



99 SEP 29 PM 4: 18

September 27, 1999

Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Second Floor
Alameda, California 94502

SK10730

RECEIVED
10/4/99
(Signature)

ATTENTION: Mr. Amir Gholami

SUBJECT: **ADDENDUM TO THE 9-9-99 WORKPLAN
FOR A SUBSURFACE ASSESSMENT**
Hutch's Carwash
17945 Hesperian Boulevard
San Lorenzo, California

Dear Mr. Gholami:

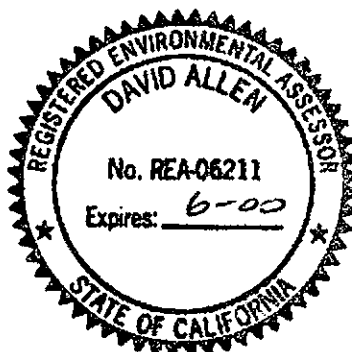
Aqua Science Engineers, Inc. (ASE) reviewed the cases for two nearby sites to determine the area groundwater flow direction. As the attached drawings indicate, groundwater generally flows in a westerly direction in the vicinity of the subject site. Therefore, ASE believes the number and location of the wells proposed in the subject workplan will be adequate for this initial assessment of the subsurface downgradient of the former fuel USTs.

Drilling is scheduled for September 29, 1999. If you have any further questions or comments, please feel free to give us a call at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

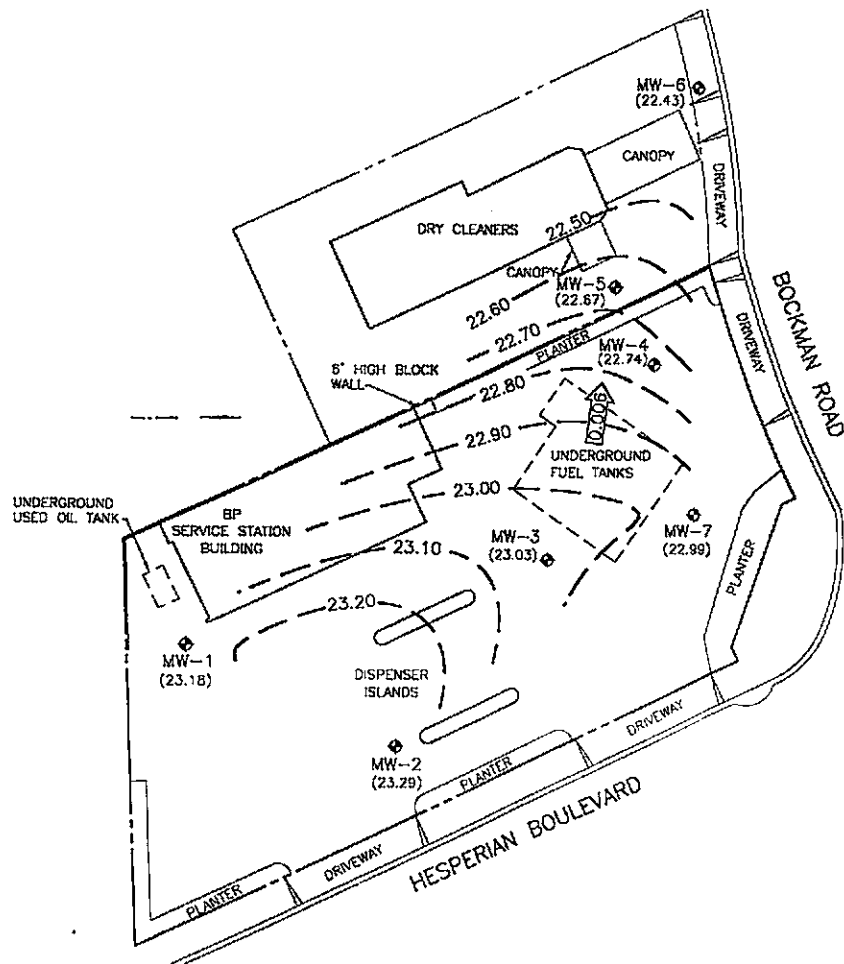
David Allen, R.E.A.
Senior Project Manager



Enclosures

cc: Mr. Kirk Hutchison, Hutch's Carwash

FIGURES

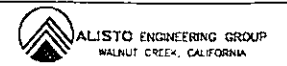


LEGEND

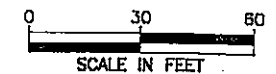
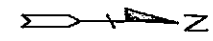
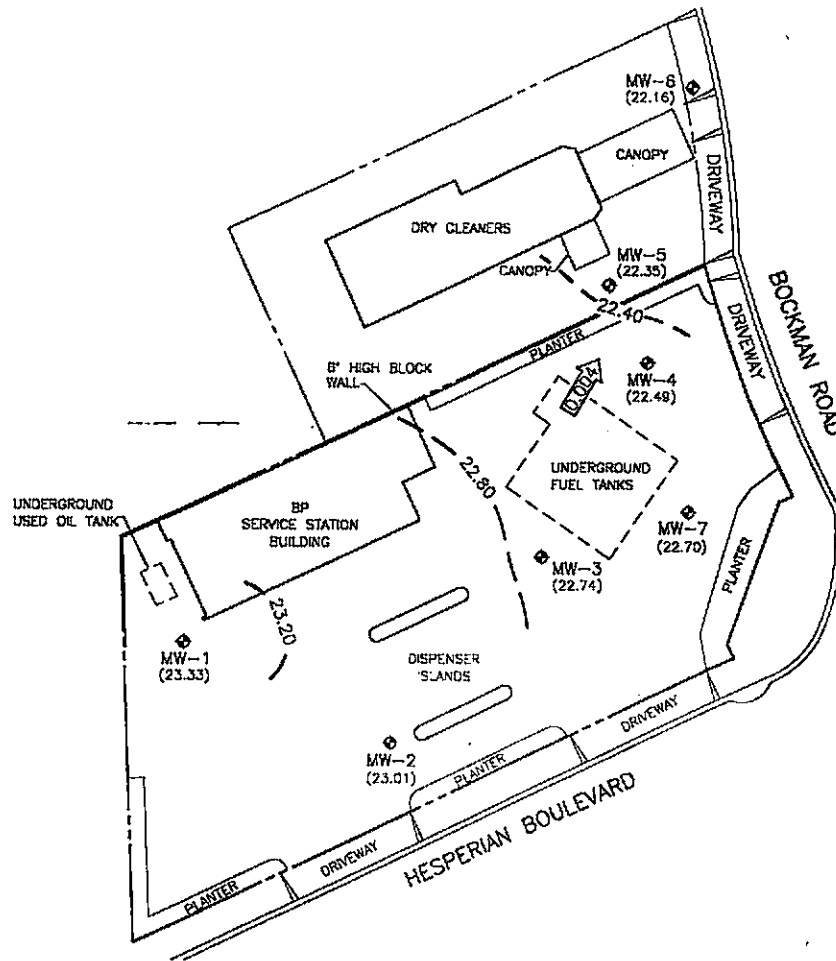
- ◆ (22.43) GROUNDWATER MONITORING WELL
GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 22.50 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
(CONTOUR INTERVAL=0.10 FOOT)
- ← 0.006 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

NOTE:
Potentiometric groundwater elevation contours were generated with Quicksurf using the Kriging method with a spherical variogram on a triangulated grid surface.

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
NOVEMBER 5, 1998
BP OIL SERVICE STATION NO. 11107
18501 HESPERIAN BOULEVARD
SAN LORENZO, CALIFORNIA
PROJECT NO. 10-060



11/11/98 10:00 AM

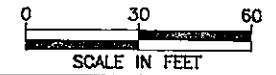
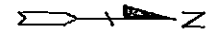
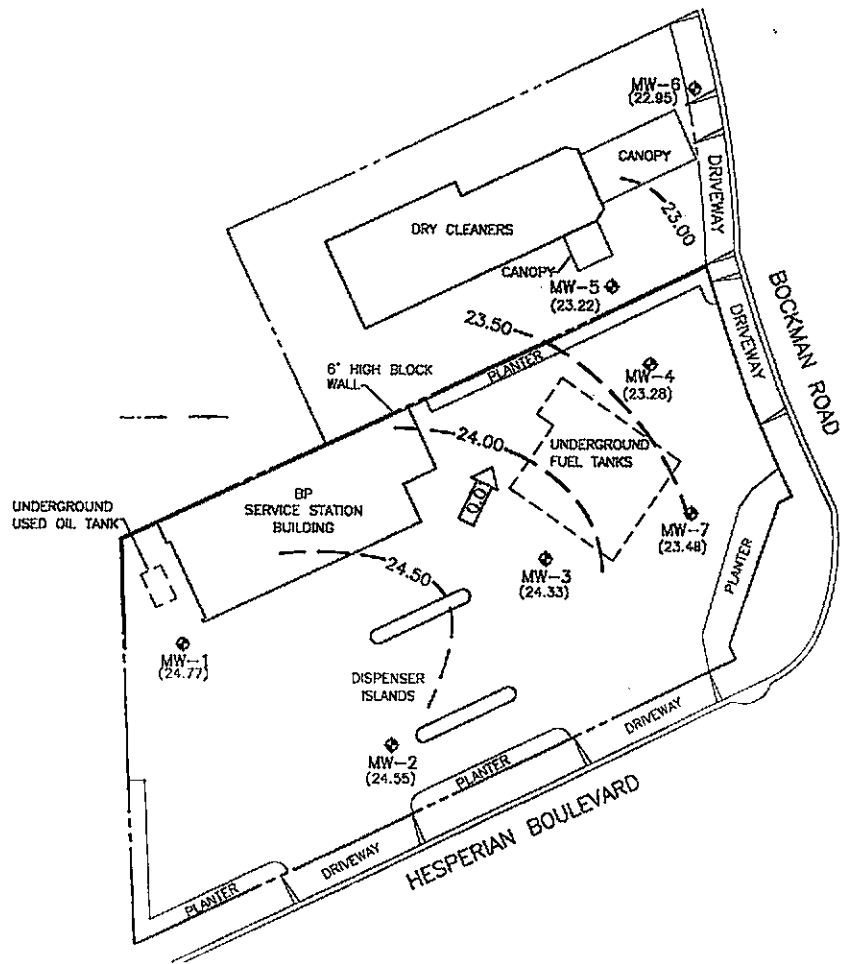


- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (22.74) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 22.80 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-0.40 FOOT)
 - ← 0.004 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
 POTENTIOMETRIC GROUNDWATER
 ELEVATION CONTOUR MAP
 SEPTEMBER 5, 1996
 BP OIL SERVICE STATION NO. 11107
 18501 HESPERIAN BOULEVARD
 SAN LORENZO, CALIFORNIA
 PROJECT NO. 10-060

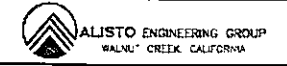


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- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (22.95) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 23.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL=0.50 FOOT)
 - ← 0.01 | CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 DECEMBER 8, 1997
 BP OIL SERVICE STATION NO. 11107
 18501 HESPERIAN BOULEVARD
 SAN LORENZO, CALIFORNIA
 PROJECT NO. 10-060

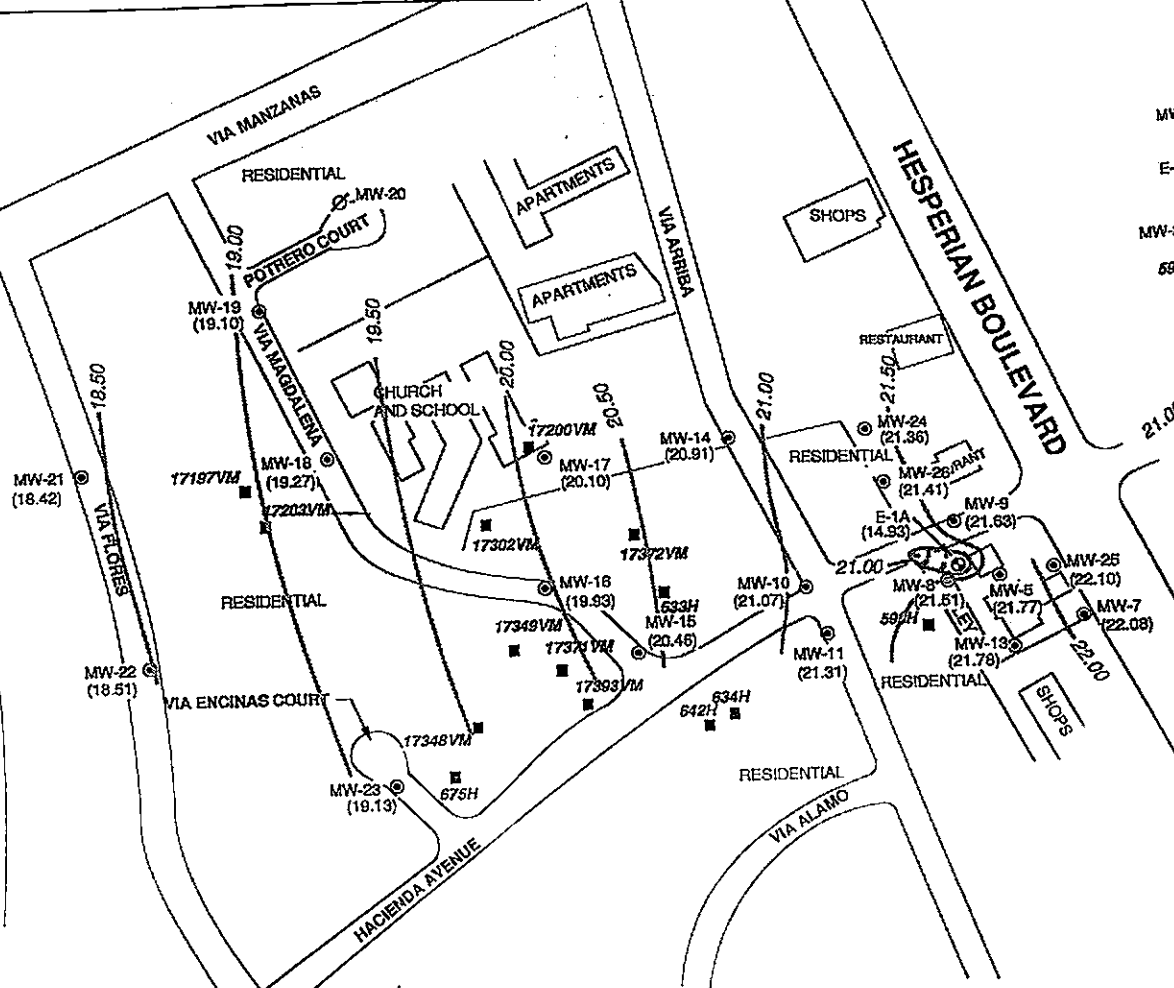




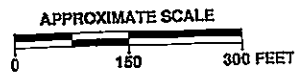
- LEGEND**
- MW-7 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
 - E-1A GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
 - MW-20 DESTROYED WELL LOCATION AND DESIGNATION
 - 680H DOMESTIC IRRIGATION WELL LOCATION AND DESIGNATION
 - (21.36) GROUNDWATER ELEVATION IN FEET - MSL, 3-28-94
 - 21.00 GROUNDWATER ELEVATION CONTOUR IN FEET MSL, 3-28-94



APPROXIMATE DIRECTION OF GROUNDWATER FLOW
 APPROXIMATE GRADIENT = 0.008



PACIFIC ENVIRONMENTAL GROUP, INC.



ARCO SERVICE STATION 0608
 17601 Hesperian Boulevard at Hacienda Avenue
 San Lorenzo, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE 1
 PROJEC 330-006:

06 / 1 / 91