



ENVIROSCIENCE

February 8, 1982

Mr. Richard Michael
Chevron U.S.A.
Marketing Division
7700 Edgewater Drive
Oakland, CA 94621

RE: Progress Report #1
Gasoline Leakage
Chevron Station
1802 Webster Street
Alameda, CA 94501
WC58X5

Dear Mr. Michael:

This report summarizes the work performed and the findings to date at the Chevron Service Station in Alameda, California.

Our initial meeting was held at the site, shown in Figure 1, on January 18, 1982. Phil Chang, from J. H. Kleinfelder & Associates, also attended this meeting. At this meeting the six monitoring well locations, shown in Figure 2, were selected by those present as being the most appropriate for an initial subsurface investigation. Concerns for detecting gas near the source and at the site's boundary were used when selecting the well locations.

The subsurface investigation began on Thursday, January 21. A truck-mounted drilling rig equipped with a six-inch-diameter continuous flight auger was used to complete the six borings for the monitoring wells. Each of the borings extends to a depth of 20 feet. Soils were visually classified and recorded. Logs of soil borings are being prepared and will be forwarded to you. Free gasoline was never apparent in the drill cuttings, and the odor of gasoline was not detected.

All six of the borings were completed as monitoring wells as shown in Figure 3. The groundwater level in each well was at approximately 5 feet below grade. Wells at a depth of 20 feet are considered a minimum in order to span the entire depth of the subsurface tank farm.

On January 21, the six groundwater monitoring wells were sampled, purged using a vacuum truck, and resampled. The results of the sampling are summarized in Table 1.

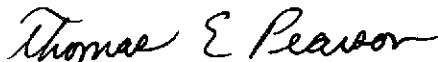
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Each well was analyzed using a Gastech GX-3 meter. The concentration of combustible gases in each well was measured in parts per million (ppm), along with the percentage of the lower explosive limit (LEL). Groundwater samples from each well were observed, and the groundwater level (GWL) was noted. Each well was vacuumed until dry, using a 20-foot, 1-inch PVC "stinger." A total of approximately 150 gallons of water was removed from the station. Sampling and testing was again performed for each well directly after the vacuuming procedure.

Follow-up samples have not been taken; however, the excavation area was observed on January 26 and 27. A slight sheen of gas could be seen on the water at all times on the 26th, and a moderate gas odor persisted at the site. A substantial layer of gas was never observed. With the excavation level less than the groundwater level, the flow of most surrounding material should have been toward the site. The excavation was then observed on the 27th, prior to the water removal by a vacuum truck. Only a slight sheen could be seen.

We trust the information contained herein meets your needs at this time. Please call if you have any questions.

Very truly yours,



Thomas E. Pearson
Project Manager

TEP/rw

Attachment

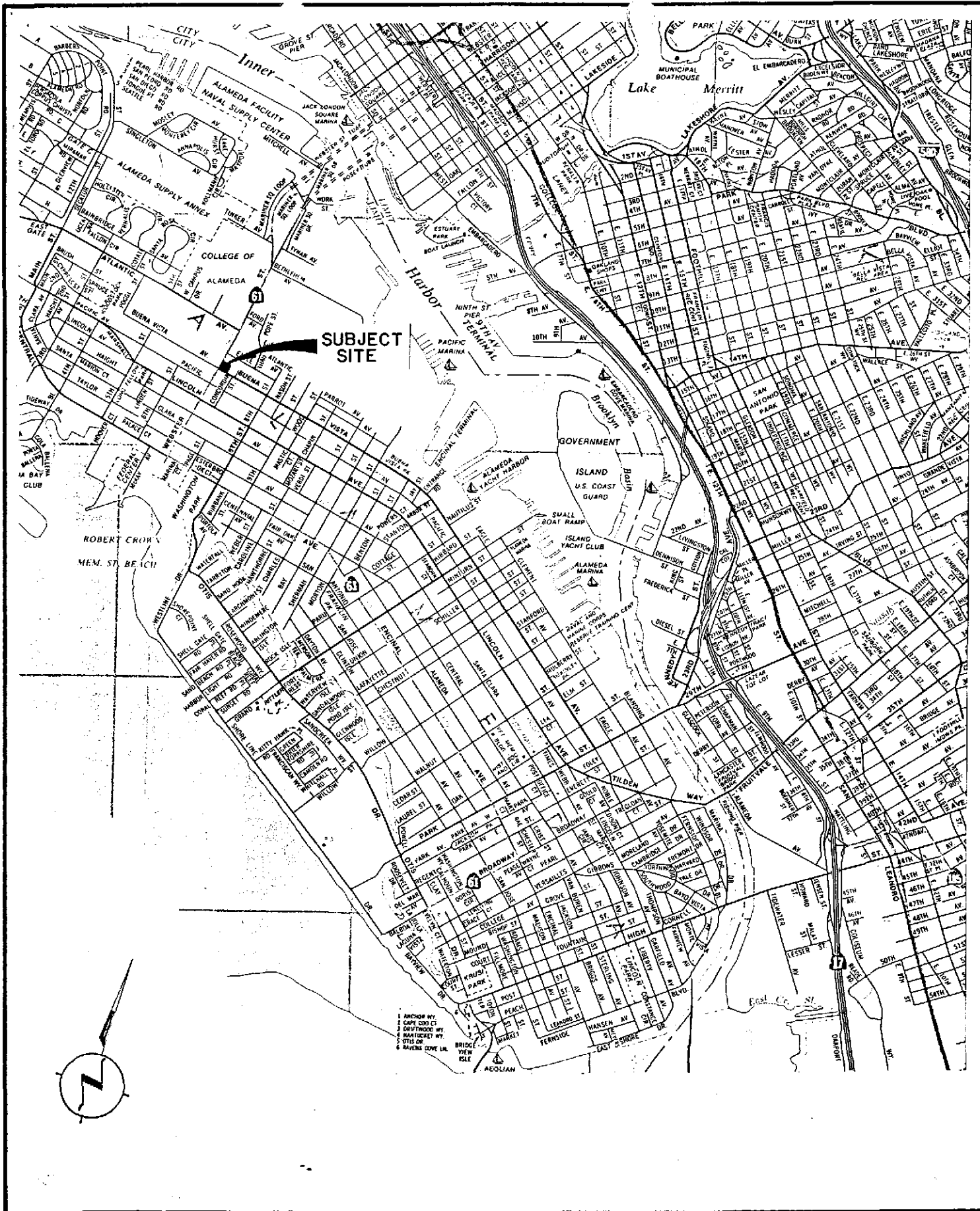
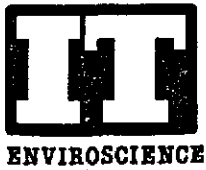
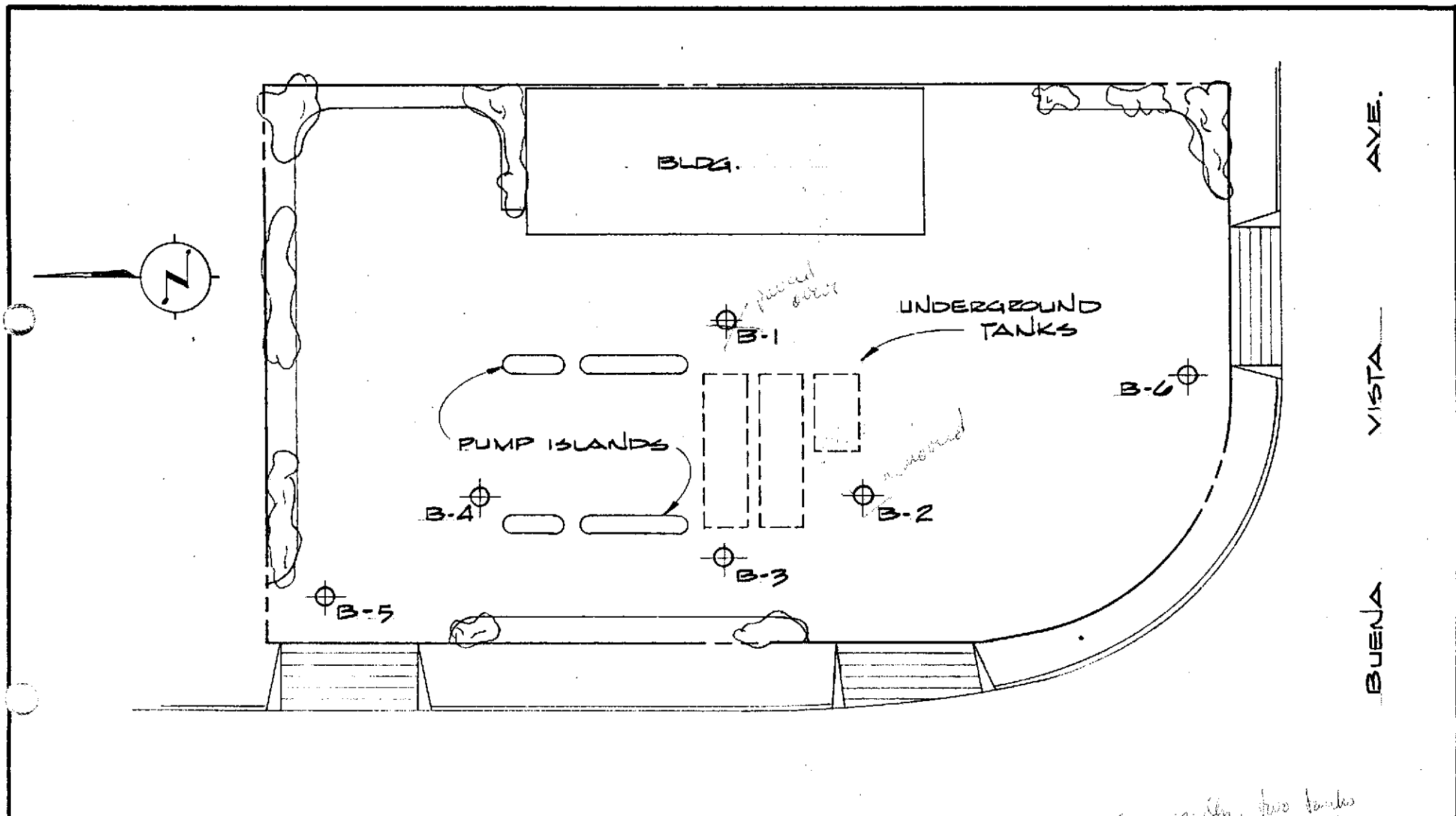


FIGURE 1
 CHEVRON STATION - ALAMEDA, CA.
 LOCATION MAP





* Suggested, two tanks installed to replace B-2 + B-1

LEGEND
 ⊕ : MONITORING WELL

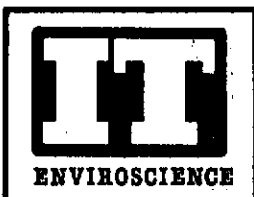


FIGURE 2
 CHEVRON STATION - ALAMEDA, CA.
 MONITORING WELL LOCATIONS

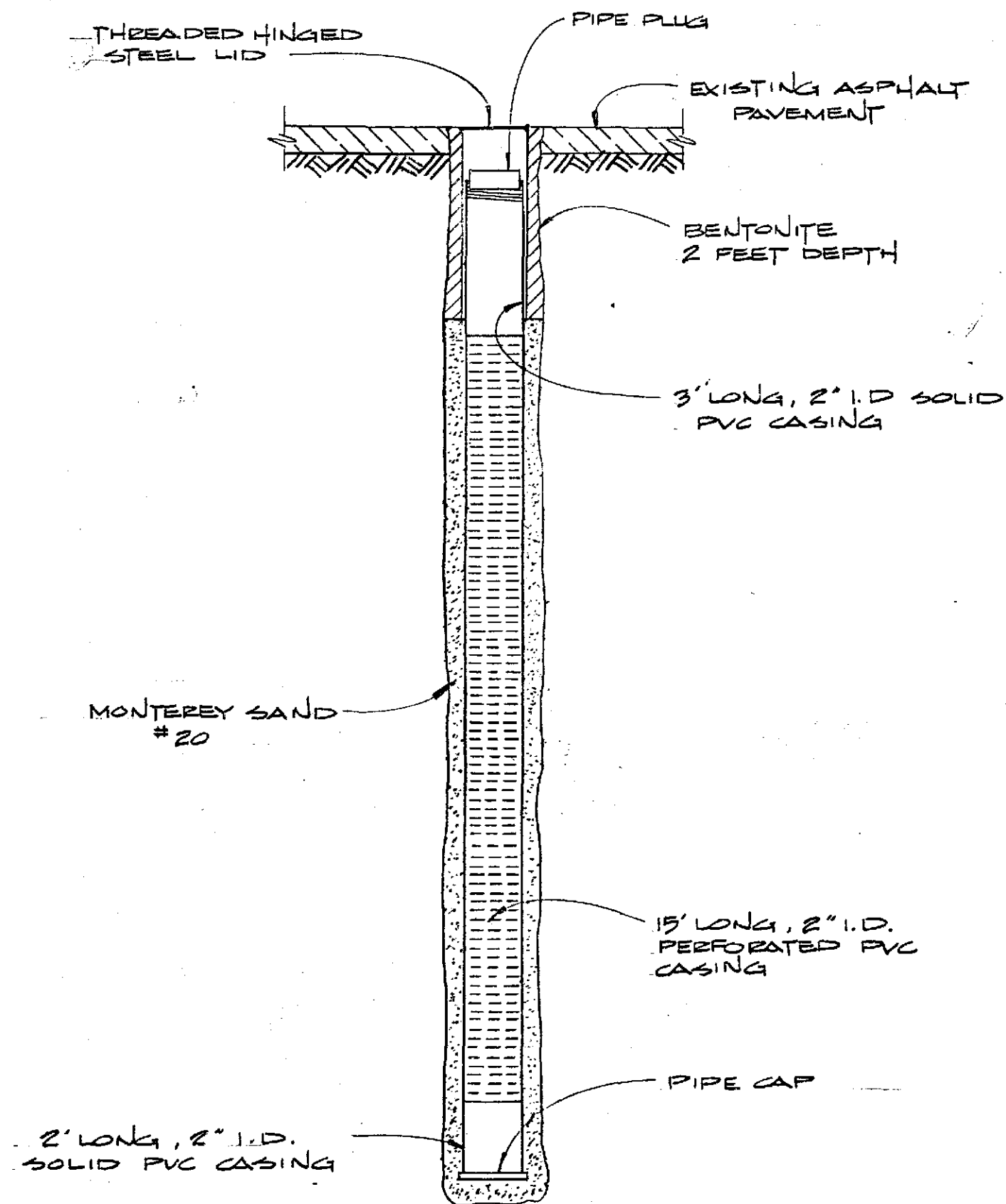


FIGURE 3
 CHEVRON STATION • ALAMEDA, CA.
 TYPICAL MONITORING WELL PROFILE



TABLE 1

Alameda Station

	1/21/82 <u>INITIAL</u>	1/21/82 <u>FINAL</u>
<u>WELL B-1</u>		
<i>Combustible Gas</i> → PPM	>1000	200-0
LEL	60	2
GWL	4.50 Feet	4.42 Feet
Remarks: Sample	Cloudy Light Tan No Sheen Strong Odor	Clear No Sheen No Odor
Well	App. 30 sec. until dry	
<u>WELL B-2</u>		
PPM	>1000	500-200
LEL	20-5	7
GWL	3.42 Feet	3.54 Feet
Remarks: Sample	Cloudy Light Tan 1/4" Hydrocarbon Strong Odor	Clear No Sheen Slight Odor
Well	App. 30 sec. until dry	
<u>WELL B-3</u>		
PPM	>1000	100
LEL	40-10	2
GWL	4.10 Feet	3.94 Feet
Remarks: Sample	Cloudy Slight Sheen Moderate Odor	Clear No Sheen Strong Odor
Well	App. 30 sec. until dry	
<u>WELL B-4</u>		
PPM	650-400	>1000
LEL	10-2	10
GWL	3.85 Feet	4.02 Feet
Remarks: Sample	Cloudy Tan No Sheen Moderate Odor	Clear No Sheen Moderate Odor
Well	App. 30 sec. until dry	

TABLE 1

Alameda Station

<u>WELL B-5</u>	<u>1/21/82</u> <u>INITIAL</u>	<u>1/21/82</u> <u>FINAL</u>
PPM	0	0
LEL	0	0
GWL	2.80 Feet	2.85 Feet
Remarks: Sample	Cloudy Light Tan No Sheen No Odor	Clear No Sheen No Odor
Well	App. 30 sec. until dry	
 <u>WELL B-6</u>		
PPM	0	0
LEL	0	0
GWL	3.93 Feet	4.07 Feet
Remarks: Sample	Cloudy Light Tan 1/4" Foam Layer No Odor	Slightly Cloudy No Sheen No Odor
Well	App. 30 sec. until dry	