

N60508.AR.000044
NAS WHITING FIELD
5090.3a

LETTER REGARDING U S NAVY RESPONSE TO FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION COMMENTS SITES 5A, 7, 29, 35, 38, POTENTIAL
SOURCE OF CONTAMINATION 1485C DRAFT ASSESSMENT REPORT NAS WHITING
FIELD FL
6/6/2002
TETRA TECH NUS

Response to FDEP Comments on Draft Assessment Report for Sites 05A, 07, 29, 35, 38, and PSC1485C

General Response to Comments

As detailed in the RI/FS Work Plan for Sites 5, 7, 29, 35, 38, 39, 40, and PSC 1485C, Naval Air Station Whiting Field, Milton, Florida (TtNUS, January 2000), the 1-9 foot below land surface (bls) interval was not specifically sampled. An OVA was used to assess the soil and the first subsurface soil collected for lab analysis was gathered at 10 foot bls. If the OVA readings were >50 ppm additional samples were collected at 10 foot intervals until the OVA readings were <50 ppm. The NAS Whiting Field Partnering Team agreed to this methodology to reduce lab costs and speed up the investigation.

Note: The title of this document will be changed to: Preliminary Assessment / Site Investigation Report for Sites 05A, 07, 29, 35, 38, and PSC 1485C.

Site 05A - The Battery Acid Seepage Pit

Comment 1: *Given that the surface soil contains Vanadium in excess of the existing Florida DE1 target levels, how will the Navy address this situation if the proposed SCTLs for Vanadium are not changed?*

The reference in the report to the proposed changes to the FDEP DE1 SCTL for vanadium was premature. All references to this proposed SCTL will be revised to reflect the current FDEP DE1 SCTL for vanadium. However, during the Human-Health Risk Assessment (HHRA), vanadium was selected as a chemical of potential concern (COPC) because the maximum detected concentration in soils exceeded the current residential Florida SCTL for surface soils. The current residential FL SCTL is based on acute toxicity and assumes ingestion of 10 grams of soil in a single event by a residential child who exhibits pica behavior, a rare behavior pattern. In a reasonable maximum exposure (RME) scenario it is not necessary to consider pica exposure in order to be protective of the majority of exposed children. Based on this information, the HHRA recommended no further action (NFA) based on vanadium because a moderate estimate of chronic soil ingestion rates would not yield a Hazard Quotient (HQ) above 1 for a residential child. The HHRA for vanadium is presented in detail in Section 2.3.2.1.4.2 of the Report.

There is a good deal of uncertainty added to the risk by the use of acute exposure scenario and it is likely any risk calculated using the residential FL SCTL would be overestimated for most residential situations. The uncertainty associated with the vanadium residential FL SCTL is explained in detail in Section 2.3.2.1.5.4 of the Report.

In accordance with the site-specific HHRA conducted for Site 05A, an NFA is still appropriate for the Site.

Comment 2: *In Section 2.2.2 the statement is made that subsurface soil samples were not obtained because OVA readings were below 50 ppm and no visual signs of contamination were noted. Given that the OVA is used for helping assess volatile and semivolatile compounds and the visual staining is a guide for used oil, please justify why samples for pesticides and PCBs were not obtained.*

The statement is misleading and will be revised to state:

Surface soil samples for pesticide / PCB analysis were collected from 0-1 foot bls and the results reviewed to determine if impact on the subsurface soil was likely. The surface soil contained no pesticide or PCBs above FDEP DE1 and DE2 SCTLs. PCBs are inherently insoluble in water. The leachate analysis on the surface soil samples verified the levels of pesticides and PCBs detected in the surface soil would not leach. However, PCBs may be transported by particulates in solution. Transportation of PCBs by particulates would have resulted in PCBs being deposited at Site 6, the South Transformer Disposal area. The Site 6 investigation resulted in the detection of one PCB in the surface soil. However, no PCBs were detected in the subsurface soil. Since no PCB contamination was detected in the subsurface soil at Site 6, it is likely no PCB contamination is present in the subsurface soil at Site 05A.

Comment 3: *In the Conclusions section (page 2-21), I cannot agree that the presence of PCBs are due to the application of pesticides unless some evidence in that regard is presented.*

The statement will be revised to state:

The pesticides detected were compared to analytical data from several sites (3, 6, 30, and 33) to determine if the pesticide levels detected in the surface soil were similar to the levels detected in the surface soil at Site 05A. The detected pesticide levels are similar to the other sites (Remedial Investigation Report for Surface and Subsurface Soil Sites 3,4,6,30,32, and 33, TtNUS, September 1999). Therefore, it is likely that the pesticides detected at Site 05A are from the general application, not from mishandling or spillage of pesticides. Additionally no history of pesticide storage exists for Site 05A.

Comment 4: *Site assessments normally have sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

The Work Plan states in section 3.2.3.3 (page 3-37), “The investigation of groundwater at the site, will be addressed in the facility-wide groundwater investigation...” therefore; the groundwater at this site was not addressed because Site 40 (basewide groundwater) was not addressed in this report. The Site 40 investigation findings will be presented in the Site 40 RI Report.

Comment 5: *Until such time as the Florida soil DE1 values are changed, the recommendation of NFA for this site is premature.*

Vanadium was detected above the Florida soil DE1 values. However, the HHRA conducted for surface soil contamination recommended an NFA based on vanadium concentrations. Please refer to the response to Comment 1 for an explanation of the recommendation.

Site 7 – The South Avgas Tank Sludge Disposal Area

Comment1: *Please prepare a summary table that lists the DE1, DE2, and LE exceedances for the site soils.*

This information is included in Tables 3-1 through 3-5.

Comment 2: *You may want to delete the various recommendations since this is not the most appropriate document for such a presentation (a Proposed Plan is the appropriate place for recommendations).*

The recommendations will be revised to state further evaluation of surface and subsurface soil contamination should be conducted.

Site 29 – Auto Hobby Shop

Comment 1: *This supplemental investigation was conducted to determine any soil contamination that might remain after UST removal. Please justify why the sampling properly addressed the possible contamination, bearing in mind that the sampling occurred in the 0-1 foot bls interval for surface soil (which is in all probability, clean backfill placed after UST removal.) Additionally, please justify why the subsurface soil was not sampled based on only OVA screening which only occurred in the soil interval below 9 feet bls. What about the interval from 1 to 9 feet bls.*

Surface soil samples were collected to confirm no contamination was present due to spillage around the tank. Figure 4-1 in the report shows surface soil sample locations in both the tank area and the surrounding area, with only one surface soil sample being collected from the tank removal area. All other surface

soil samples were collected from the surrounding area, outside of the tank removal area.

During tank removal visible contamination was removed to a depth of approximately 7 feet bls. TtNUS advanced soil borings to confirm the subsurface soil at a depth of 7-10 feet bls was not adversely impacted by the tank. Confirmation was conducted using visual inspection and OVA at the 9-10 foot interval. This interval is most likely the area of impact from any tank leaks. Samples were not submitted for fixed-based laboratory analysis since there were no visual signs of staining and all OVA readings were "0 ppm".

Comment 2: *Site assessments normally have sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Please refer to the response to Comment 4 for Site 05A

Comment 3: *Comment 1 for Site 5A also applies for this site.*

Please refer to the response to Comment 1 for Site 05A.

Site 35 – Building 1429: Public Works Maintenance Facility

Comment 1: *Semivolatile and inorganic soil contamination was confirmed in four of thirteen soil samples. Prior to final decisions being made on this site, the extent of that contamination must delineated. Note that no sampling occurred in the soil interval directly below the concrete and that while that concrete remains, the soil may be considered to be under an engineered cover. The semivolatile contamination was found in a sampling interval that was at 18 to 20 feet bls (soil boring SB12). There were no soil samples obtained in the soil interval down to 13 feet bls.*

Delineation for inorganic and semivolatile contamination will be conducted around soil borings SB10 and 12.

During the delineation around SB10 and 12 samples will also be collected from the 4 to 12 feet bls interval representative of site conditions.

This additional data will be included in an addendum.

Comment 2: *Site assessments normally include sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

The Work Plan states in section 3.2.4.2 (page 3-40), "The investigation of groundwater at the site, will be addressed in the facility-wide groundwater investigation..." therefore; the groundwater at this site was not addressed because Site 40 was not addressed in this report. The Site 40 (basewide groundwater) investigation findings will be presented in the Site 40 RI Report.

Comment 3: *I suggest that the recommendation be changed to reflect the need for additional soil contaminant delineation and groundwater assessment.*

The recommendation will be changed to reflect the need for further delineation of inorganic and semivolatile contamination around soil borings SB10 and 12. The Report will also be amended to include the additional data obtained from the 4 to 12 feet bls interval.

Please refer to the response to Comment 4 for Site 05A with regards to the groundwater assessment.

Site 38 – Building 2877, Former Golf Course Maintenance Building

Comment 1: *Similar problems exist with this site as with the other sites in this document with regard to the assessment of surface and subsurface soils. There is an interval (1-8 feet bls) that has not been assessed. The Navy should formulate a supplemental sampling program to address this data gap.*

Based on interviews with base personnel and a subsequent geophysical survey the foundation of the building is believed to be present at approximately 8 feet bls. The material in this area from 1-8 feet bls has reportedly been placed on the foundation and is not representative of general site conditions. Therefore, no sampling was conducted in this area.

Surrounding the former building site, additional fill was also placed, believed to be up to 8 feet in thickness. Therefore, the first subsurface samples for lab analysis were collected at 9 feet bls.

The geophysical data needs to be included into this report. The foundation of the building is likely present, therefore; the 1-8 feet interval cannot be investigated. Base maintenance workers reported that the soil berm currently located at the site is the result of dumping material on the concrete slab of the previously existing Building.

Comment 2: *In the section on Inorganics (page 6-23), the statement is made that "FDEP has agreed that arsenic is naturally occurring at this site." This is not exactly correct. In my letter of April 11, 2001, I stated, "Please be aware that this finding does not preclude a future*

determination of a release of arsenic at any particular site if information and data warrant that conclusion.” Since this is a site on the golf course and arsenic is a material that is commonly applied at golf courses, we should consider this at an upcoming Partnering meeting before we can decide on the possible naturally-occurring nature of arsenic at this site.

With the exception of surface soil borings SS11 and SS12, all other detected levels of arsenic were similar to the detected levels of arsenic at the other five sites discussed in this report. Therefore, with the exception of SS11 and SS12, the levels of arsenic detected at the Site is not likely due to naturally occurring levels of arsenic. An interim removal action in the area of SS11 and SS12 is being conducted. This removal should result in the removal of the unusually high levels of arsenic contamination. However, the Whiting Field Partnering Team should review this issue to develop a consensus. The interim removal action will be included as an addendum to the Report.

Comment 3: *Site assessments normally include sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Please refer to the response to Comment 4 for Site 05A.

Comment 4: *The results of this assessment indicate that an undetermined amount of contamination exists at the site. I suggest that an RI, including groundwater assessment, be completed for this site.*

Once the interim removal is conducted, the localized contamination should be removed. The removal and analytical data from the removal will be added to this report as an addendum. Additionally, an SERA and HHRA will be performed for the Site and included in the addendum.

Refer to the response to comment No. 3 for an explanation of the groundwater assessment.

Site 1485C – Pesticide Storage Building

Comment 1: *Soil contamination was confirmed at the site. Additional sampling for delineation is needed, including in the unsampled vertical intervals as I have previously discussed.*

Additional sampling is needed at Site 1485C. However, due to the occurrence of additional soil being added to the site several things must occur. A fence has already been installed around the site to prevent any additional non-native soil being added to the site, but the true grade of the surface soil at the site must be determined. This will most likely require the removal of the soil piles currently located at the Site. The Whiting Field Partnering Team will need to develop a

consensus on the true grade of the site. Once the true grade is determined, the site will be reassessed to determine if the contamination initially detected at the site is from the native soil, or if the contamination was from the foreign soil deposited at the site.

Comment 2: *Site assessments normally have sampling for all media. Please justify why groundwater sampling was not accomplished at this site.*

Please refer to the response to Comment 4 for Site 05A.

Comment 3: *Based on the confirmation of soil contamination and the absence of groundwater assessment at this site, I suggest that an RI be completed at this site.*

Before an RI for soil contamination is conducted, the reassessment of the site needs to occur. Once the reassessment is conducted, an RI for soil contamination may or may not need to occur. The groundwater assessment is being addressed in a separate report. Please refer to the response to comment No. 2, with regards to the groundwater assessment.