

RESPONSES TO COMMENTS FROM NAS MOFFETT FIELD

Comments by Don Chuck

GENERAL COMMENTS:

Comment No. 1: Several references are made to appendices for this report. However, none of the referenced appendices were included with this report.

JMM Response: The appendices were not included in the Navy draft to reduce costs. They will be included in all future drafts.

SPECIFIC COMMENTS:

Comment No. 1: Page 1, Paragraph 1, 2nd Sentence: This sentence as written is incomplete.

JMM Response: This sentence has been completed, it now reads:

"PRC Environmental Management, Inc. (PRC) and James M. Montgomery, Inc. (JMM) received Contracted Task Order (CTO) 0170 from the Department of Navy, Western Division Naval Facilities Engineering Command (WESTDIV) under the comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62474-88-D-5086."

Comment No. 2: Page 1, Paragraph 1, 4th Sentence: Is this sentence really necessary? The purpose of the report is to present the data obtained during the field work for this investigation and not to enumerate all of the CTOs assigned to PRC.

JMM Response: This sentence has been deleted.

Comment No. 3: Page 1, Paragraph 3, 2nd Sentence: The sentence as written is misleading. The additional sites were originally described as potential sites and were recommended for further investigation. If further investigation warranted it, then these sites would be included in the RI/FS process. Please change the sentence to reflect this.

JMM Response: This sentence has been modified to read:

"During the RI, three additional sites were identified as potential sites and recommended for further investigation."

Comment No. 4: Page 6, Paragraph 1, 4th Sentence: Further explanation is required concerning the aboveground storage tank at Site 12. It should be noted that the tank was removed from the site in late 1991.

JMM Response: Three new sentences have been added following sentence three of this paragraph.

"The aboveground fuel tank held approximately 500 gallons of waste fuels. During training exercise, fuel was pumped 90 feet from the aboveground tank to the training pit. The aboveground tank was removed from the site in late 1991."

Comment No. 5: **Page 6, Paragraph 1, Last Sentence:** This sentence implies that TPHC contamination at this location may be related to TPHC problems at the NASA fuel farm. Evidence to link the two TPH sites is needed before making any statements concerning the relationship of TPH at NASA to TPH at the Zook Road Site. Please revise the sentence.

JMM Response: A sentence has been added to clarify this: It is not known at this time if the TPH contamination associated with the NASA fuel farm has commingled with TPH contamination associated with Site 12.

Comment No. 6: **Page 6, Paragraph 2, 1st Sentence:** The above ground tank associated with Site 12 is no longer present. It was removed by the Navy in late 1991. The sentence needs to be rewritten accordingly.

JMM Response: This sentence has been revised to read:

"Figure 3 shows the locations of the fire training pit and former aboveground fuel storage tank associated with Site 12 (the Site 12 tank was located 500 feet north of the tanks associated with the Zook Road Spill)."

Comment No. 7: **Figure 7:** The label for the Tank 53 excavation site should be changed to eliminate the words in parentheses.

JMM Response: Figure 7 has been modified by removing (or sump excavation area) from the Tank 53 label.

Comment No. 8: **Page 8, Paragraph 2, Last Sentence:** It should be mentioned that the tank excavation mentioned in this sentence was the result of an underground tank removal done at an earlier date.

JMM Response: The sentence has been revised to read:

"These compounds were detected in soil samples from the enlarged tank excavation (resulting from the removal of a 500 gallon underground storage tank in May 1990) at the golf course maintenance facility (west of the landfill area) and from a single soil boring MW53-1, which was installed downgradient of the tank excavation shown on Figure 7.

Comment No. 9: **Page 11, Paragraph 1, 1st Sentence:** The criteria should be listed that was used in deciding the frequency choice for the GPR transducer used. What characteristics about this frequency (300 MHz) makes it more suitable to this investigation than other frequencies? What are the limitations of the GPR for the conditions at this site?

JMM Response: The following explanation has been added to this paragraph:

"The 500 MHz transducer was selected because its impulse frequencies (0 through 1,000 MHz) provide sufficient detection resolution for a broad size

range of objects within the entire domain of the GPR investigation. Furthermore, the selected transducer is typically sensitive to the relatively small changes in electrical properties that occur between non-metallic debris, such as construction or household waste, and the soil types and conditions anticipated at the site. GPR performance was also affected by the relatively shallow ground-water table at the site. In general, GPR is not effective for locating small objects and interfaces lying below the water table because of the enhanced attenuation of the probing signal that occurs within saturated sediments. Therefore, the domain of the GPR investigation probably only included media above the ground-water table."

Comment No. 10: **Page 12, Paragraph 1, 2nd Sentence:** The verb "was" should be changed to "were" since the subject "concentrations" is plural.

JMM Response: This change has been made.

Comment No. 11: **Page 13, Paragraph 1, 2nd Sentence:** The GPR data and interpretation used to determine debris cells and the location for the soil borings must be included in the report.

JMM Response: The GPR data collected during this investigation has been included as Appendix D. Actual debris cells were located by interpretation of the GPR data by a PRC EMI, Inc. geophysicist. Interpretation of the strip chart for the golf course landfill was primarily based on a study of relative signal delay times and signal strength, as well as composite signal shape and signal size.

Comment No. 12: **Page 13, Paragraph 4, 1st Sentence:** This sentence states that the aerial photograph review was insufficient to verify the presence of above ground storage tanks. Are you saying that your investigation into the presence of these ASTs was not adequately done? Or, are you trying to say that the review of the aerial photographs did not show the existence of the ASTs as previously reported? As I recall, the review of several years' worth of photographs showed that these tanks did not exist as earlier reported in the IT letter. This sentence should be changed to read that the presence of the above ground storage tanks could not be verified by review of aerial photographs. By using the word "insufficient," the sentence implies that an inadequate investigation to confirming the presence of the ASTs was carried out.

JMM Response: The sentence has been changed to read:

"A review of aerial photographs of the area did not verify the presence of any aboveground storage tanks as described by IT Corp."

Comment No. 13: **Page 15, Paragraph 2, 4th Sentence:** The criteria used to decide which boreholes were sampled for laboratory analysis should be given.

JMM Response: Two sentences have been added following sentence 4, they read:

"Samples for laboratory submittal were collected from the 2 borings which appeared to have the highest levels of TPH based on OVA readings. Submitting samples from each boring at SBZR-2 was beyond the scope of this investigation."

- Comment No. 14:** **Figure 11: What is the lithology of the sample taken at the 3-4 bgs in boring SBZR-2D? Since a soil sample was taken and submitted to the lab, there must be some idea as to its lithology. Please provide it.**
- JMM Response:** The lithology of SBZR-2D has been described as silt and very fine sand, dry and friable and is represented in Figure 11. The lithologic data gap begins at 4.5 feet below ground surface. A lithologic log of the interval 4.5 to 7.5 feet below ground level is not available for SBZR-2D.
- Comment No. 15:** **Page 16, Paragraph 2, 1st Sentence: The names and locations of the three CLEAN wells sampled at Site 12 should be included.**
- JMM Response:** This sentence has been revised to read:
- "Groundwater samples were not collected from the six Site 12 wells specifically for this investigation; however, the three Navy CLEAN wells at Site 12 were sampled in February 1992 as part of the Quarterly sampling program (these include W12-4, W12-5 and W12-6)."
- Comment No. 16:** **Page 17, Paragraph 1, 4th Sentence: The sentence states that the motor oil interpretation by the laboratory is questionable. Does this refer to the laboratory method blank or to the interpretation of the chromatograms of all the samples analyzed for Patrol Road Ditch? Please elaborate.**
- JMM Response:** This sentence has been removed from the report. PRC chemists have determined that the interpretation of this single peak as motor oil is correct.
- Comment No. 17:** **Page 17, Paragraph 2, 2nd Sentence: Background values for inorganics are based on the Phase I background levels. Are these the most current levels? What about the background levels for the Phase II investigation?**
- JMM Response:** Background values have not changed from Phase I to Phase II. The sentence in question has been modified to read: These values have been compared to background values for NAS Moffett Field used by IT Corp. in the Phase II Characterization Report.
- Comment No. 18:** **Section 3.3: A cross-section from the boring logs should be provided for the golf course site.**
- JMM Response:** Cross sections from the Golf Course Landfill soil borings cannot be created because the distance between borings is too great to make reliable correlations under these heterogeneous conditions.
- Comment No. 19:** **Section 4.3: Earlier in the report, it was stated that flammable gases were detected in two boreholes (see page 18, paragraph 1, last sentence). There is no mention of the gas in this section as a compound of concern. The presence of the gas should be discussed or provide an explanation as why the gas should be excluded from this section.**
- JMM Response:** The explosive gas detected at SBGC-1 and SBGC-4 is probably methane, commonly generated by the decomposition of organic matter. The paragraph on page 18 has been expanded to include:

The explosive gas detected is most likely methane, commonly generated by the decomposition of organic matter in landfills. Methane disperses quickly in the open air and probably is not present in high enough hazard. However, all future drilling or excavation activity in this area should be done while monitoring for explosive gases.

Comment No. 20:

Page 24, Paragraph 3: A third possibility for the TPH patterns seen at this site is a past fuel spill or release at this site. Should a source control measure, such as removal, be considered at this site?

JMM Response:

Soil removal as a remedial option is recommended by PRC/JMM. This should be scheduled to coincide with planned excavation activities at Site 12.

Comment No. 21:

Page 25, Paragraph 3: In addition to the recommended monitoring wells, consideration should be given to installing at least one upgradient well at the golf course site.

JMM Response:

A sentence has been added to this paragraph.

One monitoring well should be installed upgradient of the landfill to monitor for upgradient sources.