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September 15, 2015

Ms. Mary Aycock, SFD-8-1
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Subject: Contract No. EP-W-07-066/Task Order No. 066-017-09Q7, George Air Force Base, Review of the Final 2014 Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, Former George Air Force Base, California, June 2015

Dear Ms. Aycock:

Enclosed please find TechLaw's technical review of the Final 2014 Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, Former George Air Force Base, California, dated June 2015. Please note that our review did not evaluate the non-CERCLA sites.

Several of the OU3 soil gas plumes do not appear to be adequately defined due to lack of monitoring points. For many OU3 and OU5 sites, groundwater monitoring wells to evaluate potential impacts from contaminants in soil gas or leaching potential from landfills appear to be either too far away or not in the proper locations to achieve this goal. These issues are addressed in the attached comments. Since several sites are being evaluated for optimization, TechLaw recommends that the issues be addressed in the optimization work plans when possible. Finally, future evaluations of this document could be made more efficient with cross-sectional figures that show the subsurface relationships between vertical extents of source areas as they relate to vertical plume boundaries, screened intervals of monitoring and extraction wells, groundwater elevations, and subsurface geology.

This evaluation has been forwarded to you through electronic mail in Word format. TechLaw understands you will review and augment the evaluation at your discretion.

Thank you for the opportunity to provide U.S. EPA with technical oversight services at the Former George AFB. Should you have any questions or comments, please contact me at (510) 290-2044.

Sincerely,

Indira B. Balkissoon

Indira Balkissoon
ROC9 Senior Task Order Manager

MA:IB:JB:as

cc: Central Files, TechLaw, Inc.

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FORMER GEORGE AIR FORCE BASE
Victorville, California

Review of the Final 2014 Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, Former George Air Force Base, California

June 2015

Submitted to:

Ms. Mary Aycock
EPA TOCOR
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Region IX SFD-8-1
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San Francisco, California 94105

Submitted by:

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Task Order No.	**066-17-09Q7**
Contract No.	**EP-W-07-066**
EPA TOCOR	**Mary Aycock**
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September 8, 2015

Review of the Final 2014 Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites, Former George Air Force Base, California
June 2015

GENERAL COMMENTS

1. The Final 2014 Basewide Annual Monitoring and Operations Report for CERCLA and Non-CERCLA Sites (the BAMOR), provides a summary of monitoring and operational activities from January 2014 through December 2014 for sites at the former George Air Force Base. It presents data for groundwater and soil-vapor monitoring; soil-vapor extraction (SVE) systems operation, maintenance, and monitoring (OM&M); landfill monitoring and maintenance; and free-product recovery systems operations. The data presented is evaluated in the context of regulatory compliance for sites with Records of Decision (RODs) (Sites CG070, FT019, ZZ051, and OT069; Landfill Sites DP003, DP004, LF012, LF014, and LF044; and the Southeast Disposal Area [SEDA]), and recommendations are provided, as appropriate, for sites with active remedies. This information is useful to the regulatory agencies in assessing whether or not sites can achieve remedial action objectives and to assess remedial design and remedial action completeness. It would therefore be helpful to include the following in the BAMOR:
    a. Executive Summary (ES) providing summary information including a 2014 Sampling Event Summary, Hydrologic Data (horizontal and vertical gradient information and any changes during the past year), Analytical Data (summary of maximum concentrations), and 2015 Sampling Program. The ES should also include a Groundwater Site Summary Table (summarizing groundwater sites and chemical of concern with maximum historical concentration; location of maximum historical detection; minimum historical concentration; date of minimum historical concentration; average historical concentration; and clean up level).
    b. Hydrographs for monitoring wells for each site and Mann-Kendall trend analysis for both short term and long term trends or a reference to where this information is reported.
    c. Figures which show depths of source areas and landfills as they relate to vertical plume boundaries, screened intervals of monitoring and extraction wells, groundwater elevations, and subsurface geology. The existing figures present analytical results and focus on the areal extent of contaminant plumes but omit depiction of cross-sectional subsurface conditions. It would be useful to have this information concisely presented in figures so that fate and transport and adequacy of performance monitoring wells can be better understood and more completely evaluated. Further, site specific figures would assist in understanding where the aquifers are in communication with each other, where pathways may exist from the vadose zone to the lower aquifer, and where impermeable layers exist. Without these figures, it is unclear whether fate and transport of the chemicals of concern (COCs) has been fully evaluated and whether current monitoring programs are adequate.
    d. Summary of proposed optimization activities and results.

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Please provide this information in future BAMORs.

2. According to Figure 4-2 (TCE [trichloroethene] concentrations in the Lower Aquifer, April and October 2014), there appear to be very limited data and monitoring points between and downgradient of the different fragments of the TCE plume; therefore, there is uncertainty in the interpretation of the TCE plume boundaries in the Lower Aquifer. For example, between the two upper fragments centered on NZ-72 and EW-6, NZ-100 is the only well between the two plume fragments. NZ-100 was not sampled. Similarly, there are no wells between the three lower fragments of the plume. In addition, there are no wells downgradient of the source areas FT019 and FT082, except well RZ-02 (and this well was also not sampled), or downgradient of the first and third fragments of the plume. Finally, the second fragment of the plume should include well NZ-98, which had a TCE concentration of 7.8 micrograms per liter (ug/L). Please provide the rationale for not sampling in the areas discussed in this comment, or propose additional wells to obtain further definition of the TCE plume boundaries in the Lower Aquifer. In addition, please revise Figure 4-2 to include well NZ-78 within the second fragment of the TCE plume.

3. Differences between "Wells Proposed for Sampling October 2014" (summarizing the August 26th and August 27th workshop with the EPA, Water Board, Air Force, and CBI) and wells that were sampled per the Analytical Results Summary tables are summarized below.

Well ID	Analysis not conducted	Notes
Upper Aquifer Wells		
NZ-21	General Chemistry*	Chloride was the only general chemistry parameter analyzed.
NZ-55, NZ-83, NZ-82	VOCs (volatile organic compounds) General Chemistry, TDS (total dissolved solids) (NZ-82 only)	Wells were not listed in the analytical results, Tables 4-2 and 4-4; Section 2.1.1.4 indicates wells not sampled due to the presence of a physical obstruction in the well; NZ-82 and NZ-83 are two missing data points between the two separate sections of the 10-50 ug/L plume per Figure 4-1; therefore the 10-50 ug/L plume area could be larger; NZ-82 and NZ-83 located downgradient of FT082.
NZ-138, NZ-140	N/A	Wells were not proposed for sampling but are included in Table 4-2 (October 2014 Groundwater Analytical Results, Site CG070, Upper Aquifer); NZ-140 originally proposed as a flood plain aquifer well; NZ-138 originally proposed as a lower aquifer well.
Lower Aquifer Wells		
RZ-02	VOCs	Well not listed in Table 4-4 (October 2014 Groundwater Analytical Results, Site CG070, Lower Aquifer); proposed rationale was to evaluate plume boundaries and other compliance boundaries.
NZ-133b, NZ-77, OW-01, OW-06	N/A	Wells were proposed for sampling as flood plain aquifer wells.

*defined as (Ca, Mg, Na, K, SO4, NO3, HCO3)

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Please evaluate the impacts of not having data from these wells and clarify how the physical obstructions were addressed and whether these wells will be monitored in October 2015.

4. The discussion of historical soil gas contamination trends for Sites FT019a and FT019c is not supported with contaminant trend graphs or other data; therefore, the evaluation of the discussion in Sections 5.4, 5.5, and 5.6 related to recent and historical trends could not be verified. Although figures are provided comparing plume extents in 2007 and 2008 to those in 2014 (Figures 5-1A, 5-1B, and 5-2), these figures are not useful for evaluating trends because the concentration thresholds selected to define plume boundaries are too great to portray the lower concentrations of COCs detected. It would be more useful to see annual concentrations over time in each well similar to those provided that show groundwater and soil gas contamination trends for other sites. Please add trend graphs or other data to support the discussion of historical trends at FT019a and FT019c.

5. At the Operable Unit (OU) 3 sites, it is unclear why soil gas plume boundaries are defined in figures by 100 parts per million by volume (ppmv) and 1000 ppmv isoconcentration contours for total petroleum hydrocarbons as gasoline (TPH-g) and 0.1 ppmv and 1.0 ppmv for TCE. These concentrations do not correlate to any screening levels or remediation goals. For TCE, it would be more appropriate to use the soil vapor trigger criteria for TCE that are included in Table 5-1 (Remediation Goals for Subsurface Soil, Operable Unit 3). However, no screening criteria are discussed for TPH-g in soil gas. Please explain the significance of the isoconcentration contours intervals selected for TPH-g and TCE used in OU3 site figures.

6. It is unclear how source areas at FT019a and FT019c compare to groundwater plumes for TCE in OU1 because no figures are included to show this relationship. It would be helpful to show the vertical extent of TCE in soil gas plumes that overlie groundwater plumes with cross-sectional figures. Please include these figures in future versions of the BAMOR.

7. Soil remediation goals (RGs) for TPH, benzene, toluene, ethylbenzene, and xylenes (BTEX), and TCE, and soil vapor trigger criteria for TCE are provided for specific depth intervals relative to elevation above the groundwater table in Table 5-1 (Remediation Goals for Subsurface Soil, Operable Unit 3). However, this information is not used in the discussion of soil gas contamination plumes at OU3 sites. In addition, no soil vapor trigger criteria were provided for TPH and BTEX. Knowing where detections of these contaminants occurred relative to the groundwater table would be useful for evaluating leaching potential. Finally, tables for soil gas results should include screening criteria such as the soil vapor trigger criteria when available to give some context to the soil gas results. For sample depths that cross two or more trigger criteria intervals (i.e. a 30-foot sample depth could cross two or three of the soil vapor trigger intervals), the BAMOR should specify which criteria apply. Please incorporate this information into the discussion and presentation of results in future versions of the BAMOR. In addition, if

soil gas trigger criteria have been established for TPH and BTEX, please include this information in future versions of Table 5-1.

8. The BAMOR does not discuss sampling background wells for the various sites in the Upper and Lower Aquifers. Please provide information on the frequency of background well sampling.

SPECIFIC COMMENTS

1. **Section 4.1, Site Setting and History, Page 4-1:** The last paragraph states that nitrate groundwater impacts attributable to Air Force activities are predicted to decline to below the MCL within the next 10 years. However no information is provided to support this statement. Please clarify why nitrate concentrations are predicted to decline below the MCL within 10 years.

2. **Section 4.1, Regulatory Framework, Page 4-3:** The second remedial action objective (RAO) references the northeast disposal area (NEDA) but the NEDA is not depicted on any of the site figures. Please add the NEDA to relevant site figures for reference.

3. **Section 4.4.2.1, Upper Aquifer Results, Page 4-5:** The last paragraph discusses change in the areal extent of the plume with TCE concentrations greater 50 ug/L from 2011 to 2015, but it is unclear if the same contouring software was used each year. If the same software was not used over the entire period, then the interpretation of the 50 ug/L plume boundary over time and comparison of changes in areal extent may be irrelevant. For example, on Figure 4-1 (TCE concentrations in the Upper Aquifer, April and October 2014), the fragmented 50 ug/L plumes based on individual results centered around NZ-39, NZ-93, and NZ-27 could be interpreted by a different program to be continuous between the wells because there are no data points between these wells, and thus the areal extent of the 50 ug/L plume could be much greater. Further, it is unclear how this information is being used in the overall evaluation of groundwater impacts. It may be more useful to compare total number of detections per year or areal extent of the entire plume greater than the maximum contaminant level (MCL) over time. Please clarify whether the same software was used from 2011 to 2015 to interpret TCE isoconcentration contours and explain why the analysis of the 50 ug/L boundary over time is relevant.

4. **Section 4.4.2.2, Lower Aquifer and Flood Plain Aquifer Results, Pages 4-6 and 4-7:** The last paragraph on page 4-6 indicates that the 7.6 ug/L TCE detection in NZ-72 was the first detection in that well in 17 years, and that it will be included in the next round of sampling at OU1 to assess whether the result is anomalous or indicates plume migration. Based on Figure 4-2 (TCE concentrations in the Lower Aquifer, April and October 2014), if plume migration is occurring, the likely migration pathway is northward from plume areas to the south. In addition, if the plume is migrating toward NZ-72, it appears that well NZ-100 would be in the direct path, but this well was not sampled in 2014. Please add this well to the October 2015 sampling event to further assess plume migration from the source areas to the south.

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5. **Section 4.4.2.2, Lower Aquifer and Flood Plain Aquifer Results, Page 4-7:** The first paragraph discusses the rationale for installing wells NZ-138 and NZ-139, which have shorter screens, to obtain better depth-specific information in the area of EW-6, which has a longer well screen. However, review of the well screen intervals indicates that these wells have pinpointed the upper and lower portions of the screened interval of EW-6, but do not provide data from the middle of the screened interval. Table 3-3 (Groundwater Elevation and Free Product Measurements) shows the following well screen intervals (in feet below top of casing [ft btoc]): NZ-138, 130-150; NZ-139, 225-235; EW-6, 160-230. Although the new wells do provide better depth-specific information in this area, well EW-6 should be included in future monitoring events because the new wells do not provide data between 160 and 225 ft btoc, and the TCE concentration was much higher in EW-6 (67 ug/L) than in NZ-138 (30 ug/L). In addition, the wells crossgradient and downgradient of these wells (see Figure 4-2) are not screened in this middle interval or were not sampled (screened intervals in ft btoc for wells NZ-98: 226-246; NZ-48: 140-160; NZ-100: 160-180 but not sampled in 2014; and NZ-37: 134-142). Finally, TCE concentrations appear to be increasing in EW-6 as shown in the trend graph in Appendix B. Please ensure that EW-6 is included in future monitoring events unless another well targeting the middle interval, i.e. a 10- to 20-foot screen somewhere between 160 and 225 ft btoc, is installed in this area.

6. **Section 4.4.2.2, Lower Aquifer and Flood Plain Aquifer Results, Page 4-7:** The discussion of TCE trends at the end of the first paragraph is not supported with the referenced trend graphs in Appendix B. For example, the text states that successive results for NZ-84 suggest TCE concentrations may be stabilizing, but the trend graph shows an apparent steady increase since 2002/2003, with only the last two results decreasing. In addition, the results between 2010 and 2013 appear to display seasonal fluctuation. The change to annual sampling frequency between 2013 and 2014 omits an April data point, which appears to be the higher of the two semiannual data points from 2010 to 2013, except in 2012 when TCE slightly decreased in April from the previous October. Had data been collected in April 2014 and followed a seasonal fluctuation pattern, the statement that recent TCE concentrations may be stabilizing would not be valid. Further, the text states that TCE results for well NZ-129b, a deeper-screened well in the same location as NZ-84, have been stable since spring 2011; however, the trend graph for NZ-129b shows TCE concentrations fluctuating between 3 and 30 ug/l from August 2009 through present. Please specifically indicate how stability was evaluated in these wells and further justify the statements made regarding stability trends, or revise these conclusions. In addition, please provide additional rationale for a change from semiannual to annual monitoring in these wells, or revert to semiannual monitoring in future events for these wells.

7. **Section 4.4.3, Trichloroethene Mass Summary, Page 4-7:** The text asserts that the TCE concentrations in groundwater observed in 2014 are less than concentrations observed in 2011 and 2012; however, data is not provided to support this conclusion, and the method used to calculate total TCE mass is not explained. In addition, prior to this section, the text only provides TCE areal extents and has not discussed mass. Further, it

is unclear how this data will be used. Please provide data to support this conclusion, explain how TCE mass was calculated, and clarify how TCE mass data will be used.

8. **Section 4.5, Regulatory Compliance Summary, Page 4-8:** The paragraph discussing the second RAO indicates that maximum TCE concentrations have been decreasing in both the Upper and Lower Aquifers and references Figure 4-3 (Maximum TCE Concentrations Over Time in the Upper and Lower Aquifers at OU1); however Figure 4-3 shows an increasing trend in the maximum TCE concentration in the Lower Aquifer from 1994 through 2014. Please revise this evaluation to address this discrepancy and clarify that the overall trend of maximum TCE concentrations in the Lower Aquifer has increased over time.

9. **Section 4.6, Summary and Conclusions, Page 4-10:** The third paragraph states that for most wells within the plume, decreasing TCE concentrations over the past five years indicate that degradation of the plume is occurring; however, no data is provided to support this statement and it is unclear if this statement is true for the Lower Aquifer. For example, trend graphs in Appendix B for the Lower Aquifer show many wells within the plume with fluctuating or increasing TCE concentrations (wells EW-6, NZ-80, NZ-84, NZ-98, NZ-105-R, NZ-106, NZ-107, and NZ-129b). Wells with decreasing concentrations over the past five years are generally outside the 5 ug/L plume boundaries. Please note that TCE concentrations in Lower Aquifer wells within the plume are increasing or fluctuating.

10. **Section 5.0, Operable Unit 3 – Site FT019, Pages 5-1 to 5-10, and Figure 5-1A, Soil Vapor TPH-g Isoconcentration Map, Comparison of 2007 vs. 2014 (>60 ft bgs), Site FT019a and Figure 5-1B, Soil Vapor TCE Isoconcentration Map, Comparison of 2007/2008 vs. 2014 (>60 ft bgs), Site FT019a:** Figure 5-1A, does not show the TPH-g soil gas plume as well defined on the northeast, northwest, and southwest; however the Supplemental Site Investigation Report and Optimization Work Plan for OU3 Sites FT019a and FT019c dated October 16, 2014 (OU3 SSI) characterized these areas. Please update the 2015 BAMOR to include this information and include in future versions of the BAMOR.

11. **Section 6.0, Operable Unit 3 – Site ZZ051, Pages 6-1 to 6-7, and Figure 6-1, Soil Vapor TPH-g Isoconcentration Map, Comparison of 2006 vs. 2014 (>60 ft bgs), Site ZZ051:** This section does not describe the ZZ051 Draft Supplemental Site Investigation Report and Optimization Work Plan (ZZ051 SSI), Former George Air Force Base, Victorville, California dated December 17, 2015 and the proposal to collect vapor intrusion (VI) samples and to re-evaluate the risk. Please update the 2015 BAMOR to include the results and the ZZ051 SSI and include this information in future versions of the BAMOR.

12. **Section 7.4, Groundwater Monitoring, Page 7-3:** The second paragraph references Tables 7-1 and 7-2 for April and October 2014 analytical results at Site OT069; however, only the October 2014 analytical results are provided as Table 7-1 and therefore

statements about the April event could not be verified. Please add April 2014 results to the BAMOR or provide them for evaluation.

13. **Section 7.4, Groundwater Monitoring, Page 7-4:** The last paragraph suggests that tetrachloroethene (PCE) is degrading under aerobic conditions at MW-136; however, other mechanisms such as dispersion or advection could be responsible decreasing PCE concentrations in this well. As shown on Figure 7-1 (TCE, PCE, 1,1-DCA and Cis-1,2-DCE Concentrations in the Upper Aquifer), there do not appear to be any wells located downgradient or crossgradient of this well; however PCE was detected in MW-144 located slightly upgradient and approximately 700 feet to the northeast. Please provide an additional line of evidence to support the suggestion that PCE is degrading under aerobic conditions at this well and explain other possible mechanisms for the decrease in PCE. If appropriate, propose additional wells to evaluate PCE concentrations in this area.

14. **Section 7.6, Summary and Conclusions, Pages 7-5 and 7-6:** The text concludes that COC concentrations appear to be decreasing overall; however, according to the trend graphs for OT069 in Appendix B, several wells in or near plume areas appear to have increasing concentration trends for TCE. These include: MW-31, MW-33, MW-74, MW-87, and MW-88. In addition, although MW-48 shows a decreasing TCE concentration trend since 2010, the TCE concentration appears to be increasing when the entire sampling history is evaluated. Please consider these factors in future evaluations.

15. **Section 8.4.3.1, Sites DP003 and DP004, Page 8-9:** The third bullet indicates that TCE in NZ-84 has been decreasing since October 2011; however, the trend graph in Appendix B shows that TCE concentrations have fluctuated recently in this well with the April 2013 result being higher than the October 2011 result. In addition, if the overall history is evaluated, the TCE concentration trend is increasing. Please correct this statement in future versions of the BAMOR.

16. **Section 8.4.3.2, Site LF012, Pages 8-9 and 8-10:** This section of the BAMOR and Figure 8-1 (Lower Aquifer Groundwater Elevations, Background and Compliance Wells at DP003, DP004, LF012, LF014, and LF044 – April/May 2014) do not provide enough information to evaluate whether or not background well (NZ-108) and compliance wells (NZ-60, NZ-61, and NZ-62) are appropriately placed to determine if landfill contents are leaching to the groundwater at LF012 (the fourth OU3 ROD RAO). The response to comments (RTCs) for the Draft Amendment 04- Long Term Monitoring and Maintenance Plan for Operable Unit 3 Landfills DP033, DP004, LF012, LF014 and LF007 dated April 2015 (the RTCs) indicates that the groundwater flow direction is to the south and describes "that gradients between these wells define the local flow paths beneath the landfill and are all to the southeast and east beneath the landfill. Therefore, the use of NZ-60, NZ-61 and NZ-62 for monitoring as appropriate." However, it remains unclear how NZ-108 (background well) located on the northwest border of the landfill and the three compliance wells located to the northeast and east of the landfill are appropriately located to monitor groundwater flow to the south. In addition, NZ-60 and NZ-62 appear to be located approximately 400 and 500 feet away from the landfill. It is recommended that a background monitoring well be selected that is not located on the

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border of the landfill. Also it is recommended that additional explanation be provided to justify compliance monitoring wells at their current location rather than on the southern side and downgradient from LF012. Based on the BAMOR discussion and the RTCs it appears that a technical discussion is needed to resolve these issues. Please include a technical discussion of the compliance monitoring network at LF012 at a future Base Closure Team meeting.

17. **Section 8.4.3.3, Site LF014, Pages 8-10 and 8-11:** As shown on Figure 8-1 (Lower Aquifer Groundwater Elevations, Background and Compliance Wells at DP003, DP004, LF012, LF014, and LF044 – April/May 2014) and considering the southwestward groundwater flow direction, the compliance monitoring well network appears to be incomplete on the west and southwest sides of the landfill. Additional wells are recommended for this area to determine if landfill contents are leaching to the groundwater (the fourth OU3 ROD RAO). Please include a technical discussion of the compliance monitoring network at LF014 and include a discussion of the LF014 compliance monitoring network at a future Base Closure Team meeting.

18. **Section 8.4.3.3, Site LF014, Page 8-10:** The third bullet states that TCE has been decreasing in well NZ-107 since April 2012; however, review of the trend graph in Appendix B shows that TCE increased to approximately 85 ug/L in October 2014. When the April 2014 result of 50 ug/L TCE is factored in, TCE appears to be increasing in this well. Please revise this conclusion accordingly.

19. **Section 9.0, Operable Unit 5 – Site FT082, Pages 9-1 to 9-6, and Figure 9-1, Soil Vapor TCE Isoconcentration Map, Comparison of 2006 vs. 2014 (>60 ft bgs), Site FT082:** This section does not describe the FT082 Draft Final Supplemental Site Investigation Report and Optimization Plan, Operable Unit 5 Site FT082, Former George Air Force Base, Victorville, California dated January 9, 2014 (FT082 SSI) and the TCE soil vapor data collected to evaluate the vadose zone condition over the SVE treatment area two years after the temporary shutdown of the SVE system. Please update the 2015 BAMOR to include the results and the FT082 SSI and include this information in future versions of the BAMOR.

20. **Section 9.4.6, Groundwater Monitoring, Page 9-5:** It is unclear why NZ-56 was selected as a downgradient well to monitor potential impacts from FT082 based on distance and apparent groundwater flow direction. This well appears to be over 800 feet from the FT082 boundary and to the east-northeast. Review of Figure 4-1 (TCE Concentrations in the Upper Aquifer, April and October 2014) indicates that groundwater flows to the east-southeast and southeast and that there are no wells immediately downgradient of FT082 in this direction. Therefore, the area downgradient and southeast of FT082 is a data gap and it is recommended that one or more wells be placed in this area and screened at the water table to evaluate potential impacts from FT082.

21. **Table 8-1, April and October 2014 Groundwater Analytical Results, Landfill Sites:** The table is incomplete because data for some wells is omitted and therefore not all results could not be evaluated or verified. Specifically, for LF012 (incorrectly labeled as

LF013), results are omitted for well NZ-108. For LF014, results are omitted for wells NZ-107 and NZ-03. No results for LF044 are included. Further, sample depths are not provided, so it is unclear if the wells are screened at appropriate depths to intercept any infiltration from the landfills. Please provide a complete table so that this information can be evaluated and verified.

22. **Figure 9-1, Soil Vapor TCE Isoconcentration Map, Comparison of 2006 vs. 2014 (>60 ft bgs), Site FT082:** SVE-04 should be included in the TCE soil gas plume boundary for 2014 because this vapor extraction well had a concentration of 1,500 ppbv TCE as shown on page 32 of 34 in Table 9-3 (Performance Monitoring Results, Site FT082). Please expand the TCE soil gas plume to include this well.

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