Draft Response to Comments
Department of Toxic Substances Control, March 14, 2012

UC Berkeley Ref. No.	DTSC Comment	UC Berkeley Response
1	Page 5, Section 2.2.2 Corporation Yard. The ground surface for sample location CY11 is identified as both being soil and covered in compacted gravel. In addition, sample location CY12 is not described. Please revise the text.	Text in Section 2 will be updated to clearly indicate the ground surface cover at all sampling locations.
2	Soil sampling for volatile organic compounds (VOC) analysis: Describe in detail the sampling, preservation, and handling methods used for soils that were analyzed for VOCs. Compare the methods and holding times that were used to EPA Method 5035. The 5035 methods typically used are subsampling using a device such as the encore sampler, placing samples on ice, and a 48 hour holding time. If 5035 or equivalent methods were not used, assess the data quality and determine if the analytical results should be flagged.	Text will be updated to describe the sampling, preservation, and handling methods used for collecting and analyzing VOCs. All VOC samples were collected using EnCore sampling devices consistent with EPA Method 5035, placed on ice, and analyzed by EPA Method 8260B within the method preservation and holding times.
3	When describing the results of the semi-volatile organic compound samples, also present the polycyclic aromatic hydrocarbons (PAH) data as total benzo(a)pyrene equivalents.	Text will be amended to describe the results of the PAH data as total benzo(a)pyrene equivalents.
4	Section 4.0, Data Evaluation: The data evaluation should identify whether any chemical detections appear to be associated with any other types of chemicals or soil types. For example, was the elevated arsenic concentration in the corporation yard associated with the detection of cinder material? In addition, the data evaluation should consider previously collected data located within the same area and whether any preliminary correlations can be made.	Text will be amended to include a discussion of chemical detections and soil types. In particular, chemical detections associated with cinders identified in specific boreholes will be noted. Previous sampling efforts in the area consist of groundwater sampling and soil vapor analysis. Text will be amended to discuss the chemical detections associated with these previous sampling events.
5	Identify as data gaps the horizontal and vertical extent of contamination at locations where contaminant concentrations exceed commercial/industrial screening criteria.	Text will be amended to recommend additional sampling adjacent to soil samples with chemical detections above commercial/industrial screening criteria. Chemical analysis will be based on the chemicals detected above the screening criteria. The proposed sampling will be conducted under the upcoming Phase III sampling event.
6	Prepare a Section documenting data gaps associated with the Phase II work. Propose alternatives to continue the work. Consider a small focused effort in the short term, rolling work into the next investigation work plan, or possibly tying work into larger site investigation and development plans.	Additional sampling based on the Phase II results will be conducted under the scope of the upcoming Phase III sampling event.
7	Page 3, Section 1.2 Investigation Purpose. This section summarizes the purpose of Phase II sampling and should be revised to include a paragraph discussing the former "transformer house" associated with the California Cap Company (CCC) as a data gap and providing a rationale for the expanded soil sampling that took place in the area.	Text will be amended to include a description of the former Transformer House and rationale for list of analytes.
8	Page 10, Section 4.1 PCB-Containing Transformer Sampling Results – Significantly elevated PCBs in soil were detected at two locations near Building 112. Further evaluation of this area and possibly other transformer locations are necessary for the complete characterization of PCB soil contamination, and this should be discussed in this section.	Consistent with response to Comment 5, text will be amended to recommend additional sampling adjacent to soil samples with chemical detections above the PCB commercial/industrial screening criteria.

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9	Page 11, Section 4.1 PCB-Containing Transformer Sampling Results – Metals and Semi-volatile Organic Compounds. Elevated levels of arsenic, cadmium and lead were detected in soil at the CCC "transformer house" location. Semi-volatile organic compounds were also detected. A discussion of possible source(s) of these contaminants and comparison with urban background concentrations, as appropriate, should be included in this section. In addition, the carcinogenic PAHs detected should be converted to Benzo(a)pyrene (BaP) equivalents and those BaP equivalent concentrations compared to the BaP California Human Health Screening Levels (CHHSLs). The equivalency factors are listed in the errata sheet contained in the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual (Second Printing June 1999).	The proposed additional samples collected under Phase III will provide sufficient information to help support a discussion of possible sources of chemicals detected. UC Berkeley does not recommend providing a discussion of urban background concentrations based on the current data alone. Consistent with response to Comment 3, Text will be amended to describe the results of the PAH data as total benzo(a)pyrene equivalents.
10	Page 12 Section 4.2 Corporation Yard Sampling Results - Volatile Organic Compounds (VOCs). TCE was detected in soil samples close to the boundary between the corporation yard and the former Zeneca site and may be associated with the TCE contamination in underlying groundwater. Further evaluation of these detections should be discussed in the text. Specifically, these data should be integrated with data collected by consultants for the former Zeneca site and then the identified data gaps should be addressed to fully characterize the extent of VOC contamination.	Text will be amended to include a discussion that the detections of TCE in the soil are likely attributed to the existing VOC concentrations in groundwater, and not attributed to a TCE source associated with historic activities at the Corporation Yard. Text will be amended to include the recent sample data from the soil-gas sample collected at the Corporation Yard. An additional soil sample near the soil-gas point will be proposed as part of the Phase III activities.
11	Page 13 Section 4.2 Corporation Yard Sampling Results – Semi-volatile organic compounds. Elevated PAH soil concentrations were detected in the corporation yard. As stated previous specific comment, the carcinogenic PAHs detected should be converted to BaP equivalents and those BaP equivalent concentrations compared to BaP CHHSLs.	Consistent with response to Comment 3, Text will be amended to describe the results of the PAH data as total benzo(a)pyrene equivalents.
12	Page 14, Section 4.2 Corporation Yard Sampling Results – Metals. Elevated soil concentrations of arsenic, cadmium, lead, manganese, and mercury were detected. A discussion of potential sources of these metals and/or comparison with location background concentrations, as appropriate, should be included in the text.	Consistent with response to Comment 4, text will be amended to include a discussion of chemical detections and soil types, specifically in the presence of observed cinders. Background concentrations for metals have not been established for the Richmond Field Station site; therefore a comparison of concentrations is not applicable at this stage.
13	Page 15, Section 4.2 Corporation Yard Sampling Results – Polychlorinated Biphenyls. Low levels of PCBs were detected over much of the corporation yard area. A discussion of the potential source(s) of these PCB and possible additional evaluation should be included in the text.	Consistent with response to Comment 9, the proposed additional samples collected under Phase III will provide sufficient information to help support a discussion of possible sources of contaminants detected.
14	Page 15, Section 4.2 Corporation Yard Sampling Results – Dioxins. Dioxins were detected in soil, and these results should be discussed in the text with respect to potential source(s) and/or association with urban background.	Consistent with response to Comment 9, the proposed additional samples collected under Phase III will provide sufficient information to help support a discussion of possible sources of contaminants detected.

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15	Tables 2 through 13. These tables summarize the data obtained in the Phase II sampling effort. A) Across the tops of these tables, various screening levels for the chemicals of potential concern are given. The Hawaii Department of Health (DOH) Environmental Action Levels (EALs) should be removed from these tables, as these EALs have not been reviewed or accepted for use at California sites. B) Those chemical concentrations that exceed their most conservative screening levels should be bolded in the tables.	Text will be amended to include California and Federal screening and evaluation criteria only. Chemicals exceeding the commercial/industrial criteria will be bolded in the appropriate tables.