



ENVIRONMENTAL
HEALTH SERVICES

July 6, 1995

A U G E A S 95 JUL 17 PM 3:05

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**RE: Workplan for Additional Investigation at Young's Cleaners, 10700
MacArthur Boulevard, Oakland**

By Facsimile and Priority Mail

Dear Mr. Chan:

For your review and comment, I am transmitting the following draft Workplan for the installation of additional monitoring wells at the subject site.

Pursuant to my cover letter to you dated June 9 that accompanied the report for the installation of wells AMW-4 and AMW-5 and the quarterly ground water monitoring report for existing wells AMW-1 through AMW-3, Augeas Corporation plans to install one shallow monitoring well, identified as AMW-6, at the location shown on the attached draft figure. This well will be installed approximately halfway down the walkway, as we discussed, to investigate the quality of the shallow ground water in this location. The Workplan that we submitted to the Alameda County Health Services Agency (ACHSA) in 1994, with later amendments, covers this well installation. We permitted this well in 1994 through the Alameda County Zone 7 Water District.

At your request, we also propose to install two additional wells to identify the lateral and vertical extent of PCE-impacted ground water at the subject site. We propose one shallow well (AMW-7 in attached figure) at the location shown near the sewer main to investigate the distance from Young's Cleaners at which shallow aqueous PCE concentrations can be detected. We have also recommended to our client the installation of another well, AMW-8 (see attached figure), behind the dry cleaner near well AMW-1 whose purpose will be to investigate the ground water conditions in the deep regional aquifer identified by ARCO in

several of their reports. We propose the installation of the deep aquifer well in the location shown for the following two reasons:

- The shallow ground water near wells AMW-2, AMW-4, and AMW-5 has been significantly impacted as a result of PCE releases from the dry cleaner into the sanitary sewer. Installing a deep well through the severely contaminated ground water near these wells will risk cross contaminating the deeper zone aquifer as we drill through the aquitard separating the shallow-most ground water from the deeper regional ground water. This risk would exist even if, to prevent cross contamination, the deeper well is constructed through a permanent conductor casing into the aquitard separating the shallower from the deeper ground water. However, no detectable ground water contamination occurs in wells AMW-1 or WGR MW-2, and installing a deep well in their vicinity would pose little or no risk of cross contamination.
- We do not yet know the details of the hydrogeology and stratigraphy below the severely contaminated shallow ground water discovered in wells AMW-2, AMW-4, and AMW-5. As we discussed in the installation report for wells AMW-4 and AMW-5 (1995), we suspect that the water in these wells represents a perched ground water table that is yet shallower than the ground water in wells AMW-1 and WGR MW-2 (see attached figure). Thus, installing a deep well in front of Young's Cleaners would involve penetrating not one, but possibly two perched aquifers before reaching the deeper regional aquifer whose ground water quality we need to assess, and we wish to avoid significant additional complications that could risk contaminating regional ground water. However, if analysis of ground water samples collected from well AMW-8 indicates that the deep aquifer is contaminated with PCE or its degradation products, this would indicate a need for additional deep wells around the cleaners to assess the extent of the contaminant.

We plan to continuously sample portions of the subsurface in shallow wells AMW-6 and AMW-7 and in deep well AMW-8 in an attempt to identify the aquitards separating the shallow water bearing zones from the regional aquifer. Analyses of soil and ground water samples collected from the regional aquifer beneath Young's Cleaners will deny or confirm the extent of its contamination by PCE from the cleaners. The data generated from the additional wells will

answer the questions relevant to the existing PCE contamination in and around ARCO's site, which has been documented by ARCO to occur only in the deep regional aquifer.

Our client has authorized us to proceed with this investigation as soon as we have received your approval for the proposed scope of work. Please call me at (415) 726-7700 if you have any questions.

Sincerely,

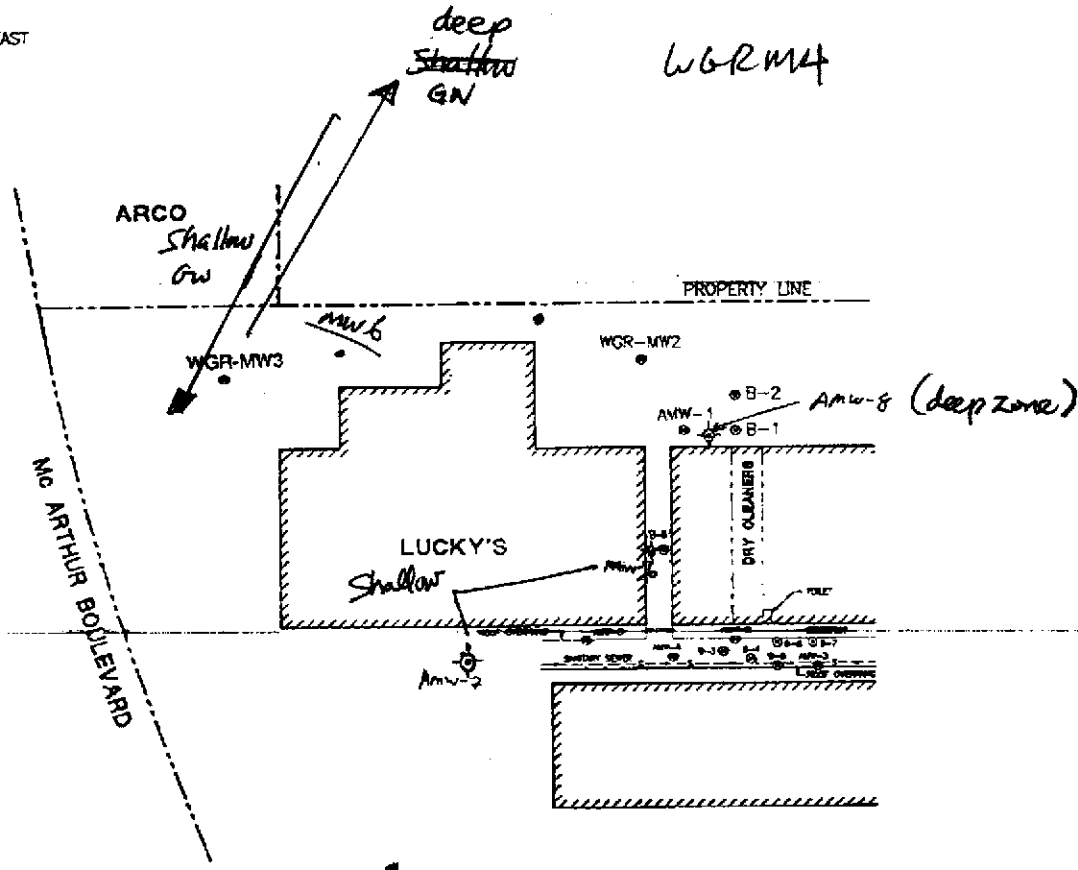
Charles D. Conway, R.G.
Augeas Corporation

attachment
cc: client

BENCHMARK

CUT SQUARE IN CURB RETURN AT THE SOUTHEAST CORNER OF 107th AVE AND McARTHUR BLVD.

ELEV = 55.172' MSL (USGS 1929)
TO OBTAIN ELEVATION PER CITY DATUM,
SUBTRACT 300 FEET FROM USGS ELEVATION.



LEGEND

- ⊙ AUGEAS SOIL BORING
- ⊙ AMW-2 AUGEAS MONITORING WELL
- ⊙ WGR-MW2 WESTERN GEOLOGIC RESOURCES MONITORING WELL
- ⊙ MW-3 APPLIED GEOSYSTEMS MONITORING WELL
- ⊙ PROPOSED MONITORING WELL

*~ deep 50
mwb
push a log.*

** WGR M4 (deep)*

WGR M4

Mc ARTHUR BOULEVARD

07/06/95 18:06
R 415 726 1217

RUGERS CORP.

P.04

 AUGEAS CORPORATION HALF MOON BAY	DRAFT WELL AND BORING LOCATION PLAN	
	FOOTHILL SQUARE SHOPPING CENTE OAKLAND ALAMEDA, CA	
	May 22, 1995	