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NAS WHITING FIELD
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LETTER REGARDING U S NAVY RESPONSES TO U S EPA REGION IV COMMENTS ON TECHNICAL MEMORANDUM ONE THROUGH 6 AND REMEDIAL INVESTIGATION NAS WHITING FIELD FL
11/6/1992
NAVFAC SOUTHERN

DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
2155 EAGLE DR., P. O. BOX 10068
CHARLESTON, S. C. 29411-0068

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COMMANDING OFFICER, NOT TO THE SIGNER OF THIS LETTER, REFER TO:
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Code 1859
06 NOV 1992

U. S. Environmental Protection Agency
Region IV
Attn: Mr. Robert Pope
Federal Facilities Division
345 Courtland Street, NE
Atlanta, Georgia 30365

Subj: NAVY'S RESPONSE TO COMMENTS ON TECHNICAL MEMORANDA 1 - 6 FOR THE PHASE I REMEDIAL INVESTIGATION AT NAS WHITING FIELD

Dear Mr. Pope:

On behalf of Naval Air Station (NAS), Whiting Field, Southern Division, Naval Facilities Engineering Command would like to invite you to attend a meeting regarding the above subject matter. This meeting will be held at the Environmental Protection Agency's office in Atlanta, Georgia. The meeting will begin at 9:30 AM on Friday, November 13, 1992.

Enclosed is a copy of the comments received by the Navy from each respective agency and our response to these comments for your review before the meeting.

We appreciate your input into the work at NAS Whiting Field. If you have any questions, please contact Ms. Kim Queen, Code 1859, Southern Division, Naval Facilities Engineering Command, at (803) 743-0341.

Sincerely,

J. L. MCCAULEY, P.E.
Acting Director
Environmental Division

Encl:
(1) Navy's Response to Comments on NAS Whiting Field's Technical Memoranda 1-6

RESPONSE TO COMMENTS (Technical Memoranda)
of
U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA)

Naval Air Station Whiting Field, Milton, Florida

Comment Number	Comment	Response
	GENERAL COMMENTS	
1.	The information provided in these documents and in previous documents indicates that NAS Whiting Field is a probable candidate for inclusion on the National Priorities List (NPL). In fact, the Navy's own Hazard Ranking Scoring effort scored the facility above the cutoff for the NPL. With this in mind, the current and future work should be carried out as if NAS Whiting Field is already on the NPL. In accordance with the Superfund Amendments and Reauthorization Act (SARA) all Installation Restoration Program (IRP) sites should meet CERCLA guidelines. All sampling, laboratory quality assurance/control, well placement and development, evaluation of pathways, targets, and/or receptors should meet with EPA's the Florida Department of Environmental Regulation's (FDER), and the Natural Resource Trustee's approval. Region IV specifically requests that all work follow the guidelines stated in Region IV's Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual of February 1, 1991.	No response required.
2.	The phased RI/FS approach is no longer used at CERCLA sites. The RI is a continuous process that continues until enough information has been gathered to complete an FS and/or to scientifically justify a decision on a site. NAS Whiting Field must not expect to perform a timely or cost effective RI in multiple phases. Field work may be done in rounds, with the results then analyzed and the need for further investigation requirements based upon these analyses.	Upon completion of Phase II-A the data will be evaluated, data gaps will be identified and further investigations will be conducted in rounds.

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Comment Number	Comment	Response
3.	Previously, approval was given to the Navy to submit documents in a final form. This procedure is no longer appropriate. It has been EPA's procedure at other federal facilities under the CERCLA program that documents are submitted in the following manner: • Documents shall be submitted in Draft form. An appropriate period of time shall be allowed for EPA review. • The Navy shall then respond to EPA's comments and incorporate them into a Draft Final version of the Documents. • EPA will then comment further or approve the document. If approved, the Draft Final version will become the Final document. • No field work should proceed until final approval has been given by EPA.	In the best interest of expediting the RI/FS process we recommend the following review for RI/FS workplans. - Draft submittal to EPA for a period of 30-45 days. - The Navy responds to USEPA comments. - The Navy meets with USEPA to discuss the response to comments. - The Navy incorporates the responses to EPA comments and produces a Draft Final document. - USEPA conducts review of Draft Final document (30 days). - The Navy will finalize the Draft Final upon USEPA approval. All other reports including technical memoranda will be submitted in Draft Final form for a 60 day regulatory review period.
4.	In the next phase of the RI/FS, an ecological study and accompanying Ecological Risk Assessment is planned. It is imperative that the Natural Resource Trustees (NRTs) be involved in this process as much as possible. NRTs are appointed by the President to act in behalf of the public to protect the nation's natural resources. It is the Navy's responsibility to ensure that the NRTs are involved and satisfied with the efforts the Navy is making to protect the natural resources. In addition, the Navy itself is a Natural Resource Trustee of the resources within the boundaries of NAS Whiting Field. It is recommended that federal facilities appoint an individual on-site to act as the facility's NRT representative. This person should not be the facility project manager.	The Navy is currently keeping the NRTs informed and involved in the RI/FS process at NAS Whiting Field through the submittal for review of workplans and technical reports. Due to budgetary constraints and workloads of current onsite Navy personnel, it is not feasible for the Navy to appoint an onsite NRT.

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Naval Air Station Whiting Field, Milton, Florida

Comment Number	Comment	Response
5.	The Navy has proposed presenting the data gathered in Phase II-A of the RI/FS in Technical Memorandums at the end of the data gathering effort. Due to the length of time that the Navy has estimated Phase II-A with take, 21 months, EPA is requesting that Technical Memorandums be submitted in draft form as the work is completed - not at the end of twenty-one months. Submitting future documents in this manner will allow adequate review time.	The only Technical Memorandum that can be prepared prior to the completion of the Phase II-A RI is the Surface Water and Sediment Assessment. All of the other Technical Memoranda will require hydrogeologic and groundwater quality data that will not be available until the end of the Phase II-A RI field program. In addition to the preparation of the Surface Water and Sediment Technical Memoranda, two technical reports (Soil Gas Survey and Geophysical Survey) will be prepared and submitted for regulatory review. Response to Comment 3 discusses the suggested review and approval format for documents submitted to USEPA.
6.	There seems to be an overall problem with laboratory analysis. Care needs to be taken to ensure that decisions that are made can be based on quality lab data. In addition, it was earlier requested by EPA that stainless steel monitoring wells be installed to prevent adsorbing of the organic compounds into PVC wells. The Navy decided to go ahead with using PVC wells due to cost considerations. Organic compounds have been positively identified as contaminants in ground water and problems have been encountered in some analyses, therefore, EPA recommends that all future wells be constructed using either stainless steel or Teflon casing and screens.	Specific laboratory problems are not identified by the reviewer. Therefore the Navy is unable to address this issue. The monitoring wells installed at NAS Whiting Field will not be used for long term monitoring but to characterize the nature and extent of groundwater contamination associated with each site. See Attachment E for supporting documentation.
	SPECIFIC COMMENTS	
	Technical Memorandum No. 1 Geologic Assessment	
1.	The information provided is complete and adequate. The EPA agrees with the conclusion that a continuous clay layer does not exist under NAS Whiting Field. Localized confining conditions might exist under individual sites and this can be determined on a site-by-site basis.	No response required.

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Naval Air Station Whiting Field, Milton, Florida

Comment Number	Comment	Response
	Technical Memorandum No. 2 Hydrogeologic Assessment	
1.	The information provided is complete and adequate. There are several sites where BAT samples appear not to have been taken downgradient, but that is addressed in the proposed work.	No response required.
	Technical Memorandum No. 3 Soils Assessment	
1.	Figure 1-4 (page 1-7) is generally inadequate to determine the extent and the exact location of individual sites. Sites 9 and 10 are drawn on the map as only one site. Topographic lines around the area of Clear Creek west of NAS Whiting Field are very difficult to distinguish. A better presentation would be to have a smaller scale map or an individual map for each site included within the report.	The intent of Figure 1-4 was to show the locations of all sites on the installation. Details and approximate site boundaries are presented in each technical memorandum if site-specific explorations were conducted. Details of Sites 9 and 10 will not be presented in Technical Memorandum No. 3 because no soil sampling was conducted at these sites. Site details for Sites 9 and 10 and all other sites can be found in the RI/FS Workplan. Topographic lines and figures in future reports will be easier to distinguish.
2.	On page 2-1, section 2.1, details of ditch construction are unclear. Is the point where the fluids were dumped within the confines of the concrete flume, or did fluids run into the flume after being poured into an earthen ditch?	The fluids were dumped into a concrete flume, flowed approximately 120 feet, and discharged into the earthen portion of the "0-2" drainage ditch. After travelling approximately 100 feet the earthen portion of the "0-2" ditch turned into concrete.
3.	Page 2-1, section 2.1, indicates that samples were confined to the top 6 inches of soil. Justify or explain. Also, why was no soil sample taken at the out-fall of the concrete flume into open ditch "0-2"?	The surface soil samples were collected from the top 6 inches of soil to characterize the polychlorinated biphenyl (PCB) contamination at Site 6 and provide data for use in the risk assessment. PCBs are virtually immobile in soils (unless transport is particulate or PCB becomes soluble in oils or chlorinated solvents) which provides the rationale for sampling the top six inches of soil. Sample WHF-6-SL-04-01 was collected approximately 15 feet beyond the outfall because sediments at the outfall have probably been eroded by water discharging from the concrete flume and been transported down the open ditch.

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Comment Number	Comment	Response
4.	Page 2-3, section 2.2, indicates that samples were confined to 1-2 feet. Justify or explain.	The sludge piles appear to have been covered with a layer of soil. To provide representative samples of the material that was disposed of at Site 12, samples were collected from the center of the sludge piles (1-2 feet below the surface of the piles).
5.	Figure 2-2, page 2-4, shows soil sampling locations in the middle of the waste piles at Site 12. The height and areal extent of the waste piles should be detailed further in the text. Also, direction of water flow across Site 12 needs to be indicated, either by textual description, flow lines, or surface contours.	The height of the waste piles ranged from 2 to 4 feet above land surface. The areal extent of the waste piles is presented in Figure 2-2, page 2-4 of TM3. The surface water flow across the site would be south, toward the nearby ravine.
6.	Figure 2-2, page 2-4, indicates that the area of Site 12 is larger than 25' by 25' as described in Table 1-1 (page 1-9). Correct or explain.	The waste piles are surrounded by a fence and the area within the fence is approximately 100' by 50'. The actual waste piles cover an area of approximately 625 square feet.
7.	Page 2-3, section 2.3, describes sample location WHF-15-1-SD-01 as being placed in the turn of the former ditch. Figure 2-4, page 2-5, indicates otherwise. Correct or explain.	The sample location WHF-15-1-SD-01 in Figure 2-4 is correct. The location is not in the turn of the former ditch but approximately 400 feet downgradient of the turn.
8.	According to Figure 2-4, page 2-5, soil samples were taken along the ditch to the west of Site 16. In addition, none are planned for Phase II-A. Justify or explain.	The ditch located northwest of Site 16 is constructed of concrete and no sediment is available for collection in this ditch.
9.	The soil sampling locations for Sites 15 and 16 are only representative of surface contamination that has occurred in "a" ditch. The proposed soil sampling for Phase II-A does not examine all possible contamination routes.	Soil sampling for Sites 15 and 16 also included surface soil sampling during the Phase I RI. Proposed soil sampling for Phase II-A include the collection of additional surface soil samples, subsurface soil samples from test pit excavations, and floodplain and creek sediments downgradient of Sites 15 and 16. Therefore all migration pathways are being addressed during the current investigation.
10.	Page 3-1, section 3.1, indicates that 10 more samples were taken for the Site 6 investigation. The objective and method of collection for these samples were not described in section 2.1.	This reference is to the 10 soil samples collected during the Verification Study conducted by Geraghty & Miller. Objectives and collection methodology are presented in the Verification Study documents.
11.	Only surface samples were taken at Site 12. These samples do not adequately characterize the site. Subsurface samples need to be taken during Phase II-A.	The sludge was disposed of on the surface of the ground and soil samples were collected from 1 to 2 feet bls in piles for lead analysis. Soil samples were not collected below the ground surface since the mobility of lead that may be present in sludge piles is limited due to its physical and chemical characteristics (i.e. low solubility).

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Naval Air Station Whiting Field, Milton, Florida

Comment Number	Comment	Response
	Technical Memorandum No. 4 Surface Water and Sediments	
1.	Figure 1-4 is, as in Tech Memo 3, generally inadequate. The preceding comments regarding this figure still apply.	See response to TM3 Comment 1.
2.	Section 2.1, Sampling and Analysis (page 2-1), indicates that 12 surface water and sediment samples were taken, while figure 2-1, (page 2-2) shows 13 sampling locations. It should be indicated in the Section 2.2 text that sampling location 10A was a temporary stream flow sampling location.	The text is correct. Location 10A was only a temporary streamflow measurement station and not a sampling location.
3.	The first sentence of the third paragraph on page 2-3 indicates that there is no flowing water at Station 2. Does this refer to the previous location of Station 2 to the west of Sites 1, 2, 17 and 18 before relocation or the current location of Station 2 as indicated on Figure 2-1? Does the wetland where Station 2 was relocated contain water?	The first sentence of the third paragraph on page 2-3 refers to the current location of Station 2. This location contains ponded surface water that appears to have come from rain and discharging groundwater.
4.	The source of the floodplain level information on Figure 3-3 is not given in the text. Please provide it.	The source of the floodplain level information was obtained from Flood Insurance Rate Map, Santa Rosa County, Florida, Panel 200 of 370, Community-Panel Number 120274 0200 B, Federal Emergency Management Agency, November 1, 1985.
5.	Figure 3-3 (page 3-4) shows that Clear Creek has no 500-year floodplain. The text on page 3-1 indicates that none of the sites are located within either the 100- or 500-year floodplain. However, Site 16 appears to lie in a low, flat area along the east bank of Clear Creek. Also, the text on page 1-10 indicates that effluent from the WWTP is "discharged onto the floodplain of Clear Creek." This point appears to be on or above Site 16. It cannot be concluded with the data provided that Site 16 does lie outside of the 100- and 500-year flood prone areas.	Site 16 does not lie within the 100 or 500 year floodplain. The reference cited in the previous response presents the 100 and 500 year floodplain of Clear Creek. The effluent of the WWTP discharges into the floodplain of Clear Creek downgradient of Site 16.

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Comment Number	Comment	Response
6.	Table 3-1 on page 3-5 indicates that Site 15 is closer to surface water than Site 16. According to the provided maps, Site 16 appears to be closer to Clear Creek than Site 15. Please explain or correct.	The distance to surface water from Sites 15 and 16 were inverted. The distance from sites 15 and 16 to surface water should be 1300 feet and 300 feet, respectively.
7.	In regard to the final sentence on the location of Station #8 in Appendix A, EPA recommends that site reconnaissance teams carry more than one writing instrument with them in the field.	Agree.
	Technical Memorandum No. 5 Groundwater Assessment	
1.	On page 3-8, the contamination problems associated with the use of drilling mud are discussed. Why was the drilling mud not sampled prior and after use to determine if it was contributing to the contamination of wells?	The discussion of introducing metals contamination during mud rotary drilling for the installation of monitoring wells was used to compare conventional techniques to the BAT sampling technique (This statement is not attributing contaminants detected to use of mud rotary drilling technique). Monitoring wells are in direct contact with the drilling mud during well installation. The BAT sampler is driven 3 feet beyond the bottom of the mud rotary borehole to collect a groundwater sample and are most likely more representative of aquifer conditions. Visual inspection of the BAT vials after sample collection did not indicate the presence of drilling mud contamination. Therefore no drilling mud sample was collected for metals analysis.
2.	On pages 3-8 and 3-9, table 3-8 is discussed and displayed. Using BAT samples to estimate background ranges of metals in groundwater is not acceptable. Background metals concentrations should be determined only with background samples taken in upgradient wells!	The data in Table 3-8 were used as probable background metals concentrations as measured from the BAT samples. No monitoring wells were sampled during the Phase I RI to provide background metals concentrations. However, background and upgradient monitoring wells are proposed for installation and sampling during the Phase II-A RI.
3.	On page 3-12, the locations and results of BAT samples in the industrial area are described. Why were BAT samples taken only in the upper three (3) feet of the production zone?	The BAT samples in the industrial area were not collected from the upper three feet of the production zone, but from 13 feet below the top of the production zone. The BAT samples were collected from depths between 180 and 183 feet bls around the west (W-W3) and south (W-S2) production wells that are screened from 170 to 210 feet bls and 169 to 215 feet bls. The sampling depths between 180 to 183 feet bls were arbitrarily selected to represent groundwater that is being pumped by the supply wells W-W3 and W-S2.

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Naval Air Station Whiting Field, Milton, Florida

Comment Number	Comment	Response
4.	Pages 3-17 thru 3-20 make references to several buildings (2941, 1424, Hardstand, 1404, 1406, etc.) in figures 3-3 and 3-4. These buildings are not marked in these figures making interpretation impossible and the figures almost useless. If available, marked blueprints of the entire facility (especially the Industrial Area) would be extremely useful.	Building numbers will be included in all figures of future reports.
5.	On page 3-20, it is stated that Sites 4 and 7 are being investigated under the Navy UST program. Tank sludges are generally not CERCLA exempt. The investigations of these sites should meet CERCLA standards as well as Florida 17-1770 UST regulations. Therefore, data gathered at these sites should be included in all NAS Whiting Field documents sent to EPA for review and comment.	The issue of whether Sites 4 and 7 should be included in the RI/FS investigation is currently being debated. Once the Contamination Assessment Reports (CAR) have been completed the decision to leave Sites 4 and 7 under the Navy's UST program or transfer these sites to the Navy's IR program will be made. Upon completion, copies of the Final CAR for these two sites will be submitted to USEPA and FDER.
6.	On page 3-28, it is indicated that contamination in the deeper part of the aquifer under Site 16 may be flowing under Clear Creek. In order to prove or disprove this theory it is necessary to take ground water samples on the western side of Clear Creek. The possibility of ground water contamination having already migrated off of NAS Whiting Field property is of major concern. Phase II-A investigations should definitely address this concern.	Monitoring wells will be installed downgradient of Site 16 during the Phase II-A RI to confirm the presence of contamination in the deeper part of the aquifer. If contamination is detected in these monitoring wells, additional monitoring wells further downgradient and possibly off of NAS Whiting Field will be installed to assess the extent of contamination.
7.	On page 3-35, it is stated that, "Well WHF-12-1 appears to be completely outside of any area of potential impact and may represent background conditions." While it is quite possible that Well WHF-12-1 is outside of the area of impact, it is not acceptable to use it as a background well because it is not upgradient of Site 12. In addition, it should be pointed out that there are no wells directly downgradient of Site 12 and that the ground water has not been thoroughly tested nor has it been sufficiently determined to not be contaminated.	Three monitoring wells will be specifically installed upgradient of all sites during the Phase II-A RI to provide background groundwater quality data. No wells have been installed directly downgradient of Site 12 due to the presence of a large ravine. Groundwater samples collected from the monitoring well and the BAT sampler did not indicate the presence of contamination. Although these samples were not located directly downgradient of Site 12, they were located along the eastern edge of the site and if contamination were present in groundwater downgradient of Site 12, one would expect to detect some level of contamination.
8.	The last sentence on page 3-44 states, "No further groundwater explorations are necessary for Site 12." EPA does not agree with this conclusion for the above stated reasons.	See response to the second part of comment 7.

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Comment Number	Comment	Response
	Technical Memorandum No. 6 Ph. I Data Summary & Ph. II-A Work Plan	
1.	Page 4-2, Section 4.2.1: The definition of "deeper samples" was not provided in the discussion.	The definition of "deeper samples" is a sample that was collected from below the concrete flume by boring adjacent to the flume (at the angle of the flume wall) using a hand auger.
2.	Figure 4-5 labels two shaded areas as Site 11, while Figure 3-6 labels one area as Site 11 and the other area as Site 12. Explain or correct.	The smaller of the two shaded areas should be Site 12 not Site 11.
3.	Page 4-9, Section 4.3.1: The document recognizes that at Site 6 (Transfer Disposal Area) the concentration of PCBs in the 12 samples collected was low (160 ug/kg maximum). The document then states that the co-disposal of PCBs with solvents could increase the migration potential for the PCBs, although apparently this type of scenario has not yet been identified. The Phase II-A sampling plan should be based on the data results from Phase I, not speculation about co-disposal scenarios that are not supported by the data.	The PCB migration scenario was not developed purely out of speculation. Historical information regarding the operations conducted at the Midfield Maintenance Hanger (Building 1454) indicate that solvents were used and potentially disposed of in the concrete flume leading to the "0-2" drainage ditch. In addition, results from a water table, BAT groundwater sample collected during Phase I (approximately 100 feet east of Site 6) indicate the presence of the solvent TCE (400 ug/l). Based on the historical information that solvents were used at Building 1454 and the presence of TCE in groundwater, it would not be prudent to disregard the potential for PCB migration deeper into the soil column at Site 6.
4.	On page 5-7, it is stated that, "Sediments at Station 2 (Clear Creek) ... were contaminated by organic and inorganic chemicals" (first paragraph), then later states (paragraph three) that "In general, the sediments of clear creek itself were free from toxic or hazardous chemicals attributable to NAS Whiting Field activities." Explain or correct.	The sediment sample collected at Station 2 (contaminated by organic and inorganic chemicals) were located in the floodplain of Clear Creek and not in the creek channel. The remainder of the sediments were collected from within the creek channel and were free of contamination.
5.	Also on page 5-7, it is stated that, "appreciable background concentrations of PAHs are frequently observed in soil where ... frequent wild fires occur ..." Please provide a technical reference for this statement. Facility-specific background samples should be taken at NAS Whiting Field to determine background concentrations of PAHs.	Reference - "Polynuclear Aromatic Hydrocarbons in the Environment: Sources, Levels, and Toxicity", prepared by Hanson Engineers, Inc. and Engineering Science, Inc., 1987. Ten background surface soil samples will be collected during the Phase II-A RI to determine background concentrations of PAHs, metals, pesticides and PCBs.

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Comment Number	Comment	Response
6.	On page 5-9, it is stated that a pyrene concentration in stream sediment of 36 ug/kg has "no public health or environmental significance and may be a component of background conditions." Again provide a technical reference for this conclusion. Only true background samples should be used to determine background concentrations. The health/environmental effects of contaminants should be examined and conclusions drawn in a full risk assessment effort.	Reference - "Polynuclear Aromatic Hydrocarbons in the Environment: Sources, Levels, and Toxicity", prepared by Hanson Engineers, Inc. and Engineering Science, Inc., 1987. Sediment samples collected during the Phase II-A RI will include true background samples. A full risk assessment will be conducted upon the completion of the Phase II-A RI.
7.	On page 6-1, it is stated that one of the specific objectives of the groundwater screening program was to, "confirm the absence of contamination in the water table aquifer component at Site 2." EPA does not believe this can be accomplished by the limited sampling that was done in Phase I.	The past disposal activities at Site 2 consisted of dumping construction and demolition debris. Wastes disposed at Site 2 included asphalt, wood, tires, furniture and tree branches. Due to the non-hazardous nature of the wastes reportedly disposed at Site 2, the limited groundwater sampling is sufficient to confirm the absence of contamination at Site 2.
8.	A timeline-type schedule should have been provided in Section 7 of Memorandum No. 6. EPA requests that a timeline for at least Phase II-A be provided immediately.	A timeline schedule will be submitted to the RPM upon finalization of these responses to USEPA comments.
9.	On page 7-1, it is stated that, "No Action Decision Documents" will be prepared for Sites 2 and 12. EPA does not agree or approve of this action based on the presently available data. Both Sites 2 and 12 need further investigation.	Site 2: The past disposal activities at Site 2 consisted of dumping construction and demolition debris. The wastes disposed at Site 2 included asphalt, wood, tires, and furniture (Site 2 is commonly referred to as the wood dump). The Initial Assessment Study reported that due to the non-hazardous nature of the wastes reportedly disposed at Site 2 no further action is recommended. In addition, one downgradient BAT groundwater sample was collected and no VOC or metals contamination was detected. The Navy feels that futher site explorations are not warranted and a "No Further Action Decision Document" should be prepared. Site 12: No contaminants exceeding the State or Federal MCLs were detected in any groundwater sample. In addition the waste piles reportedly containing tetraethyl lead in the waste sludge were extensively sampled and the results indicate that the concentrations of lead were below or slightly above the background concentrations in the local soil. The lack of elevated levels of lead in the sludge piles indicates that further investigation at Site 12 is not warranted.

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Comment Number	Comment	Response
10.	On page 7-5, an Ecological Survey and a Public Health Survey are described. While both of these are necessary and useful to support a full Baseline Risk Assessment, EPA would like to point out that they are only supporting documents and not to be considered a Risk Assessment by themselves. In addition, the data generated for these documents will be of primary interest to the Natural Resource Trustees. These surveys should be used to prepare a workplan for the Baseline Risk Assessment, which is subject to EPA and Trustee approval.	A full Baseline Risk Assessment will be prepared upon completion of the Phase II-A RI. The Baseline Risk Assessment will be submitted to the EPA and Natural Resource Trustees for review.
11.	On page 7-6, the workplan states (paragraph 2) that PVC will be used for well casings at NAS Whiting field. Once again, EPA recommends the use of either stainless steel or Teflon when the presence of organic compounds is anticipated (as it is at NAS Whiting Field).	This issue was covered during the Phase I RI. Please see Attachment D.
12.	Also on page 7-6, it is stated that "wells will be purged for at least three volumes, until the water is clear and free of silts, and/or until field measurements.. stabilize." EPA recommends that at least three volumes be purged with sample collection permitted following the stabilization of pH, temperature, and conductivity. If measurement readings do not stabilize after five volumes have been purged, the well may be sampled.	Monitoring wells will be purged according to USEPA Region IV SOPs.
13.	In reference to all test pit sampling at NAS Whiting Field, as first described on page 7-18, the use of visual observations and an OVA in any test pit (or elsewhere) should not be relied on for the elimination of sampling locations. An adequate number of samples should be collected from each pit/area regardless of the visual observations and OVA readings, although these techniques could be used to enhance sample selection.	Agree.
14.	Also on page 7-18, it is stated that, "as many as seven subsurface samples from each of the 50-foot boring ... will be collected". What is the minimum that will be collected in the event of "negative" OVA responses?	If the OVA response was negative, the minimum number of subsurface soil samples would be one. This sample would be collected from the soil gas sampling interval (0-2 feet bls) and would confirm or deny the positive headspace reading.

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15.	On page 7-27, five surface soil sampling points are proposed for Site 10. Why are the proposed locations not marked upon any figure?	The surface soil sampling locations will be determined based on the locations of subsurface anomalies detected during the Phase II-A geophysical investigation.
16.	For Sites 11 and 12, a background, upgradient well is needed for these two sites. It should be placed north-northwest of the two sites.	Sites 9 and 10 are located north-northwest of Sites 11 and 12 and the monitoring well WHF-9-2 can provide upgradient groundwater quality information for Sites 9, 10, 11 and 12.
17.	For Site 16, what analyses will be performed on the soil samples collected from the test pits? EPA recommends full TCL/TAL.	All soil samples collected from Site 16 test pits will be analyzed for full TCL/TAL.
18.	On page 7-32 and several other places in Section 7, it is stated that details of EM-31 and GPR techniques are included in Appendix A. The details are not in Appendix A of the documents EPA received.	Details of EM-31 and GPR techniques were omitted from Appendix A and included in Section 7.0 of Technical Memorandum No. 6.
19.	The paragraph immediately following Table 7-14 on page 7-34 makes absolutely no sense. Please correct or explain what is attempting to be stated in the paragraph.	The second sentence of the first paragraph after Table 7-14 should read "transect lines will be spaced 50 feet apart and data collection points will be spaced at 50 feet along the transect lines".
20.	On page 7-37, the collection of 52 surface samples and 42 sub-surface samples seems excessive for an approximately 2000 square foot site. Please further explain and clarify the rationale for so many samples.	Although not depicted in Figure 7-11 (Site 18), there are 9 former firefighting pits, 3 waste piles and 3 runoff paths. To adequately characterize the nature and extent of surface and subsurface soil contamination in each of these areas, it was estimated to require the collection of 52 surface soil and 42 subsurface soil samples.
21.	Appendix A, Decontamination (3.9): The procedure for downhole equipment should be in accordance with that recommended by Region IV's Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual of February 1, 1991.	Agree. Decontamination for downhole equipment will be conducted in accordance with USEPA Region IV SOPs.