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## Department of Toxic Substances Control

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Edmund G. Brown Jr.  
Governor

July 21, 2011

Mr. Greg Haet  
EH&S Associate Director, Environmental Protection  
317 University Hall, No 1150  
Berkeley, California 94720

Dear Mr. Haet:

The Department of Toxic Substances Control (DTSC) has reviewed the document entitled *Final Phase 1 Groundwater Sampling Results Technical Memorandum, University of California, Berkeley, Richmond Field Station, Richmond, California* (Tech Memo). The May 11, 2011 Tech Memo was prepared by Tetra Tech EM Inc. for the University of California (UC).

The Tech Memo summarizes the construction and sampling of 50 shallow water-bearing zone piezometers at the Richmond Field Station (Field Station). The piezometers were constructed at locations considered to be down gradient from areas where on-site or off-site activities may have resulted in releases of contaminants to the subsurface. The Tech Memo was amended in response to DTSC comments dated March 7, 2011.

Based on our review of the amended Tech Memo, we have the following comments:

1. The response to DTSC comment 2 states *"Suggested text regarding additional investigation will not be included in the summary memorandum, because the continued groundwater monitoring program was approved by DTSC on March 29, 2011."* The text in the DTSC comment was *"Therefore, the last sentence of this section should state that additional investigation is needed to address previously identified data gaps as well as new data gaps identified by this phase of investigation."* Data gaps remain regarding known and potential contamination of soil, soil gas, and ground water at the field station. Accordingly, additional investigation is needed to address previously identified data gaps as well as new data gaps identified by this or other phases of investigation regardless of the ongoing ground water monitoring program. No revision to the memorandum is necessary.

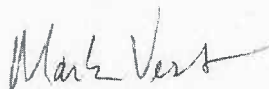
2. The response to DTSC comment 3 states "*Text has been updated to state that piezometers are located in critical downgradient locations from previously identified data gaps.*" We are unable to locate the statement in the amended Tech Memo. Please provide the specific location where this revision was made.
3. DTSC comment 4 asks if there is a ground water elevation error resulting from UC and Zeneca using the North American Vertical Datum of 1988 (NAVD 88) and the National Geodetic Vertical Datum of 1929 (NGVD 29), respectively. No revision to the memorandum is necessary; however, please provide a date when this issue will be resolved and DTSC will be notified.
4. DTSC comment 8 stated that the MCL for chromium be revised from 100 ug/l to 50 ug/l in Section 6.3. This revision was not made. In addition, revisions that were made to Table 5 (originally Table 4) as requested in DTSC's original comment 9 were not made to the text in Section 6.3 (Metals). Please revise the text in Section 6.3 to reflect the revised Table 5.
5. Page 4, Section 2.2., Drilling and Completion: The last paragraph of this section states that piezometer was completed using steel well casings, while earlier text and tables indicate that PVC casing was used. Please revise the document to resolve this inconsistency.
6. Table 5, State and Federal Water Quality Criteria: A review of Table 5 (originally Table 4) revealed incorrect or missing values. For example, the Human Health Risk Based SSGs and aquatic criteria for all receptors is missing the values for carbon tetrachloride and toluene; the values for the 40x and 160x Aquatic Criteria are incorrect (they are all less than the 5x criteria); and California MCLs are missing for 1,1-dichloroethene, 1,2-dichlorethane, and dichloromethane. DTSC did not confirm the other values listed on the table; however, all values should be checked and any necessary revisions made to the table. Please note that as US EPA updated their RSL values in June 2011, Table 4 should be compared to the updated values.

Please resubmit a response to comments and revised document within 30 days of the date of this letter. If you need more information regarding this matter, please contact Lynn Nakashima at (510) 540-3839 or [lnakashi@dtsc.ca.gov](mailto:lnakashi@dtsc.ca.gov).

Sincerely,



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