To: TJC,DCW, UGT file

From: CMN
(1)

Date: 7/17/89

Subject: Minutes of meeting concerning Exxon service station no. 7-3399, 2991 Hopyard, Pleasanton gasoline spill and its potential for contaminating the Pleasanton Municipal well #7 Aquifer.

Present at the meeting were:

Rodger Witham Applied Geosystems
Jerry Killingstad ACFC&WCD Zone 7
Steve Cusenza City of Pleasanton Utilities
Jerry Taylor City of Pleasanton Water
Rick Mueller City of pleasanton Fire Department
Tom Callaghan RWQCB
Dyan Whyte RWQCB
Charles Noyes RWQCB
(Exxon was invited but chose not to attend.)

Steve Cusenza opened the meeting. He stated that owing to summer water demand, the city's need for water had become critical, and therefore there was a need to resume pumping at Municipal Well #7 (cw-7). Consequently, an assessment of the potential for contamination from the referenced site upon resumption of pumping needed to be made. The primary issues of concern addressed at the meeting included:

(1) The effectiveness to date of the groundwater remediation system in operation at the site.
(2) The potential for groundwater contamination at cw-7 due to migration of the contaminant plume from the above referenced site.
(3) The need for a deep monitoring well to sample and monitor the upper portion of the cw-7 aquifer.
(4) Monitoring and testing protocol for the cw-7 and site monitoring wells once cw-7 pumping operations resume.
(5) Potential for plume migration towards cw-7 once Zone 7 begins continuous operation at their new well #6.

Each issue of concern was addressed as follows:

(1) Rodger Witham distributed the latest water quality lab analyses and a site plan map which showed the location of the remaining monitoring wells on site. Wells 3 and 6 were destroyed during service station reconstruction. Rodger indicated that due to this reconstruction activity, their groundwater remediation system was operational only between the periods July 14- September 1, 1988 and February 9 - June 4, 1989. He also stated that due to this system and the removal of contaminated soil, AGS believes that free product is no longer present at the site.

Tom Callaghan stated that a) analytical results from mw's had not been received at the RWQCB since 8/5/88, b) no monthly status reports had been received, and c) that the quarterly reports submitted by Exxon for the last two quarters had been incomplete and inadequate. Consequently, it was the Board's opinion that station reconstruction was taking precedence over site remediation. RWQCB representatives also noted that increasing TPH-G concentrations in mw-6 clearly indicate that plume migration towards cw-7 is occurring despite the operation of the groundwater remediation system. City of Pleasanton representatives expressed concern at the high (above action level) Benzene levels detected in mw-1 and mw-4 on 3/8/89. R. Witham expressed the opinion that these analyses may be spurious, whereupon T. Callaghan stated that when this is suspected, it is essential that resampling occur promptly.

(2) R. Witham stated that based on the results of the cw-7 pump test (6\28\88) AGS and Exxon believe that no hydraulic connection exists between the lower and upper aquifers, and that a competent laterally continuous aquitard does exist between the two. He does not believe that vertical migration will occur at the site other than by molecular diffusion.

RWQCB stated that the results of the pump test were inconclusive with regards to whether hydraulic communication exists between the upper and lower aquifers, and that a much longer aquifer test performed in a well specifically screened in the upper portion of the lower aquifer would be necessary to clearly answer the question. J. Killingstad commented that regional studies suggest that the two aquifers are indeed interconnected and that the lower aquifer is considered to be a "leaky confined aquifer" in most places. We suggested that based on the heterogeneous vertical and lateral distribution characteristic of valley fill (alluvial) sediments, the presence of a high permeability conduit connecting the two aquifers at the site cannot be ruled out. We also indicated that the variation in flow direction and gradient magnitude (north to west-north-west and .02'/100' vs. .19'/100') suggests that drawdown at municipal or Zone 7 wells may be affecting the shallow aquifer piezometric surface. J. Killingstad stated that a high degree of variability in direction and gradient magnitude is observed on the Zone 7 regional water table maps and that the predominant gradient in the area is generally southward.

RWQCB, Zone 7, and City of Pleasanton representatives all stressed the need for Exxon to be aware of the full extent of their liability should the cw-7 aquifer become contaminated due to plume migration from the referenced site. This was considered to include: A) replacement cost for cw-7, B) cost of supplying 50,000 city residents with temporary replacement water, C) exploration and development costs to replace the cw-7 aquifer, D) remediation costs

of cw-7 aquifer. T. Callaghan indicated the need for the RWQCB and the City of Pleasanton to meet directly with representatives of Exxon to discuss their potential liability.

(3) and (4) and (5) R. Witham stated that AGS and Exxon did not believe a deep well was needed because of their conclusions concerning cw-7 pump test. Consequently, they believe that monitoring water levels in their existing monitoring wells together with periodic analytical sampling would be sufficient to safeguard cw-7 from contamination.

D. Whyte said that the pump test was inconclusive and that this request was unacceptable. The Board had indicated the need for a deep well in an April 1988 letter and Exxon had still not complied with this request. Whyte therefore again requested that Exxon:

(1) Install a deep well screened in the upper portion of the lower aquifer (approx. 120'-135') to aid in assessing the vertical extent of contamination and to monitor water quality once cw-7 is in operation.
(2) Install additional shallow wells (at least one " up-gradient ") to adequately delineate the plume laterally. Installation of a replacement well for mw-6 is deemed particularly critical for tracking plume migration.
(3) Submit monthly status reports containing analytical data, water levels, and gradient maps (first requested in April 1988).
(4) Remediate all groundwater pollution and undertake all measures necessary to control plume migration.
(5) Remediate all residual soil pollution to levels which will not impact, or threaten to impact the beneficial uses of waters of the state.

City of Pleasanton representatives asked RWQCB whether we considered it safe or advisable to operate cw-7. They again stated their critical need for water at this time. We stated that it was not appropriate for RWQCB to advise them on this. Steve Cusenza then stated the City's intent to begin pumping on Monday July 17, 1989. In light of their decision, we suggested to R. Witham that Exxon follow the following monitoring and testing protocol:

(1) Daily groundwater level measurements in all mw's for five days commencing on July 17 (or whenever cw-7 pumping begins). Thereafter weekly measurements if no response is observed.
(2) Daily groundwater level measurements in all mw's for five consecutive days commencing when Zone 7 begins continuous operation of their new high capacity (4000 gpm) well #6.
(3) Water quality analyses from all monitoring wells at a time interval deemed adequate by Exxon to safeguard cw-7 from contamination and an assessment as to whether migration control measures being taken are adequate.