Task Order 2
Enhanced Preliminary Assessment

FORT HOLABIRD
CRIME RECORDS CENTER
BALTIMORE, MARYLAND

Contract Number DAAA15-88-D-0007

January 1990

Prepared for
U.S. Army Toxic and Hazardous Materials Agency
Aberdeen Proving Ground, Maryland 21010-5401

Prepared by
Roy F. Weston, Inc.
West Chester, Pennsylvania 19380

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USATHAMA Task Order 2
ENHANCED PRELIMINARY ASSESSMENT REPORT
FORT HOLABIRD
CRIME RECORDS CENTER
CITY OF BALTIMORE, MARYLAND
Contract No. DAAA15-88-D-0007

January 1990

Prepared By:
Roy F. Weston, Inc.
Weston Way
West Chester, Pennsylvania 19380
An enhanced preliminary assessment was conducted at the Fort Holabird Crime Records Center (CRC), which is planned for inclusion in the Base Closure Program. The CRC property is one of the two remaining portions of the original Fort Holabird property, which was approximately 360 acres in size during World War II. The CRC consists of approximately 6 acres located within the Baltimore City limits and less than one mile from the Patapsco River. The three buildings on the CRC property apparently have been used for nonindustrial or maintenance activities such as classrooms, warehouses, offices, and a bowling alley. Currently, Building 305 is used as an office area and Building 306 as a storage area for files and office furniture. Building 307, however, is abandoned and deteriorated.

(Continued)
Based on information obtained during and subsequent to a site visit on 23 and 24 October 1989, nine Environmentally Significant Operations (ESOs) were identified: asbestos materials in buildings, drinking water fountains, storage tanks (300-gal. diesel fuel underground storage tank (UST), a new 4,000-gal. No. 2 fuel oil UST, and three former in-ground tanks), an electrical transformer, fill material in the parking area, a microfilm machine in Building 305, and a former incinerator.

Recommended actions for the site investigations of the nine ESOs include: sampling boiler and pipe insulation in Buildings 306 and 307 and the Transite wallboard and floor tiles in all three buildings; sampling all faucets that could potentially be used for drinking water; leak testing the 500-gal. diesel fuel UST; sampling transformer oil; collecting soil and groundwater samples from the unpaved portion of the parking lot; taking groundwater samples from the three monitoring wells around Building 305 to detect possible leakage of microfilm effluent from the sewer lines; and taking groundwater samples downgradient of the location of former Building 302 (former incinerator located in or near this building).

No additional action is needed for the three former in-ground tanks and the new 4,000-gal. No. 2 fuel oil UST. A series of monitoring wells was installed after the former tanks were removed. These wells are sampled periodically for petroleum hydrocarbons. Furthermore, the new tank is continuously monitored by a leak detection system.
This Enhanced Preliminary Assessment Report is based primarily on the environmental conditions observed at the Fort Holabird Crime Records Center property on 23 October and 24 October 1989. Past site conditions and management practices were evaluated, based on readily available records and the recollections of people interviewed. Every effort was made, within the budget for the task, to interview all identified site personnel, especially those personnel with a historical perspective of site operations.

No environmental sampling was conducted as part of the assessment. The findings and recommendations for further action are based on WESTON's experience and technical judgment, as well as current regulatory agency requirements. Future regulations as well as any modifications to current statutes may affect the compliance status of this site.

WESTON does not warrant or guarantee that the property is suitable for any particular purpose or certify any areas of the property as "clean." A more thorough investigation, including intrusive sampling and analysis for specific hazardous materials, is recommended prior to reporting this property as excess.
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EXECUTIVE SUMMARY

BACKGROUND AND OBJECTIVES

This Enhanced Preliminary Assessment (PA) report has been prepared by Roy F. Weston, Inc. (WESTON) at the request of the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) pursuant to Contract DAAA15-88-D-0007, Task Order 2. The purpose of the enhanced PA report is to present WESTON's findings and conclusions concerning the environmental conditions at the Fort Holabird Crime Records Center (CRC) located in Baltimore, Maryland, and to provide recommendations for further action.

The objectives of the enhanced PA were to:

- Identify and characterize environmentally significant operations (ESOs) associated with the historical and current use of the Fort Holabird CRC property.
- Identify and characterize possible impacts of the ESOs on the surrounding environment.
- Identify additional environmental actions, if any, that should be implemented for the ESOs identified.

Information contained in this enhanced PA report was obtained through:

- Visual inspection of the facility.
- Review of available information from the current property owner, the U.S. Army.
- Review of related regulatory agency files at the city, state, and federal levels.
- Interviews with available current and former personnel associated with the CRC and Fort Holabird.

ENVIRONMENTALLY SIGNIFICANT OPERATIONS

The Fort Holabird CRC property is one of two remaining portions of the original Fort Holabird property, which, during World War II, was approximately 360 acres in size. The CRC consists of approximately 6 acres located within the Baltimore city limits and less than one mile from the Patapsco River. The other portion, approximately 8 acres, is occupied by the Defense Investigative Service (DIS) and is not addressed in this report.

Although Fort Holabird was established in 1917, the CRC property was not acquired until 1941. From 1941 until 1975, the property was administrated by the Quartermaster Corps, the Signal Corps, and the Army Intelligence School. The CRC has managed the property since 1975. The three buildings...
on the CRC property apparently have been used for nonindustrial or maintenance activities such as classrooms, warehouses, offices, and a bowling alley.

Currently, the CRC uses one of the buildings (Building 305) as an office area. Another building (Building 306) is used to store files and old office furniture. The third building (Building 307) is abandoned and is in a deteriorated condition.

ESOs identified on the property include:

- Loose insulation that is probably asbestos on boilers and pipes in Buildings 306 and 307 and suspected asbestos wall boards and floor tiles in all three buildings.
- Possible contamination of potable water system. One of the water fountains was found to have high levels of copper and was shut off. The water from the other water fountain still has a metallic taste.
- Storage tanks. Three in-ground storage tanks that contained heating oil were removed after leaks were discovered in two of the tanks. A new 4,000-gal underground storage tank (UST) for heating oil was installed in 1989 to fuel the boiler in Building 305. A 500-gal UST containing diesel fuel has not been leak tested.
- Polychlorinated biphenyls (PCBs) in transformer oil. One pole-mounted transformer exists on the property and because of its age is suspected of containing PCBs. It has not been tested.
- Composition of fill material in the parking area is unknown.
- Microfilm machine that discharges effluent to the sanitary sewer. The sewer pipes may be cracked, allowing the effluent to leak into the soil.
- Former incinerator. An incinerator was reportedly used to burn paper. The location of ash disposal is unknown.

**HUMAN AND ENVIRONMENTAL RECEPTORS**

The CRC is located in a highly developed urban and industrial area in the City of Baltimore. Drainage is to the northeast to Colgate Creek and then to the Patapsco River, an inlet of the Chesapeake Bay. Parts of Colgate Creek, which is about 1,000 ft from the CRC, was designated as wetland areas in the Department of Interiors National Wetlands Inventory.

There are no nearby uses of ground or surface waters. Baltimore and its suburbs obtain water from outlying rivers; the water is pumped to reservoirs in the city. The closest reservoir is about 5 miles from the CRC.
known groundwater wells within 3 miles of the property. Workers and visitors to the CRC may be exposed to drinking water that contains high levels of metals.

Because the piping and boiler insulation in Buildings 306 and 307 is deteriorated and probably contains asbestos, workers and intruders may be exposed to airborne asbestos.

CONCLUSIONS AND RECOMMENDATIONS

The ESOs identified on the site should be further characterized through a program of sampling and analysis and other investigations, as described below.

Table ES-1 outlines recommended actions for the ESOs located on the CRC property. Figure ES-1 shows proposed sampling locations. Recommendations are discussed in the following subsections.

ASBESTOS MATERIALS IN BUILDINGS

Access to Buildings 306 and 307 should be immediately restricted. Signs warning of the possible presence of asbestos should be posted on the fenced area surrounding these buildings. In addition, the entrance to the boiler room should be locked and similar warning signs posted. Finally, entry to within the fenced area should be restricted to the warehouse activities in Building 306.

The boiler and pipe insulation in Buildings 306 and 307 should be sampled and, if necessary, removed or encapsulated. If friable asbestos is found in the portion of Building 306 used for warehouse activities, access to the entire building should be restricted prior to remediation. If a remediation activity is conducted, ambient air sampling for asbestos should be conducted to demonstrate the effectiveness of the remediation.

The Transite wallboard and the floor tiles in all three buildings should be sampled for asbestos. If asbestos is found, the decision to remove or encapsulate will depend on whether the material is in a friable form.

DRINKING WATER FOUNTAINS

All faucets that could potentially be used for drinking water should be sampled for metals and bacteria.

STORAGE TANKS

The only storage tank requiring additional action is the 500-gal diesel fuel tank servicing the electrical generator at Building 305. This tank should be leak tested. If a leak is found, the tank should be removed and the contaminated soil excavated.

No additional action is needed for the former in-ground tanks, which have been removed, or the new 4,000-gal UST. A series of monitoring wells was installed after the former tanks were removed, and these wells are sampled
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<th>Recommended Action</th>
<th>Number of Samples Recommended</th>
<th>Analysis</th>
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<td>Asbestos material in buildings</td>
<td>Suspected asbestos</td>
<td>Asbestos survey followed by removal and/or encapsulation as required. Ambient air sampling.</td>
<td>5 to 10 samples per building 1 to 3 per building</td>
<td>Asbestos identification by phase contrast microscopy (PCM)</td>
</tr>
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<td>Boiler/pipe insulation and loose material in boiler rooms of Bldgs 306 and 307</td>
<td>Suspected asbestos</td>
<td>Compositional testing.</td>
<td>2 from each building; total of 6</td>
<td>Asbestos identification by phase contrast microscopy (PCM)</td>
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<td>Transite exterior wall shingles and &quot;green&quot; floor tiles in Bldgs 305, 306, and 307</td>
<td>Suspected asbestos</td>
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<td>Drinking water fountains</td>
<td>Metals</td>
<td>Sample all faucets that could potentially be used for drinking water, if not already done.</td>
<td>5 to 10</td>
<td>Metals, bacteria</td>
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<td>Storage tanks</td>
<td>Petroleum hydrocarbons</td>
<td>No additional action needed. Continue current groundwater monitoring program.</td>
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<tr>
<td>Former in-ground storage tanks</td>
<td>Petroleum hydrocarbons</td>
<td>No additional action needed. Continue current monitoring program.</td>
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<td>4,000-gal underground storage tank</td>
<td>Petroleum hydrocarbons</td>
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<tr>
<td>500-gal underground storage tank</td>
<td>Petroleum hydrocarbons</td>
<td>Leak test tank; remove tank and contaminated soils if found to be leaking.</td>
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<td>Electrical transformer</td>
<td>PCBs in transformer oil</td>
<td>Sample transformer oil to determine if PCBs present, and if so, at what concentration.</td>
<td>1</td>
<td>PCBs</td>
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<td>Fill material in parking area</td>
<td>Leachable metals, organics</td>
<td>Dig 3 test pits at 1/3 points of parking area down to natural soils to examine fill material profile. Install two monitor wells. Locate one upgradient and one downgradient.</td>
<td>0 to 2 samples from each test pit based on materials found; total of 0 to 6</td>
<td>RCRA metals(^a), BNAs(^b), VOCs(^c)</td>
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\(^a\) RCRA metals, \(^b\) BNAs, \(^c\) VOCs
Table ES-1

ESOs Identified at the CRC Property and Recommendations for Further Action (continued)

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<th>Number of Samples Recommended</th>
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<td>Microfilm machine in Bldg 305</td>
<td>Silver</td>
<td>Sample existing monitoring wells installed for former in-ground storage tank.</td>
<td>0 to 2</td>
<td>RCRA metals&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>Former incinerator</td>
<td>Metals</td>
<td>Install groundwater monitoring well down-gradient of former Building 302.</td>
<td>1 to 2 samples</td>
<td>RCRA metals&lt;sup&gt;a&lt;/sup&gt;</td>
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<sup>a</sup>All metals defined pursuant to §261 of the Resource Conservation and Recovery Act (RCRA).

<sup>b</sup>BMAs = Base neutral acid extractable organic compounds.

<sup>c</sup>VOCs = Volatile organic compounds.

<sup>_</sup> = Not applicable.
ENVIRONMENTALLY SIGNIFICANT OPERATIONS

- Building with Asbestos-containing Materials
- Former In-ground Storage Tank
- Underground Storage Tank
- Electrical Transformer
- Other Environmentally Significant Operations
  1. Asbestos Materials in Buildings
  2. Drinking Water Fountains
  3. Former In-ground Storage Tank
  4. 4,000 Gallon Underground Storage Tank
  5. 500 Gallon Underground Storage Tank
  6. Electrical Transformer
  7. Fill Material in Parking Area
  8. Microfilm Machine (in Building 305)
  9. Former Incinerator

Figure ES-1
Property Information Composite

Compiled in 1989 from various sources provided by the U.S. Army Toxic and Hazardous Materials Agency

0 meters 60
0 feet 200
periodically. No hydrocarbon contamination has been detected in groundwater samples taken from these monitoring wells. The new tank is continuously monitored by a fluid detection system.

**ELECTRICAL TRANSFORMER**

The electrical transformer oil should be sampled and tested for PCBs.

**FILL MATERIAL IN PARKING AREA**

Three test pits should be dug approximately equally spaced in a line across the unpaved portion of the parking area. The test pits should be dug down to natural soil and the pit visually examined to determine the type of material used as fill. If the materials in the test pits appear to be contaminated, soil and groundwater samples should be collected and analyzed for RCRA metals, base neutral acid extractable organic compounds, and volatile organic compounds. Soil samples should be collected from the test pits and groundwater samples should be collected from two new monitoring wells, one upgradient and the other downgradient.

**MICROFILM MACHINE IN BUILDING 305**

Processing chemicals from the microfilm machine discharges into the sanitary sewer system that services the property. The sanitary sewer lateral discharges upgradient from the three monitoring wells (Nos. 1 through 3) that were installed near the former location of the Building 305 in-ground storage tank. These wells are suitably located to detect leakage of microfilm effluent from the sanitary sewer lines. Groundwater samples should be taken from the three monitoring wells and analyzed for metals identified by RCRA as primary pollutants. These samples are designated as GW on Figure ES-1 because they were taken from an existing monitoring well instead of a new monitoring well.

**FORMER INCINERATOR**

A groundwater monitoring well should be installed downgradient of the location of former Building 302. The soil discharged during the drilling process should be visually inspected for evidence of ash or other contaminants. The groundwater should be analyzed for RCRA metals.
Section 1
Introduction
SECTION 1

INTRODUCTION

1.1 BACKGROUND

Roy F. Weston, Inc. (WESTON) has been retained by the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) to conduct waste site characterizations of specific Department of Army properties under the authority of Contract DAAA15-88-D-0007, Task Order 2. This work is being performed within the scope of the U.S. Army Installation Restoration Program (IRP). As part of this contract, WESTON also has been asked to prepare enhanced preliminary assessment (PA) reports of selected properties destined to be included as part of the Base Closure Program. The purpose of these reports is to present WESTON's findings concerning the environmental conditions of the properties and to provide recommendations for further action. These recommendations will serve as a guide to the U.S. Army in prioritizing the activities required to report these properties as excess.

This report discusses the enhanced preliminary assessment of the Fort Holabird Crime Records Center (CRC) located in Baltimore, Maryland. WESTON conducted a site visit to the CRC property on 23 and 24 October 1989. The scope of the assessment was restricted to the current boundaries of the CRC property, an area of approximately 6 acres. Activities on the property occupied by the Defense Investigative Service (DIS), approximately 8 acres, was not included in this assessment.

1.2 OBJECTIVES

This enhanced PA report was prepared using existing information obtained from property records and interviews with available current and former personnel associated with this property. No sampling activities were completed as part of the assessment.

The objectives of the enhanced PA were as follows:

- Identify and characterize environmentally significant operations (ESOs) associated with the historical and current use of the Fort Holabird CRC property.
- Identify and characterize possible impacts of the ESOs on the surrounding environment.
- Identify additional environmental actions, if any, that should be implemented for the ESOs identified.

Certain issues have been excluded from consideration as ESOs for the purposes of this report. First, painted surfaces will not be identified as ESOs solely because there is a potential for their containing lead. Second, the
presence of radon gas in buildings will not be considered as an ESO. A radon survey of all buildings will be performed utilizing the guidelines set forth in the Army Radon Program.

1.3 PROCEDURES

The information contained in this enhanced PA is based on the following data-gathering activities:

- Visual inspection of the facility.
- Review of available Army information.
- Contact with the U.S. Environmental Protection Agency (EPA) Region III.
- Contact with the Maryland Department of the Environment (Air Management Administration, Water Management Administration, and Solid and Hazardous Waste Management Administration).
- Contact with the Maryland Department of Natural Resources (Wetlands Section and Forest, Park, and Wildlife Service).
- Contact with the City of Baltimore (Health Department and Water Department).
- Interviews with available current and former personnel associated with the CRC and Fort Holabird.

1.4 REPORT FORMAT

This enhanced PA report presents an evaluation of the relevant data for the CRC site.

Section 2 describes the property and the surrounding environment and land uses. Section 3 identifies and characterizes all environmentally significant operations related to known and suspected releases to the environment. The potential impact of these operations on the local environment and human receptors is discussed in Section 4. Section 5 summarizes the findings and conclusions, discusses the quality and reliability of the supporting information, identifies areas requiring further action, and suggests how such actions may be accomplished. Section 6 lists the pertinent materials reviewed and the persons who were interviewed. Photographs of the items that were investigated for this assessment are provided in Section 7. Supporting documentation is provided in Appendices A through G.

References are presented throughout this report, where appropriate, by means of a letter and number designation in brackets, as follows: 1 refers to direct interviews; T refers to telephone conversations; and R refers to reports or other written documents. The number following the letter refers to the specific item in the respective lists provided in Section 6.
Section 2
Property Characterization
Table 2-1

<table>
<thead>
<tr>
<th>Period</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919-1943</td>
<td>The Quartermaster Corps developed and tested military vehicles and trained vehicle drivers and maintenance personnel.</td>
</tr>
<tr>
<td>1943-1955</td>
<td>The Signal Corps used the fort as a depot and training facility and, after 1947, as a warehouse.</td>
</tr>
<tr>
<td>1955-mid 1970s</td>
<td>The Army Intelligence School used the facilities to train intelligence personnel.</td>
</tr>
<tr>
<td>1972-Present</td>
<td>The Defense Investigative Service has operated in Building 320.</td>
</tr>
<tr>
<td>1977-1979</td>
<td>Most of Fort Holabird was sold to the City of Baltimore to form an industrial park and a recreational area. The only properties remaining are the Crime Records Center and the Defense Investigative Service.</td>
</tr>
</tbody>
</table>
Table 2-2

History of the Crime Records Center

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941</td>
<td>The land on which the CRC is presently located was acquired by the Army.</td>
</tr>
<tr>
<td>1941-1970s</td>
<td>The buildings located on the present CRC property were used by the Quartermaster Corps, the Signal Corps, and the Army Intelligence School as classrooms, offices, and storage areas.</td>
</tr>
<tr>
<td>1975-Present</td>
<td>The Crime Records Center has operated in Building 305.</td>
</tr>
</tbody>
</table>
FIGURE 2-1
PROPERTY LOCATION


Scale
1:20,000

Feet
Meters

MARYLAND
Baltimore
W. VIRGINIA
Washington D.C.
FORT HOLABIRD

WASHINGTON D.C.
VIRGINIA

VIRGINIA

Historic property boundary

Fort Holabird
Crime Records Center

Wetland
100 Year Flood Plain
500 Year Flood Plain

Table 2-3

Property Information Summary

Name: Fort Holabird, Crime Records Center (CRC)

FFIS: MD-214020419

Property No.: 24727

Facility Address: U.S. Army Crime Records Center, 2301 Chesapeake Avenue, Baltimore, MD 21222

Location: The southeast corner of the City of Baltimore, approximately 4,000 ft from the Patapsco River; Northwest corner of Oak and Detroit Avenues, City of Baltimore, Maryland. (Rights of ingress and egress are along Van Deman Drive and South Road).

Commanding Officer: Wilbur Hardy, Director

Installation Coordinates: 39°16'N, 79°32'W


Mission: Provide information and maintain records for the U.S. Army Criminal Investigation Command (USACIDC).

Operations: Current operations include the receipt and storage of criminal records, the processing of information requests, and the development of a computerized database for criminal records. A project to microfilm all files is underway.

Care and Custody: The property is currently a Fort Meade subinstallation.
Figure 2-2
Site Plan
(with Storm Drainage)

Compiled in 1989 from various sources provided by the U.S. Army Toxic and Hazardous Materials Agency.
Building 307 became a Prisoner of War (POW) processing and records center after World War II, but was later converted to a bowling alley [T-5]. This building is now in poor condition and is not currently occupied. It has been gutted and usable non-structural components have been salvaged. Parts of the eastern and northern side walls also have been removed, exposing the interior to natural elements, and some vandalism has occurred. However, the structural conditions of a particular building is not within the scope or intent of this enhanced PA report. Therefore, the structural integrity of Building 307 is not an environmental concern.

The CRC operations were moved to their present location in Building 305 in 1965. The CRC uses Building 306 to store files, old furniture, and office equipment. The operations include the receipt and storage of Army criminal records, processing of information requests, and the development of a computerized database for criminal records. Older files are being microfilmed onsite [1-3, I-4].

### 2.3 PERMITTING STATUS

The following agencies were contacted regarding the status of permits for Fort Holabird:

- EPA Region III - no permits
- Maryland Department of the Environment (MDE) Air Management Administration - no permits
- Maryland MDE Water Management Administration - no permits
- Maryland MDE Hazardous and Solid Waste Management Administration - no permits
- Maryland Natural Resources Department Wetlands Section - no permits
- City of Baltimore Health Department, Bureau of Industrial Hygiene - no permits; some site information discussed in Section 3
- City of Baltimore Water Department, Water Engineering Division - no permits
- City of Baltimore Water Department, Wastewater Engineering Division - no permits

### 2.4 GENERAL ENVIRONMENTAL INFORMATION

#### 2.4.1 DEMOGRAPHICS AND LAND USE

The CRC property is located within the corporate limits of the City of Baltimore, which has one of the largest harbors in the nation. There are a wide variety of occupations and industries in the city. The leading industries include primary metals, transportation equipment, food and related products, apparel and related products, and fabricated metal products.
The CRC property is zoned M-3, which is an industrial use category designated for manufacturing and related activities (R-5). East and southeast of Fort Holabird lie the residential communities of Dundalk and St. Helena. The Baltimore Parks and Recreation area, known as Project Open Space, is located north of the fort, and Holabird Industrial Park is located west and southwest of the fort. A land use map is provided in Figure 2-3.

2.4.2 CLIMATE

The climate of Baltimore is determined by its proximity to the following features:

- Atlantic Ocean
- Chesapeake Bay
- Appalachian Mountains

Baltimore is located west of the Atlantic Ocean and east of the Appalachian Mountains in a region that is midway between the mild climates of the south and the cool climates of the north. The Chesapeake Bay forms part of the eastern boundary of the city. The Atlantic Ocean and Chesapeake Bay have a moderating effect on the climate. The Appalachian Mountains also moderate temperatures by warming cold arctic air as it descends the eastern slopes of the mountains. Baltimore's latitude places it near the average path of low pressure systems as they move east from the interior of the continent.

Figure 2-4 is a wind rose for Baltimore for the year 1988. The prevailing winds are from a westerly direction and show a slight seasonal variation; in the winter they come from a northwesterly direction; during the summer the prevailing winds are from a southwesterly direction. The normal annual prevailing direction is from the west. During 1988, west winds occurred most frequently with a secondary maximum of west-northwest winds.

Precipitation is evenly distributed throughout the year. Normal yearly precipitation is 41.84 in.; August is the wettest month with 4.62 in. February is the driest month with normal precipitation of 2.98 in. The majority of summer rainfall occurs as a result of showers and thundershowers. During the rest of the year, storm systems from the interior of the continent and coastal storms produce the majority of the precipitation. Coastal storms produce heavy rains during warm months and heavy snow or a mixture of rain and snow during the winter months. The average yearly snowfall is 21.6 in. The 24-hour maximum snowfall recorded was 22.8 in. during February 1983. The maximum monthly snowfall recorded was 33.1 in. during February 1979. Snow seldom remains on the ground for an extended period of time.

Temperatures generally remain between 0°F and 100°F and average 55.1°F annually. Temperatures above 100°F or below 0°F rarely occur. Temperatures vary (moderately) from season to season. The coldest month is January with a normal monthly temperature of 32.7°F, daily maximum of 41.0°F, and daily minimum of 24.3°F. Temperatures above 90°F occur on the average 30 days per year, although there have been occurrences of 50 days or more. During the summer months, episodes of high temperatures and high humidity add to the discomfort of the high temperatures.
Figure 2-3
Area Land Use

AREA LAND USE
I Industrial
C Commercial
RES Residential
REC Recreation (Zoned industrial)

U.S. Army
Base Closure Preliminary Assessment
Fort Holabird
Baltimore, MD  November 1999

Compiled in 1999 from various sources provided by the U.S. Army Corps and Northwest Interagency

0 meters 300
0 feet 1000

USATHAMA
U.S. Army Task and Emergency Assistance Agency

2-9
FIGURE 2-4 WIND ROSE
Hurricanes or low pressure systems with a tropical origin seldom affect Baltimore. Damage from tropical storm winds is rare, but damage has occurred from flooding associated with these storms. Tornadoes are not a common occurrence in Maryland. Coastal storms or "northeaster's" may produce high winds, heavy rain, snow, and coastal flooding. Thunderstorms may become severe and produce heavy rains, high winds, and hail, causing minor damage.

2.4.3 SURFACE WATER AND PHYSIOGRAPHY

The CRC is located on a peninsula between two inlets of the Chesapeake Bay, the Patapsco and Back Rivers. The land is gently rolling and the elevation within a mile of the site varies from sea level to 60 ft. The nearby area is completely urbanized, and there are no significant stands of trees. The closest major surface water is the Patapsco River, which is heavily used by marine traffic and has a great deal of heavy industry located on its banks.

No standing surface waters are located within the CRC property boundaries. All surface water drains north-northeast to Colgate Creek, approximately 1,000 ft to the north, either by direct surface runoff or conveyance through storm sewers. According to CRC personnel, a localized minor drainage problem currently exists west of Buildings 305, 306, and 307 that involves some ponding of rainwater due to partial clogging of the storm pipe adjacent to Building 307 [I-4]. Colgate Creek flows into the Patapsco River, which is an inlet of Chesapeake Bay.

2.4.4 SOILS

The area of the CRC has been mapped by the Soil Conservation Service as a complex of the Beltsville soil series and urban soils. This designation indicates that the site's natural soil profiles have been disturbed by earth moving activities but that a certain percentage of the natural soil profile can be found, typically buried under fill material.

The Beltsville soil has developed from stratified Coastal Plain sediments. In a typical natural profile, the Beltsville soil series is characterized by a restrictive zone in the soil profile occurring between 18 to 36 in. below the ground surface. This restriction in the soil profile causes slow water movement through the upper portion of the soil, creating a shallow perched water table and the ponding of water during the wetter times of the year. The soil textures of the Beltsville soil profile range from a silt loam to a gravelly sandy loam [R-6].

2.4.5 GEOLOGY/HYDROGEOLOGY

The surface in the area of the CRC property consists of a 10-ft thick layer of sediment, as described in Subsection 2.4.4. Below that is the Patapsco Formation, which is made up of sand, interbedded with layers of silty clay and predominantly made up of quartz, illite, and kaolinite. The Patapsco Formation is about 60 ft thick in the CRC area. The next layer is the Arundel Formation, which is clay, interbedded with lenses of sandy silt and has traces
of lignitic material. The clay minerals are predominantly kaolinite and illite. This formation is approximately 130 ft thick. The next layer above bedrock is the Patuxent Formation, which is made up of sand and gravel, interbedded with lenses of silty clay with quartz as the predominant mineral. The bedrock consists of a complex assemblage of schist, gneiss, and gabbro [R-6].

The principal groundwater aquifers in the CRC area are the Patapsco and Patuxent Formations. The Patapsco Formation is capable of yielding large quantities of water; however, it is brackish in the CRC area because of encroachment by seawater and is not used. The Patuxent Formation is the most important water-bearing formation in the Baltimore area. It is capable of yielding large quantities of water, and in the CRC area, is not brackish. These aquifers are separated by the Arundel clay formation.

Although there are several wells in the area that use water from the Patuxent Formation for industrial purposes, groundwater in the City of Baltimore or nearby suburbs is not used for drinking water. Municipal water is obtained from surface water north of the city [R-7].

Monitoring wells that were installed recently indicate that the depth to groundwater is generally less than 10 ft (Appendix F). The low elevation (15 to 20 ft) and the proximity to the Patapsco River contributes to the high water table.

2.4.6 FLORA AND FAUNA

The CRC and the surrounding properties consist primarily of paved surfaces with industrial and commercial uses, plus adjacent streets and highways. A limited number of ornamental trees and shrubs exist in this urban area. The flora and fauna species found at the site are typical of highly disturbed urban and industrial environments. No endangered species are known nor were any observed at the site. (See letter from Maryland Department of Natural Resources, Forest, Park, and Wildlife Service in Appendix A.)

2.4.7 SENSITIVE ENVIRONMENTS

The CRC plot does not contain any wetlands and is not in an established floodplain area. However, parts of Colgate Creek, which is approximately 1,000 ft from the CRC area, have been identified as wetland areas in the Department of Interiors National Wetlands Inventory [R-8]. Floodplains and wetlands are shown in Figure 2-1 [R-8, R-9].
Section 3
Environmentally Significant Operations
SECTION 3

ENVIRONMENTALLY SIGNIFICANT OPERATIONS

Environmentally significant operations (ESOs) on the CRC property include the following:

- Asbestos materials in buildings.
- Drinking water fountains.
- Former in-ground storage tanks.
- 4,000-gal underground storage tank.
- 500-gal underground storage tank.
- Electrical transformer.
- Fill material in parking area.
- Microfilm machine in Building 305.
- Former incinerator.

These ESOs are discussed in the following subsections. Figure 3-1 shows the location of all ESOs to the extent information is available.

3.1 ASBESTOS MATERIALS IN BUILDINGS

3.1.1 DESCRIPTION

Suspected asbestos insulation was observed on the boilers and their associated piping in the boiler rooms of Buildings 305, 306, and 307. These rooms are located in the northeast corner of each building. An asbestos survey was conducted under a contract let by the Fort Meade Facilities Engineering Department for Building 305 [1-4]. The survey indicated that the boiler insulation contained asbestos. The insulation has since been encapsulated (photo 6) by wrapping the pipes with a tape-type material (colored red); however, the suspected asbestos boiler insulation in Buildings 306 and 307 (photo 7) has not been encapsulated (nor have plans been made to do this). In addition, based on visual appearance, insulation on a boiler (found lying in the debris located inside the western portion of Building 307) and loose piping insulation (found on the floor of the boiler room in Building 307) are suspected of containing asbestos.

Some siding on the western and southern walls of Building 307 has been removed which has revealed a gray fiberboard that appears to be Transite, a material known to contain asbestos. Since Buildings 305 and 306 were built at the same time as Building 307 and appear of similar construction, they potentially contain the same material under their siding.

Suspected asbestos materials were also observed in the green-colored floor tile in Buildings 305, 306, and 307.
ENVIRONMENTALLY SIGNIFICANT OPERATIONS

- Building With Asbestos-containing Materials
- Former In-ground Storage Tank
- Underground Storage Tank
- Electrical Transformer
- Other Environmentally Significant Operations
  1. Asbestos Materials in Buildings
  2. Drinking Water Fountains
  3. Former In-ground Storage Tank
  4. 4,000 Gallon Underground Storage Tank
  5. 500 Gallon underground Storage Tank
  6. Electrical Transformer
  7. Fiberglass in Parking Area
  8. Microfilm Machine in Building 305
  9. Former Incinerator

Figure 3-1
Environmentally Significant Operations

Compiled in 1989 from various sources provided by the U.S. Army Toxic and Hazardous Materials Agency

U.S. Army
Base Closure Preliminary Assessment
Fort Holabird
Baltimore, MD - November 1989
3.1.2 KNOWN AND SUSPECTED RELEASES

In response to complaints from personnel working in the office area of the CRC, two asbestos surveys were conducted by the U.S. Army Medical Department at Fort Meade. The first survey was performed on 5 February 1987, when representative samples were taken from ceiling pipes and acoustic ceiling tiles. No asbestos-containing material was found on these pipes or on the surface area of acoustic ceiling tiles. The second survey was performed on 22 June 1988, when the air in the ventilation system of the CRC was sampled. Paper fibers were found, but not asbestos. The results of both surveys are in Appendix B.

Pipe insulation and insulation covering the boilers in both Buildings 306 and 307 are suspected of containing asbestos materials. The insulation in both locations and buildings is in a deteriorated and friable state. However, the exact quantity of asbestos that may have been released to the environment is unknown at this time. Based on visual appearance, it is likely that a release has occurred and is continuing to occur.

3.2 DRINKING WATER FOUNTAINS

3.2.1 DESCRIPTION

The drinking water fountain closest to the entrance to the CRC has been taken out of service and labeled "Do Not Drink." The city-supplied water to this fountain has been sampled and found to contain 0.506 ppm copper, which gives it a metallic taste [T-10]. The proposed primary drinking water standard for copper is 1.3 ppm [R-11]. Possible sources of copper contamination are corroded copper tubing in the tested water fountain, water supply lines servicing the building from the city owned water main, and copper tubing used to distribute the water supply throughout the building.

Due to complaints of a metallic taste in a new water fountain at the opposite side of the building, a water sample was taken from a faucet in the ladies restroom. The laboratory test result of the sample was 0.031 ppm copper. This would seem to indicate that the copper contamination was caused by the corroded copper tubing in the water fountain first causing complaints, but further testing will be required to substantiate this hypothesis.

The water samples from the drinking water fountain closest to the entrance to the CRC and the faucet in the ladies restroom were also tested for bacteria and found to contain none. Because the stomach upsets reported by the CRC personnel who drank from the fountain were more symptomatic of copper contamination, the water samples were not tested for lead.

City of Baltimore Consumer Complaint Investigation sheets for all water samples taken appear in Appendix C.

3.2.2 KNOWN AND SUSPECTED RELEASES

The concept of a release or spill is obviously not applicable to a potable water system. This water has been used as a drinking water source in the past and, despite warning signs, such use could be ongoing.
3.3 **FORMER IN-GROUND STORAGE TANKS**

3.3.1 DESCRIPTION

Three in-ground storage tanks were formerly located adjacent to each of the northeast corners of Buildings 305, 306, and 307. They stored No. 2 fuel oil that was used to fuel the boilers in each building. Each tank's capacity was 6,000-gal and its construction was single-walled steel [I-2]. One-third of each tank was buried underground in a cement vault, and the other two-thirds of each tank were contained aboveground by mortared brick sidewalls.

Because leakage was suspected from the in-ground storage tank located outside of Building 305, all three tanks were removed and disposed offsite in 1989. The excavation created by the removal of these tanks was backfilled with what appeared to be clean soil brought from offsite by the tank removal contractor. In addition, three monitoring wells (Nos. 1 through 3) were installed near the former location of the Building 305 tank and one monitoring well (No. 4) was installed between the eastern sides of Buildings 306 and 307. Boring logs for monitoring well numbers 1 through 3 are in Appendix D.

3.3.2 KNOWN AND SUSPECTED RELEASES

Reports on the observations recorded during tank removal have been issued by the inspector from the State of Maryland, Department of the Environment (Hazardous and Solid Waste Management Administration). The inspector was onsite when the in-ground tank near Building 305 was removed on 1 March 1989 and when the in-ground tanks near Buildings 306 and 307 were removed on 8 June 1989. (The tank removal reports are provided in Appendix E.)

During the tank removal at Building 305, the state inspector noted an oil residue floating on top of the water in the cement vault in which the tank was stored. Once the tank was removed, the inspector discovered that the tank had a small perforation in the side wall. To determine if any free petroleum product had escaped through the storm drainage system to Colgate Creek, the inspector checked the inlet and outlet structures of the storm drain system and Colgate Creek and found no visible evidence of oil contamination.

On 8 June 1989, the inspector observed a slight petroleum sheen on standing water in the excavation pit of the in-ground storage tank located near Building 306 and a visible perforation on the bottom of the tank. His inspection of the in-ground storage tank near Building 307 revealed neither a similar petroleum sheen on the standing water in its excavation pit nor a visible perforation of the tank.

Monitoring well reports on sampling performed on 24 November 1989 and 30 November 1989 for all three monitoring wells near Building 305 revealed no indication of detectable contamination at these locations by oil-related petroleum hydrocarbon constituents. These reports are provided in Appendix F.
3.4 4,000-GAL UNDERGROUND STORAGE TANK

3.4.1 DESCRIPTION

A newly installed (1989 construction), 4,000-gal underground storage tank (UST) is located just north of the northeastern corner of Building 305 (photo 8). This tank replaced the in-ground storage tank that was formerly located adjacent to the northeastern corner of this building. The new tank stores No. 2 fuel oil used to fuel the boiler in the building. In contrast to the three former in-ground storage tanks, this tank is double-walled steel, cathode protected, resin/tar-coated, and wrapped. Even though the new tank has passed a leak test, its annular space is currently monitored for leakage by a new fluid detection system. It has continuous automatic sensing equipment to detect liquid hydrocarbons or hydrocarbon vapors (photo 9). In addition, the new tank has three new monitoring wells, one on its western end and two on its eastern end, that can be used to manually sample groundwater.

3.4.2 KNOWN AND SUSPECTED RELEASES

There is no evidence of any present spills/leakage from the new tank. However, the location of this tank is in close proximity to the location of the former 6,000-gal in-ground storage tank that leaked an undetermined amount of fuel oil in the past. Nevertheless, no contamination has been detected from samples drawn from the monitoring wells nor from the continuous automatic sensing equipment.

3.5 500-GAL UNDERGROUND STORAGE TANK

3.5.1 DESCRIPTION

A 500-gal UST is located just east of Building 305 and contains diesel fuel to run an adjacent emergency electrical generator (photo 10). The tank is single-walled steel and 5 years old. It has three pipes, two vent pipes, and one fill pipe, that protrude above the ground. It is uncertain whether the UST has ever been leak tested.

3.5.2 KNOWN AND SUSPECTED RELEASES

There is no evidence of any past or present spills/leakage in this area; however, no monitoring system exists to verify this other than the monitoring wells associated with Building 305. In addition, no staining was observed around the three pipes that protrude above the ground.

3.6 ELECTRICAL TRANSFORMER

3.6.1 DESCRIPTION

There is only one electrical transformer at the CRC site. The transformer is Army owned and is located northeast of Building 305. Due to the age of the transformer, it may contain PCBs. Although the overall condition of the transformer is good, it is scheduled to be replaced by Fort Meade's Facilities Engineering and Maintenance Division.
3.6.2 KNOWN AND SUSPECTED RELEASES

There is no evidence of any past or present spills in this area. In addition, no transformer oil leaks or stains were observed on the pole or around its base.

3.7 FILL MATERIAL IN PARKING AREA

3.7.1 DESCRIPTION

Based on the topography of the parking area, the entire area appears to contain approximately 4 to 6 ft of fill. The composition of the fill material is unknown.

3.7.2 KNOWN AND SUSPECTED RELEASES

There is no evidence of any suspected releases to the environment. The concern of this ESO is simply that the composition of the material used as fill is unknown and that it would be prudent to investigate this unknown.

3.8 MICROFILM MACHINE IN BUILDING 305

3.8.1 DESCRIPTION

A microfilm machine (Bell & Howell Filmmaster II) is located in the southeastern corner of Building 305. It is used to make and develop microfilms of criminal record files. The washwater/effluent from film processing is reportedly discharged to the city sewer twice a month via the sewer lateral that services the building [1-5].

3.8.2 KNOWN AND SUSPECTED RELEASES

Approximately 8 gal per month of effluent is discharged from the microfilm machine. The effluent consists of an alkaline developer and a fixer that contains acetic acid. The principal effluent contaminant is the silver that is removed from the microfilm during processing [T-8].

The sewer lateral that services Building 305 is likely very old (probably original lateral) and as such may be cracked or broken. These laterals were commonly constructed of clay (Orangeburg) pipe, which is susceptible to breakage at its joints or along the pipe sections themselves due to loadings and/or differential settlement of bedding materials beneath them. Therefore, the potential exists for washwater/effluent to enter the subsurface media through the sewer lateral.

3.9 FORMER INCINERATOR

3.9.1 DESCRIPTION

An incinerator used to burn paper was formerly located on the cleared strip of land located east of Building 305 (photo 5) in or near former Building 302. The incinerator, along with another small building, was demolished in the early 1970s.
3.9.2 KNOWN AND SUSPECTED RELEASES

There is no evidence of any past or present spills in this area. However, ash from the former incinerator may be buried in the area and contain heavy metals that could leach into the subsurface media.

A complaint was filed with the Baltimore City Health Department in 1958 concerning the former incinerator [1-6]. According to a resident of Oak Street, the incinerator was emitting heavy smoke.
Section 4
Human and Environmental Receptors
SECTION 4

HUMAN AND ENVIRONMENTAL RECEPTORS

4.1 RELEASES TO GROUNDWATER

Although the area of the CRC property has a relatively shallow depth to groundwater, the migration of liquids is inhibited by the slow to very slow permeability of the Beltsville and urban soils. Additional factors exist that minimize the potential for any significant impacts to human or environmental receptors related to groundwater quality, as follows:

- No major sources of chemical contamination, other than petroleum products, have been found to be present on the CRC property throughout its known operating history.

- The majority of the site is and has been covered by impervious surfaces (roofs, paving, etc.) which act to discourage infiltration of rainwater and/or potential chemical constituents.

- The shallow (and deeper) groundwater beneath the CRC property specifically and the Fort Holabird area in general is not utilized for domestic water supply purposes (being potentially affected by salt water and other water quality interferences from harbor-related influences). The city's (and site's) water supply is drawn largely from headwater region reservoirs located adjacent to and outside of the city.

Some shallow groundwater may discharge to local surface water features in adjacent areas (i.e., Colgate Creek). However, this flow to the creeks/streams is greatly diluted by rainwater runoff from a large watershed area, and groundwater discharge from the CRC property area would not likely be a noticeable influence.

4.2 RELEASES TO SURFACE WATER AND SEDIMENTS

No known past or present surface water bodies (ponds, lakes, streams, creeks, etc.) are located on the CRC property. Onsite stormwater runoff is collected and conveyed by storm sewers and discharges directly to Colgate Creek to the north, enroute to the Patapsco River and Baltimore Harbor area.

No source of major surface water/sediment contamination via past or present site operations is indicated based on the data collected. No ongoing discharges were observed during the site inspection. Therefore, no significant adverse impacts to human or environmental receptors from surface water or sediment media is expected.
4.3 RELEASES TO SOILS

As previously mentioned, most of the CRC property is and has been covered by impervious surfaces throughout its operating history. As such, soil contamination directly beneath these areas is not believed to be of major concern. In addition, no substantial industrial-related operations that have involved the use of chemicals were found to have been present.

The only soil contamination on the CRC property that appears to be a potential concern is as follows:

- The parking area soils appear to be fill materials of unknown composition.
- The grass strip area (70 ft x 415 ft) adjacent easterly to Buildings 305, 306, and 307 (the location of former Building 302 that housed the incinerator) may contain residues or other materials. Based on the visual inspection performed, the area appears to be level, near natural grade, and able to support a good stand of vegetation. This area is mowed regularly and appears visually as a lawn area.
- The contaminated soils that were removed as part of the underground storage tank replacement were reportedly hauled offsite and disposed. The state inspector was present during this phase of the UST removal project and coordinated the removal of the contaminated soils and the placement of fill soils brought in from offsite. After the contaminated soil was removed, no analyses of the remaining soil were performed. It is possible, though unlikely, that residual contamination may remain.

4.4 AIR RELEASES

The deteriorating asbestos insulation described in Subsection 3.2.1 is a source of exposure to vandals, workers, visitors, and wildlife. This contaminant could adversely impact human and environmental receptors (depending on the asbestos concentration in ambient air in the breathing zones). In addition, the potential exists for exposure to asbestos contained in the Transite siding and floor tiles in Buildings 305, 306, and 307 if they are removed or damaged.
Conclusions and Recommendations
5.1 SUMMARY OF FINDINGS

The Crime Records Center (CRC) property is one of two tracts of ground remaining in Army ownership after excessing the majority of the Fort Holabird installation. This property is approximately 6 acres in size and currently consists of three buildings (305, 306, and 307) along with a parking area and internal driveway/roadway system. Two former structures, Buildings 302 (which housed an incinerator), and 308 (reportedly utilized by the post quartermaster) previously existed on this tract, but both were demolished and removed in the early 1970s.

Previous Army activities on this property have reportedly included operations related to the Signal Corps, the Intelligence Command, and various other training and administrative activities. The property is currently a subinstallation of Fort Meade, which is responsible for its security, maintenance, and environmental monitoring and compliance.

The only current activity on the property is that associated with the operation of the Army CRC. The mission of the CRC involves the receipt, storage, and formation of a computerized database of all Army records regarding criminal activity and the processing of related inquiries. Building 305 houses the personnel and equipment necessary to perform required duties in support of this mission. Building 306 serves as a warehouse for the storage of blank paper stock, copier powders, extra furniture, file cabinets, and miscellaneous office-related supplies. Building 307 is currently abandoned and is in a deteriorated condition.

The CRC property is located immediately adjacent to a residential area of the City of Baltimore (south and east), the previous Fort Holabird installation proper, now reconstructed and comprising the Holabird Industrial Park, a city park (north), and miscellaneous industrial complexes (west).

Colgate Creek is located north and west of the CRC property and flows into the Patapsco River, which ultimately discharges into the Chesapeake Bay. Site runoff flows primarily through storm sewers to this creek. No groundwater or surface water is known to be used in the area for domestic purposes. The City of Baltimore supplies drinking water and sewerage service to the CRC property for its employees and office-related operations.

No acute environmental problems are currently indicated relating to past or present site operations that affect either onsite or offsite areas. Two issues related to human health that are of concern are the presence of deteriorated friable asbestos insulation and building products that were used for construction of the buildings, and the apparently inferior drinking water quality from the fountains and faucets in Building 305 (related to high metals levels, particularly copper).
This enhanced PA also has identified other ESOs that are listed and discussed below. Recommendations regarding future sampling and testing are also presented.

It is emphasized to all users of this document that the work performed for this enhanced PA involved the investigation of only the CRC property site and not the other larger industrial-related areas of the previous Fort Holabird installation or the tract of land still owned by the Army (the DIS property).

5.1.1 ASBESTOS MATERIALS IN BUILDINGS

Exposed, dry and/or friable asbestos product is suspected of being present in the boiler and piping insulation in the boiler rooms of Buildings 306 and 307 (this insulation has been removed or encapsulated in the Building 305 boiler room), the Transite exterior wallboard of the three buildings, and the green floor tiles of all three buildings. Workers, visitors, and/or trespassers (as well as wildlife) may likely be exposed to these contaminants in ambient air.

5.1.2 DRINKING WATER FOUNTAINS

Many of the drinking water fountains inside Building 305 have been taken out of service or labeled "DO NOT DRINK" because of employee complaints of a metallic-like taste in the drinking water. High copper concentrations (as high as 0.503 ppm) were found, based on sampling and testing performed.

Deterioration in the building's copper water lines may be responsible for the metallic constituents in the drinking water.

5.1.3 STORAGE TANKS

Two underground storage tanks are known to exist onsite (one contains heating oil and one contains diesel fuel). The heating oil tank was recently installed (1989) to fuel the boiler in Building 305 and includes a fluid detection system. The diesel fuel tank is associated with an emergency electrical generator behind Building 305 and was installed approximately 5 years ago. No fluid detection system was found to exist for this tank.

In addition, three former in-ground heating oil storage tanks were used to supply fuel oil to the boilers in each building. These three tanks were removed in 1989 after a leak was detected in the tank supplying Building 305. Based on reports by the inspector from the State of Maryland, who witnessed the subsequent tank removal activities, an unknown amount of oil leaked from this tank (and also from the tank servicing Building 306). Stained soils were also excavated and disposed of as part of this operation.

The tank that supplied Building 307 was found to be intact and did not appear to have leaked, based on the records reviewed or interviews conducted for this enhanced PA.
5.1.4 ELECTRICAL TRANSFORMER

An electrical transformer is located on a utility pole outside of Building 305. It is not known if the transformer oil contains PCBs. Reportedly this transformer was scheduled for inspection, sampling, and testing in 1989; however, as of the date of the site inspection performed by WESTON (24 October 1989), this work had not been performed.

No evidence of leakage under the transformer was apparent as of the site inspection.

5.1.5 FILL MATERIAL IN PARKING AREA

Upon inspection of the partially paved parking area adjacent to the buildings, it was noted that this area appeared to be a constructed fill area (based on adjacent topography). The composition of the fill material is unknown.

5.1.6 MICROFILM MACHINE IN BUILDING 305

Microfilming operations are currently performed in Building 305 to inventory older records and allow for disposal of paper copies. A waste stream from this machine containing silver reportedly discharges its effluent to the city sewer system via the sewer lateral that services the building. This lateral is likely very old (probably the original lateral) and as such may be cracked or broken.

The microfilm machine effluent may be leaking to shallow groundwater. This effluent may or may not include hazardous constituents. The quantity of effluent is approximately 100 gal per year.

The microfilm machine is a Filmmaster II manufactured by Bell & Howell.

5.1.7 FORMER INCINERATOR

A Baltimore City Health Department report in 1958 identified an incinerator as being located in or near former Building 302. This incinerator was identified in the report as burning paper. It is not known over what time period the incinerator was operated or what was done with the ash. It was reported that Building 302 was destroyed in the 1970s.

5.2 RECOMMENDATIONS FOR FURTHER ACTIONS

The ESOs identified on the site should be further characterized through a program of sampling and analysis and other investigations described below.

Table 5-1 outlines recommended actions for the ESOs located on the CRC property. Figure 5-1 shows proposed sampling locations. Recommendations are discussed in the following subsections.
<table>
<thead>
<tr>
<th>ESOs</th>
<th>Contaminants of Concern</th>
<th>Recommended Action</th>
<th>Number of Samples Recommended</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos material in buildings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiler/pipe insulation and loose</td>
<td>Suspected asbestos</td>
<td>Asbestos survey followed by removal and/or encapsulation as required. Atmosphere</td>
<td>5 to 10 samples per</td>
<td>Asbestos identification by phase contrast</td>
</tr>
<tr>
<td>material in boiler rooms of Bldgs</td>
<td></td>
<td>and/or encapsulation as required. Ambient air sampling.</td>
<td>building</td>
<td>microscopy (PCM)</td>
</tr>
<tr>
<td>306 and 307</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transite exterior wall shingles</td>
<td>Suspected asbestos</td>
<td>Compositional testing.</td>
<td>2 from each building; total of</td>
<td>Asbestos identification by phase contrast</td>
</tr>
<tr>
<td>and &quot;green&quot; floor tiles in Bldgs</td>
<td></td>
<td></td>
<td>6</td>
<td>microscopy (PCM)</td>
</tr>
<tr>
<td>305, 306, and 307</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinking water fountains</td>
<td>Metals</td>
<td>Sample all faucets that could potentially be used for drinking water if not already</td>
<td>5 to 10</td>
<td>Metals, bacteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>done.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage tanks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former in-ground storage</td>
<td>Petroleum hydrocarbons</td>
<td>No additional action needed. Continue current groundwater monitoring program.</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>tanks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,000-gal underground</td>
<td>Petroleum hydrocarbons</td>
<td>No additional action needed. Continue current monitoring program.</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>storage tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500-gal underground storage</td>
<td>Petroleum hydrocarbons</td>
<td>Leak test tank; remove tank and contaminated soils if found to be leaking.</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical transformer</td>
<td>PCBs in transformer oil</td>
<td>Sample transformer oil to determine if PCBs present, and if so, at what concentration.</td>
<td>1</td>
<td>PCBs</td>
</tr>
<tr>
<td>Fill material in parking area</td>
<td>Leachable metals,</td>
<td>Dig 3 test pits at 1/3 points of parking area down to natural soils to examine fill</td>
<td>0 to 2 samples from each</td>
<td>RCRA metals(^a), BNAs(^b), VOCs(^c)</td>
</tr>
<tr>
<td></td>
<td>organics</td>
<td>material profile.</td>
<td>test pit based on materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>found; total of 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Install two monitor wells.</td>
<td>RCRA metals(^a), BNAs(^b), VOCs(^c)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Locate one upgradient and one downgradient.</td>
<td></td>
</tr>
</tbody>
</table>
Table 5-1

ESOs Identified at the CRC Property and Recommendations for Further Action
(continued)

<table>
<thead>
<tr>
<th>ESOs</th>
<th>Contaminants of Concern</th>
<th>Recommended Action</th>
<th>Number of Samples Recommended</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microfilm machine in Bldg 305</td>
<td>Silver</td>
<td>Sample existing monitoring wells installed for former in-ground storage tank.</td>
<td>0 to 2</td>
<td>RCRA metals&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Former incinerator</td>
<td>Metals</td>
<td>Install groundwater monitoring well down-gradient of former Building 302.</td>
<td>1 to 2 samples</td>
<td>RCRA metals&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup>All metals defined pursuant to § 261 of the Resource Conservation and Recovery Act (RCRA).

<sup>b</sup>BNA = Base neutral acids.

<sup>c</sup>VOCs = Volatile organic compounds.

--- = Not applicable.
Figure 5-1
Recommended Sampling Locations

Compiled in 1989 from various sources provided by the U.S. Army Toxic and Hazardous Materials Agency.
5.2.1 ASBESTOS MATERIALS IN BUILDINGS

Access to Buildings 306 and 307 should be immediately restricted. Signs warning of the possible presence of asbestos should be posted on the fenced area surrounding these buildings. In addition, the entrance to the boiler room should be locked and similar warning signs posted. Finally, entry to within the fenced area should be restricted to the warehouse activities in Building 306.

The boiler and pipe insulation in Buildings 306 and 307 should be sampled and, if necessary, removed or encapsulated. If friable asbestos is found in the portion of Building 306 used for warehouse activities, access to the entire building should be restricted prior to remediation. If a remediation activity is conducted, ambient air sampling should be conducted to demonstrate the effectiveness of the remediation.

The Transite wallboard and the floor tiles in all three buildings should be sampled for asbestos. If asbestos is found, the decision on whether to remove or encapsulate will depend on whether the material is in a friable form.

5.2.2 DRINKING WATER FOUNTAINS

All faucets that could potentially be used for drinking water should be sampled for metals and bacteria.

5.2.3 STORAGE TANKS

The only storage tank requiring additional action is the 500-gal diesel fuel tank servicing the electrical generator at Building 305. This tank should be leak tested. If a leak is found, the tank should be removed and the contaminated soil excavated.

No additional action is needed for the former in-ground tanks which have been removed or the new 4,000-gal UST. A series of monitoring wells was installed after the former tanks were removed, and these wells are sampled periodically. No hydrocarbon contamination has been detected in groundwater samples taken from these monitoring wells. The new tank is continuously monitored by a fluid detection system.

5.2.4 ELECTRICAL TRANSFORMER

The electrical transformer oil should be sampled and tested for PCBs.

5.2.5 FILL MATERIAL IN PARKING AREA

Three test pits should be dug approximately equally, spaced in a line across the unpaved portion of the parking area. The test pits should be dug down to natural soil and the pit visually examined to determine the type of material used as fill. If the materials in the test pits appear to be contaminated, soil and groundwater samples should be collected and analyzed for RCRA metals, base neutral acid extractable organic compounds, and volatile organic compounds. Soil samples should be collected from the test pits and groundwater samples collected from two new monitoring wells, one upgradient and the other downgradient.
5.2.6 MICROFILM MACHINE IN BUILDING 305

Processing chemicals from the microfilm machine discharges into the sanitary sewer system that services the property. The sanitary sewer lateral discharges upgradient from the three monitoring wells (Nos. 1 through 3) that were installed near the former location of the Building 305 in-ground storage tank. These wells are suitably located to detect leakage of microfilm effluent from the sanitary sewer lines. Groundwater samples should be taken from the three monitoring wells and analyzed for metals identified by RCRA as primary pollutants. These samples are designated as GW on Figure 5-1 because they were taken from an existing monitoring well instead of a new monitoring well.

5.2.7 FORMER INCINERATOR

A groundwater monitoring well should be installed downgradient of the location of former Building 302. The soil discharged during the drilling process should be visually inspected for evidence of ash or other contaminants. The groundwater should be analyzed for RCRA metals.
Section 6
References
## SECTION 6

### REFERENCES

#### 6.1 DIRECT INTERVIEWS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Name and Title</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-1</td>
<td>Property Officer</td>
<td>Fort Meade, Maryland</td>
<td>23 October 1989</td>
</tr>
<tr>
<td>I-2</td>
<td>Acting Chief, Environmental &amp; Energy Control Office</td>
<td>Fort Meade, Maryland</td>
<td>23 October 1989</td>
</tr>
<tr>
<td>I-3</td>
<td>Facilities Manager, Crime Records Center</td>
<td>Baltimore, Maryland</td>
<td>23 October 1989</td>
</tr>
<tr>
<td>I-4</td>
<td>Director, Crime Records Center</td>
<td>Baltimore, Maryland</td>
<td>24 October 1989</td>
</tr>
<tr>
<td>I-5</td>
<td>Supervisor, Criminal Investigation, Crime Records Center</td>
<td>Baltimore, Maryland</td>
<td>24 October 1989</td>
</tr>
<tr>
<td>I-6</td>
<td>City of Baltimore Health Department</td>
<td>Bureau of Industrial Hygiene</td>
<td>8 November 1989</td>
</tr>
<tr>
<td>I-7</td>
<td>Records Supervisor, Crime Records Center</td>
<td>Baltimore, Maryland</td>
<td>8 November 1989</td>
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</table>

#### 6.2 TELEPHONE INTERVIEWS

<table>
<thead>
<tr>
<th>Reference</th>
<th>Name and Title</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-1</td>
<td>Maryland Department of the Environment</td>
<td>Hazardous &amp; Solid Waste Management Administration</td>
<td>10 October 1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltimore, Maryland</td>
<td></td>
</tr>
<tr>
<td>T-2</td>
<td>Maryland Department of the Environment</td>
<td>Water Management Administration</td>
<td>10 October 1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltimore, Maryland</td>
<td></td>
</tr>
<tr>
<td>T-3</td>
<td>Maryland Department of the Environment</td>
<td>Air Management Administration</td>
<td>10 October 1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltimore, Maryland</td>
<td></td>
</tr>
<tr>
<td>T-4</td>
<td>City of Baltimore Water Department</td>
<td>Wastewater Engineering Division</td>
<td>18 October 1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltimore, Maryland</td>
<td></td>
</tr>
<tr>
<td>T-5</td>
<td>Former Employee of Crime Records Center</td>
<td></td>
<td>24 October 1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltimore, Maryland</td>
<td></td>
</tr>
</tbody>
</table>
T-6 Former Employee of Crime Records Center  
Baltimore, Maryland  
24 October 1989

T-7 Chief, Industrial Hygiene  
Fort Meade, Maryland  
27 October 1989

T-8 Bell & Howell Regional Office  
Arlington, Virginia  
20 November 1989

T-9 Maintenance Supervisor  
Fort Meade, Maryland  
5 December 1989

T-10 Sanitarian II  
City of Baltimore Health Department  
Environmental Health  
Baltimore, Maryland  
6 December 1989

6.3 REPORTS AND OTHER DOCUMENTS

R-1 Fort Holabird Real Estate Map, War Department Construction Division,  

R-2 "Survey Report of Executive Order 12512. Survey for Fort Holabird,  
Baltimore, Maryland." General Services Administration Inventory  

R-3 "Student Guide," U.S. Army Intelligence School, Fort Holabird,  
Maryland, December 1963.

R-4 Bruce McDonald, "Installation Assessment, Army Base Closure  
Program, Fort Holabird - Interim Report." Environmental Photographic  
Interpretation Center, TS-PIC-89334K, August 1989.

R-5 Zoning District Map of Baltimore City, Sheet No. 80, 1983.

R-6 Maryland Geological Survey Report of Investigations No. 43  
"Hydrogeology, Digital Solute-Transport Simulation, and Geochemistry  
of the Lower Cretaceous Aquifer System Near Baltimore, Maryland."  

R-7 Hydraulic Diagram of the Baltimore Water Supply and Distribution  

R-8 National Wetlands Inventory Maps, Baltimore East and Curtis Bay  

R-9 Flood Insurance Rate Map, City of Baltimore, Maryland. Community  

R-10 U.S. Department of Agriculture, Advance copy of Soil Survey for  


1079M2-5
Section 7
Photographs
SECTION 7

PHOTOGRAPHS

This section contains copies of photographs of ESOs taken during WESTON's site visit.
1. FORT HOLABIRD: CRIME RECORDS CENTER AERIAL PHOTOGRAPH TAKEN 1985
2. BUILDING 305

3. BUILDING 306
4. BUILDING 307

5. SITE OF FORMER INCINERATOR
6. ENCAPSULATED INSULATION
7. INSULATION - BUILDING 306
8. NEW UST LOCATION

9. FLUID DETECTION SYSTEM CONTROLS
10. EMERGENCY GENERATOR AND UST
11. TRANSFORMER
12. INTERIOR OF BUILDING 307
Appendices
APPENDIX A

LETTERS FROM AGENCIES
(as received)
October 31, 1989

Richard Shimko, P.E.
Weston Consultants
Weston Way
West Chester, Pennsylvania 19380

RE: FIA Request #89-58W
Ft. Holabird

Dear Mr. Shimko:

This is in response to your October 11th letter regarding the above referenced facility.

Please be advised that the Water Management Administration has no records in our files regarding this site.

Sincerely,

Merrylin Zaw-Mon, Deputy Director
Water Management Administration

MZM/shf
DATE REQUEST RECEIVED: September 25, 1989
REQUEST ID NUMBER: 3 RIN-2618-89
(ESTIMATED) COST: N/A
CERCLIS PRINTOUT OF: Federal Facilities

Dear Bone:

Information is provided to you in response to your Freedom of Information request. The enclosed is a printout of known, alleged, or potential hazardous waste sites listed in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS).

It should be noted that the CERCLIS system contains only those potential hazardous waste sites that have been brought to the attention of the Environmental Protection Agency prior to the last update. We cannot claim that it contains all the potential hazardous waste sites that exist. Therefore, although a certain property or area is not currently listed in CERCLIS, this is not a guarantee that a hazardous waste problem does not exist.

There is no information available concerning Emergency Response Action, Spills, or Releases.

RCRA Enforcement Branch has no information. The States may have information available by contacting the following:

Ms. Cynthia V. Bailey, Executive Director
Department of Waste Mgmt.
Monroe Bldg, 11th Floor
101 N. 14th Street
Richmond, VA 23219
Ronald Nelson, Director
MD Hazardous & Solid Waste
Management Administration
MD Dept. of the Environment
2500 Broening Highway
Baltimore MD 21224

If you have any questions, please contact Mr. Cornelius F. Carr of this office at (215) 597-4966.

Sincerely,

Christopher B. Pillia, Section Chief
PRP Search Section
Superfund Branch

Enclosure
Mr. Richard Shimko  
WESTON WAY  
West Chester, PA  19380

RE: Fort Holabird EA, Baltimore City.

Dear Mr. Shimko:

This is in response to your request for information regarding the above referenced project. There are no known Federal or State threatened or endangered plant or wildlife species present at this project site. However, our Maryland Natural Heritage Program database contains records for the following rare species within the mapped area of interest in the vicinity of Fort Holabird:

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Status</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ixobrychus exilis</td>
<td>In Need of Conservation/ State Rare</td>
<td>Northeast Creek</td>
</tr>
<tr>
<td>(Least Bittern)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sterna antillarum</td>
<td>In Need of Conservation/ Highly State Rare</td>
<td>Back River Sewage Plant</td>
</tr>
<tr>
<td>(Least Tern)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You may contact Judy Harding at (301) 974-2870 if technical assistance is needed.

The open water areas in the Patapsco River have been identified as a Historic Waterfowl Staging and Concentration Area. Certain new water-dependent facilities may not be situated in these areas in order to prevent disturbances to the Waterfowl Staging and Concentration Area.

Telephone: ____________________  
DNR TTY for Deaf: 301-974-3683
There is a known Colonial Waterbird Nesting Site located on Soller's Point. This nesting site must be protected from disturbances resulting from the proposed project.

Please contact Peter Bendel at (301) 827-8612 if you have any questions regarding this matter.

And finally, the following items are brought to your attention:

- Several wetlands are present around Colgate Creek. A minimum 25 ft. wide buffer is required around the wetlands, and a minimum 100 ft. wide buffer is required along Colgate Creek (tidal influence).

- Baltimore City has proposed a habitat protection area along Colgate Creek for habitat of local significance.

If you have any questions regarding this matter please call Chris Stuhlinger our Bay Watershed Forester for Baltimore City at (301) 665-5820.

Sincerely,

James Burtis, Jr.
Director, Planning and Program Development

cc: Robert Miller
    Lynn Davidson
    Jeff Horan
    Peter Bendel
    Judy Harding
    Chris Stuhling
    ER# 89.11.703
APPENDIX B

ASBESTOS TESTING IN BUILDING 305
CRC
(as received)
For use of this form see USAHA Ti 141; the proponent is NSHB-LC.

Return Address (complete address including Zip Code)
USA MEDDAC
Ft. Meade, MD 20755-5300

Point of Contact (name/phone)
Shirley Chapman/AV 923-3466

Sampled Installation
Ft. Holabird, MD

Samples Collected By
Chapman

Date Collected
22 Jun 88

Date Shipped
29 Jun 88

Description of Operation
Ventilation System

Location (Building/Area)
Bldg 305/Files Office

Associated Complaints (be specific)

Associated Air Samples

If yes, list sample numbers

Yes

Label Information

Trade Name

NSR

Manufacturer

Address

N/A

MSDS Attached

Yes

Analysis Desired

300+ (?) Dust (?)

Lab Use Only

Sample No.

Constituents

Results

Remarks

Comments to Lab:

Lab Use Only

Analyst (initials)

Reviewed by (initials)

Date Received

Date Reported

Procedures Performed

Comments:

ALHA Form 8, 1 Oct 84

Replaces ALHA Form 8, 1 Oct 80 which is obsolete.
Subject: USA Crime Records Center Asbestos Survey

Director
USA Crime Records Center
2301 Chesapeake Avenue
Baltimore, MD 21222

1. Reference:
   b. TB MED 503, February 1985, Army Industrial Hygiene Program.

2. An asbestos survey was performed on 5 February 1987 in the USA Crime Records Center, Fort Holabird.

3. The survey was performed in response to complaints from personnel working in the office area of the Records Center.

4. Representative samples were taken from the ceiling pipes in this facility (Enclosure 1). No asbestos-bearing material was found on pipes or on surface area of acoustic ceiling tiles.

For the Commander:

Betty J. Taylor
CPT, MS
Chief, Administrative Services Branch

Encl
<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>AMM</th>
<th>OTHER FIBROUS MATERIAL %</th>
<th>NON-FIBROUS MATERIAL %</th>
<th>PHYSICAL APPEARANCE OR LOCATION</th>
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<tr>
<td>58-4272-1</td>
<td>870331</td>
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Office area ceiling

**COMMENT:** P = ASBESTOS PRESENT  
N = ASBESTOS NOT OBSERVED
APPENDIX C

CITY OF BALTIMORE CONSUMER COMPLAINT
INVESTIGATION SHEETS
(as received)
I. COMPLAINT INFORMATION

Name: Dept. of Army  Date & Time: 10/16/89 1:35
Address: 2301 Cheyenne Ave  By Whom: A. Daphile  961
Phone: 234-9290  Date To Be Sampled: 10/16/89
Nature of Complaint:  Water line has a break in it!

II. FIELD INFORMATION

Cl2 (free)  Temp (°F)  Sample Source:  Gal  Cop  PVC
Tsd:  Type of Plumbing:  ( ) ( ) ( )
Date & Time: 10/16/89  Age of Facility: 3 yrs  Field pH: 7.4
Remarks:  Collector: A. Daphile  Sample iced?:  Yes ( ) No ( )
Preservative used:  Thymol
Sample type:  Grab ( ) Composite ( ) Other ( )

III. LABORATORY ANALYSIS

( ) MF  ( ) pH  ( ) NH3N
( ) MPN  ( ) Alk'ly  ( ) NO3N
( ) Taste  ( ) TDS  ( ) PO4
( ) Odor  ( ) F-  ( ) Cl-
( ) Turb.  ( ) Fe  ( ) EDTA
( ) Color  ( ) Cu  ( ) SO4
( ) SPC  ( ) Pb  (other)
( ) Micro Exam  ( ) Mn

Remarks

Results reported to:  Date  Time
Actions Taken:  C-1
Flush Request?  Date:  Analyst:
I. COMPLAINT INFORMATION

Name: Ben Worley
Dept of Army Crime: Police
Date & Time: 10/10/89
Address: 2301 Chesapeake Ave
By Whom: X-L.C.
Phone: 239-9290
Date To Be Sampled: 10/11/89
Nature of Complaint: Illness caused by drinking water.

II. FIELD INFORMATION

Sample Source: Gal Cop PVC
Type of Plumbing: (Gal Cop PVC)
Date & Time: 10/11/89 2:10/9:19
Age of Facility: 25 yrs
Field pH: 7.4
Remarks: Collector: O. Delany
Sample iced?: Yes

preservative used:
Sample type: Grab (X) Composite ( ) Other ( )

III. LABORATORY ANALYSIS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Value</th>
<th>Value</th>
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<td>pH</td>
<td>7.6</td>
<td>7.5</td>
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<tr>
<td>Alk</td>
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<td>TDS</td>
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<td>Fe</td>
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<td>Cu</td>
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<td>NO2</td>
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<td>PO4</td>
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<tr>
<td>SO4</td>
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<td></td>
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<tr>
<td>(other)</td>
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Remarks: Fountain has corroded copper taking.

Results reported to: __________________ Date ______ Time ______
Actions Taken: C-2
Flush Request? Date: ______ Analyst: ______
APPENDIX D

BORING LOGS FOR MONITORING WELLS
(as received)
### BORING LOG

**Well No.** 1  
**Date Drilled** 6/12/89  
**Location** Crim. Invest. Comm., Bldg. #305 Oak & Detroit, Dundalk, MD.  
**Owner** C.W. Over Construction  
**Address** Jarrettsville, MD (drilled for)  
**Permit No.** BC-88-0420  

<table>
<thead>
<tr>
<th>Date Drilled</th>
<th>County</th>
<th>City</th>
<th>Use</th>
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<tbody>
<tr>
<td>6/12/89</td>
<td>Baltimore</td>
<td>City</td>
<td>Monitor</td>
</tr>
</tbody>
</table>

**Drilling Method** auger  
**Sampling Method** cuttings  
**Total Depth** 20' 6"  
**Casing:**  
- **Type** PVC Schedule 40  
- **Diameter** 4"  
- **Length** 2' 2"  
**Screen:**  
- **Type** PVC Schedule 40  
- **Slot** 20  
- **Diameter** 4"  
- **Length** 17' 10"  
**Gravel Pack Size** #1  
**Casing Seal** bentonite  
**Static Water Level** Geologic Formation

<table>
<thead>
<tr>
<th>Depth Below Surface</th>
<th>Sample Number</th>
<th>Blows Per 6&quot; on Sampler</th>
<th>Well Design</th>
<th>Identification of Soils/Remarks</th>
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<tbody>
<tr>
<td>10'</td>
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</tr>
<tr>
<td>20'</td>
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<tr>
<td>30'</td>
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Logged by: W. Mandell  
D-1
**BORING LOG**

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<th>Date Drilled</th>
<th>Application No.</th>
<th>County</th>
<th>Permit No.</th>
<th>Use monitor</th>
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<tbody>
<tr>
<td>6/12/89</td>
<td></td>
<td>Baltimore City</td>
<td>BC-88-0421</td>
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<table>
<thead>
<tr>
<th>Location</th>
<th>Address</th>
<th>Owner</th>
<th>Site Monitor</th>
<th>Building Number</th>
</tr>
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<tbody>
<tr>
<td>Crim. Invest. Comm.</td>
<td>305 Oak &amp; Detroit, Dundalk, MD.</td>
<td>C.W. Over Construction</td>
<td></td>
<td>305 #305 Oak &amp; Detroit, Dundalk, MD.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Drilling Method</th>
<th>Sampling Method</th>
<th>Total Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>auger</td>
<td>cuttings</td>
<td>20'6&quot;</td>
</tr>
</tbody>
</table>

**Casing:**

- **Type:** PVC Schedule 40
- **Diameter:** 4"  Length 2'1"
- **Screen:**
  - **Type:** PVC Schedule 40
  - **Slot:** 20
  - **Diameter:** 4"  Length 17'11"

**Gravel Pack Size:** #1

**Casing Seal:** bentonite

**Hole Diameter:** 6"

**Geologic Formation**

<table>
<thead>
<tr>
<th>Depth Below Surface</th>
<th>SAMPLE NUMBER</th>
<th>BLOWS PER 6&quot; ON SAMPLER</th>
<th>WELL DESIGN</th>
<th>IDENTIFICATION OF SOILS/REMARKS</th>
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<tbody>
<tr>
<td>0'0&quot;</td>
<td></td>
<td></td>
<td>Casing</td>
<td>0'0&quot;-0'3&quot; Asphalt</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0'3&quot;-2'4&quot; Black SAND &amp; GRAVEL</td>
</tr>
<tr>
<td>10'</td>
<td></td>
<td></td>
<td></td>
<td>2'4&quot;-4' Tan sandy CLAY</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>4'7'-6&quot; Tan CLAY</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>7'6&quot;-9'6&quot; Tan sandy CLAY</td>
</tr>
<tr>
<td>20'</td>
<td></td>
<td></td>
<td>Well Screen</td>
<td>9'6&quot;-19' Brown CLAY</td>
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<tr>
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<td></td>
<td>19'-20'6&quot; Silty CLAY (liquid)</td>
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<td>NOTE: odor at 0'3&quot;-2'4&quot;</td>
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</table>

Logged by: W. Mandell

D-2
## BORING LOG

**Well No.** 3  
**Application No.**  
**Permit No.** BC-88-0422  
**Date Drilled** 6/12/89  
**County** Baltimore City  
**Location** Crim. Invest. Comm., Bldg. #305 Oak & Detroit, Dundalk, MD.  
**Owner** C.W. Over Construction  
**Address** Jarrettsville, MD (drilled for)  
**Drilling Method** auger  
**Sampling Method** cuttings  
**Hole Diameter** 6"  
**Total Depth** 20'6"  

### Casing:
- **Type** PVC Schedule 40  
- **Diameter** 4"  
- **Length** 2'2"  

### Screen:
- **Type** PVC Schedule 40  
- **Slot** 20  
- **Diameter** 4"  
- **Length** 17'10"  

**Gravel Pack Size** #1  
**Casing Seal** bentonite  

### Geologic Formation

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>SAMPLE NUMBER</th>
<th>BLOWS PER 6&quot; ON SAMPLER</th>
<th>WELL DESIGN</th>
<th>IDENTIFICATION OF SOILS/REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0'-0'4&quot;</td>
<td></td>
<td></td>
<td>Casing</td>
<td>Asphalt</td>
</tr>
<tr>
<td>0'4&quot;-2'</td>
<td></td>
<td></td>
<td>Casing</td>
<td>Black tan SAND &amp; GRAVEL</td>
</tr>
<tr>
<td>2'-4'</td>
<td></td>
<td></td>
<td>Casing</td>
<td>Gray tan SAND &amp; CLAY</td>
</tr>
<tr>
<td>4'-20'6&quot;</td>
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<td></td>
<td>Well Screen</td>
<td>Tan CLAY</td>
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<tr>
<td>30'</td>
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</tbody>
</table>

Logged by: W. Mandell  
D-3
APPENDIX E

TANK REMOVAL REPORTS
(as received)
State of Maryland
Department of the Environment
Hazardous and Solid Waste Management Administration
201 West Preston Street, Baltimore, Maryland 21201

Report of Observations

Type of Inspection/Observations: PVC Test Failure/UST Removal

Facility Name: 

Remarks:

- Initials were missed on 12/1/01 receiving a message from report writer (VCH-01-021) indicating the PVC test failure is OK. A test at 2:55 FT. Raw sewage intake pipe. Upon arrival, the inspector met with Charles Comett (FLD Engr) and enquired about contaminant control. The company says the 557-824B. The following observations were made within inspection of site:

  - Amount of spill and inspection of UST found was performed.
  - UST found (Urine) in adjacent wells, containing 3/4's of UST-Ring.
  - Leaks were present in cement wall,另有 another UST at 2:55 FT.
  - Presence of urine (Urine) found in cement area of raw sewage.

- Inspection of the spill found in spill area and area of UST found was noted.

- Inspected will issue an NNAME. Requesting the installation of a new pitfall. Inquire Wells noted will be notified to:

  - DEH
  - CERTIFICATE MANAGEMENT
  - FORT MULDE
  - MD 21075

Time (HR):

Note: Call over company to site around fifteen minutes past time. Field work will be continued to perform future work. (UST pipe is fixed, pitfall uncleared can be (NNAME)-out.

Observer:

Person Interviewed:

E-1
State of Maryland
Department of the Environment
Hazardous and Solid Waste Management Administration
201 West Preston Street, Baltimore, Maryland 21201

Report of Observations

Inspection/Observations: UST REMOVAL

City Name: FORT HOUSHAB BLDG # 306 + 307

Date 6/3/87

Remarks:

INSPECTOR STopped AT ABOVE LOCATION TO OBSERVE REMOVAL OF TWO ULT HEATING OIL UST's. C.W. OIL ON SITE REMOVAL TANKS.

EXAMINATION OF UST AT BLDG 306 REVEALED A VISIBLE PERFORATION ON TANK BOTTOM. EXAMINATION OF EXCAVATION PIT REVEALED SIGHT TANK MODULE PERVIOUS SUBMERSION ON STANDING WATER.

UST'S (ARE) HAVE ABOUT 15-20% OF ITS AREA BURIED UNDERGROUND. REMAINDER OF UST IS BRICKED.

EXAMINATION OF UST (ULT HEATING OIL HZ) AT BLDG 307 REVEALED NO VISIBLE PERFORATION. EXAMINATION OF EXCAVATION PIT REVEALED NO PERVIOUS SIGHT ON STANDING WATER.

FURTHER MEANS TO INSPECT THREE MONITORING WELLS ON SITE (SHELF SITE COORDINATE ISSUES PUBLIC REMOVAL OF UST AT BLDG 305). ONE WELL WILL BE INSTALLED AT EACH BUILDING.

PUNCH BLDG
306
307

PROPOSED WELLS

FENCE

TIME SPENT: 0912-1218 HRS

EFFECTIVE COMPLIANCE DATE: 30 DAYS (RESTORED)

Observer: J.A. Coxe

Person Interviewed: W. C. Hill
APPENDIX F

MONITORING WELL REPORTS
(as received)
### Observation Well Gauge Report

**Location:** 305  
**Date:** 11/24/84

<table>
<thead>
<tr>
<th>WELL</th>
<th>CASING ELEV.</th>
<th>DEPTH TO PRODUCT</th>
<th>DEPTH TO WATER</th>
<th>PRODUCT THICK. (C-R)</th>
<th>PRODUCT ELEV. (A-B)</th>
<th>WATER ELEV. (A-C)</th>
<th>REMARKS</th>
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</table>

**Holding Tank:**

| 1    | 0.09        | 3                | 25              | 5 | .06 | 7 | .25 | 9 | .25 | 11 | .31 |
| 1½   | 0.12        | 3½               | 29              | 5½ | .06 | 7½ | .25 | 9½ | .25 | 11½ | .33 |
| 2    | 0.16        | 4                | 33              | 6 | .06 | a | .25 | 10 | .25 | 10½ | .33 |
| 2½   | 0.21        | 4½               | 37              | 6½ | .06 | 10½ | .25 |       |     |       |     |

**Conversion Inches to Fractional Feet:**

\[ \text{Conversion} = \frac{\text{Inches}}{12} \]
## OBSERVATION WELL GAUGE REPORT

**LOCATION:** 305  
**DATE:** 11/30/84

<table>
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<tr>
<th>WELL</th>
<th>CASING ELEV.</th>
<th>DEPTH TO PRODUCT</th>
<th>DEPTH TO WATER</th>
<th>PRODUCT THICK. (C-R)</th>
<th>PRODUCT ELEV. (A-B)</th>
<th>WATER ELEV. (A-C)</th>
<th>REMARKS</th>
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**TOTAL (INCHES):**  
**WATER (INCHES):**

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**CONVERSION INCHES TO FRACTIONAL FEET**

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<td>0.21</td>
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APPENDIX G

LETTER ON LAND SURVEY
(as received)
January 22, 1979

Mr. F. B. Roche  
Office of Secretary of Defense (MRA & L)  
Room 3D 761 Pentagon  
Washington, D.C. 20301

Subject: Fort Holabird  
Baltimore, Maryland  
Land Exchange

Dear Mr. Roche:


As you are aware, Baltimore City acquired, from the U.S. General Services Administration, a portion of the Fort Holabird property in October, 1977, for ultimate development into an industrial park. Also the City is about to acquire additional property, through the U.S. Department of Interior, for use as public park and recreational facilities. The Department of Defense has retained three separate parcels, one surrounding Building 320 and another surrounding Building 306 and 307 in use by Defense Investigative Services (DIS) and the third around Building 305 in use by the Crime Records Directorate (CRD).

Right of ingress and egress to the parcels has been reserved by the Government in the quitclaim deed. In addition, continuation of existing utility systems is reserved in the same fashion as ingress and egress. The City, since acquisition, has begun preparation of the site for development. Demolition over the entire site, including that area designated as park and recreation, is underway and hopefully will be completed by early spring 1979. Existing conditions after demolition are shown on the attached Plate 1.

Three distinct situations exist in the present conditions which greatly restrict the efficient use of the land by both the Government and the City. They are ingress and egress, utilities and property line location. The Government has identified Van Deman Drive and South Road as routes for ingress and egress. As shown on Plate 1, continued use of South Road would reduce the effective area of the industrial property by approximately 0.6 acres. Utility systems, particularly water distribution...
as shown on Plate 2, further reduces development area and presents a serious fire protection problem for Building 320. Water is presently supplied via a 6-inch public main in Oak Avenue and a 6-inch, on-site distribution system. It has been reported to us by the Facilities Engineering Directorate at Fort Meade that fire flow tests at Building 320 are unsatisfactory. Sanitary sewer and storm drainage apparently have no impact on development.

The property lines as now established do present the City, and the Government, with some difficulty. The narrow (70 feet wide) strip of land east of Buildings 305-6-7 is of no value in our recreation plan but, as shown, the City is obligated to maintain it. The strip also conceivably could cause some security problems to the Government facilities. The parking area for the swimming pool is eliminated, the picnic pavilion is not available to the public and the area originally planned for tennis courts remains as Government property.

In light of the above, we are proposing some new utility work (see Plate 2) and an exchange of some land as shown on the attached Plate 3. Electrical power and telephone service, to the best of our knowledge, presently is overhead between Buildings 320 and 305-6-7. This could remain and pose no threat to development of the 10 acre industrial parcel, provided the pole line is within a 20 feet wide utility easement and setback area at the south end of the parcel. However, the development standards for the industrial park require that all utility services be underground. It is hoped that the Government will wish to conform with the rest of the area and put their systems underground. An alternative to going underground with telephone and electric would be to supply Buildings 305-6-7 from Chesapeake and/or Detroit Avenues. The City will construct a new 12 inch water main in Van Deman Drive and a new 2 inch service to the pool area. These two actions will allow the Government to acquire a new service connection to Building 320 (and adequate fire protection) and abandon its mains outside the 305-6-7 area, thereby reducing the demand from the 6 inch line serving 305-6-7 and eliminating a potential maintenance problem.

The land transfer, involving approximately 0.667 acres to the Government in exchange for approximately 1.708 acres to the City, would, in our opinion, greatly enhance both properties and will allow the full potential of the park area to be realized. Actual areas will be determined by survey proposed by the City. The Government has erected a new fence with a gate at School Road. This fence is proposed as the new property line. Parking for the pool will be available, the pavilion will be accessible to the public, and ultimate construction of the tennis courts can be undertaken. These facilities will benefit not only the surrounding community but will benefit Government workers as well by providing expanded recreational facilities. The 70 foot strip will provide a buffer between
the public street and the Government buildings. Vehicular access between the two Government facilities can easily be maintained via School Road and Locust Avenue. The Government can also open a new gate at Chesapeake Avenue to avoid Holabird Avenue. We also hope to obtain written agreement from the Government that a lease agreement is possible in the future for an as yet undefined area at the south end of the Building 320 parcel to allow rail service to the industrial site.

We would greatly appreciate the opportunity to discuss this matter with you in the hope that a prompt resolution may be agreed upon.

Very truly yours,

Donald Andrew Wiley
Senior Engineer

Attachments

cc: Col. Steven T. Clark
    Mr. James Richie
    Mr. Paul Sakai
    Mr. Robert Brisentine
    Mr. William Fitzgerald
    Mr. Douglas Tawney
    Mr. Dave MacKinnon
    Mr. George Cunningham
TO: HQDA (DAEN-REM-C)  
WASH DC 20314

On 27 March 1979, a meeting was held with representatives of the Baltimore Economic Development Corporation (BEDCO), General Services Administration, Heritage Conservation and Recreation Service, Fort Meade, Defense Investigative Services and representatives of this office to discuss the possible exchange of land at subject installation.

2. It was determined there would be no need for a land exchange between the Federal Government and the City for the approximate 0.667 of an acre of land as it is not needed for Government purposes. Also, it was determined that the Government has no requirement for the 1.708 acres, as depicted on Plate No. 3, and it is recommended that a Report of Excess be prepared by Fort Meade to declare the area excess. If BEDCO is successful in obtaining the property, it is their intention to improve the parcel for tennis courts and other recreational activities.

3. It was decided to be in the best interest of the Government to reject BEDCO's request for the Government to relinquish its rights of ingress and egress on Van Deman Drive and South Road. This determination was made in order that DIS may maintain adequate security and the Government will continue to have the benefit of the shortest route from Building 320 to Building Nos. 305, 306, 307, and the Van Deman Gate. This latter consideration is especially important as it enables Government related vehicles to avoid traversing the recreation area.

4. Relocation of the utility lines proposed by the City if agreeable to the Government, if such relocation expense is borne by the City. Fort Meade is agreeable to making temporary repairs to a 6 inch water line which services Building 320 until such time as the City constructs a new 12 inch line. At that time, Fort Meade will request permission to tie into the new line and abandon the present line.

5. BEDCO was advised of the procedures for obtaining an easement for future rail service to the proposed industrial site.
SUSJECT: Ownership Adjustment, Fort Holabird, Maryland

6. Therefore, it is recommended that the 1.705 acres of land be declared excess to Government reeds. Direct submission of correspondence to OCE was granted by the previous indorsement.

FOR THE DISTRICT ENGINEER:

G. R. BOGGS
Chief, Real Estate Division
Memo For COL VICKERS

Subject: Proposed Land Exchange, Ft. Holabird

A meeting was held at the Baltimore Dist, Corp of Engrs on 27 Mar 79 to consider a request by the Baltimore Economic Development Corp (BEDCO) to offer approx one acre of land in exchange for a one & one-half acre parcel of Govt-owned land occupied by the CIDC and DIS. Attending the meeting were:

Mr. Dave Caruso, Dist Engr RE Div
Mr. Edwin Lipowitz, Dist Engr RE Div
Ms. Priscilla Grasmick, Dist Engr RE Div
Mr. Everett Vetter, DIS Hq
Mr. Steven Clark, DIS Hq
Mr. Paul Sakai, DIS
Mr. Wm. Fitzgerald, Dept of Interior, Heritage Conserv Recreation Serv. (HCRS), Phila
Mr. Dave Hash, BEDCO
Mr. Don Wiley, BEDCO
Mr. Geo. Cunningham, DFAE Util Div
Mr. Wm. Criss, DFAE Elec Br.
Mr. Al Lantz, DFAE Real Prop Sec.

In addition to the land swap, BEDCO proposed:

1. Rerouting DTS/CIDC traffic
2. Placing all electrical distributions systems underground
3. Eventual (1980) upgrading water distribution system (12" main line)
4. Eventual easement over govt land for railroad sour-(location undetermined).

The following recommendations will be made (to OSD via OCSE):

1. Army will declare 1 plus acre excess for transfer to Baltimore.
2. One plus acre offered in exchange is not desired by Army (DIS)
3. No change in ingress/egress conditions
4. Army has no objections to underground elec distributions system provided gov't will bear no cost.
5. Army has no objections to upgrading water distribution system provided gov't will bear no costs.

Note: Remaining 41 acres will be conveyed old 5 Apr 79.

37 Acres to Baltimore for park use
4 " " owners of Cummings Apts

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