND	120	
	06/93	22,000	2,900 [a]	ND	8,300	740	2,500	1,900	ND	ND	110	
	06/93	23,000	2,300 [a]	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

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods: 8015 Modified TPH-G	TPH-D	TPH-MO	8020 Benzene	Ethylbenzene	Toluene	Total Xylenes	8010 TCE	PCE	1,2-DCA	Other
		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 [a]	NA	2,800	610	1,200	1,800	ND	ND	53	
	07/91	11,000	1,400 [a]	NA	1,200	ND	380	750	ND	ND	29	
	10/91	4,800	1,600 [a]	NA	380	69	340	730	ND	ND	22	
	01/92	6,100	1,200 [a]	NA	460	180	200	590	ND	ND	26	
	04/92	7,200	1,800 [a]	NA	340	350	460	920	ND	ND	30	
	07/92	8,600	1,700 [a]	NA	1,300	380	280	1,100	ND	ND	35	
	10/92	1,600	110 [a]	NA	230	70	20	88	ND	ND	24	
	01/93	13,000	2,100 [a]	NA	2,500	370	540	2,400	ND	ND	36	
	06/93	7,400	1,900 [a]	ND	1,500	480	120	1,400	ND	ND	28	
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 [a]	NA	470	ND	24	88	ND	ND	9.7	
	10/91	ND	370 [a]	NA	ND	ND	ND	ND	ND	0.68	4.5	
	01/92	1,100	290 [a]	NA	230	45	7	88	ND	3.5	6.4	
	04/92	1,700	520 [a]	NA	310	78	28	170	ND	0.5	3.2	
	07/92	1,900	590 [a]	NA	410	78	21	170	ND	2.1	6.7	
	07/92 (dup)	1,200	700 [a]	NA	21	1	2.6	90	ND	2	6.2	
	10/92	1,800	320 [a]	NA	410	31	11	75	ND	1	7.4	
	01/93	2,100	660 [a]	NA	390	100	21	270	ND	0.6	3.7	
	06/93	4,400	1,100 [a]	ND	830	330	49	620	ND	ND	8.6	

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

AGI TECHNOLOGIES

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		
	04/91	ND	ND	NA	ND	ND	ND	ND	ND	0.5	ND		
	07/91	ND	ND	NA	ND	ND	2	ND	ND	1.2	ND		
	10/91	ND	ND	NA	ND	ND	0.6	ND	ND	0.4	ND		
	01/92	ND	ND	NA	ND	ND	ND	ND	ND	0.68	ND		
	04/92	ND	ND	NA	ND	ND	ND	ND	ND	0.8	ND		
	07/92	ND	ND	NA	ND	ND	3.3	ND	ND	1.6	ND		
	10/92	ND	ND	NA	ND	ND	ND	ND	ND	1.4	ND		
	01/93	ND	ND	NA	ND	ND	ND	ND	ND	0.8	ND		
	06/93	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 [a]	NA	520	130	410	580	ND	ND	26		
	07/91	1,900	180 [a]	NA	190	12	52	77	ND	6.5	12		
	10/91	880	300 [a]	NA	160	31	44	83	ND	ND	10		
	01/92	380	120 [a]	NA	14	7.6	2.2	14	ND	ND	9.6		
	04/92	2,900	700 [a]	NA	510	80	260	260	ND	ND	11		
	07/92	4,400	1,300 [a]	NA	860	210	340	640	ND	ND	22		
	10/92	200	290 [a]	NA	6.8	1.4	2.1	7.8	ND	ND	12		
	01/93	8,500	740 [a]	NA	2,400	390	620	1,500	ND	ND	29		
	06/93	8,200	1,300 [a]	ND	2,400	360	480	1,500	ND	ND	29		
MW10	01/92	13,000	3,700 [a]	NA	130	580	110	3,000	ND	ND	33		
	05/92	15,000	5,000 [a]	NA	180	ND	18	2,700	ND	ND	20		
	05/92 (dup)	13,000	7,500 [a]	NA	240	490	65	2,500	ND	ND	22		
	07/92	6,100	4,400 [a]	NA	74	360	ND	1,100	ND	ND	29		
	10/92	3,200	1,500 [a]	NA	ND	ND	ND	320	ND	ND	25		
	01/93	7,500	2,200 [a]	NA	130	170	20	710	ND	ND	18		
	06/93	8,000	2,100 [a]	ND	69	7.9	ND	490	ND	ND	16		

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

AGI TECHNOLOGIES

Well	Date Sampled	EPA Test Methods: 8015 Modified TPH-G	8015 Modified TPH-D	8015 Modified TPH-MO	8020 Benzene	8020 Ethylbenzene	8020 Toluene	8020 Total Xylenes	8010 TCE	8010 PCE	8010 1,2-DCA	Other
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW11	01/92	8,200	3,200 [a]	NA	23	250	ND	1,100	ND	ND	ND	
	04/92	160	1,200 [a]	NA	ND	ND	ND	ND	ND	ND	ND	
	07/92	2,100	710 [a]	NA	39	100	2.3	53	ND	ND	ND	
	10/92	660	220 [a]	NA	2.9	19	ND	3.8	ND	ND	ND	
	10/92	770	230 [a]	NA	3.2	26	ND	5.7	ND	ND	ND	
	01/93	780	370 [a]	NA	10	2.1	ND	39	ND	ND	ND	
	06/93	2,500	160 [a]	ND	27	99	ND	34	ND	ND	ND	
MW12	12/92	2,800	1,700 [a]	NA	14	ND	ND	ND	ND	ND	ND	
	06/93	1,100	750 [a]	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 [b]		8,665	1,883	250	1,562	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.
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.
TCE - Trichloroethylene.
PCE - Tetrachloroethylene.
1,2-DCA - 1,2-Dichloroethane.

AGI TECHNOLOGIES

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 [a]	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 [b]	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 [a]	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 [b]	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 [c]	470	220	ND	310	2.7	6	ND
	10/21/94	1,700	280	290	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
Herbert 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
MW8	07/28/94	ND	78 [a]	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 [c]	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 [c]	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 [b]	64	98	ND	33	6.6	ND	ND
	09/26/96	7,100	420	140	210	ND	32	9.1	ND	5.9
MW11	07/28/94	450	150 [a]	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 [b]	0.74	25	ND	1.8	ND	ND	ND
	09/26/96	480	710	ND	50	ND	ND	ND	ND	ND

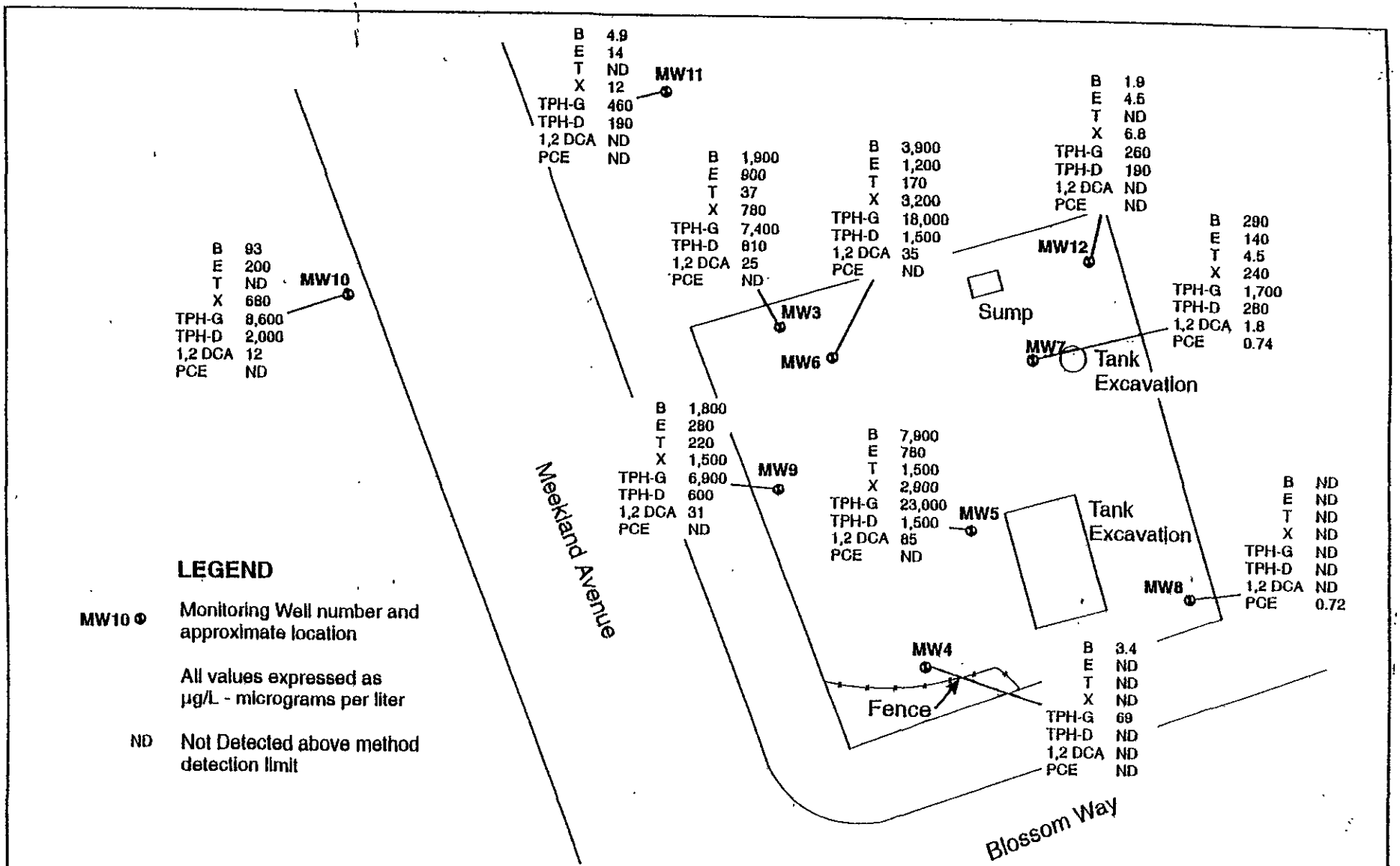
AGI TECHNOLOGIES

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
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_6-C_{12}), possibly gasoline.
c) Hydrocarbons quantified as diesel are due to the presence of a lighter petroleum product (C_6-C_{12}) 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.



10·20·94

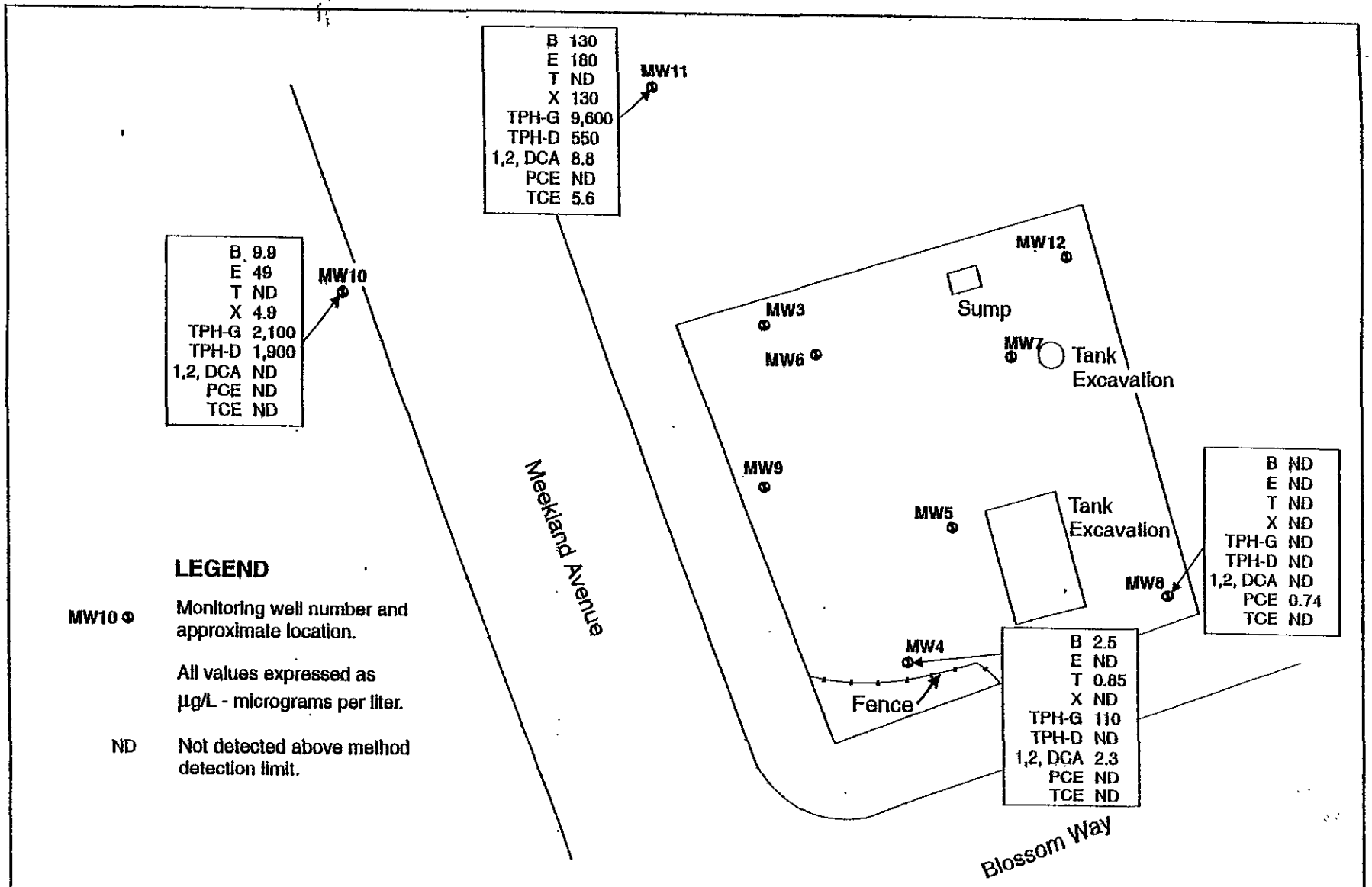
AGI TECHNOLOGIES

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



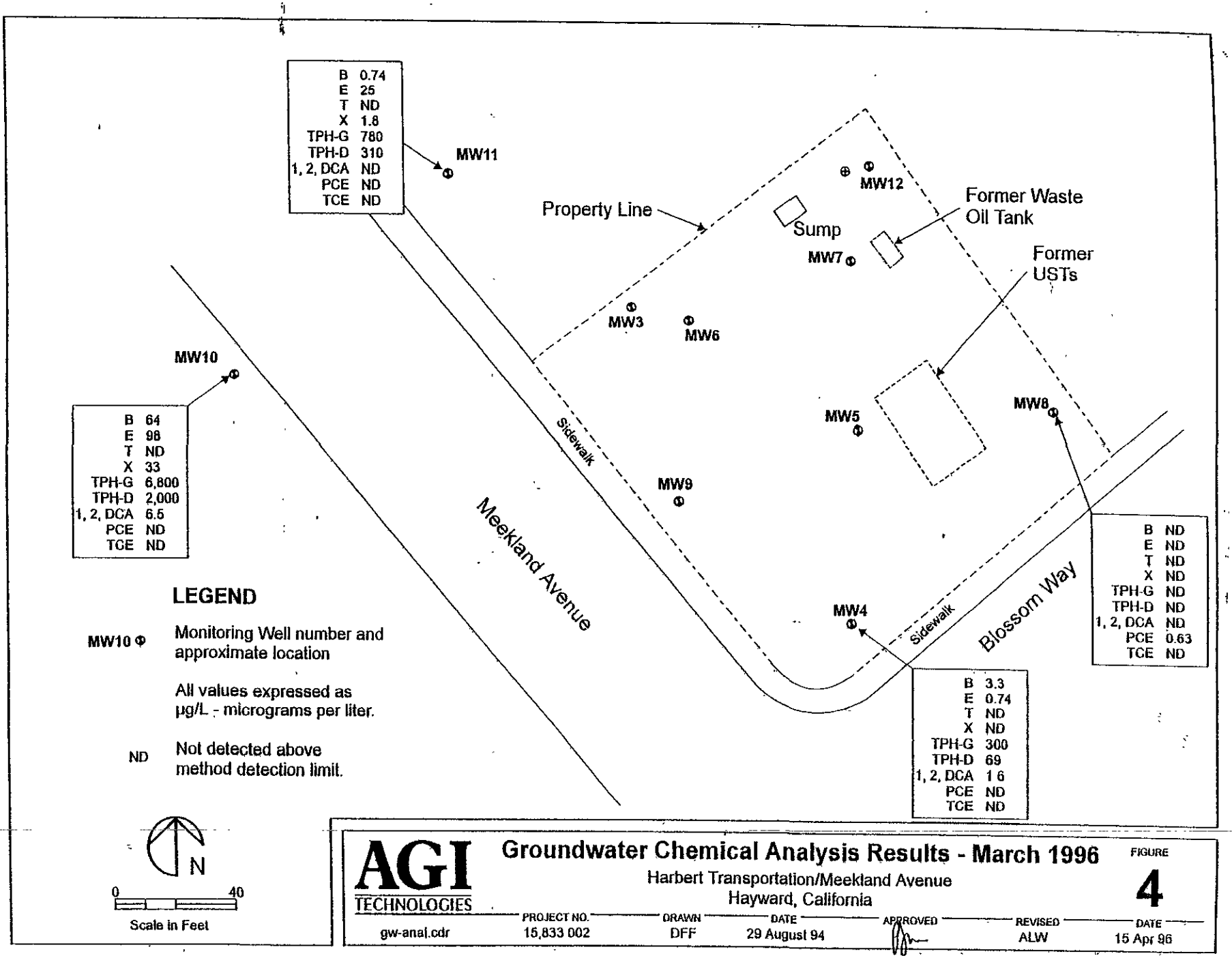
AGI TECHNOLOGIES

Groundwater Chemical Analysis Results - 9/15/95

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE 4

PROJECT NO	DRAWN	DATE	APPROVED	REVISED	DATE
83300201.cdr	15,833.002	DFF	1 Feb 95	BJA	8 Nov 95



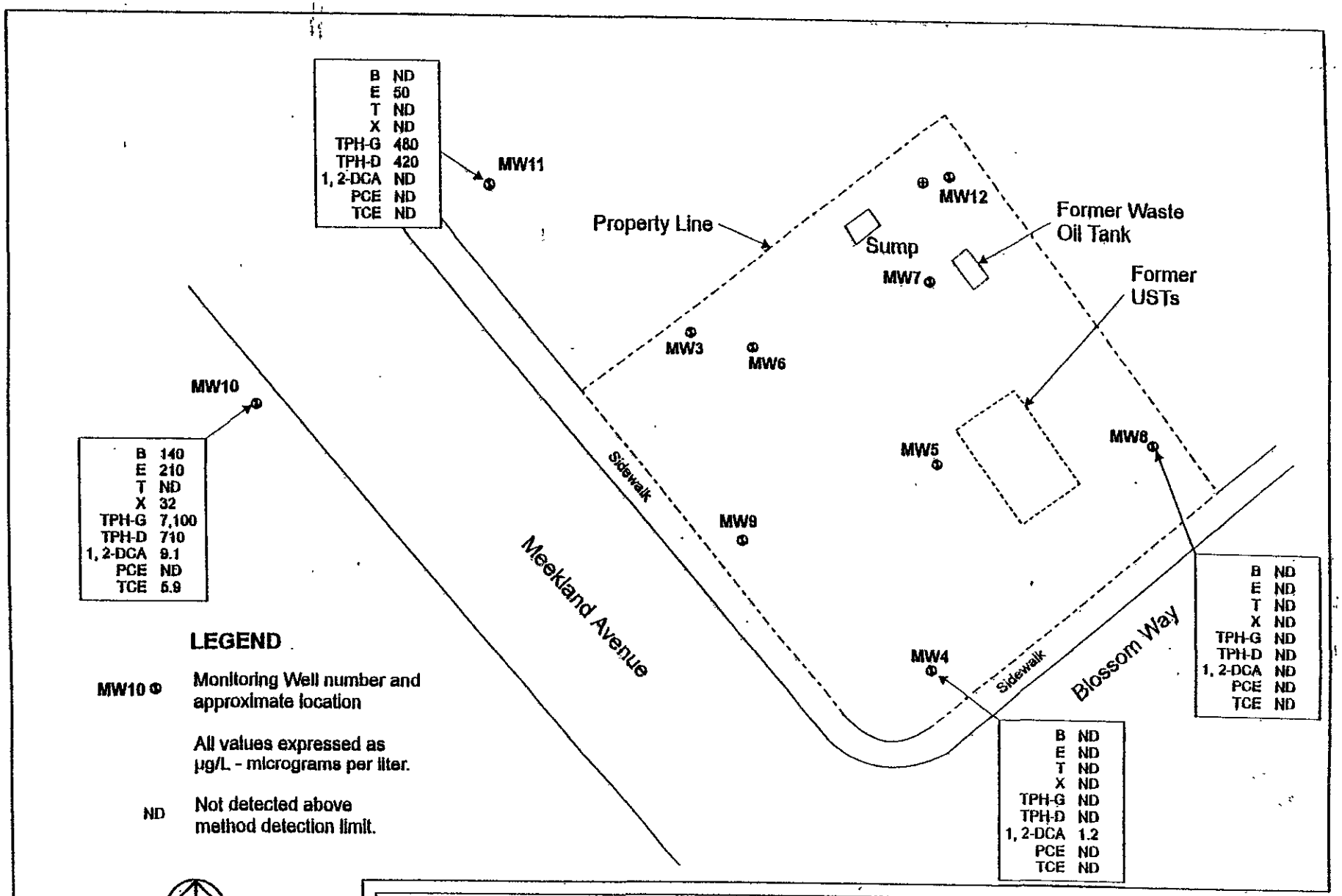
AGI TECHNOLOGIES

Groundwater Chemical Analysis Results - March 1996

Harbert Transportation/Meekland Avenue
Hayward, California

FIGURE **4**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
gw-anal.cdr	15,833 002	DFF	29 August 94	ALW	15 Apr 96



Groundwater Chemical Analysis Results - September 1996

FIGURE 4

Harbert Transportation/Meekland Avenue
Hayward, California

AGI TECHNOLOGIES

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
gw-anal.cdr	15,833.002	DFF	29 August 94	ALW	15 Apr 96

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RECEIVED MAY 17 2004

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

RO0000047

May 13, 2004

Jerry Harbert
46765 Mountain Cove Drive
Indian Wells, CA 92210

Gregg Petersen
Durham Transportation, Inc.
9001 Mountain Ridge Drive, Ste. 200
Austin, TX 78759

RE: SWI, SCM and Case Closure Request for Durham Transportation, 19984 Meekland Avenue, Alameda County

Dear Messrs. Harbert and Petersen:

This letter follows a review of the fuel leak case file for the above referenced site, up to and including the August 22, 2003 Weber, Hayes & Associates (WHA) report entitled "*Fuel Leak Case Closure Request*", with incorporated Site Conceptual Model (SCM), well/conduit study, and 2nd quarter 2003 well sampling results. Case review also included review of site cleanup goals for both soil and groundwater as presented in the March 27, 2003 WHA report entitled "*Proposed Site Specific Cleanup Goals – Revised*".

Your request for case closure is denied at this time. Additional information is needed before case closure may again be considered. This letter presents a request to revise the SCM and site cleanup goals, submit a Soil and Water Investigation (SWI) work plan, and submit additional technical information. These requests are in accordance with provisions of the California Code of Regulations (CCR), Title 23, Division 3, Chapter 16, Article 11, "Corrective Action Requirements"; State Water Resources Control Board Resolution 9249, "Policies and Procedure for Investigation, Cleanup and Abatement of Discharges Under Water Code Section 13304"; and the Regional Water Quality Control Board (Regional Board) Water Quality Control Plan for the basin.

The following technical comments address investigation and related performance objectives that shall be considered as part of the required SWI and revised SCM. **We request that you prepare and submit an SWI work plan, and affiliated documents, by July 13, 2004.**

TECHNICAL COMMENTS

1. Site Conceptual Model

   Starting with a critical review of the conduit study and data from previous investigations for this site, you are to continue development of a comprehensive three-dimensional SCM of site conditions. An SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely impacts to receptors. The SCM is used to identify data gaps that are subsequently filled as the investigation proceeds. As the data gaps are filled, the working

Exhibit D

hypotheses are modified, and the overall SCM is refined and strengthened. Subsurface investigations continue until the SCM no longer changes as new data are collected. At this point the SCM is considered "validated": The validated SCM forms the foundation for developing the most cost-effective final Corrective Action Plan (CAP).

We have identified, based on review of existing data and the current SCM, what we see as key areas where the SCM should be refined. We have described in this letter several tasks we believe will provide useful new data in pursuit of refinement of the SCM.

The current SCM states that shallow groundwater near the site is not a drinking water source and there are no nearby horizontal or vertical conduits that could serve as paths for petroleum hydrocarbons to reach deeper groundwater. According to the San Francisco Regional Water Quality Control Board's (RWQCB) *Basin Plan,* however, groundwater encountered in this area of the East Bay Plain is considered a potential drinking water source. Based on well permits filed with the Alameda County Public Works Agency (ACPWA), approximately 50 irrigation and/or domestic wells are known to be located within a ½ mile radius of the site. Of those, approximately 46 are completed to depths of 100' or less, and approximately 15 of these are completed to depths of 65' or less. Many of these wells are located <1000 feet of the site. We understand that completion logs for these permitted wells have not been reviewed. The presence of *unpermitted* wells within a ½ mile radius of the site is unknown.

Logs for permitted wells within this ½ mile radius should be acquired and reviewed to determine screen intervals and gain a better understanding of the regional geology. Based on the number of permitted wells identified in this area, it appears prudent as well to perform a neighborhood search for *unpermitted* wells. If discovered, unpermitted well locations are to be mapped. Once well construction for all wells is determined and incorporated into the interpretation of regional geology, a series of regional cross sections should be prepared. In addition, use histories and pumping rates are to be determined for, at a minimum, both permitted and unpermitted production wells located within 1000' of the subject site. Mass transport rates from source to these wells should be determined.

The current set of cross sections for this project, initially presented in the December 27, 2002 WHA report entitled "*Proposed Site-Specific Clean-up Goals, Groundwater Monitoring Report – Third Quarter 2002*", should be incorporated into the revised SCM. However, we request that boring logs depicted on this series of cross sections be reviewed again to ensure sections accurately reflect lithologies and total depths identified in the noted logs. Our review identified some possible errors in lithologies and total depths for select borings (e.g., DP-2) appearing in the sections. Further, interpretations of the lateral continuity of logged lithologies, particularly in section A – A', is far too speculative and should be revised to reflect more uncertainty where distances between logged borings are great (e.g., DP-1 to MW-10).

We also request that areas of the site that were subjected to remedial soil excavation activities be appropriately depicted on the cross sections where section lines bisect these areas. An additional cross section should also be drawn to include wells MW-3, MW-5, MW-6, MW-11, and other suitable borings along that general trend, which may include off-site private wells (e.g., 3S/2W 17C2) and any additional borings along that trend completed as a component of the pending SWI.

A large format (e.g., 2 x 3') regional map of the site and surrounding area should also be provided at a scale suitable for clearly showing salient features of the site and adjoining properties, such as buildings and other structures, streets, sidewalks, project monitoring wells and borings, and private wells

(production, test, irrigation, and monitoring wells, whether active, destroyed, or abandoned, as appropriate). This map should be provided with the updated SCM. Please be certain that the locations of all salient features (i.e., wells, borings, structures) are correctly located on this and all other produced maps. Well and boring locations are to be based on survey plats. This is mentioned due to well location discrepancies noted between maps produced at various times (e.g., MW-9 location depicted on Fig. 2 of 2/14/01 and 6/24/03 WHA reports).

In addition, we have been informed that planned redevelopment of the subject site will be residential. Please provide a copy of the development plan that shows the locations of planned structures and type of construction, if available at this time.

The SCM should be revised to reflect the issues presented, above.

You are requested to use the revised SCM to help you determine the appropriate locations and configuration for samplings points in the pending SWI phase of work at this site. Please discuss in the SWI work plan your analysis and interpretation of the revised SCM, and explain your rationale for the configuration of proposed sampling points.

Your attention is directed to API Publication No. 4699 as a resource for development of the SCM. Your attention is also directed to the State Water Resources Control Board (SWRCB) *"Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates, Final Draft"*, dated March 27, 2000, to help in development and strategies for refinement of the SCM, among other related tasks.

2. Contaminant Plume Definition – Soil and Groundwater Investigation

The purpose of this SWI is to determine the *three-dimensional* extent of contamination in soil and groundwater, local geology and hydrogeology, and a demarcation of potential geogenic preferential flow pathways. We request that a suitable number of multilevel sampling points be completed to determine petroleum hydrocarbon impacts to deeper zones of the local water bearing zone(s), and to tie together lithologies identified in logs of production wells in proximity to the site with those identified during the course of this investigation. The scope of this work should be substantially based on the review of such logs, interpretations of regional geology, the revised SCM, and identified data gaps.

Historic investigations have been limited to depths of ~ 45' below grade (bg) or less. A previous Geoprobe® investigation conducted by AGI Technologies (AGI, 8/12/96) focused solely on the collection of first encountered groundwater. This work included the completion of ten (10) off-site sample points, some of which where emplaced over 200' from the site and in the direction of off-site production wells. Soil samples were not collected nor were boring logs produced.

Known irrigation and domestic wells in proximity to the site (<1000') have total depths of between ~ 45 and 91' BG. The scope of the pending SWI should reflect off-site production well completion depths, their spatial locations relative to the site and calculated groundwater flow directions, and the goal of determining potential impacts to water-bearing zones across which these wells are screened.

Conventional investigation techniques and monitoring well networks currently used at fuel leak sites are generally insufficient to adequately characterize petroleum hydrocarbon impacts. It is recommended that your investigation incorporate expedited site assessment techniques and borings (e.g., Geoprobe,

CPT, etc.). The borings are to be continuously cored and logged, with close attention paid to changes in lithologies that might facilitate solute transport (e.g., silty/sandy stringers in otherwise fine grained sediments). The methodology employed should minimize the potential for cross-contamination.

Soil samples should be collected for laboratory analysis at 5-foot intervals, areas of obvious contamination, the soil/groundwater interface, and at each lithologic change noted during boring advancement, at a minimum. Water samples are to be collected at discrete depths to total depth explored. As discussed previously, detailed cross-sections, fence diagrams, structural contours and isopachs, and rose diagrams for groundwater flow (incorporating all historic data), should be subsequently incorporated into the SWI report and SCM, as appropriate. Cross-sections should be scaled to clearly illustrate subsurface lithologies, including the locations of stringers and other zones of relatively higher permeability.

The monitoring of multiple discrete water-bearing zones with short-screened intervals may be anticipated, depending on what is discovered through revision to the SCM and outcome of the SWI.

Generally, if such multilevel wells appear appropriate, these screened intervals should not be greater than 2' in length. We will expect that the SWI Report will propose the locations of additional sample points, or wells, the anticipated well screen depths, their configurations (e.g., well cluster or multi-level), and the reasoning behind the location and configuration of each should they appear necessary to further define the plume and refine the SCM.

Discuss your proposal for performing this work outlined, above, in the SWI work plan. The updated SCM is to be presented and discussed in the SWI work plan to justify your proposed scope of work.

Expedited site assessment tools and methods are a scientifically valid and cost-effective approach to fully define the three-dimensional extent of the plume. Technical protocol for expedited site assessments are provide in the US EPA *"Expedited Site Assessment Tools for Underground Storage Tank Sites: A guide for Regulators"* (EPA 510-B-97-001), dated March 1997.

3. Corrective Action Plan

The purpose of the CAP is to use the information obtained during investigation activities to propose cost-effective **final cleanup objectives** and remedial alternatives for both soil and groundwater impacts that will adequately protect human health and safety, the environment, eliminate nuisance conditions, and protect water resources. The current cleanup goals, as presented in the March 27, 2003 WHA report entitled *"Proposed Site Specific Cleanup Goals – Revised"*, do not adequately protect against impacts to groundwater based on its status as a potential drinking water aquifer according to the RWQCB *Basin Plan.*

In such circumstances, cleanup objectives are considered the published drinking water Maximum Contaminant Levels (MCL) at the point of potential exposure, i.e., at the wellhead. However, you may propose cleanup "goals" that differ from the MCLs such that the proposed goals reflect a maximum plume concentration that may migrate beyond the borders of the subject site. A goal of 10x the MCL would be considered a reasonable proposal.

Please submit your updated cleanup goals with the revised SCM.

4. Routine monitoring well sampling and reporting

   Wells associated with the investigation at this site have not been sampled and monitored, and the results submitted, since the sampling event that occurred during June 2003. Please include analyses for EPA Method 8260 compounds, including the lead scavengers 1,2-DCA and EDB, among others.

   Sampling, monitoring, and reporting shall be reinstated on a semi-annual schedule until further notice beginning 3rd Quarter 2004.

TECHINCAL REPORT REQUEST

Please submit technical reports according to, or otherwise comply with, the following schedule:

July 13, 2004 – Work for Soil and Water Investigation

July 13, 2004 – Revised Site Conceptual Model

90 Days from SWI Work Plan Approval – Soil and Water Investigation Report (which contains the results of the recent SWI assessment work, and a proposal for appropriate additional work, if applicable)

October 15, 2004 – Semiannual Report for the Third Quarter 2004

April 15, 2005 – Semiannual Report for the First Quarter 2005

October 15, 2005 – Semiannual Report for the Third Quarter 2005

These reports and work plans are being requested pursuant to the Regional Board's authority under Section 13267(b) of the California Water Code. **Each technical report shall include conclusions and recommendations for the next phases of work required at the site should more appear necessary to refine the SCM.** We request that all required work be performed in a prompt and timely manner, as suggested by the noted schedule, above. Revisions to this schedule shall be requested in writing with appropriate justification for anticipated delays.

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that all work plans and technical reports containing professional geologic or engineering evaluations and/or judgments be completed under the direction of an appropriately-registered or certified professional. This registered or certified professional shall sign and wet stamp all such reports and work plans.

All reports and work plans are to be submitted under cover, signed under penalty of perjury, by the Responsible Party(ies) who have taken a lead role in compliance with corrective action directives.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the Alameda County District Attorney, for possible enforcement follow up. Enforcement follow up may include administrative action or monetary penalties of up to $10,000 per day for each day of violation of the California Health and Safety Code, Division 20, Chapter 6.76.

I can be reached at (510) 567-6783 should you have any questions.

Sincerely,

Scott O. Seery, R.G., CHMM
Hazardous Materials Specialist

c: Roger Brewer, RWQCB
Dave Charter, SWRCB UST Fund
Jeffrey S. Lawson, SVLG, 152 North 3rd St., Ste. 900, San Jose, CA 95112
Craig B. Drizin, Weber, Hayes & Assoc., 120 Westgate Dr., Watsonville, CA 95076
D. Drogos

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

SOIL AND GROUNDWATER INVESTIGATION WORKPLAN

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

July 30, 2004

Prepared For:

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

Care Of:

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

For Submittal To:

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

Prepared By:

Weber Hayes and Associates
Job # H9042

Exhibit E

TABLE OF CONTENTS

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

EXECUTIVE SUMMARY

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

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

The purpose of this *Workplan* is designed to provide additional information to fill in the data gaps of the revised SCM. Specifically, this *Workplan* will address whether or not there is an impact to the next groundwater bearing zone, determine whether or not groundwater concentrations, specifically benzene, is below the revised groundwater cleanup goal prior to migrating offsite, complete another conduit study for permitted and un-permitted wells for determining potential impact to sensitive receptors and for updating the subsurface hydrogeology, re-surveying the site monitoring well network for horizontal orientation due to discrepancies in maps in WHA reports, (specifically 2/14/01 map and 6/24/03 map as identified by ACEHS), and conduct another round of monitoring well network sampling to show the groundwater concentrations are attenuating.

In conclusion, WHA believes this Revised SCM, along with additional information collected form the *Soil and Groundwater Investigation Workplan* will strengthen our SCM and show there is;

- lack of a substantial groundwater plume migrating offsite,
- no remaining residual contamination onsite,
- lack of contamination in the deeper groundwater bearing zone,
- lack of any sensitive receptors being impacted by residual contamination and,
- clean-up goals for soil and groundwater have been met.

WORKPLAN TASKS

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

Task 1: Pre-field Activities
Task 2: Department of Water Resources (DWR) ½ Mile Well Radius Search
Task 3: Field Verification of Wells: Permitted and Un-permitted
Task 4: Site Survey

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

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

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

DESCRIPTION AND RATIONAL OF WORKPLAN TASKS

Task 1: Pre-Field Activities:
Prior to conducting field work, WHA will obtain site access, encroachment permits, if applicable, and boring permits from Alameda County Public Works Agency (ACPWA). WHA will also prepare a site health and safety plan to perform Workplan tasks. Underground Safety Alert (USA) will be contacted 48-hours prior to field work to identify any and all underground utilities that may be encountered during drilling. Project coordinating will include scheduling a Geoprobe drilling rig with a C-57 license (Enprob, C-57 License # 777007) to conduct the drilling and sampling. WHA plans to use dual tube sampling equipment to prevent downward migration of contamination during drilling. Additionally, WHA will coordinate with the county agency/inspectors so they can oversee project status and drilling operations, as well as making sure the site health and safety plan for this investigation is followed.

Task 2: Department of Water Resources 1/2-Mile Well Radius Search:
This Task is already in motion. On June 21, 2004 WHA staff FAXed a request for well completion reports within 1/2-mile well radius of the subject site to the Department of Water Resources (DWR), Central District. Once wells logs from the DWR are received, they will be compared against our initial well radius search results conducted through ACPWA in July 24 2003, and reported in WHA *Fuel Leak Closure Request* report, dated August 22, 2003. It should be noted that the initial well radius search did not provide us with well construction or lithology, only, owner name, date drilled, well elevation, total depth drilled, depth to groundwater, well diameter, and type of use (i.e. monitoring, domestic, public, etc..) We anticipate that there will be overlap and/or absence of logs from agency to agency. WHA will detail which logs are duplicated and which logs are absent from either agency. These well logs will be used to supply additional information for a comprehensive site conceptual model.

Task 3: Field Verification of Wells: Permitted and Un-Permitted:
WHA anticipates that there could be as many as 100 or more well logs received from the DWR. After comparing logs received from each agency, and after plotting them on a base map, WHA will perform field verification of wells. In order to save time and money and for expediting this tasks, WHA plans to field verify well location on wells within 1000 feet downgradient to sidegradient of the subject site. WHA will only perform field verification of wells in the upgradient direction if wells are identified less than 500 feet from the site. This task will entail mobilizing to each identifed well location to confirm the well is still in existence, and if so, request from the well owner pumping data (rate and total daily use) and current static groundwater levels and pumping groundwater levels. It should be noted that well owners my decline the release of this information.

In addition to verifying permitted wells, WHA will perform a search for un-permitted wells within 500 feet of the subject site. This will be accomplished by sending letters to property owners within 500 feet radius of the site, informing them of ACEHS requirement to conduct this task. However, with the know scrutiny of divulging well information, WHA will not guarantee that this search will be accurate.

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

Task 4: Site Survey:
This task is being conducted to verify monitoring well locations northing and eastings because monitoring wells have been depicted in different locations on quarterly site maps, specifically 2/14/01 vs 6/24/03 site plans. WHA believes that the 6/24/03 site map is the correct map. This task will include scheduling a licensed surveyor to re-survey the site monitoring well network for correct horizontal orientation.

Task 5: Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone:
This task is being conducted because during our revision of our SCM (WHA, July 30, 2004), it was determined that a water well used to exist onsite. The well was reported to be constructed to 67.9 feet below ground surface (bgs) with static water at 29.9 feet bgs. This water well was destroyed by filling the well with grout to ground surface via tremie pipe. Prior to this well being destroyed the groundwater was sampled. The analytical results indicated that the groundwater from this well contained some elevated concentrations of TPH-g BTEX, and lead. Since there is no available construction details it is unclear if this well was screened deep, however, in order to fill the data gap we must confirm whether or not this well served as a conduit for deeper vertical migration. WHA will determine if this well served as a conduit for deeper vertical migration by first identifying the deeper groundwater bearing zone, followed by confirmation sampling of the deeper groundwater bearing zone.

Currently, the lithology at the site has been observed to depths of 46 feet and only one groundwater bearing zone has been penetrated. Boring logs indicate there are at least seven unconsolidated units comprising the upper 46 feet beneath the site which consists of (in depth increasing order); sand/gravel fill, clay, sandy clay and/or clayey silt, clayey and/or silty sand, fat and/or lean clay,

poorly graded and/or silty sand, and lean clay as the bottom most unit (unit seven). the subsurface lithology appears fairly homogeneous beneath the site, and laterally (within 175 feet) offsite. Refer to the revised SCM (WHA, July 30, 2004) for complete hydrogeologic interpretation of the site.

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

Based on this information, and in order to confirm no impact the lower groundwater bearing zone, WHA proposes to drill one deep Confirmation Driven Probe (CDP) boring directly adjacent to the former well as depicted on Figure 2. This location was chosen because if the deeper groundwater bearing zone is impacted, this location would represent a worst-case scenario location.

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

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

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

Task 6: Confirmation Groundwater Grab Sampling at Downgradient Property Line:
This task is being conducted to verify that concentrations of benzene in groundwater migrating offsite are below the revised groundwater clean up goal of 10 parts per billion (ppb). This task will involve scheduling Enprob Environmental Probing (C-57 License # 777007), to use a truck mounted GeoProbe rig to hydraulicly push rods into the subsurface. WHA proposes to drill these borings to confirm whether interim remedial action operations (large diameter auger excavation) were successful at removing source soils and minimizing the groundwater plume.

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

Each boring will be logged and sampled by an experienced staff geologist. An Organic Vapor Analyzer (OVA) calibrated for benzene will be used for detection of potential volatile organic

vapors. The borehole will be continuously cored in 4-foot intervals until groundwater is encountered. Groundwater is expected to be approximately 32 feet, thereafter rising to static levels around 23 feet bgs, due to the semi-confined aquifer conditions present at the site. Soil samples will be collected and held for evaluation. Once groundwater is encountered, a groundwater grab sample will be obtained and analyzed for:

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

The analytical results from this sampling will determine whether or not groundwater migrating offsite is above the groundwater clean up goal. If analytical concentrations indicate that groundwater migrating offsite is below the groundwater clean up goals, and all other information provided indicates a complete and validated SCM, WHA will request closure.

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

Task 7: Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004:
This task will involve obtaining groundwater samples from the monitoring well network. These groundwater samples will severe as confirmation samples for the shallow groundwater bearing zone to confirm whether or not contaminant concentrations are continually decreasing with natural attenuation, and for demonstrating the lack of plume migration off site. If concentrations are elevated above clean-up goals and warrant additional monitoring, additional semi-annual monitoring will be conducted. Monitoring well groundwater samples obtained will be analyzed for:

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

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

Task 8: Reporting of Tasks 1 through 7:
This task will detail tasks 1 through 7 by compiling all field work data, observations, and reviewing lithologic logs and groundwater analytical results. WHA will provide a written report that will document field activities, summary of findings, recommendations and conclusions for the site. This report will be prepared for our client for submital to ACEHS, and CRWQCB.

SCHEDULE OF WORKPLAN TASKS

- Task 1 (Pre-Field Activities): This tasks will commence within two weeks of written approval by the lead regulatory agencies.

- Task 2 (Department of Water Resources 1/2-Mile Well Radius Search): This task was

implemented on June 21, 2004. Radius results are anticipated to be received the week of July 12, 2004.

- Task 3 (Field Verification of Wells: Permitted and Un-permitted): This task will commence within two weeks of written approval by the lead regulatory agencies.

- Task 4 (Site Survey): This task will commence within two-three weeks of written approval by the lead regulatory agencies.

- Task 5 (Confirmation Sampling: Soil and Groundwater): This task will be commence within two-three weeks of written approval by the lead regulatory agencies and pending drill rig availability.

- Task 6 (Identification and Confirmation Sampling of Deeper Groundwater Bearing Zone): This task will be commence within two-three weeks of written approval by the lead regulatory agencies and pending drill rig availability.

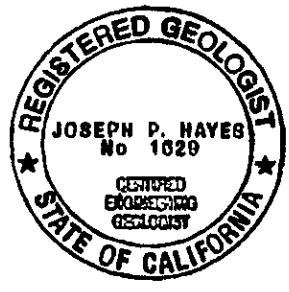
- Task 7 (Additional Round of Groundwater Monitoring & Sampling, 3rd quarter, 2004): This task will be commence within two-three weeks of written approval by the lead regulatory agencies.

- Task 8 (Reporting of Tasks 1 through 7): This task will be completed three to four weeks following receipt of laboratory results, expected to be approximately eight weeks following written approval by the lead regulatory agencies.

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

Respectfully submitted,

Aaron Bierman
Senior Staff Geologist, RG # 7490



Joseph Hayes
Principal Hydrogeologist

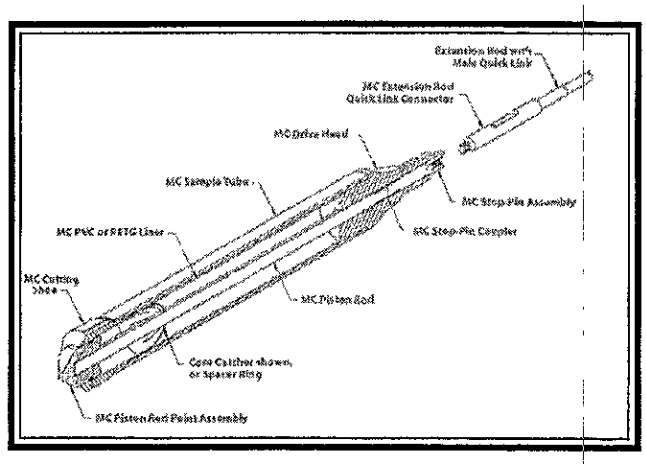
APPENDIX A

Field Methodology for Hydraulic Driven Probes

Field Methodology
Hydraulic Driven Probes

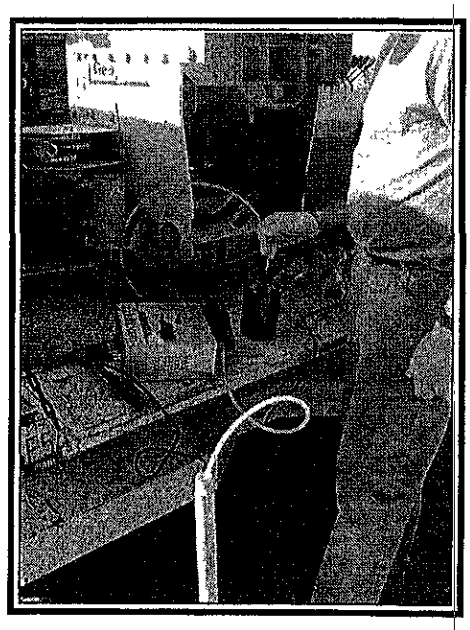
Using Macro-Core®, Large Bore® or Dual Tube® Hydraulic Driven Probes

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



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

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



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

ice chests cooled with blue ice. Soil and groundwater samples are then transported to a State-certified laboratory under appropriate chain-of-custody documents.

APPENDIX B

Field Methodology for Monitoring Well Sampling

Field Methodology
Monitoring Well Groundwater Sampling

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

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

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

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

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

APPENDIX C

Site Health and Safety Plan