

THRIFTY OIL CO.

May 23, 2003

O.34816

Mr. Barney Chan/Ms. Eva Chu
Hazardous Material Specialist
Alameda County Health Care Agency
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, Ca

Alameda County

MAY 30 2003

Environmental Health

RE: Former Thrifty Oil Co. Station #049
3400 San Pablo Avenue
Oakland, CA
Requested Documents

204


Dear Mr. Chan/Ms. Chu:

On May 23, 2003, Mr. Barney Chan of the Alameda County Health Care Agency (ACHCA) spoke with Mr. Raymond C. Friedrichsen of Thrifty Oil Co. (Thrifty) via telephone. Mr. Chan requested that the following Thrifty documents be resubmitted to the ACHCA: Workplan for Additional Site Assessment and Remedial System Upgrade dated December 9, 2002, and Addendum to Workplan for Additional Site Assessment and Remedial System Upgrade dated February 28, 2003. He also requested that Thrifty forward a copy of the ACHCA e-mail sent on December 18, 2003. ²

Attached are the requested documents.

If you have any questions or comments, please contact me at (562) 921-3581.

Respectfully,


Raymond C. Friedrichsen
Senior Project Manager
Hydrogeologist

X 376

C: File



Marie Rodriquez

From: Chu, Eva, Env. Health [EChu@co.alameda.ca.us]
Sent: Wednesday, December 18, 2002 11:14 AM
To: 'environmental@thriftyoil.com'
Subject: 3400 San Pablo Avenue, Oakland, CA

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DEC 18 2002

ENVIRONMENTAL

TOC#049

FILE
RF

Hi Ray,

I received and reviewed the December 2002 Work Plan for Additional Site Assessment and Remedial System Upgrade. The proposal to perform a well and conduit survey is acceptable. Also acceptable is the proposal to install new piping and connect well MW-4 to the remediation system. However, I do not believe the one proposed well is adequate to delineate the extent of the contaminant plume. Groundwater beneath the site has flowed from northwest to southwest. I would like to suggest that several soil borings be advanced along San Pablo and 34th Street. Analytical results of soil and grab groundwater samples from these boreholes will help to determine the best location for permanent groundwater monitoring well(s). Let me know if this is doable with Thrifty Oil. If so, you should submit an amended workplan within 21 days of the date of this email. Borings and wells should have shallow screen intervals (to reduce sample dilution) and depth to water has only ranged from 7 to 10 feet bgs.

eva.chu
Hazardous Materials Specialist
1131 Harbor Bay Parkway
(510) 567-6762
(510) 337-9335 (fax)

THRIFTY OIL CO.

December 9, 2002

O.33841

Ms. Eva Chu
Hazardous Material Specialist
Alameda County
Health Care Agency
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA.

RE: Former Thrifty Oil Co. Station #049
3400 San Pablo Avenue
Oakland, CA
Work Plan for Additional Site Assessment and Remedial System Upgrade

Dear Ms. Chu:

Thrifty Oil Co. (Thrifty) is in receipt of the Alameda County Health Care Agency's (ACHCA) letters dated August 9 and August 27, 2002 (**Appendix A**). In the ACHCA letters, a work plan for an additional site assessment for contaminant plume delineation and the upgrade of the existing remediation system was requested.

Additional Site Assessment

To delineate the contaminant plume, Thrifty proposes to install one off-site down-gradient groundwater monitoring well (MW-8) in 34th Street, as presented on **Figure 1**. The proposed well is approximately 40 feet down-gradient from monitoring well MW-4. The following activities will be associated with this task:

- Before monitoring well installation, well installation permits from the County of Alameda County Environmental Health Services, City of Oakland (if required), and any other agency that requires permits for street or sidewalk drilling will be obtained. USA notification will be performed, and a Health and Safety Plan will be prepared and submitted.
- A conduit and well survey will be conducted, as required by ACHCA.
- The well borehole will be drilled using a hollow-stem drilling rig, and soil samples will be collected at 5-foot intervals for laboratory analysis. Once groundwater is encountered, soil sampling will continue for geological logging purposes only, and the borehole will continue 15 feet into groundwater. Based on recent monitoring data, depth to water is approximately 7 to 10 feet below surface grade (bsg). Therefore, the total depth of the well is expected to be 25 feet bsg. The collected soil



samples will be placed on ice, and submitted to a state-certified laboratory under Chain-of-Custody conditions for analysis of total petroleum hydrocarbons as gasoline (TPH-g) by EPA method 8015M, benzene, toluene, ethylbenzene, xylenes (BTEX), and selected oxygenates (including MTBE) by EPA method 8260B.

- The soil boring will be converted into a 2-inch diameter monitoring well. The well will be screened from 25 feet bsg to 5 feet bsg, but could be altered depending upon the depth of encountered groundwater. Your office will be immediately notified by telephone of any alterations of the well design.
- Following well installation, the well will be developed using a drill rig-mounted surge block and bailer, purged and sampled. The collected water sample will be placed in an iced cooler, its ID number will be logged on a chain-of-custody, and the sample transferred to a state certified laboratory for analysis of TPH-g by EPA method 8015M, BTEX, and selected oxygenates including MTBE by EPA method 8260B.
- A licensed surveyor will survey all wellhead elevations to a known benchmark, following installation of the off-site well. The surveyor will comply with the new AB2866 requirements.
- Future quarterly monitoring reports will incorporate water table elevation and analytical data from the well.
- A report will be prepared to document the well installation activities, and will include copies of the well permits, boring logs, and sample analytical results. The report will also include geologic cross-sections depicting soil contamination, UST, piping and utility locations, groundwater elevation, lithology, and well screen intervals, as requested by the ACHCA.

Proposal to Upgrade the Existing Remediation System

The current system configuration is a down hole groundwater pump in a six inch groundwater recovery well (RW-1), which removes groundwater from the recovery well and pumps it into a holding tank located inside the remediation compound located on the east side of the station building (**Figure 2**). The water is then pumped from the holding tank through activated carbon and the treated water is then discharged to the sewer. There is an oil water separator and three carbon vessels in series. Five samples are collected before the water is discharged into the sewer. The samples collected are before the oil water separator (Inlet), after the oil water separator (Intermediate 3), after the first carbon (Intermediate 2), after the second carbon (Intermediate 1), and after the third carbon (Outlet) before discharging into the sewer.


A product pump and product tank are also located in the compound, but are no longer being used since free product is not present at this site.

Thrifty requests to upgrade the existing system by:

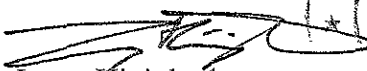
- Groundwater monitoring wells MW-4 and RW-1 will be properly developed, to enhance groundwater recovery from these wells. The wells will be developed using a well development rig by alternately using a surge block and bailing.
- New conveyance piping and water conveyance hoses will be installed to well MW-4, in a trench that will be excavated between RW-1 and MW-4. One new pneumatic pump will be installed into well MW-4 while the existing pump will be used in well RW-1. Following the piping installation to MW-4, the trenching will be backfilled, compacted, and resurfaced to existing grade. All system components will be tested to see if it is necessary to replace the existing pump or water conveyance hoses connecting RW-1 to the system compound.
- Since free product does not exist at this site any longer, Thrifty will remove the product tank and the oil water separator from the site, and it will not be included in the system upgrade schematic.
- The proposed upgraded remediation system will consist of two down hole automatic air-powered pumps (pneumatic) installed within wells MW-4 and RW-1, a 250 to 500-gallon holding tank, and a transfer pump. Water will be pumped from the two recovery wells into the holding tank, and then be pumped by the transfer pump to the first of three 250 pound activated carbons canisters in series. When the water exits the third carbon canister, the treated water will be discharged to the sewer. As with the current groundwater system, samples will be collected at selected ports before the water is discharged to the sewer to ensure water quality standards are met.

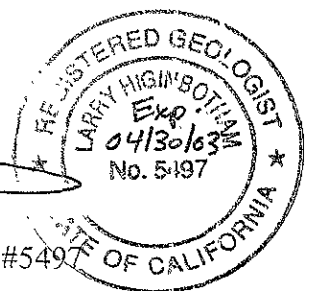
Once this work plan has been approved by the ACHCA, Thrifty will submit proposal request to several contractors. Upon reviewing the contractor bids, a contractor will be selected and retained by Thrifty to perform the above scope of work.

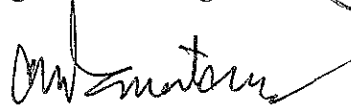
Written by:


 Raymond C. Friedrichsen
 Project Manager
 Senior Environmental Hydrogeologist

Reviewed by:

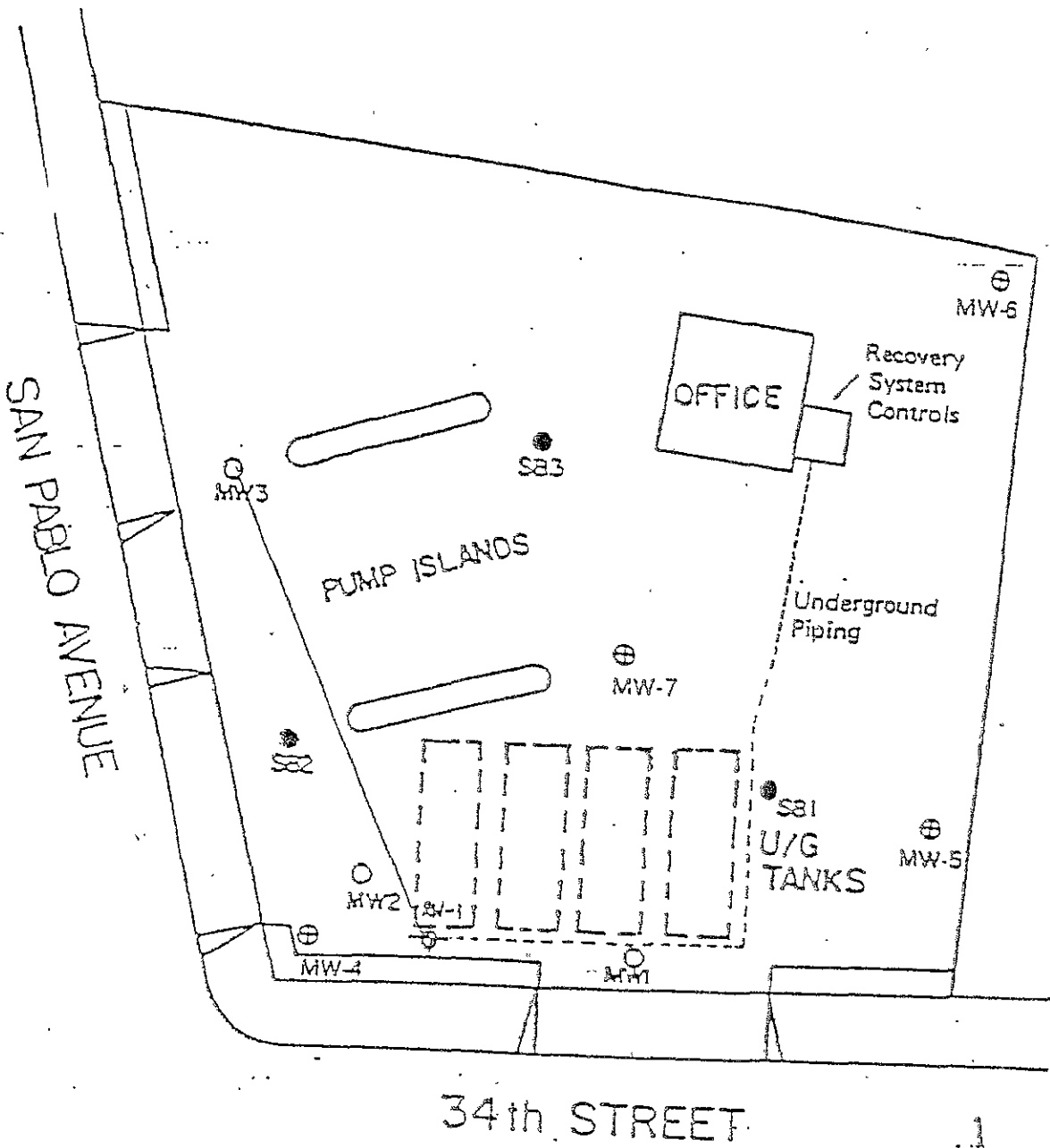

 Larry Higinbotham
 Registered Geologist #5497




 Chris Panaitescu
 General Manager
 Environmental Affairs

C: BP West Coast Products, LLP, Attn: Ms. Kateri Luka
 File

FIGURES



LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- SB1 - GT SOIL BORINGS
- ⊕ RW-1 - G. W. RECOVERY WELL
- ⊗ Proposed off site well



SITE PLAN AND RECOVERY SYSTEM LOCATION.
 --- THRIFTY SERVICE STATION NO. 49
 3400 SAN PABLO AVE.
 OAKLAND, CA

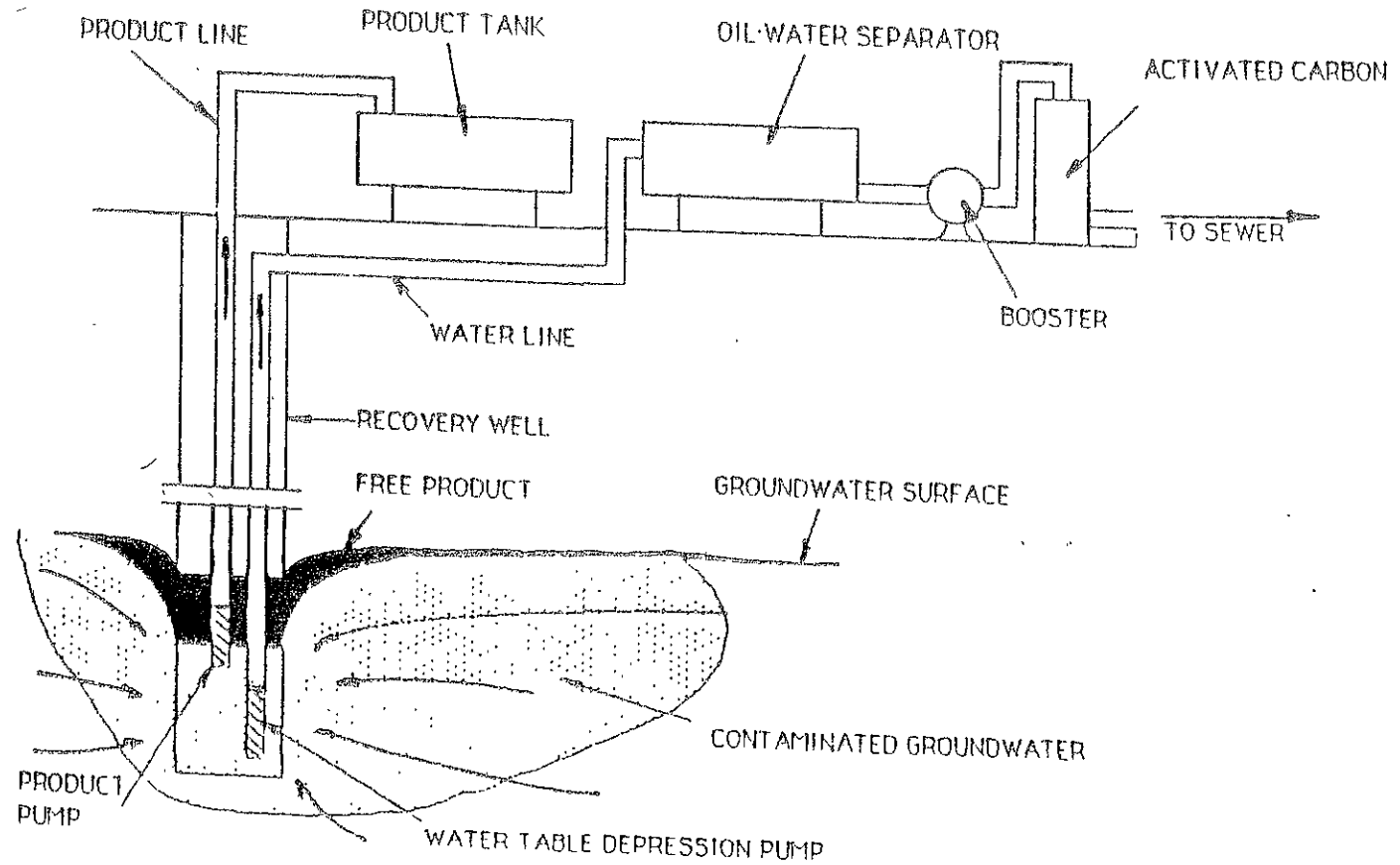


Figure 2 CONCEPTUAL RECOVERY SYSTEM SCHEMATIC

APPENDIX A

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J KEARS, Agency Director



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RO0000004

August 9, 2002

Mr. Chris Panaitescu
Thrifty Oil Co.
13116 Imperial Highway
Santa Fe Springs, CA 90670-0138

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

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ENVIRONMENTAL
TOC#049

RE: Additional Investigations at 3400 San Pablo Avenue, Oakland, CA

Dear Mr. Panaitescu:


I have completed review of the case file for the above referenced site. Soil and groundwater samples collected at the site have confirmed the release of fuel hydrocarbons that has impacted both soil and groundwater. Since 1991, over one million gallons of groundwater was pumped, treated and discharged to the sanitary sewer. Approximately 1,100 tons of hydrocarbon-impacted soil was excavated and disposed. Currently, up to 36,500ug/l TPHg and 24,000ug/l MtBE is detected in groundwater monitoring well MW-4.

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At this time additional investigations are required to better characterize the contaminant plume. A conduit and well survey and a minimum of one offsite monitoring well is required. In addition, geologic cross-sections depicting, at a minimum, residual soil contamination, UST, piping and utility locations, groundwater elevation, lithology, wells and their respective screen interval are required. Lastly, Thrifty's proposal to connect well MW-4 to the existing remediation system is acceptable.

A workplan for the delineation of the contaminant plume is due with 60 days of the date of this letter, **or by October 14, 2002.**

If you have any questions, I can be reached at (510) 567-6762.


eva chu
Hazardous Materials Specialist

OK TO PUT WORKPLAN in Quarterly
Report. 10/16/02, Due by Dec 31, 2002.

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



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ENVIRONMENTAL
LOG # 049

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 867-6700
FAX (510) 337-9335

RF
JZ

RO0000004

August 27, 2002

Mr. Chris Panaitescu
Thrifty Oil Co.
13116 Imperial Highway
Santa Fe Springs, CA 90670-0138

RE: Upgrade of Remediation System at 3400 San Pablo Ave, Oakland, CA

Dear Mr. Panaitescu:

I have completed review of Thrifty Oil Co.'s July 2002 *2nd Quarter 2002, Status Report and Proposal to Upgrade the Existing Remediation System* report prepared for the above referenced site. Thrifty's proposal to overhaul and upgrade the existing remediation system is acceptable.

The workplan for the delineation of the contaminant plume (as requested in August 9, 2002) and to upgrade the existing remediation system is **due by October 14, 2002**.

For the next sampling event, please run for ether oxygenates, TBA, and 1,2-DCA using Method 8260.

If you have any questions, I can be reached at (510) 567-6762.

A handwritten signature in cursive script, appearing to read 'eva chu'.

eva chu
Hazardous Materials Specialist

THRIFTY OIL CO.

February 28, 2003

O.31809

Ms. Eva Chu
Hazardous Material Specialist
Alameda County Health Care Agency
Environmental Protection
1131 Harbor Bay parkway, Suite 250
Alameda, CA 94502

RE: **Former Thrifty Oil Co. Station #049**
3400 San Pablo Avenue
Oakland, CA 94612
Addendum to Workplan for Additional Site Assessment and Remedial System Upgrade

Dear Ms. Chu:

Presented herewith is the Addendum to Workplan for Additional Site Assessment and Remedial System Upgrade dated December 9, 2002 for Former Thrifty Oil Co Station #049 located at 3400 San Pablo Avenue, Oakland, California.

In the December 18, 2002 letter, the Alameda County Health Care Agency (ACHCA) requests that an addendum to the December 9, 2002 workplan be submitted within 21 days after receipt of the ACHCA e-mail letter. I was informed that Mr. Raymond C. Friedrichsen spoke via telephone with Ms. Eva Chu of the ACHCA on January 6, 2003 requesting an extension for submitting the addendum to the workplan. Ms. Chu granted an extension until March 15, 2003. Thrifty appreciates the ACHCA understanding and cooperation.

If you have any questions or comments, please contact the undersigned in this report or myself at (562) 921-3581.

Sincerely,



Chris Panaitescu
General Manager
Environmental Affairs

c: BP West Coast Products LLP, Ms. Kateri Luka
File



THRIFTY OIL CO.

February 28, 2003

Ms. Eva Chu
Hazardous Material Specialist
Alameda County Health Care Agency (ACHCA)
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA.

RE: **Former Thrifty Oil Co. Station #049**
3400 San Pablo Avenue
Oakland, CA
Addendum to Workplan for Additional Site Assessment and Remedial System Upgrade

Dear Ms. Chu:

Thrifty Oil Co. (Thrifty) is in receipt of the ACHCA e-mail letter dated December 18, 2002 which requests an amendment to the Workplan for Additional Site Assessment and Remedial System Upgrade dated December 9, 2002. Specifically, the ACHCA letter requests that several soil borings also be included in the off-site assessment along San Pablo and 34th street. To respond, Thrifty will install three additional borings (B-1 through B-3) as indicated on Figure 1. Presented herein is the Addendum to the Workplan for Additional Site Assessment.

The following activities will be performed in association with the drilling of the three additional soil borings (B-1 through B-3):

- Before boring installation, permits will be acquired from the ACHCA, the City of Oakland (if required), and any other agency that requires permits for street or sidewalk drilling. USA notification will be performed, and a Health and Safety Plan will be prepared and submitted before any fieldwork begins
- The boreholes will be drilled using a hollow-stem drilling rig, and soil samples will be collected at 5-foot intervals for laboratory analysis. Once groundwater is encountered, soil sampling will continue for geological logging purposes only, and the borehole will continue 10 feet into groundwater. Based on recent monitoring data, depth to water is approximately 7 to 10 feet below surface grade (bsg). Soil sampled will be collected from a California split spoon sampler that contains three brass rings. One brass ring will be collected and Telfon sheets will be placed over both ends and capped by plastic end caps. The sample will be placed on ice and shipped to a state certified laboratory under Chain-of-Custody for laboratory analytical analysis for total petroleum hydrocarbons as gasoline (TPH-g) by EPA method 8015M, benzene, toluene, ethylbenzene, total xylenes (BTEX), and selected oxygenates (including MTBE) by EPA method 8260B. Thrifty reserves the right to convert any of these borings into groundwater monitoring wells if evidence of hydrocarbon impacted soil is observed during drilling and sampling of the soil borings.
- If any or all the soil borings are converted to 2-inch diameter groundwater monitoring wells, the wells will be screened from 20 feet bsg to 5 feet bsg. These depths could be altered

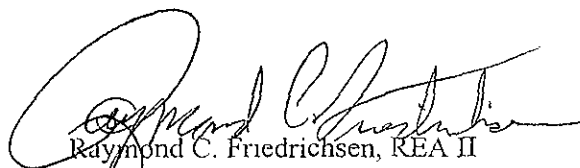


depending upon the depth of encountered groundwater. The ACHCA office will be immediately notified by telephone of any alterations of the well design.

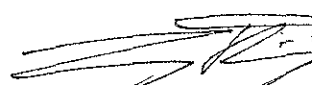
- If the borings are converted to groundwater monitoring wells, the wells will be developed using a drilling rig-mounted surge block and bailer, purged and sampled. The collected water sample will be placed in an ice cooler, its ID number will be logged on a chain-of-custody, and the sample transferred to a state certified laboratory for the same analysis as listed above for the soil samples. If a well is not constructed, a grab groundwater sample will be collected from the borehole and analyzed for the same analysis as listed above.
- A licensed surveyor will survey all wellhead elevations to a known benchmark, assuming that off-site well(s) are installed. The surveyor will comply with the new AB2866 requirements.
- Future quarterly monitoring reports would incorporate water table elevation and analytical data from the well(s), if installed.
- A report will be prepared to document the boring/well installation activities, and will follow all ACHCA requirements as presented in Thrifty's previously submitted Work Plan for Additional Site Assessment and Remedial System Upgrade dated December 9, 2002. Once Thrifty receives approval of this site assessment addendum, Thrifty will implement both the site assessment activities, and the upgrade to the existing remediation system presented in the above mentioned report, and approved in the ACHCA letter dated December 18, 2002.

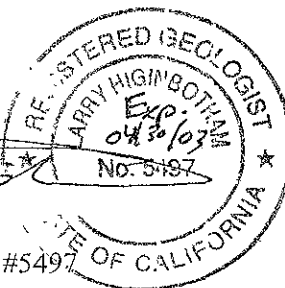
If you have any questions or comments, please contact the undersigned at (562) 921-3581 X376.

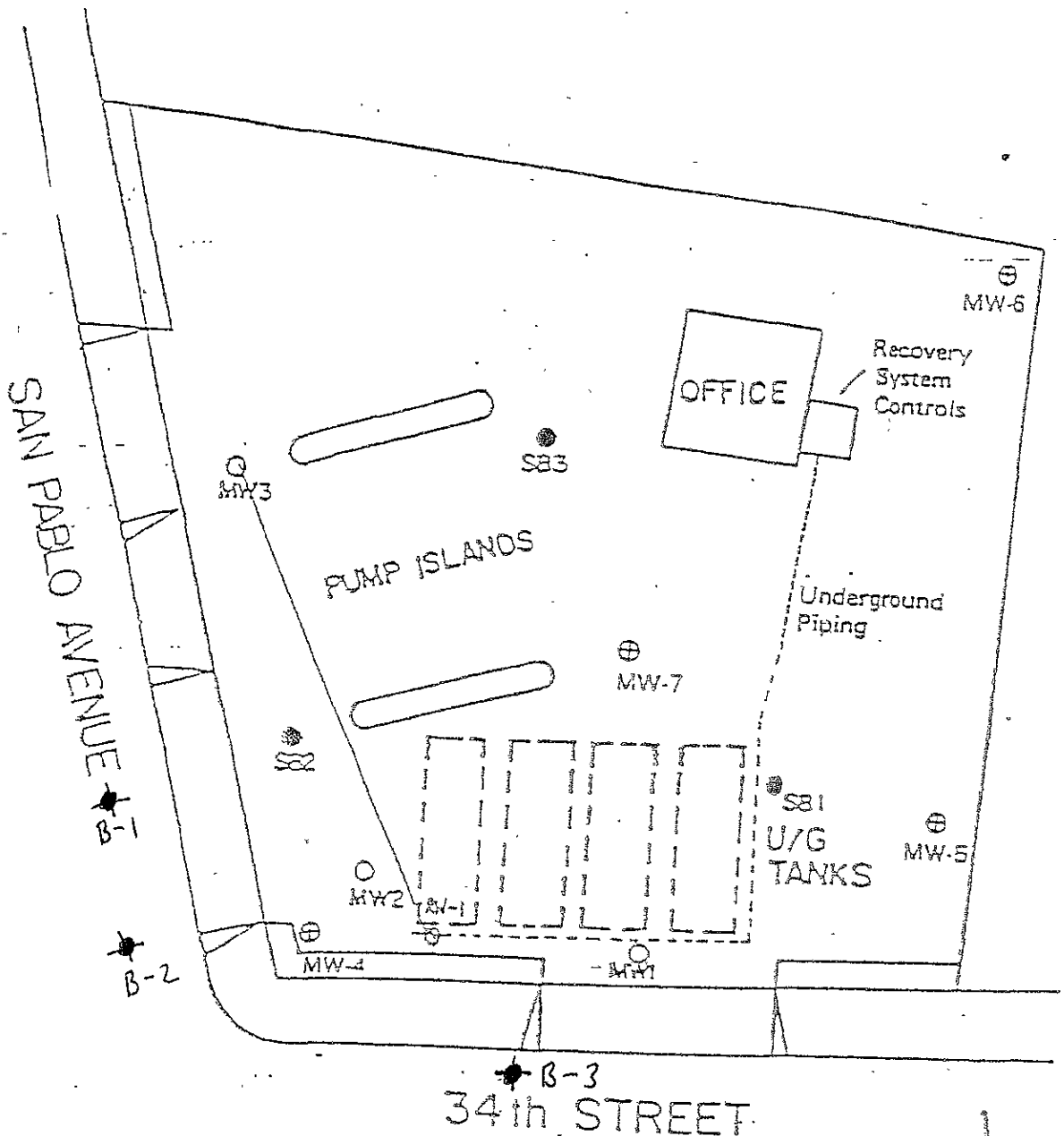
Written by:


Raymond C. Friedrichsen, REA II
Senior Project Manager
Environmental Hydrogeologist

Reviewed by:


Larry Higinbotham
Registered Geologist #5497





LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- SB1 - GT SOIL BORINGS
- ⊙ RW-1 - G.W. RECOVERY WELL
- ⊗ Proposed off site well
- ⊕ Proposed soil borings



SITE PLAN AND RECOVERY SYSTEM LOCATION.
 --- THRIFTY SERVICE STATION NO. 49
 3400 SAN PABLO AVE.
 OAKLAND, CA

Figure 1