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HAZMAT

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April 25, 1994
Project No. RC0019.007

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Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
UST Local Oversight Program
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: Work Plan and Remedial Approach
Former Penske Truck Leasing Co. Facility
725 Julie Ann Way, Oakland, California.

Dear Mr. Chan:

This letter accompanies a work plan for additional soil and groundwater assessment at the former Penske Truck Leasing Company (Penske) facility referenced above. This letter and the work plan have been prepared by Geraghty & Miller, Inc. (Geraghty & Miller) and is being submitted on behalf of Penske. The letter and the work plan are being submitted to you in response to your letter to Penske dated March 25, 1994. The objective of the work plan is to complete the additional site assessment and groundwater monitoring activities requested in your letter.

Your letter discussed your approval of the Geraghty & Miller-prepared remedial approach for the former Penske facility. As you will recall, the remedial approach incorporates the use of the California Regional Water Quality Control Board-San Francisco (RWQCB) Alternative Points of Compliance (APCs) concept to achieve the RWQCB's Basin Plan Water Quality objectives at monitoring wells located downgradient of the petroleum hydrocarbon plume instead of in the center of the plume. It should be noted that in response to comments from the State Water Resources Control Board (February 17, 1994), the RWQCB uses the terminology of "non-attainment zones" instead of alternative



points of compliance. Instead of "APC wells", this work plan will use the term "confirmation wells" to represent the points at which the achievement of the appropriate groundwater quality objectives are verified. The remedial approach will further utilize RWQCB Resolution 80-39, which in part states that, if groundwater at the site is shown to have total dissolved solids concentrations exceeding 3,000 milligrams per liter (mg/L), the municipal and domestic supply beneficial uses should not apply to the shallow groundwater and that the drinking water maximum contaminant levels (MCLs) would be too stringent a compliance criterion for the confirmation wells. If the MCLs do not apply, then alternative cleanup compliance criteria need to be established. Your letter proposes that one cleanup criterion be the one detailed in the RWQCB California's Enclosed Bays and Estuaries Plan, which cites a benzene level of 21 parts per billion (ppb) as the highest acceptable level of benzene in groundwater which will still be protective of downgradient receptors in this type of estuarine environment.

While this 21 ppb benzene level is initially an acceptable level for benzene in downgradient guard wells, the human health-based risk assessment may establish different acceptable cleanup goals for soil and groundwater beneath the site. These cleanup goals will be protective of the anticipated future uses of the property, of construction workers during any subsequent property development, and of the aquatic environment. The human health-based risk assessment to be completed by Geraghty & Miller will be used to establish these site-specific cleanup goals. The risk assessment will be submitted to the Alameda County Health Care Services Agency (ACHCS) for review by your staff toxicologist.

To further determine what site-specific cleanup goals should be established to be protective of the downgradient marine and estuarine environment, fate-and-transport modeling may also be performed. The need for modeling will be determined after receipt of groundwater analytical results from samples collected from the additional assessment groundwater monitor wells. If necessary, the fate-and-transport modeling will be performed to determine what concentrations, if any, of petroleum hydrocarbons will reach the estuarine environment. This fate-and-transport modeling will be performed using public domain models (either BIOPLUME II or a combination of MODFLOW and MT3D). It is anticipated that the modeling will show that the action levels established above to be protective of groundwater, human health, and the estuarine environment will not be exceeded at the perimeter confirmation wells.

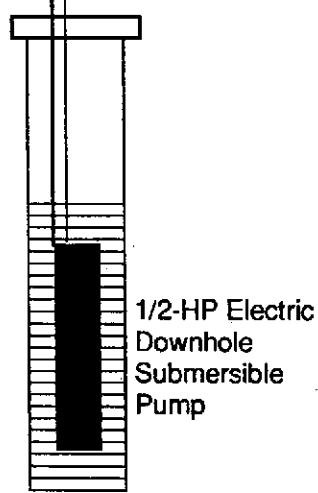
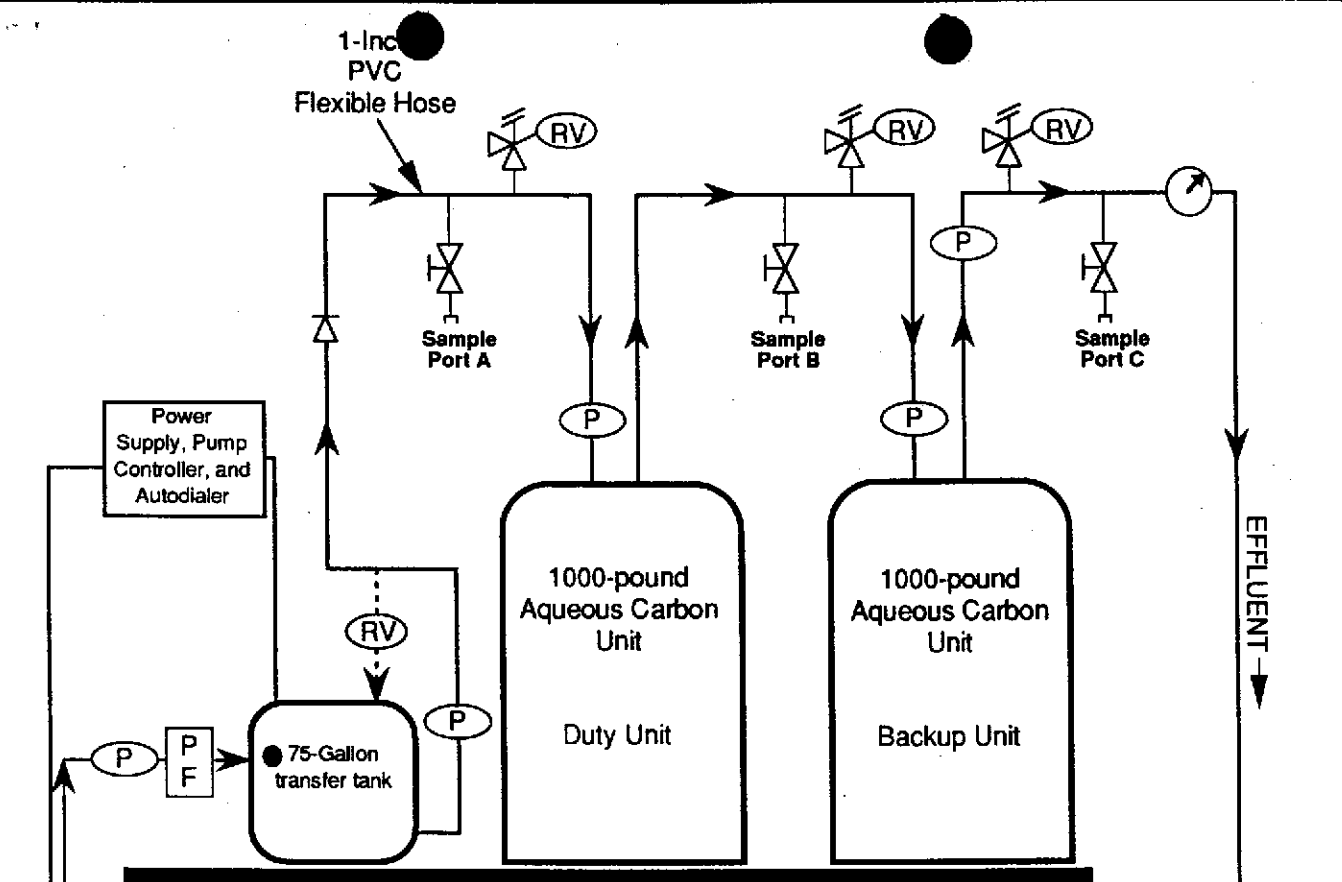


Per your inquiry under Item 3 in your letter as to the type of remediation method to be used, if the concentrations within the guard wells upgradient from the confirmation wells should at any time exceed the acceptable limits established by the above methods, Penske is prepared to implement additional measures to prevent migration of petroleum hydrocarbons to the confirmation wells. The additional measures would likely involve the installation and operation of a pump-and-treat system similar to that presented in the schematic diagram in Figure 1. This pump-and-treat system would operate long enough to reduce the concentrations of petroleum hydrocarbons to below the allowable limits to be determined as described above. However, Penske would like to reserve the right to install a more stringent remediation system should such a system be more beneficial or cost-effective to the long-range remediation of the site. Any remediation system which might be planned for the site will be discussed with the ACHCS prior to installation.

Because the maximum concentration proposed by the ACHCS is more stringent than that proposed by Geraghty & Miller in our conceptual approach documents, we request a change in the guard wells proposed in Item #5 of your letter. Monitor Well MW-1 is currently acceptable as a guard well. However, Monitor Well MW-4 would not be appropriate as a guard well if the 21 ppb concentration level for benzene is used. The levels for benzene in Monitor Well MW-4 have in the past exceeded 21 ppb benzene. Thus, Geraghty & Miller recommends that one of the new monitor wells to be completed as part of the current work plan be completed as a guard well. **We propose that Monitor Well MW-7, downgradient from existing Monitor Well MW-4 and between MW-4 and perimeter Confirmation/Monitor Well MW-8, be established as one of the guard wells (Figure 2).** Monitor Well MW-7 will be installed at a distance such that it can function as a guard well to determine if the maximum acceptable concentrations of petroleum hydrocarbons in groundwater are exceeded. If so, this exceedance would trigger the additional remedial measures mentioned above to prevent migration of petroleum hydrocarbons to the confirmation wells.






As stated in your letter, the work plan dated April 22, 1994, for the installation of the additional groundwater monitor wells and soil borings is acceptable to Alameda County, and work can be scheduled for completion. Geraghty & Miller will contact you at least two working days prior to the scheduled drilling activity so that an observer from the ACHCS can arrange to be present.



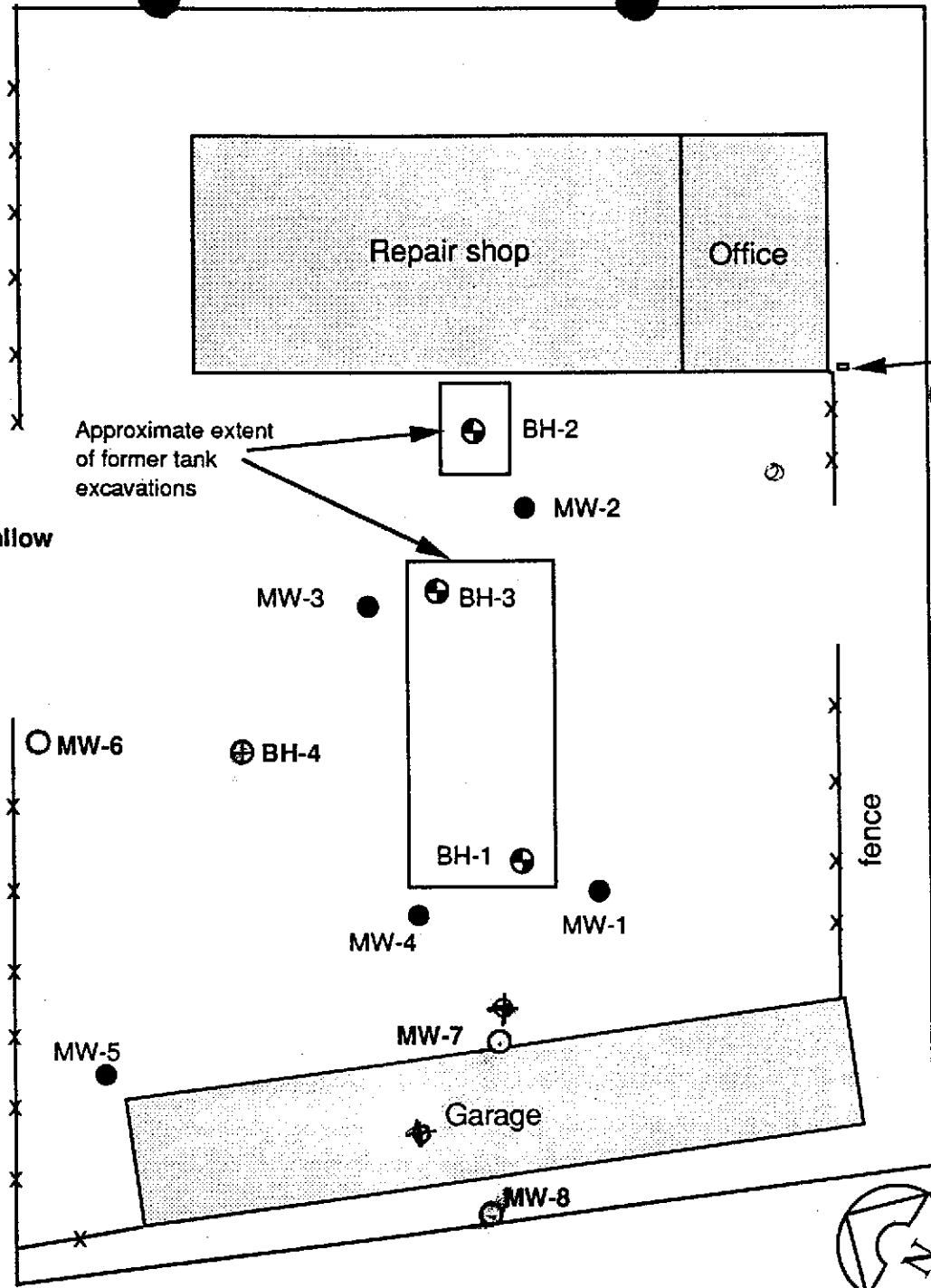


Groundwater Extraction Well, Typical Design for Each Well

EXPLANATION

-  Non-Resettable Totalizing Flow Meter
-  Pressure Gauge
-  Air Release and Pressure Relief Valves
-  Check Valve
-  Particulate (Bag) Filter
- Port A** System Ground-Water Influent Port
- Port B** Carbon Breakthrough Port
- Port C** System Ground-Water Effluent Port

Historic range of shallow groundwater flow directions.



- MW-1 ● = Approximate location of existing ground-water monitor wells.
- BH-1 ⊕ = Approximate location of existing soil borings.
- MW-6 ○ = Approximate location of proposed additional ground-water monitor wells.

EXPLANATION

- BH-4 ⊕ = Approximate location of proposed additional soil borings.
- = BM = Survey Bench Mark (based on City of Oakland datum which is 3 feet lower than Mean Sea Level).



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PROPOSED ADDITIONAL MONITOR WELL and SOIL BORING LOCATIONS
 Former Penske Truck Leasing Co.
 725 Julie Ann Way
 Oakland, California

FIGURE
2

7/26/74 site visit MW's 7 & 8 moved slightly.