DEPARTMENT OF THE ARMY
BASE REALIGNMENT AND CLOSURE
ATLANTA FIELD OFFICE
BRAC ENVIRONMENTAL COORDINATOR
HAMILTON ARMY AIRFIELD
1 BURMA ROAD
NOVATO, CALIFORNIA 94949

May 5, 2004

DAIM-BO-A-HA

Subject: Forwarding addendum to the final *Construction Report and Supplemental Construction Report for Building 41 Demolition and Soil Removal, Spoils Pile F Removal, and Revetments 6 and 7 Removal, Hamilton Army Airfield.*

Ms. Naomi Feger
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Feger,

The Army is pleased to provide the addendum to the final *Construction Report and Supplemental Construction Report for Building 41 Demolition and Soil Removal, Spoils Pile F Removal, and Revetments 6 and 7 Removal, Hamilton Army Airfield,* for your files.

In 2002, remedial activities occurred at Building 41, Spoils Pile F, and Revetments 6 and 7 to remove soil with contamination above the preliminary cleanup goals. After reviewing analytical data from that event, it was agreed that some additional samples are needed to determine if the actions are complete. The additional samples were collected in November and December 2003 in accordance with the *Work Plan, Miscellaneous Site Investigations, Hamilton Army Airfield* (USACE 2004) and Addendum.

The results of the recent sampling event are contained in the enclosed addendum. Please insert this addendum into your copy of the *Construction Report and Supplemental Construction Report for Building 41 Demolition and Soil Removal, Spoils Pile F Removal, and Revetments 6 and 7 Removal, Hamilton Army Airfield* (Shaw 2003).

Based on the data collected, the Army recommends no further excavation or investigation at these sites. The Army does recommend that residual total DDTs adjacent to Spoil Pile F be addressed as an area-wide issue in accordance with the *Main Airfield Parcel Record of Decision/Remedial Action Plan* (Dept. of Army, RWQCB, DTSC 2003). I request your concurrence with these recommendations by June 8, 2004.

If you have any questions, please contact me at (415) 883-6386.

Sincerely,

Edward Keller, P.E.
BRAC Environmental Coordinator
Hamilton Army Airfield

Enclosure

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Addendum to the
Construction Report and Supplemental Construction Report for Building 41 Demolition and Soil Removal, Spoils Pile F Remvoal, and Revetments 6 & 7 Removal
Hamilton Army Airfield, Novato, CA 94949
May 2004

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Hamilton Army Airfield, Novato, CA 94949
May 2004

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ADDENDUM to

Final Construction Report and Supplemental Construction Report for Building 41 Demolition and Soil Removal, Spoils Pile F Removal, and Revetments 6 and 7 Removal

Hamilton Army Airfield

NOVATO, CALIFORNIA

Prepared by:

US Army Corps of Engineers ®
Sacramento District
Environmental Design Section

Prepared for:

Department of the Army
Base Realignment and Closure

May 2004

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

ACRONYMS

B41	Building 41
bgs	below ground surface
BRAC	Base Realignment and Closure program
DoD	Department of Defense
DTSC	State of California Department of Toxic Substances Control
HAAF	Hamilton Army Airfield
mg/kg	milligrams per kilogram
PDD	Perimeter Drainage Ditch
Rev	Revetment
RWQCB	Regional Water Quality Control Board
SPF	Spoils Pile F
Total DDTs	Sum of DDD, DDE, and DDT concentrations
USACE	U.S. Army Corps of Engineers

REPORT ADDENDUM to
Final Construction Report And Supplemental Construction Report For Building 41 Demolition And Soil Removal, Spoils Pile F Removal, And Revetments 6 And 7 Removal
HAMILTON ARMY AIRFIELD

1.0 INTRODUCTION

The former Hamilton Army Airfield (HAAF) in Novato, California (see Figure 1-1) has been owned and operated by various branches of the Department of Defense (DoD) from 1932 to September 30, 2003. The Army is responsible for environmental remediation at HAAF as the DoD owner of the property at the time of closure under the Base Realignment and Closure Act (BRAC) of 1988. The activities performed at HAAF by the Army since 1988 are intended to advance the environmental closure and transfer of the HAAF property. Remedial actions were conducted by Shaw Environmental, Incorporated, under contract to USACE, Sacramento District, at Building 41, Spoils Pile F, and Revetments 6 and 7 in 2002 to remove man-made features and soil with contamination above the established cleanup goals. The remedial actions included demolishing Building 41, excavating contaminated soil in the Building 41 area and the associated Perimeter Drainage Ditch (PDD), excavation of contaminated soil at the former Spoils Pile F, demolition and excavation of concrete revetments and associated contaminated soil and asphalt, and confirmation and waste characterization sampling and analysis as described in *Construction Report and Supplemental Construction Report for Building 41 Demolition and Soil Removal, Spoils Pile F Removal, and Revetments 6 and 7 Removal, Hamilton Army Airfield* (Shaw 2003).

The waste profiling samples from the above effort for Revetment 6 and 7 raised a question regarding mercury at these sites. It was also agreed between the Army and the regulatory agencies that several additional confirmation samples would be collected at the Building 41 area and the associated Perimeter Drainage Ditch (PDD) and at the Spoils Pile F sites. The confirmation samples would be analyzed for Total DDTs (defined as the sum of 4,4'-DDD, 4,4'-DDE, and 4,4'-DDT). An investigation was performed in November 2003 and January 2004 by the U.S. Army Corps of Engineers (USACE), Sacramento District, Environmental Design Section, Environmental Engineering Branch at these sites. The USACE conducted additional sampling and analysis to identify the extent of constituents of concern at these sites based upon sample results from the remedial actions. The site locations within HAAF are illustrated in Figure 1-2. The results of this sampling are presented as an addendum to the previous report so that all information on these sites will be in one document. The sampling was conducted in

accordance with the *Work Plan, Miscellaneous Site Investigations, Hamilton Army Airfield* (USACE 2004) and the Work Plan Addendum. The investigation was designed to collect the data necessary to determine if the soil at the sites contains residual contamination that requires further action. The decisions are based upon the agreements and action goals in the *Record of Decision/ Remedial Action Plan (ROD/RAP)* (Army, DTSC, RWQCB 2003) and the USFWS *Biological Opinion* (USFWS 2003).

This report presents a summary of the fieldwork, the results of the investigation, and conclusions.

2.0 SAMPLING STRATEGY AND ASSOCIATED FIELD ACTIVITIES

2.1 Building 41 for Total DDTs

Sampling and analysis was performed to determine if Total DDT concentrations exceed the ROD/RAP action goal. The Building 41 area will be excavated to allow for a planned future wetlands, and soil with Total DDTs greater than the action goal must be mitigated. Samples were collected along the length of the perimeter drainage ditch (PDD) near Building 41 and near the inflow from the PDD to the Building 41 sump as illustrated in Figure 2-1.

Eight (8) samples were collected with a Geoprobe direct push sampling rig from five locations at various depths and analyzed for Total DDTs by Method 8081A. Samples were collected along the PDD at 1.5 feet below the concrete liner. Others were collected at the surface and 7.5 to 8 feet below the ground surface at the Building 41 inlet. All samples were collected as specified in the work plan, except HAAF-B41PD-684-8.5FT. This sample was collected below the top of the groundwater aquifer, and represents a composite boring from 8.5 to 10 ft. All sediments consisted of silty clays.

2.2 Spoils Pile F for Total DDTs

Sampling and analysis was performed to determine if Total DDT concentrations exceed the ROD/RAP action goal. It was agreed to collect several additional confirmation samples along the eastern edge of the previous excavation and near a previous sample that had a Total DDT concentration above the removal action goal for that effort. The excavation was not backfilled following the removal activities. In accordance with the ROD/RAP, the Army must remove soil containing Total DDTs greater than 1 mg/kg. Soil greater than the action goal but less than 1 mg/kg must be mitigated prior to wetlands restoration. Figure 2-2 illustrates these additional sample locations along the perimeter.

Three samples were collected one foot below the original ground surface at the wall of the previous excavation (one foot lower in depth than specified in the work plan) and one surface sample was collected closer to the center, about 20 ft west of boring SPF-1400 (as specified in the work plan). All were analyzed for Total DDTs by Method 8081A. Sediments consisted of silty clays. All three samples collected along the wall of the previous excavation had results above the removal action goal.

Additional samples were collected above (0 ft) and below (2 ft) the three samples along the wall of the previous excavation. All samples at the surface had results above the ROD/RAP action goal. All samples at 2 feet had results below the removal action goal. Stepout surface samples were collected five feet east of the original borings along the wall of the previous excavation.

All three stepout samples had results above the removal action goal. Further stepouts to the east are limited by the presence of the levee and associated gravel road.

2.3 Revetments 6 and 7 for Mercury

Composite soil samples were collected from each excavation area within Revetments 6 and 7 to determine if mercury concentrations exceed the action goal. Mercury was detected above the cleanup goal in one of three waste characterization samples from Revetment 6 and one of two characterization samples from Revetment 7 during the remedial action. The Army had agreed to collect additional confirmation samples for mercury to ensure that soil with mercury above the action goal does not remain at the revetments. This sampling event fulfills that agreement. Figures 2-3a and 2-3b illustrate the sample locations.

Three composite samples were collected from 0 to 3 inches below ground surface (bgs) at each revetment and analyzed for mercury using Method 7471A. Each composite consisted of at least 4 discrete samples homogenized with a stainless steel spoon in a stainless steel bowl. All samples were collected as specified in the work plan. Sediments consisted of silty clays with scattered remnants of road base.

3.0 RESULTS

Analytical results are listed in Appendix A by site. Laboratory data packages are included in Appendix B.

3.1 Data Quality

The data were validated using the procedures specified in the Quality Assurance Project Plan section of the work plan. All data are considered usable to meet the project objectives. All estimated values in this dataset, designated with a "J" qualifier, are solely due to concentrations below the reporting limit, but above the detection limit, where accuracy is lower than required.

3.2 Building 41

Samples were analyzed for Total DDTs by Method 8081A. Data tables with all results are included in Appendix A and on Figure 2-1. Table 3-1 lists results that are greater than the action goal of 0.024 mg/kg. No results exceeded the 1.0 mg/kg concentration requiring excavation and off-site disposal.

Table 3-1. Building 41 Results Exceeding Action Goal

Sample Identification Number	Analyte	Concentration (mg/kg)
HAAF-B41PD-680	Total DDTs	0.27
HAAF-B41PD-682-8FT	Total DDTs	0.47
HAAF-B41PD-684-8.5FT	Total DDTs	0.71

3.3 Spoils Pile F

Samples were analyzed for Total DDTs by Method 8081A. All results are included in Appendix A and on Figure 2-2. Table 3-2 lists results that are greater than the action goal of 0.024 mg/kg. No results exceeded the 1.0 mg/kg concentration requiring excavation and off-site disposal.

Table 3-2. Spoils Pile F Total DDT Results Exceeding Action Goal

Boring ID	Depth (ft)	Sample Identification Number	Concentration (mg/kg)
SPF-1400	0	SPF-1400-0FT	0.027
	1	HAAF-SPF-701	0.12
SPF-1401	0	SPF-1401-0FT	0.29
	1	HAAF-SPF-702	0.21
SPF-1402	0	SPF-1402-0FT	0.26
	1	HAAF-SPF-703	0.1
SPF-1403	0	SPF-1403-0FT	0.038
SPF-1404	0	SPF-1404-0FT	0.32
SPF-1405	0	SPF-1405-0FT	0.45

3.3 Revetments 6 and 7

Composite samples were analyzed for mercury. All results are included in Appendix A and on Figures 2-3a and 2-3b. No results were greater than the associated action goal.

4.0 CONCLUSIONS

Conclusions were based upon the decision rules in the Data Quality Objectives section of the work plan. Both Building 41 and Spoils Pile F samples contained multiple samples with Total DDT concentrations that exceeded the action goal; however, no sample concentrations exceeded the concentration requiring excavation with off-site disposal.

Mercury concentrations from the composite samples within Revetments 6 and 7 excavations were all less than the action goal.

5.0 REFERENCES

Department of the Army (Army), California State Environmental Protection Agency, Department of Toxic Substances Control (DTSC), and San Francisco Bay Regional Water Quality Control Board (RWQCB) 2003. *Main Airfield Parcel Record of Decision/Remedial Action Plan, Hamilton Army Airfield*, Public Comment Final, August 2003.

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