# FINAL PRELIMINARY ASSESSMENT REPORT FOR PERFLUORINATED COMPOUNDS AT VOLK FIELD COMBAT READINESS TRAINING CENTER CAMP DOUGLAS, WISCONSIN

**Prepared for:** 



Air Force Civil Engineer Center 2261 Hughes Avenue, Suite 155 Lackland AFB, Texas 78236-9853

Contract No. FA8903-08-D-8772 Task Order 0065 CDRL A001A

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- Appendix B Field Documentation
- Appendix C Records of Communication

## LIST OF ACRONYMS AND ABBREVIATIONS

AFCEC AFFF ANG	Air Force Civil Engineer Center aqueous film-forming foam Air National Guard
Base bgs	Volk Field Combat Readiness Training Center below ground surface
CERCLA CRTC	Comprehensive Environmental Response, Compensation and Liability Act of 1980 Combat Readiness Training Center
EDR	Environmental Data Resources, Inc.
FTA	Fire Training Area
HGL	HydroGeoLogic, Inc.
PA PFC PFOA PFOS PWS	preliminary assessment perfluorinated compound perfluorooctanoic acid perfluorooctane sulfonate public water supply
RI	Remedial Investigation
SI	Site Inspection
USAF USEPA USFWS	U.S. Air Force U.S. Environmental Protection Agency U.S. Fish and Wildlife Service
WWTP	wastewater treatment plant

## FINAL PRELIMINARY ASSESSMENT REPORT FOR PERFLUORINATED COMPOUNDS VOLK FIELD COMBAT READINESS TRAINING CENTER CAMP DOUGLAS, WISCONSIN

## **1.0 INTRODUCTION**

The Air Force Civil Engineer Center (AFCEC) contracted with HydroGeoLogic, Inc. (HGL) and subcontractor CH2M HILL (the HGL Team) to perform preliminary assessment (PA) activities at multiple U.S. Air Force (Air Force or USAF) and Air National Guard (ANG) Fire Training Areas (FTAs) to determine probable environmental release of perfluorinated compounds (PFCs). Specifically, HGL is completing PA activities consistent with the U.S. Environmental Protection Agency (USEPA) Guidance for Preparing Preliminary Assessments under the Comprehensive Environmental releases of PFCs at 82 Air Force and ANG installations from FTAs and other known and suspected PFCs or aqueous film-forming foam (AFFF) usage or storage areas. The work is being performed by HGL and its team subcontractor, CH2M HILL, under the existing 4P Architecture and Engineering Contract, Contract Number FA8903-08-D-8772, Task Order 0065.

Under authority of CERCLA and the Superfund Amendments and Reauthorization Act of 1986, CH2M HILL conducted a PA visit at Volk Field Combat Readiness Training Center (CRTC or Base) on March 2 and 3, 2015. Volk Field CRTC is an active Air National Guard Base located in the city of Camp Douglas in Juneau County, Wisconsin. The location of Volk Field CRTC and the locations identified on Volk Field CRTC during this PA visit are shown on Figure 1.1.

## 1.1 BACKGROUND

PFCs are compounds used in the formulation of AFFF, which the Air Force has used in fire training exercises, suppressing aircraft and other vehicle fires, and in aircraft hangar fire suppression systems. Although PFCs are not regulated under CERCLA or the Resource Conservation and Recovery Act, there is evidence that perfluorooctane sulfonate (PFOS) (and less so perfluorooctanoic acid [PFOA]) is a possible environmental contaminant following AFFF release. Both compounds may present potential, non-carcinogenic risks to human health and the environment (Chang et al., 2014; Porter, 2011; Rak and Vogel, 2009; USAF, 2012).

Several federal government documents confirm the initial use of AFFF by the Air Force beginning in 1970:

- Military Specification for AFFF (MIL-F-24385), formally issued in 1969
- General Accounting Office determination on sole source award protest to provide AFFF to the Navy in December 1969
- A History of USAF Fire Protection Training at Chanute Air Force Base, 1964-1976 (Coates, 1977)

Preliminary Assessment Report

Based on Air Force performance testing results on AFFF, the Air Force Director of Civil Engineering, M.G. Goddard, issued authorization in 1970 for the Air Force to procure AFFF. No usage within the Air Force is documented or suspected prior to 1970.

## **1.2 PURPOSE AND OBJECTIVES**

The objective of this PA Report is to identify locations at Volk Field CRTC where PFCs may have been released into the environment and to provide an initial assessment of possible migration pathways and receptors of potential contamination. In 1991, the Air Force began a program to replace existing, non-engineered FTAs with new, engineered FTAs that use propane fuel. At Volk Field CRTC, the current engineered FTA was constructed in 1996 to use only propane fuel. The engineered FTA includes an asphalt pad surrounding a concrete berm sloped upward toward a gravel pit with an aircraft mockup. The gravel pit contains the propane fuel tank and the discharge location where all excess materials enter the sanitary sewer system. The gravel pit is lined with vinyl (Davies, 2015, personal communication; Appendix C).

This PA Report documents the 2 known FTAs, as well as 10 additional locations where AFFF may have been released into the environment at Volk Field CRTC (Table 1.1). The purpose of the PA is to determine the potential environmental release of PFCs specifically from AFFF usage and storage. This PA Report differentiates locations that pose little or no potential threat to human health and the environment from locations that warrant further investigation.

for Potential AFFF Releases, Volk Field CRTC, Wisconsin
Fire Training Areas
Site 1 – Former FTA
Current FTA (Building 630)
Non-Fire Training Areas
Fire Stations
Current Fire Station (Building 510)
Former Fire Station (Building 517)
Emergency Response
Site 5 – 1978 KC97 Crash Location
Site 8 – 1964 F84 Crash Location
Other Spills and Releases
Spray Nozzle Test Area (Primary Location)
Spray Nozzle Test Area (Alternate Location)
Oil-Water Separator (Building 510)
Current Wastewater Treatment Plant (WWTP) (Building 650)
Former Primary and Secondary Wastewater Settling Ponds
Base Supply Building (Building 10)

Table 1.1
Fire Training Areas and Non-Fire Training Areas Identified
for Potential AFFF Releases, Volk Field CRTC, Wisconsin

## **1.3 BASEWIDE ENVIRONMENTAL SETTING**

A detailed description of the topography, soil types, and surface water is provided in the Installation Restoration Program Final Technical Memorandum for Volk Field CRTC (Montgomery Watson, 1998), and summarized from the report in the sections below.

Air Force Civil Engineer Center
1-2

## 1.3.1 Geology

Volk Field CRTC is within the Wisconsin Central Plains physiographic province, a subsection of the Central lowlands physiographic province of the United States. This part of the Central Plains is characterized by flat or gently undulating topography. Relief is generally low except for the sandstone buttes located in the southeast portion of Volk Field CRTC near the Base entrance. These buttes rise 100 to 300 feet above the surrounding lowlands.

This area is characterized by mature dissected plateaus and lowlands invaded by glacial outwash. The geomorphology of Volk Field CRTC is the result of Pleistocene glaciation. During glacial retreat from the area, large inland lakes were formed near the perimeters of the receding glaciers. Streams and rivers deposited sand, silt, and clay into these lakes. Volk Field CRTC is located in one of these ancient lake beds, which is now referred to as Lake Wisconsin. The thickness of the sediments is estimated to be between 100 to 150 feet. Bedrock beneath these sediments consists of the Cambrian-aged Wonewoc Sandstone. The Wonewoc Sandstone is a well-sorted quartz sandstone, approximately 100 to 400 feet thick (Montgomery Watson, 1998).

The geologic formations that directly underlie Volk Field CRTC are predominantly fine to coarsegrained sandstones with interbedded shales overlain by unconsolidated sand, silt, and a minor amount of clay. The Quaternary deposits vary in thickness from less than 40 feet in the vicinity of Volk Field CRTC due to their location within the boundary of the 1,800-square-mile Pleistocene lake referred to as Lake Wisconsin (Montgomery Watson, 1998). Volk Field CRTC is located near the western boundary of this ancient lake bed (Hazardous Materials Technical Center, 1984).

The unconsolidated materials are typically yellowish, fine to very fine quartz sand with a trace of silt-sized particles. At some locations, a clay or silty clay less than 5 feet in thickness was encountered and interpreted as lake bed deposits. The unconsolidated sands are underlain by a poorly cemented, friable sandstone (Engineering-Science, Inc., 1993).

## **1.3.2** Hydrogeologic Setting

Groundwater is an important resource throughout Wisconsin. Water exists in both the unconsolidated Pleistocene deposits and the underlying Cambrian sandstone units and, presumably, in the Precambrian metamorphic and igneous rocks that underlie the sedimentary sequence. In Juneau County, groundwater movement generally follows topography and discharges into major drainage features. Groundwater flow in the vicinity of Volk Field CRTC is generally toward the Lemonweir River, toward the northeast direction (Montgomery Watson, 1998).

In the area of Volk Field CRTC, the major aquifers are the Pleistocene glacial deposits and the underlying Cambrian sandstones. Most of the groundwater is derived from the deeper Cambrian sandstones, as the majority of the municipal wells in the area are screened within this formation. Water is also obtained from the glacial deposits that are generally less than 40 feet thick.

The absence of any laterally extensive, low permeability materials near the contact between the glacial deposits and the sandstone suggests that the two geologic formations are hydraulically connected. In this situation, water is free to move vertically depending on the gradient at a particular location. The initial depth to groundwater from the surface is approximately 5 to 10 feet below ground surface (bgs). Groundwater horizontal gradients in the vicinity of Volk Field CRTC range from 0.0004 to 0.005 foot/foot (Montgomery Watson, 1998).

Based on aquifer pumping tests conducted by Engineering-Science, Inc. at Site 1 – Former FTA, the estimated hydraulic conductivity is 800 gallons per day per foot squared or 107 feet per day (approximately 4 x  $10^2$  centimeters per second). Using an average hydraulic gradient of 0.002 foot/foot and an effective porosity of 0.20 (Bouwer, 1978), the average groundwater flow velocity estimated for Volk Field CRTC is 1.07 feet per day (Montgomery Watson, 1998).

## 1.3.3 Hydrologic Setting

Volk Field CRTC is located within the drainage basin of the Lemonweir and Little Lemonweir Rivers. The Lemonweir River flows from northwest to southeast and is located approximately 3,700 feet northeast of the Volk Field CRTC boundary. The Little Lemonweir River is approximately 1.4 miles south of the Volk Field CRTC boundary and flows from west to east. The Little Lemonweir joins the Lemonweir River 4.5 miles southeast of Volk Field CRTC, at the town of New Lisbon. New Lisbon and Mauston are the only major communities on the Lemonweir River downstream of Volk Field CRTC. Neither of these towns uses surface water for municipal water supplies (Montgomery Watson, 1998).

Volk Field CRTC surface runoff is facilitated by a system of ditches separated by a bluff. The runoff on the north side of the bluff drains towards the north east and the runoff south of the bluff drains toward the south east. These drainage ditches lead directly to either the Lemonweir River or the Little Lemonweir River.

Freshwater emergent, freshwater forested/shrub wetlands, and freshwater ponds are present on the north and east portions of Volk Field CRTC, based on the National Inventory Wetlands database.

## **1.3.4 Ecological Receptors**

An officially designated federal wilderness area/wildlife preserve encompasses Volk Field CRTC (Environmental Data Resources, Inc. [EDR], 2015). The following endangered species are known to inhabit Juneau and Monroe Counties:

- Bald Eagle Bird
- Butterfly, Karner Blue Insect
- Monkshood, Northern Wild Plant

The bald eagle has been delisted and is no longer found within the boundaries of Volk Field CRTC. The Karner Blue Butterfly has been surveyed on the base since 1995. It was determined that none are present currently at Volk CRTC. It is possible that Northern Wild Monkshood may be found within the boundaries of Volk Field CRTC, but surveys have not been able to identify this plant to date.

## 1.4 PRELIMINARY ASSESSMENT METHODS

This PA Report was prepared in accordance with the following guidance:

- CERCLA Guidance (USEPA, 1991)
- Interim Air Force Guidance (USAF, 2012)
- U.S. Fish and Wildlife Service (USFWS) Guidance (USFWS, 2015)

The performance of this PA included the following activities:

• Reviewing information and reports in the Administrative Record.

- Reviewing documents related to Air Force use of AFFF.
- Conducting a 2-day visit to Volk Field CRTC.
- Conducting interviews with government personnel in Environmental Management, the Volk Field CRTC Fire Department, Utility Supervisors, and other Base personnel.
- Visiting and photographing locations where AFFF has or may have been used.
- Performing an environmental data records search to document nearby populations and recording water supply well information and wetlands information.

#### 1.5 REPORT ORGANIZATION

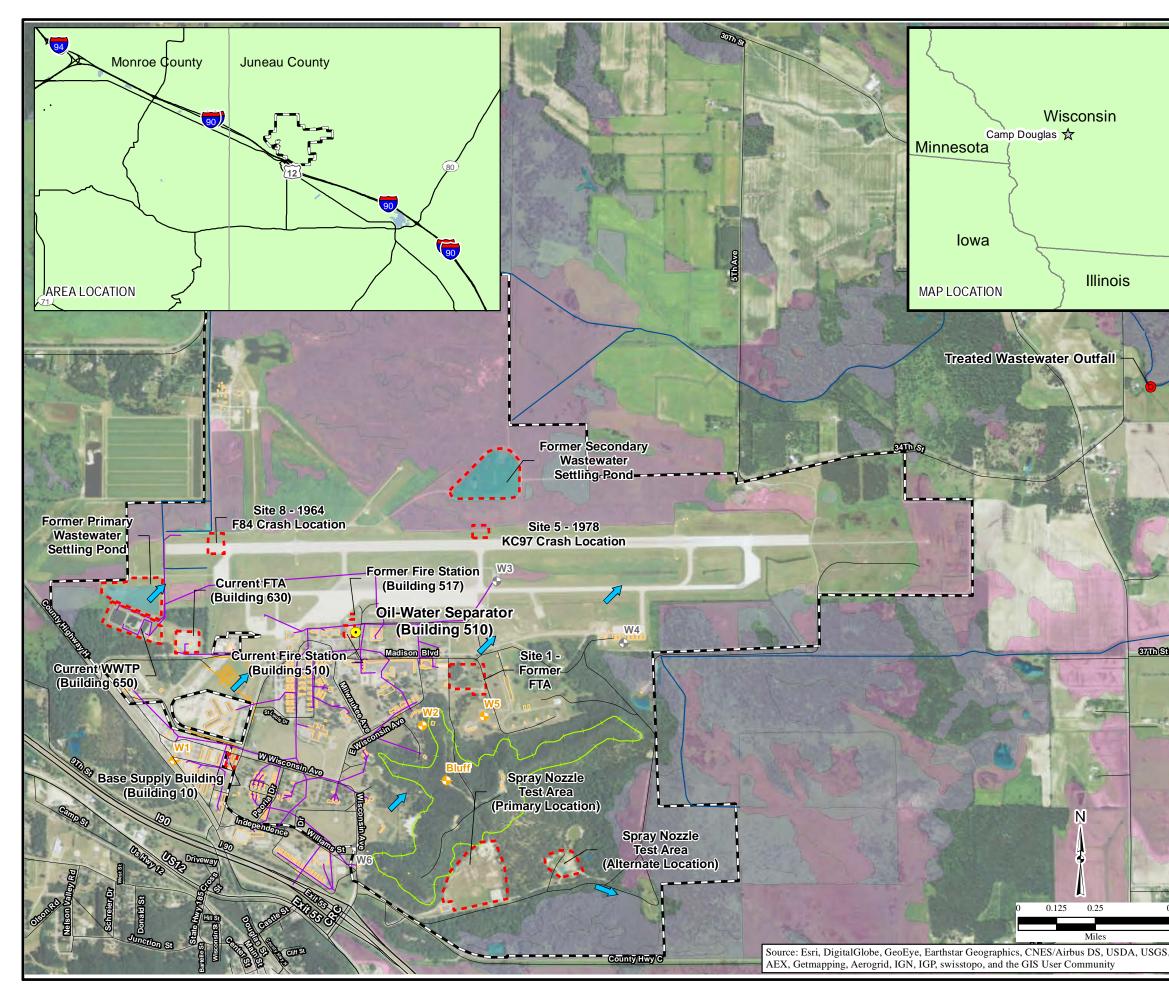
This PA Report is organized as follows:

- Section 1.0, Introduction, provides a project overview and describes the methods used to conduct the PA.
- Section 2.0, Fire Training Areas, describes the FTAs identified during the visit.
- Section 3.0, Non-Fire Training Areas, describes the non-FTAs identified during the visit.
- Section 4.0, Summary and Conclusions, summarizes and provides conclusions for both FTAs and non-FTAs.
- Section 5.0, References, lists the references cited in this report.

In addition, the following support information is appended to this report:

- Appendix A, Photo Documentation
- Appendix B, Field Documentation
- Appendix C, Records of Communication

## FIGURE



10.000		
		Figure 1.1 All Identified Locations, Volk Field CRTC, Wisconsin
10000	6	Legend Treated Wastewater Outfall
		Abandoned Production Well
No.	• •	Production Well
	•	Oil-Water Separator
~	Î	Approximate Groundwater Flow Direction (Nov 1990)
-		Sanitary Sewer
-		Storm Drain
		Road
		National Hydrography Dataset Stream
100	E	Approximate Bluff Line
		Building
1	CT3	Approximate Location
3		Installation Boundary
-		Freshwater Emergent Wetland
		Freshwater Forested/Shrub Wetland
THE N		Freshwater Pond
		Lake
		Riverine
Carlo	WWTP = v	training area wastewater treatment plant
0.5	Figure_1.1_rev3.n 6/4/2015 SA Source: Wetland, I September and Resou	(GIS)00_ProjA\AFCEC\495516_PFC_PA_Reports\ANG_Volk_Field\GIS\MapFiles\Draft\ nxd Vational Wetlands Inventory - Wetland Polygons, Published 2012, U.S. Fish and Wildlife Service, Division of Habitat tree Conservation, Washington, D.C. «fws.gov/wetlands/
ц ,		CH2MHILL,

## 2.0 FIRE TRAINING AREAS

## 2.1 SITE 1 – FORMER FIRE TRAINING AREA

#### 2.1.1 Description and Operational History

Site 1 – Former FTA is a flat grass-covered lot covered with various trees located approximately 600 feet southeast of the intersection of Madison Boulevard and Bluff Road. Site 1 – Former FTA is bordered to the north, east, and south by grassy areas and to the west by a building and associated parking. The geographic coordinates are  $43^{\circ}55'58.49$ "N and  $90^{\circ}15'15.87$ "W. The location of Site 1 – Former FTA is shown on Figures 1.1 and 2.1.

Beginning in the 1940s until 1980, fire training activities occurred on Base at Site 1 – Former FTA (Walter, 2015, personal communication; Appendix C). Site 1 – Former FTA was used for fire training exercises and for refueling vehicles and routinely servicing equipment (Engineering-Science, Inc., 1993). It is not known whether AFFF was used during the training exercises. Site 1 – Former FTA is an Installation Restoration Program site for Volk Field CRTC with a status of site closed, no further action at this time. Fire training exercises impacted the site with fuel-related contaminants. Concrete burn pits and other associated building materials associated with the FTA have been removed. Remediation activities included product removal from groundwater monitoring wells and phytoremediation. A full description of the site and operational history are in previous investigation documents.

#### 2.1.2 Waste Characteristics

The current Fire Chief does not have knowledge or record logs of the quantity of AFFF used/released, if any, during fire training exercises (Davies, 2015, personal communication; Appendix C). Based on the operational history of the site and the historical usage of AFFF within the Air Force and ANG during these years, the potential for PFCs released to the environment is high.

#### 2.1.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (USEPA, 1989).

Database research (EDR, 2015) shows one day care facility and one elementary school within the potential migration area of 4 miles from any potential PFC release location. No schools or day care facilities are located on Base (Gonnering, 2015, personal communication; Appendix C). The day care facility is located approximately 6,800 feet hydrologically upgradient of Site 1 – Former FTA.

#### 2.1.3.1 Groundwater Pathway and Targets

The primary drinking water source for Volk Field CRTC is the Sandstone aquifer. Production wells on Base pump water from the Sandstone aquifer at depths ranging from 250 to 305 feet bgs (Zanter, 2015, personal communication; Appendix C). The Sandstone aquifer underlying Volk Field CRTC is unconfined and highly permeable.

The Volk Field CRTC population within a 4-mile radius of the location relies on drinking water from the Sandstone aquifer through onsite production wells (Gonnering, 2015, personal communication; Appendix C). The nearest production well (W-5) from the Base is located approximately 374 feet to the south and hydrologically cross-gradient of Site 1 – Former FTA. No residents are at Volk Field CRTC (Gonnering, 2015, personal communication; Appendix C). The nearest off-Base public water supply (PWS) well is located at Camp Douglas Waterworks, approximately 5,810 feet southwest and hydrologically cross-gradient of Site 1 – Former FTA (EDR, 2015). This active well serves a population of approximately 640 (EDR, 2015). Ingestion exposure is a potential pathway for local populations.

The majority of the off-Base population within a 4-mile radius of Site 1 – Former FTA relies on municipal water taken from the Sandstone aquifer. The off-Base population within 4 miles of the location is approximately 1,340 people (EDR, 2015). The closest downgradient residential area is more than 4 miles from the location.

#### 2.1.3.2 Surface Water Pathway and Targets

Surface drainage originating from most of Volk Field CRTC drains to the Lemonweir River. The surface water drainage from Site 1 – Former FTA mostly penetrates the ground through the porous sands and soil onsite because the area is flat. The potential migration of surface water into groundwater is likely, based on the hydraulically connected aquifers and porous soils, which could provide a complete pathway for exposures, such as dermal and ingestion exposure to humans. Dermal contact and ingestion by aquatic or other animals is also a potential pathway for ecological receptors.

The location is not located within any floodplains. The nearest body of water is a small unnamed pond on Base, also known as Green Pond, located approximately 2,510 feet east and downgradient of the location. Any surface water that does not penetrate the porous soils will continue to flow east in an unnamed tributary and discharge into the Lemonweir River approximately 3.3 miles downstream.

There are no identified downstream fisheries or other ecologically sensitive environments adjacent to the surface water migration path 15 miles downstream of the location (EDR, 2015; USFWS, 2015). Several wetlands are along the surface water migration path 15 miles downstream of the location (EDR, 2015). Local waterways are used for recreational fishing by residents of nearby communities.

#### 2.1.3.3 Soil and Air Exposure Pathways and Targets

Site 1 – Former FTA is a former FTA that has been inactive since 1980 and is currently a grasscovered area with trees. The well-vegetated area would preclude any fugitive dust emissions and potential exposures. Current land use does not involve any human health exposures and future land use is unknown. The potential exists for soil exposure to burrowing animals.

No residents or workers are onsite. The nearest residential area is approximately 4,500 feet southwest of the location. Population details of the residential areas within a 4-mile radius are discussed in Section 2.1.3.1.

No schools or day care facilities are within a 200-foot radius of the location. The nearest school is Camp Douglas Elementary, located approximately 1.4 miles off Base to the southwest of the location (EDR, 2015). The nearest day care facility is Laugh and Learn Child Care, located approximately 1.3 miles to the southwest (EDR, 2015).

## 2.2 CURRENT FIRE TRAINING AREA (BUILDING 630)

#### 2.2.1 Description and Operational History

The current FTA (Building 630) is located in the northwest area of Volk Field CRTC. Constructed in 1996, the area is covered by asphalt with a concrete berm sloped upward toward a vinyl-lined gravel pit with an aircraft mockup. Since the construction of the current FTA (Building 630), fire training exercises are performed at this location using only water to extinguish fires (Davies, 2015, personal communication; Appendix C). The location is bordered on all sides by wooded and grassy areas (Walter, 2015, personal communication; Appendix C). The geographic coordinates are 43°56'4.48"N and 90°16'20.84"W. The location of the current FTA (Building 630) is shown on Figures 1.1 and 2.2.

Accidental discharges of AFFF that have occurred at the training area include approximately six discharges of less than 1 gallon each and one discharge that was approximately 30 to 40 gallons (Davies, 2015, personal communication; Appendix C). However, all discharges were captured in the vinyl-lined gravel pit. Also, all liquid materials captured in the gravel pit are routed to the sanitary sewer system through piping and discharged to the WWTP located on Base. Based on the operational history of the location and engineering controls at the location, it is unlikely that PFCs were released into the environment.

## 2.2.2 Waste Characteristics

Not applicable.

## 2.2.3 Pathway and Environmental Hazard Assessment

Not applicable.

#### 2.2.3.1 Groundwater Pathway and Targets

Not applicable.

## 2.2.3.2 Surface Water Pathway and Targets

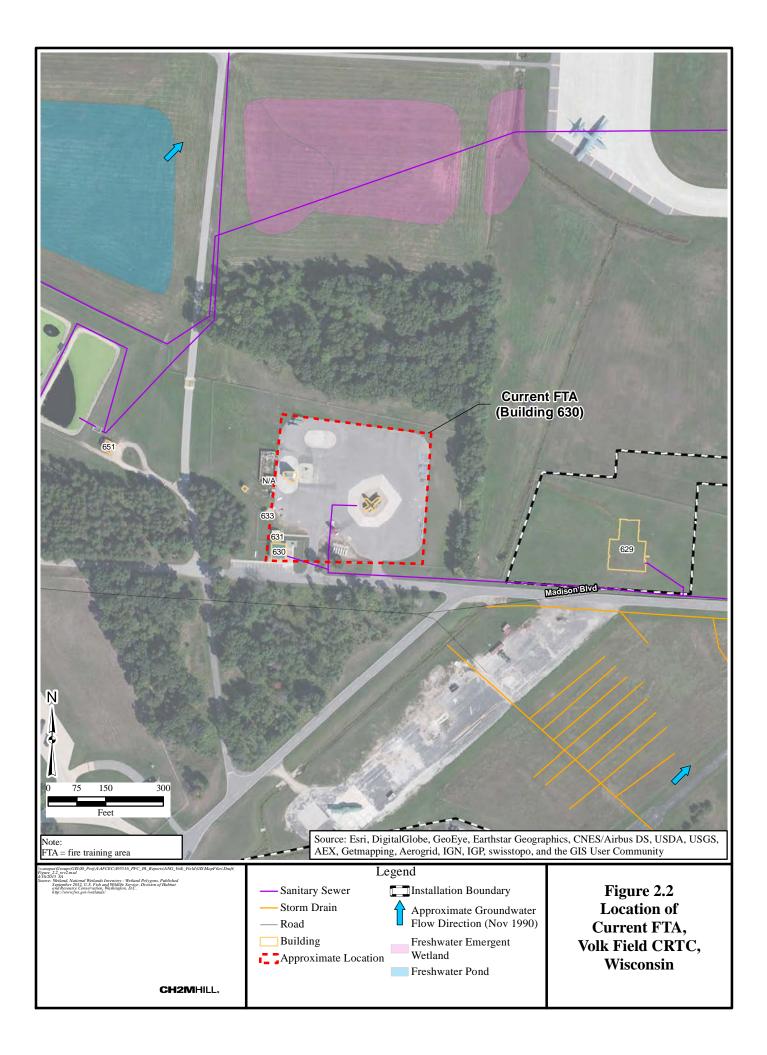
Not applicable.

## 2.2.3.3 Soil and Air Exposure Pathways and Targets

Not applicable.

FIGURES





## 3.0 NON-FIRE TRAINING AREAS

## 3.1 HANGARS

No hangars are operated by the ANG at Volk Field CRTC.

#### 3.2 FIRE STATIONS

#### **3.2.1** Current Fire Station (Building 510)

#### 3.2.1.1 Description and Operational History

The current fire station (Building 510) was constructed in 1987 and is still in operation, housing five fire engines (Walter, 2015, personal communication; Appendix C). The geographic coordinates are 43°56'6.49"N and 90°15'43.25"W. The location of the building is shown on Figures 1.1 and 3.1. In the current fire station (Building 510), AFFF is stored in an approximately 1,000-gallon, single large bulk storage tank; in 5-gallon buckets; and on fire trucks. Approximately 1,300 gallons of AFFF are stored in 5-gallon buckets and less than 500 gallons of AFFF are stored in the bulk storage container. Transfer of AFFF from the bulk storage container or buckets is performed through a pump system that connects directly to the fire engines. The fire engines are also washed and cleaned inside the fire station (Davies, 2015, personal communication; Appendix C).

The Fire Chief indicated that there may have been spills or discharges during the transfer of AFFF and during the cleaning of fire engines, but all materials are washed down into the floor drains (Davies, 2015, personal communication; Appendix C). The floor drains lead to an oil-water separator that is then pumped into the sanitary sewer system and ends at the on-Base WWTP. There are no known or documented releases of AFFF into the environment at the current fire station (Building 510), other than discharges into the floor drains (Davies, 2015, personal communication; Appendix C).

## 3.2.1.2 <u>Waste Characteristics</u>

Not applicable.

## 3.2.1.3 Pathway and Environmental Hazard Assessment

Not applicable.

#### 3.2.1.3.1 Groundwater Pathway and Targets

Not applicable.

## 3.2.1.3.2 Surface Water Pathway and Targets

Not applicable.

## 3.2.1.3.3 Soil and Air Exposure Pathways and Targets

Not applicable.

## **3.2.2** Former Fire Station (Building 517)

## 3.2.2.1 Description and Operational History

The former fire station (Building 517) was constructed in 1943 and demolished in 1987 (Walter, 2015, personal communication; Appendix C). In 1987, the equipment and supplies housed in the former fire station (Building 517) were relocated to the current fire station (Building 510), as shown on Figures 1.1 and 3.1. The geographic coordinates are 43°56'8.48"N and 90°15'42.73"W. AFFF was handled in the former fire station (Building 517) similarly to how it is now handled in the current fire station (Building 510) (Gonnering, 2015, personal communication; Appendix C). In the former fire station (Building 517), AFFF was stored in 5-gallon buckets and on fire trucks. There have been no known or documented releases of AFFF outside of the former fire station (Building 517) into the environment (Gonnering, 2015, personal communication; Appendix C).

#### 3.2.2.2 <u>Waste Characteristics</u>

Not applicable.

#### 3.2.2.3 Pathway and Environmental Hazard Assessment

Not applicable.

#### 3.2.2.3.1 Groundwater Pathway and Targets

Not applicable.

## 3.2.2.3.2 Surface Water Pathway and Targets

Not applicable.

3.2.2.3.3 Soil and Air Exposure Pathways and Targets

Not applicable.

## **3.3 EMERGENCY RESPONSE**

## 3.3.1 Site 5 – 1978 KC97 Crash Location

#### 3.3.1.1 Description and Operational History

In 1978, a KC97 refueler aircraft crashed approximately 400 feet north of Taxiway 3 and parallel to the main runway. This vegetated area with tall grasses is on the north side of main runway and south of the former secondary WWTP settling pond. Site 5 is an Installation Restoration Program site for Volk Field CRTC with a status of site closed, no further action required. The area identified volatile organic compounds, total petroleum hydrocarbons, and lead in soil, but did not exceed action levels. No groundwater contamination was detected, and therefore, no remediation activities were performed. The geographical coordinates are 43°56'23.47"N and 90°15'13.16"W. The approximate crash location is shown on Figures 1.1 and 3.1.

## 3.3.1.2 <u>Waste Characteristics</u>

The Volk Field CRTC Fire Department responded to the aircraft crash. It is unknown what type of firefighting foam was used, or the amount of foam, at the crash location (Davies, 2015, personal communication; Appendix C). However, the fact that it occurred in 1978 and was a fuel fire suggests that AFFF was likely used to extinguish the fire.

#### 3.3.1.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (USEPA, 1989).

Database research (EDR, 2015) shows one day care facility and one elementary school within the potential migration area of 4 miles from any potential PFC release location. No schools or day care facilities are located on Base (Gonnering, 2015, personal communication; Appendix C). The day care facility is located approximately 8,710 feet hydrologically upgradient of Site 5-1978 KC97 crash location.

#### 3.3.1.3.1 Groundwater Pathway and Targets

The primary drinking water source for Volk Field CRTC is the Sandstone aquifer. Production wells on Base pump water from the Sandstone aquifer at depths ranging from 250 to 305 feet bgs (Zanter, 2015, personal communication; Appendix C). The Sandstone aquifer underlying Volk Field CRTC is unconfined and highly permeable.

The Volk Field CRTC population within a 4-mile radius of the location relies on drinking water from the Sandstone aquifer through onsite production wells (Gonnering, 2015, personal communication; Appendix C). The nearest production well (W-5) from the location is located approximately 3,052 feet to the south and hydrologically cross-gradient of the crash location. There are no residents at Volk Field CRTC (Gonnering, 2015, personal communication; Appendix C). The nearest off-Base PWS well is located at Camp Douglas Waterworks, approximately 8,250 feet southwest and hydrologically cross-gradient of the crash location (EDR, 2015). This active well serves a population of approximately 640 (EDR, 2015). Ingestion exposure is a potential pathway for local populations.

The majority of the off-Base population within a 4-mile radius of the location relies on municipal water taken from the Sandstone aquifer. The off-Base population within 4 miles of the location is approximately 1,290 (EDR, 2015). The closest downgradient residential area is more than 4 miles from the location.

#### 3.3.1.3.2 Surface Water Pathway and Targets

Surface drainage originating from most of Volk Field CRTC drains to the Lemonweir River. The surface water drainage from Site 5-1978 KC97 crash location mostly penetrates the ground through the porous sands and soil onsite because the location is in a low-lying area of land where all

surrounding areas flow to the crash location. The potential migration of surface water into groundwater is likely, based on the hydraulically connected aquifers and porous soils, which could provide a complete pathway for exposures, such as dermal and ingestion exposure to humans. Dermal contact and ingestion by aquatic or other animals is also a potential pathway for ecological receptors.

The location is not located within any floodplains. Any surface water that does not penetrate the porous soils will flow toward the east to an unnamed tributary and discharge into the Lemonweir River approximately 2.5 miles downstream.

The north half of the crash location is located in a freshwater emergent wetland. There are no identified downstream fisheries or other ecologically sensitive environments adjacent to the surface water migration path 15 miles downstream of the location (EDR, 2015; USFWS, 2015). Several wetlands are along the surface water migration path 15 miles downstream of the location (EDR, 2015). Local waterways are used for recreational fishing by residents of nearby communities.

## 3.3.1.3.3 Soil and Air Exposure Pathways and Targets

The northern half of the crash location is in a freshwater emergent wetland. The well-vegetated area would preclude any fugitive dust emissions and potential exposures. No utilities are present onsite to allow dermal soil exposures to utility workers. However, current land use could expose workers to human health exposure through dermal exposure. The potential of exposure to burrowing animals would be present.

No residents are onsite, and the nearest residential area is approximately 7,900 feet southwest of the location. Population details of the residential areas within a 4-mile radius are discussed in Section 3.3.1.3.1.

No schools or day care facilities are within a 200-foot radius of the location. The nearest school is Camp Douglas Elementary, located approximately 1.7 miles off Base to the southwest of the location (EDR, 2015). The nearest day care facility is Laugh and Learn Child Care, located approximately 1.6 miles to the southwest (EDR, 2015).

## **3.3.2** Site 8 – 1964 F84 Crash Location

## 3.3.2.1 <u>Description and Operational History</u>

In 1964, an F84 crashed at the western end of the east-west runway. In 1966, the paved portion of the east-west runway was extended 1,000 feet to the west, covering the reported crash location. Site 8 - 1964 F84 crash location is an Installation Restoration Program site for Volk Field CRTC with a status of site closed, no further action required. Soil samples were below action levels and no groundwater contamination was detected. Therefore, no remediation activities occurred at Site 8 - 1964 F84 crash location. Due to the date of the crash, the use of AFFF at this location did not occur. The geographic coordinates are  $43^{\circ}56'21.21''N$  and  $90^{\circ}16'14.33''W$ . The crash location is shown on Figures 1.1 and 3.1.

## 3.3.2.2 <u>Waste Characteristics</u>

Not applicable.

#### 3.3.2.3 Pathway and Environmental Hazard Assessment

Not applicable.

3.3.2.3.1 Groundwater Pathway and Targets

Not applicable.

3.3.2.3.2 Surface Water Pathway and Targets

Not applicable.

3.3.2.3.3 Soil and Air Exposure Pathways and Targets Not applicable.

# 3.4 OTHER

# 3.4.1 Spray Nozzle Test Area (Primary Location)

## 3.4.1.1 Description and Operational History

Annual nozzle spray testing for fire engines is typically performed in the sand pit located in the southeast portion of Volk Field CRTC. The location is bordered to the north by the bluff and to the south by S. Perimeter Road. The entire location is surrounded by wooded land. The geographic coordinates are 43°55'24.19"N and 90°15'12.74"W. The location of the sand pit is shown on Figures 1.1 and 3.2.

#### 3.4.1.2 <u>Waste Characteristics</u>

Five fire engines currently perform annual testing to ensure proper equipment operation. Testing is typically conducted in the sand pit on the southeast portion of the Base. Each fire engine holds between 30 and 500 gallons of AFFF. During each annual test, no more than 4 to 5 gallons of AFFF are released from each engine directly into the sand pit. Most of the materials infiltrate into the soils with little runoff due to the porous soils. This practice has been standard for at least the past two decades at Volk Field CRTC (Davies, 2015, personal communication; Appendix C). Based on the operational history and direct release of AFFF during these years, the potential for PFCs released to the environment is high.

#### 3.4.1.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (USEPA, 1989).

Database research (EDR, 2015) shows one day care facility and one elementary school within the potential migration area of 4 miles from any potential PFC release location. No schools or day care

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facilities are located on Base (Gonnering, 2015, personal communication; Appendix C). The day care facility is located approximately 5,950 feet hydrologically upgradient of the annual test area.

# 3.4.1.3.1 Groundwater Pathway and Targets

The primary drinking water source for Volk Field CRTC is the Sandstone aquifer. Production wells on Base pump water from the Sandstone aquifer at depths ranging from 250 to 305 feet bgs (Zanter, 2015, personal communication; Appendix C). The Sandstone aquifer underlying Volk Field CRTC is unconfined and highly permeable.

The Volk Field CRTC population within a 4-mile radius of the location relies on drinking water from the Sandstone aquifer through onsite production wells (Gonnering, 2015, personal communication; Appendix C). The nearest production well (well located on the bluff) from the location is located approximately 1,210 feet to the north and hydrologically cross-gradient of the test area. There are no residents at Volk Field CRTC (Gonnering, 2015, personal communication; Appendix C). The nearest off-Base PWS well is located at Camp Douglas Waterworks, approximately 3,590 feet southwest and hydrologically upgradient of the test area (EDR, 2015). This active well serves a population of approximately 640 (EDR, 2015). Ingestion exposure is a potential pathway for local populations.

The majority of the off-Base population within a 4-mile radius of the location relies on municipal water taken from the Sandstone aquifer. The off-Base population within 4 miles of the location is approximately 1,420 residents (EDR, 2015). The closest downgradient residential area is more than 4 miles from the location.

# 3.4.1.3.2 Surface Water Pathway and Targets

Surface drainage originating from most of Volk Field CRTC drains to the Lemonweir River. The surface water drainage from the Spray Nozzle Test Area (Primary Location) mostly penetrates the ground through the porous sands and soil onsite. Also, the surrounding surface water drains toward the sand pit from the bluffs and the surrounding area. The potential migration of surface water into groundwater is likely, based on the hydraulically connected aquifers and porous soils, which could provide a complete pathway for exposures, such as dermal and ingestion exposure to humans. Dermal contact and ingestion by aquatic or other animals is also a potential pathway for ecological receptors.

The Spray Nozzle Test Area (Primary Location) is not located within any floodplains. The nearest body of water is a small unnamed tributary, located approximately 3,330 feet east and downgradient of the location. Any surface water that does not penetrate the porous soils will continue to flow east in an unnamed tributary that discharges into the Lemonweir River approximately 3.3 miles downstream.

There are no identified downstream fisheries or other ecologically sensitive environments adjacent to the surface water migration path 15 miles downstream of the location (EDR, 2015; USFWS, 2015). Several wetlands are along the surface water migration path 15 miles downstream of the location (EDR, 2015). Local waterways are used for recreational fishing by residents of nearby communities.

#### 3.4.1.3.3 Soil and Air Exposure Pathways and Targets

The Spray Nozzle Test Area (Primary Location) is covered with a thin layer of grass on top of sand. Although the surrounding area is well-vegetated, the thin grass cover would not preclude all

fugitive dust emissions; therefore, workers could be exposed to soil through dermal or inhalation pathways. The potential exists for soil exposure to burrowing animals.

No residents are onsite. The nearest residential area is approximately 2,700 feet west of the location. Population details of the residential areas within a 4-mile radius are discussed in Section 3.4.1.3.1

No schools or day care facilities are within a 200-foot radius of the location. The nearest school is Camp Douglas Elementary, located approximately 1.2 miles off Base to the west of the location (EDR, 2015). The nearest day care facility is Laugh and Learn Child Care, located approximately 1.1 miles to the west (EDR, 2015).

# 3.4.2 Spray Nozzle Test Area (Alternate Location)

# 3.4.2.1 <u>Description and Operational History</u>

When the primary location for the annual nozzle spray test for the fire engines is not accessible, the spray test is performed at an alternate sand pit just east of the primary location at Volk Field CRTC. The Spray Nozzle Test Area (Alternate Location) is bordered to the north by the bluff and to the south by S. Perimeter Road. The entire area is surrounded by wooded land. The geographic coordinates are 43°55'27.56"N and 90°14'53.89"W. The location of the sand pit is shown on Figures 1.1 and 3.2.

# 3.4.2.2 <u>Waste Characteristics</u>

Five fire engines currently perform annual testing to ensure proper equipment operation. This testing is conducted periodically at the sand pit east of the primary location where annual spray nozzle testing is performed. This alternative testing area is used when the primary location is occupied and the fire department is not able to use the primary area. Each fire engine holds between 30 and 500 gallons of AFFF. During each annual test, no more than 4 to 5 gallons of AFFF are released from each engine directly into the sand pit. Most of the materials will infiltrate into the soil with little runoff due to the porous soils onsite. This practice has been standard at Volk Field CRTC (Davies, 2015, personal communication; Appendix C). Based on the operational history and release of AFFF during these years, the potential for PFCs released to the environment is high.

# 3.4.2.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (USEPA, 1989).

Database research (EDR, 2015) shows one day care facility and one elementary school within the potential migration area of 4 miles from any potential PFC release location. No schools or day care facilities are located on Base (Gonnering, 2015, personal communication; Appendix C). The day

care facility is located approximately 7,750 feet hydrologically upgradient of the annual alternative test area.

# 3.4.2.3.1 Groundwater Pathway and Targets

The primary drinking water source for Volk Field CRTC is the Sandstone aquifer. Production wells on Base pump water from the Sandstone aquifer at depths ranging from 250 to 305 feet bgs (Zanter, 2015, personal communication; Appendix C). The Sandstone aquifer underlying Volk Field CRTC is unconfined and highly permeable.

The Volk Field CRTC population within a 4-mile radius of the Spray Nozzle Test Area (Alternate Location) relies on drinking water from the Sandstone aquifer through onsite production wells (Gonnering, 2015, personal communication; Appendix C). The nearest production well (well located on the bluff) from the location is located approximately 2,160 feet to the northwest and hydrologically cross-gradient of the test area. There are no residents at Volk Field CRTC (Gonnering, 2015, personal communication; Appendix C). The nearest off-Base PWS well is located at Camp Douglas Waterworks, approximately 5,380 feet southwest and hydrologically upgradient of the test area (EDR, 2015). This active well serves a population of approximately 640 (EDR, 2015). Ingestion exposure is a potential pathway for local populations.

The majority of the off-Base population within a 4-mile radius of the location relies on municipal water taken from the Sandstone aquifer. The off-Base population within 4 miles of the location is approximately 1,420 residents (EDR, 2015). The closest downgradient residential area is more than 4 miles from the location.

# 3.4.2.3.2 Surface Water Pathway and Targets

Surface drainage originating from most of Volk Field CRTC drains to the Lemonweir River. The surface water drainage from the Spray Nozzle Test Area (Alternate Location) mostly penetrates the ground through the porous sands and soil onsite. Also, the surrounding surface water drains toward the sand pit from the bluffs and the surrounding area. The potential migration of surface water into groundwater is likely, based on the hydraulically connected aquifers and porous soils, which could provide a complete pathway for exposures, such as dermal and ingestion exposure to humans. Dermal contact and ingestion by aquatic or other animals is also a potential pathway for ecological receptors.

The Spray Nozzle Test Area (Alternate Location) is not located within any floodplains. The National Wetlands Inventory database indicates a small freshwater pond on the area. However, no ponds were observed on the area during the visit. The nearest body of water is a small unnamed tributary, located approximately 2,140 feet east and downgradient of the location. Any surface water that does not penetrate the porous soils will continue to flow east in an unnamed tributary that discharge into the Lemonweir River approximately 3.3 miles downstream.

There are no identified downstream fisheries or other ecologically sensitive environments adjacent to the surface water migration path 15 miles downstream of the location (EDR, 2015; USFWS, 2015). Several wetlands are along the surface water migration path 15 miles downstream of the location (EDR, 2015). Local waterways are used for recreational fishing by residents of nearby communities.

# 3.4.2.3.3 Soil and Air Exposure Pathways and Targets

The area is covered with a thin layer of grass on top of sand. Although the surrounding area is well-vegetated, the thin grass cover would not preclude all fugitive dust emissions; therefore, workers could be exposed to soil through dermal or inhalation pathways. The potential exists for soil exposure to burrowing animals.

No residents are onsite. The nearest residential area is approximately 4,625 feet west of the location. Population details of the residential areas within a 4-mile radius are discussed in Section 3.4.2.3.1.

No schools or day care facilities are within a 200-foot radius of the location. The nearest school is Camp Douglas Elementary, located approximately 1.5 miles off Base to the west of the location (EDR, 2015). The nearest day care facility is Laugh and Learn Child Care, located approximately 1.4 miles to the west (EDR, 2015).

## **3.4.3** Oil-Water Separator (Building 510)

## 3.4.3.1 Description and Operational History

The Oil-Water Separator (Building 510) at the fire department is located on the east side of the building outside of the bay doors and is surrounded by asphalt. All materials captured in the floor drains inside the fire station travel through the Oil-Water Separator (Building 510) before being distributed to the sanitary sewer system. The geographic coordinates are 43°56'6.33"N and 90°15'42.11"W. The location of the Oil-Water Separator (Building 510) is shown on Figures 1.1 and 3.1.

Any spills and all fire engines are washed inside the fire station where all materials are rinsed down the floor drains. The rinse materials, which could potentially contain small amounts of AFFF (approximately less than 1 gallon), will pass through the Oil-Water Separator (Building 510) before going into the sanitary sewer system (Davies, 2015, personal communication; Appendix C). There are no known releases to the environment from Building 510 Oil-Water Separator. There are also no known or documented releases of AFFF outside of the Oil-Water Separator (Building 510).

#### 3.4.3.2 <u>Waste Characteristics</u>

Not applicable.

#### 3.4.3.3 Pathway and Environmental Hazard Assessment

Not applicable.

# 3.4.3.3.1 Groundwater Pathway and Targets

Not applicable.

#### 3.4.3.3.2 Surface Water Pathway and Targets

Not applicable.

# 3.4.3.3.3 Soil and Air Exposure Pathways and Targets

Not applicable.

# **3.4.4** Current Wastewater Treatment Plant (Building 650)

## 3.4.4.1 Description and Operational History

The current WWTP (Building 650) was constructed in 1995 and is located on the western portion of Volk Field CRTC (Walter, 2015, personal communication; Appendix C). The WWTP contains a lift station and three settling ponds. The geographic coordinates are 43°56′7.62″N and 90°16′33.57″W. The location of the current WWTP (Building 650) is shown on Figures 1.1 and 3.3. The current WWTP (Building 650) handles all of the waste produced at Volk Field CRTC including any AFFF that may have been disposed of into the system from the fire stations or the current FTA (Building 630). The three settling ponds are lined with 60 mil polyvinyl chloride liner (Gonnering, 2015, personal communication; Appendix C). The discharge from the third settling pond travels through a pipe system to an unnamed tributary located north of the Base (Gonnering, 2015, personal communication; Appendix C).

The Fire Chief indicated that any potential discharges of AFFF from the fire stations and current FTA (Building 630) could have potentially traveled to the WWTP (Davies, 2015, personal communication; Appendix C). There are no known releases of AFFF within Building 650. There are also no known or documented releases of AFFF outside of the WWTP.

## 3.4.4.2 <u>Waste Characteristics</u>

Not applicable.

#### 3.4.4.3 Pathway and Environmental Hazard Assessment

Not applicable.

# 3.4.4.3.1 Groundwater Pathway and Targets

Not applicable.

3.4.4.3.2 Surface Water Pathway and Targets

Not applicable.

# 3.4.4.3.3 Soil and Air Exposure Pathways and Targets

Not applicable.

#### 3.4.5 Former Primary and Secondary Wastewater Settling Ponds

#### 3.4.5.1 Description and Operational History

The former primary and secondary wastewater settling ponds were in operation prior to 1970 until 1995 (Walter, 2015, personal communication; Appendix C). The primary wastewater settling pond was located adjacent to the north of the current WWTP (Building 650), and the secondary wastewater settling pond was located north of Site 5 - 1978 KC97 crash location on the north side

of the unnamed road. The geographic coordinates of the former primary and secondary wastewater settling ponds are 43°56'12.55"N and 90°16'32.61"W and 43°56'32.29"N and 90°15'9.69"W, respectively. The pond locations are shown on Figures 1.1, 3.1, and 3.3. Prior to 1995, the former wastewater settling ponds at Volk Field CRTC collected the waste on Base. These wastewater settling ponds were not lined with any type of material. The sanitary sewer utility lines would connect to the primary and secondary wastewater settling ponds. The Environmental Manager indicated that the ponds would discharge into the unnamed tributary located north of the Base just as the current WWTP (Building 650) discharges (Gonnering, 2015, personal communication; Appendix C).

# 3.4.5.2 <u>Waste Characteristics</u>

The same practices from the fire station occurred while these settling ponds were in operation (Davies, 2015, personal communication; Appendix C). It is therefore likely that any AFFF released from the fire station would have encountered the settling ponds.

## 3.4.5.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (USEPA, 1989).

Database research (EDR, 2015) shows one day care facility and one elementary school within the potential migration area of 4 miles from any potential PFC release location. No schools or day care facilities are located on Base (Gonnering, 2015, personal communication; Appendix C). The day care facility is located approximately 6,520 feet hydrologically upgradient of the former wastewater settling ponds.

#### 3.4.5.3.1 Groundwater Pathway and Targets

The primary drinking water source for Volk Field CRTC is the Sandstone aquifer. Production wells on Base pump water from the Sandstone aquifer at depths ranging from 250 to 305 feet bgs (Zanter, 2015, personal communication; Appendix C). The Sandstone aquifer underlying Volk Field CRTC is unconfined and highly permeable.

The Volk Field CRTC population within a 4-mile radius of the location relies on drinking water from the Sandstone aquifer through onsite production wells (Gonnering, 2015, personal communication; Appendix C). The nearest production well (W1) from the former primary wastewater settling pond is located approximately 2,340 feet to the south and hydrologically cross-gradient of the pond. The nearest production well (W5) from the former secondary wastewater settling pond is located approximately 3,725 feet to the south and hydrologically cross-gradient of the pond. There are no residents at Volk Field CRTC (Gonnering, 2015, personal communication; Appendix C).

The nearest off-Base PWS well is located at Camp Douglas Waterworks, approximately 6,310 feet southwest and hydrologically cross-gradient of the former primary wastewater settling pond and approximately 8,740 southwest and hydrologically cross-gradient of the former secondary wastewater settling pond (EDR, 2015). This active well serves a population of approximately 640 (EDR, 2015). Ingestion exposure is a potential pathway for local populations.

The majority of the off-Base population within a 4-mile radius of the location relies on municipal water taken from the Sandstone aquifer. The off-Base population within 4 miles of the location is approximately 1,310 (EDR, 2015). The closest downgradient residential area is more than 4 miles from the location.

# 3.4.5.3.2 Surface Water Pathway and Targets

Surface drainage originating from most of Volk Field CRTC drains to the Lemonweir River. The surface water drainage from both wastewater settling ponds mostly penetrates the ground through the porous sands and soil onsite because the area in the vicinity is flat. The secondary wastewater settling pond is in a low-lying area. The potential migration of surface water into groundwater is likely, based on the hydraulically connected aquifers and porous soils, which could provide a complete pathway for exposures, such as dermal and ingestion exposure to humans. Dermal contact and ingestion by aquatic or other animals is also a potential pathway for ecological receptors.

The location is not located within any floodplains. Both ponds are identified as freshwater lakes based on the National Wetlands Inventory database. However, during the visit, neither location contained any standing water. The nearest body of water to the primary wastewater settling pond is a small unnamed tributary, located approximately 165 feet northeast and downgradient of the location. The nearest body of water to the secondary wastewater settling pond is a small unnamed tributary, located approximately 200 feet north and downgradient of the location. Any surface water that does not penetrate the porous soils will continue to flow north to where the two unnamed tributaries connect north of the location that discharge into the Lemonweir River approximately 2 miles downstream.

There are no identified downstream fisheries or other ecologically sensitive environments adjacent to the surface water migration path 15 miles downstream of the location (EDR, 2015; USFWS, 2015). Several wetlands are along the surface water migration path 15 miles downstream of the location (EDR, 2015). Local waterways are used for recreational fishing by residents of nearby communities.

# 3.4.5.3.3 Soil and Air Exposure Pathways and Targets

The wastewater settling ponds are surrounded by well-vegetated, grassy areas. The well-vegetated area would preclude any fugitive dust emissions and potential exposure. Current and planned future land use does not involve any human health exposures. Any future work on the former primary wastewater settling pond could provide the potential of exposure to utility workers from the sanitary sewer line located on the east side of the former pond. No utilities are located near the former secondary wastewater settling pond. The potential of exposure to burrowing animals would be present.

No residents are onsite. The nearest residential area is approximately 6,350 feet south of the location. Population details of the residential areas within a 4-mile radius are discussed in Section 3.4.5.3.1.

No schools or day care facilities are within a 200-foot radius of the location. The nearest school is Camp Douglas Elementary, located approximately 1 mile off Base to the south of the location (EDR, 2015). The nearest day care facility is Laugh and Learn Child Care, located approximately 0.9 mile to the south (EDR, 2015).

## **3.4.6** Treated Wastewater Outfall

## 3.4.6.1 <u>Description and Operational History</u>

The current WWTP (Building 650) was constructed in 1995 and is located on the western portion of Volk Field CRTC (Walter, 2015, personal communication; Appendix C). The current WWTP (Building 650) handles all of the waste produced at Volk Field CRTC including any AFFF that may have been disposed of into the system from the fire stations or the current FTA (Building 630). After the water is treated at the current WWTP (Building 650), it is piped offsite where it is discharged into the Lemonweir River. The geographic coordinates of the treated wastewater outfall are 43°56'48.35"N and 90°12'36.41"W. The location of the treated waste water outfall is shown on Figures 1.1 and 3.4.

## 3.4.6.2 <u>Waste Characteristics</u>

Not applicable.

## 3.4.6.3 Pathway and Environmental Hazard Assessment

A complete exposure pathway typically includes the following components: a source of contamination (an environmental medium contaminated at the source or a release mechanism by which chemicals are released from a source medium and transported), an exposure medium by which a receptor comes into contact, and a route of intake for the contaminant into the receptor's body at the exposure point. If any of these elements are missing, the pathway is incomplete. Other release mechanisms resulting in exposure media for receptors may include the uptake of soil contaminants by plants and animals and the emission of soil contaminants into the air in association with dust particles (USEPA, 1989).

Database research (EDR, 2015) shows one day care facility and one elementary school within the potential migration area of 4 miles from any potential PFC release location. No schools or day care facilities are located on Base (Gonnering, 2015, personal communication; Appendix C). The day care facility is located approximately 3.7 miles hydrologically upgradient of the treated wastewater outfall.

# 3.4.6.3.1 Groundwater Pathway and Targets

Not applicable.

#### 3.4.6.3.2 Surface Water Pathway and Targets

The treated wastewater is directly piped from the current WWTP (Building 650) to the Lemonweird River; therefore, there is no interaction between the treated wastewater and the ground surface until it is discharged into the river. Once the treated wastewater is discharged into the river, the potential migration of surface water into groundwater is likely, based on the hydraulically connected aquifers and porous soils, which could provide a complete pathway for

exposures, such as dermal and ingestion exposure to humans. Dermal contact and ingestion by aquatic or other animals is also a potential pathway for ecological receptors.

The treated wastewater outfall is located within the rivering flood plain.

There are no identified downstream fisheries or other ecologically sensitive environments adjacent to the surface water migration path 15 miles downstream of the location (EDR, 2015; USFWS, 2015). Several wetlands are along the surface water migration path 15 miles downstream of the location (EDR, 2015). Local waterways are used for recreational fishing by residents of nearby communities.

#### 3.4.6.3.3 Soil and Air Exposure Pathways and Targets

Not applicable.

#### **3.4.7** Base Supply Building (Building 10)

#### 3.4.7.1 Description and Operational History

The Base supply building (Building 10) is located on the western boundary of Volk Field CRTC and contains AFFF storage. The geographic coordinates are 43°55'43.97"N and 90°16'11.21"W. The location of the Base supply building (Building 10) is shown on Figures 1.1 and 3.3. On the first floor and in the basement of the Base supply building (Building 10) are approximately 1,800 gallons of AFFF stored in 5-gallon buckets.

Only one discharge of less than 1 gallon of AFFF has occurred inside the building. The discharge was cleaned up and disposed of in accordance with proper procedures (Gasper, 2015, personal communication; Appendix C). No other releases are known or have been documented at the Base supply building (Building 10).

#### 3.4.7.2 <u>Waste Characteristics</u>

Not applicable.

#### 3.4.7.3 Pathway and Environmental Hazard Assessment

Not applicable.

#### 3.4.7.3.1 Groundwater Pathway and Targets

Not applicable.

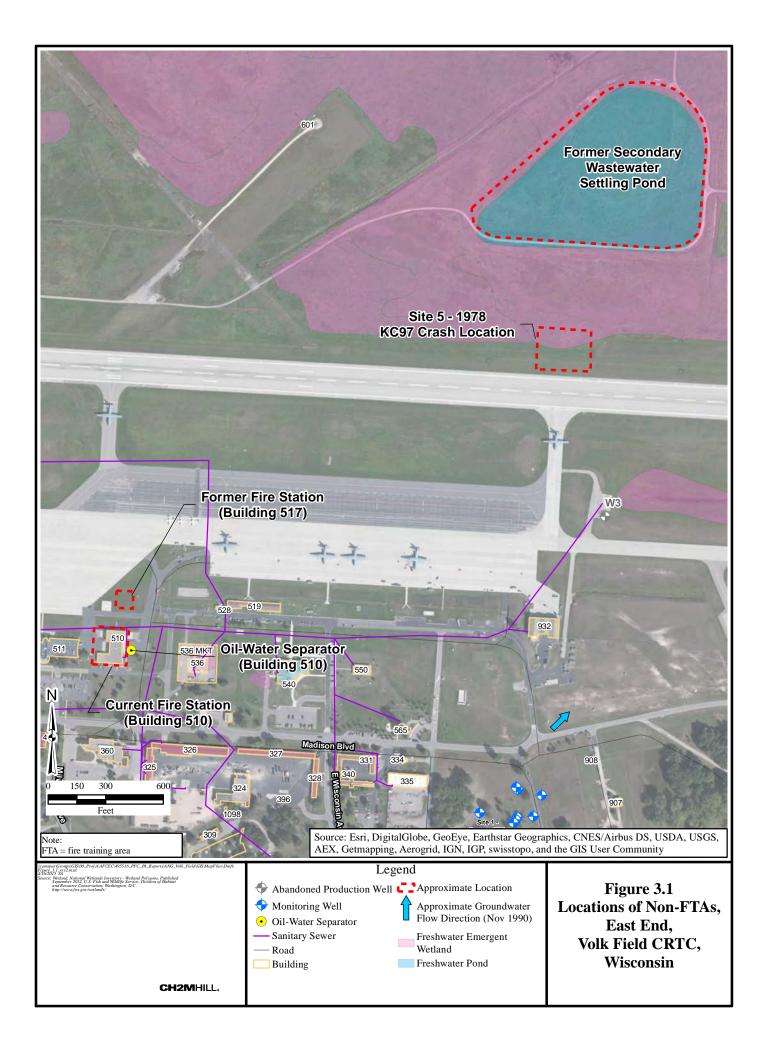
#### 3.4.7.3.2 Surface Water Pathway and Targets

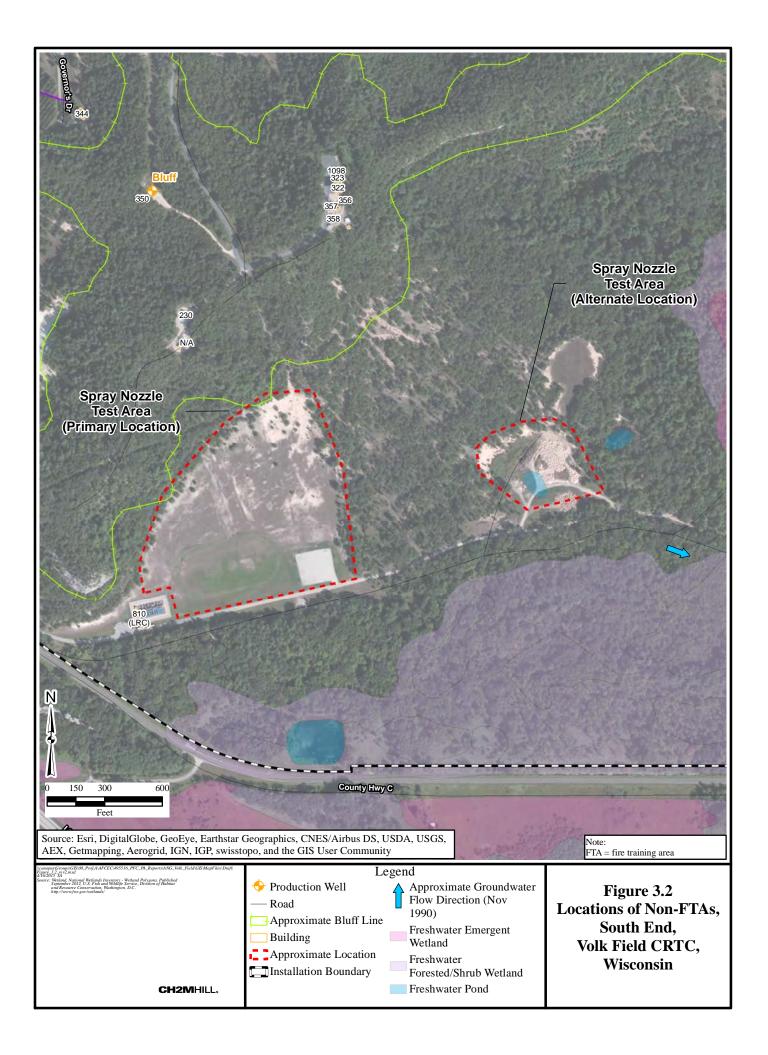
Not applicable.

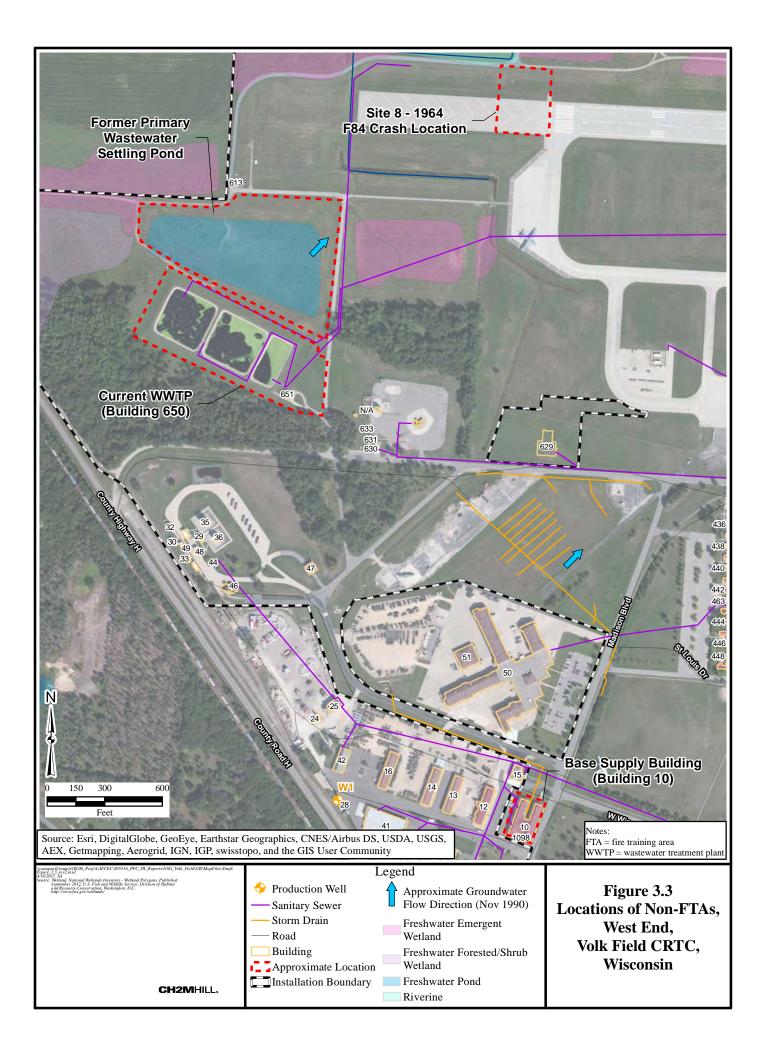
#### 3.4.7.3.3 Soil and Air Exposure Pathways and Targets

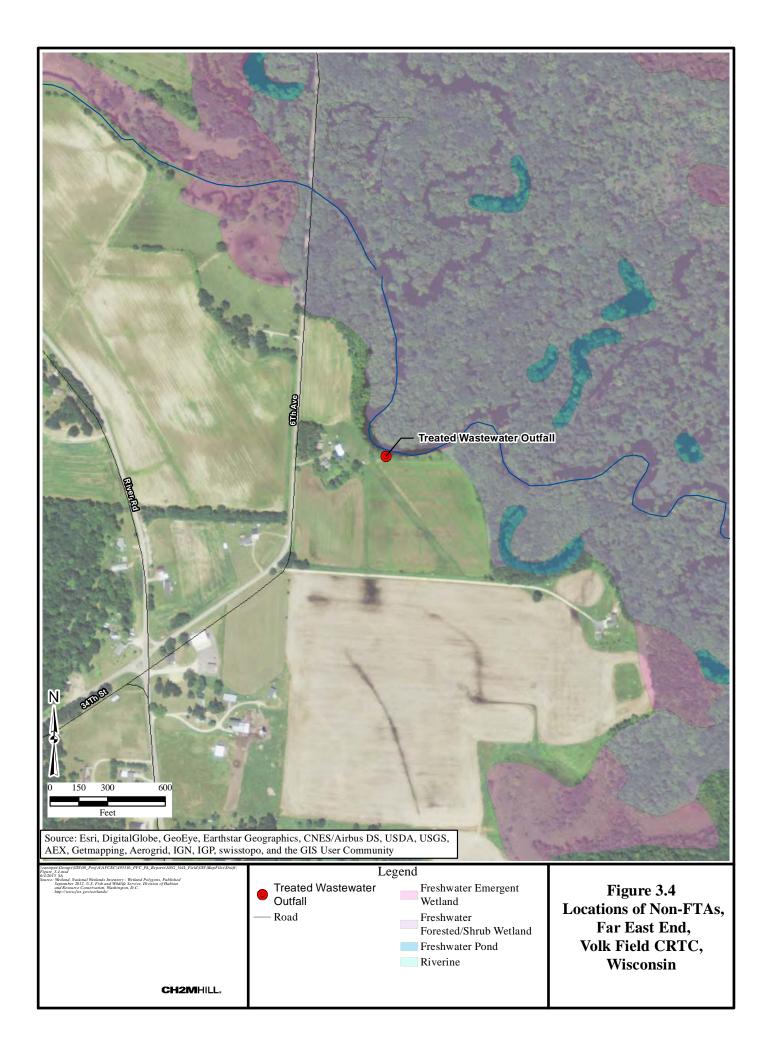
Not applicable.

**FIGURES** 









# 4.0 SUMMARY AND CONCLUSIONS

# 4.1 SUMMARY

#### 4.1.1 Fire Training Areas

# 4.1.1.1 Fire Training Areas Closed Prior to 1970

No FTAs used only prior to 1970 were identified onsite.

#### 4.1.1.2 Fire Training Areas Operational After 1970

FTAs used after 1970 (Site 1 – Former FTA) could contain PFOA- and PFOS-impacted media.

## 4.1.1.3 <u>Current Fire Training Areas</u>

Volk Field CRTC currently operates one FTA, which is constructed with asphalt, concrete, and a vinyl-lined gravel pit to collect all excess materials, which are then diverted to the sanitary sewer system. This FTA uses only propane as a fuel source and water to diffuse the fires. Small amounts of AFFF have been released at the location but these were captured in the gravel pit and directed into the sanitary sewer system.

#### 4.1.2 Non-Fire Training Areas

#### 4.1.2.1 Spray Nozzle Test Areas, KC97 Crash Location, and WWTP Locations

To ensure proper equipment operation, the spray nozzle test areas (sand pits) had AFFF applied annually to test the fire engine settings; the AFFF quickly infiltrated the porous soils. These areas could therefore contain PFOA- and PFOS-impacted media.

The Volk Field CRTC Fire Department responded to a KC97 crash location in 1978. It is unknown what type of firefighting foam was used at the crash location or the amount of foam used. Consideration of the possible presence of impacted media cannot be excluded from this emergency response location.

The WWTP locations, both current and former, have had AFFF-impacted media end up in the wastewater settling ponds of the systems from various locations onsite, including the fire stations and the current FTA (Building 630). However, because there are no reported releases from the current WWTP's engineered systems, only the former WWTP is likely to have had AFFF released to the environment. These former settling ponds could therefore contain PFOA- and PFOS-impacted media.

#### 4.1.2.2 Fire Stations and Base Supply Building (Building 10)

Volk Field CRTC has one fire station on Base. Both the former fire station (Building 517) and the current fire station (Building 510) have had fire engines and bulk storage containers that hold AFFF. All refueling and washing of fire engines occurs inside the fire stations, where all excess materials including AFFF are captured in the floor drains. Because of the capture of AFFF inside

the fire station floor drains, and no reported releases outside of the buildings, it is unlikely that PFC-impacted media would be present at the fire stations.

The Base supply building (Building 10) at Volk Field CRTC has storage of AFFF. Due to the lack of releases outside of this location, it is unlikely that PFC-impacted media would be present at the Base supply building (Building 10).

# 4.2 CONCLUSIONS

Table 4.1 summarizes the findings from this PA Report and presents possible future location management decisions. The identified locations are categorized by group as follows:

- Group 1 High mass of AFFF released and probability of groundwater contamination.
- Group 2 Unknown mass or medium mass of AFFF released.
- Group 3 Low mass of AFFF released.
- Group 4 No AFFF released.

Based on the group designation and rationale for each location, recommendations are provided in Table 4.1. In accordance with the USEPA CERCLA PA and Site Inspection (SI) Guidance documents (USEPA, 1991; USEPA, 1992), each identified location is recommended for one of the following four actions: implement removal action due to imminent threat; close out due to no release; initiate a Remedial Investigation (RI); or initiate an SI.

- Removal actions, as defined in CERCLA Section 104, are actions taken to eliminate, control, or otherwise mitigate a threat posed to public health or the environment due to a release or threatened release of hazardous substances (USEPA, 1991).
- Close out or no further remedial action planned is defined as a disposition decision that further response under the federal Superfund is not necessary (USEPA, 1991).
- RI is defined as a field investigation to characterize the nature and extent of contamination at a location. The RI supports development, evaluation, and selection of the appropriate response alternative (USEPA, 1991).
- SI is defined as an investigation to collect and analyze waste and environmental samples to support an evaluation (USEPA, 1992).

	Volk Field CRTC, Wisconsin				
Locations	Group	Rationale	Recommendation		
Site 1 – Former FTA	Group 2	<ul> <li>Unknown use of AFFF from 1970 to 1980.</li> <li>No containment.</li> <li>Unknown amounts of AFFF released.</li> </ul>	Initiate SI.		
Current FTA (Building 630)	Group 4	• All AFFF releases contained to sanitary sewer system.	Close out with no additional investigation.		
Current Fire Station (Building 510)	Group 4	• All AFFF releases contained to sanitary sewer system.	Close out with no additional investigation.		
Former Fire Station (Building 517)	Group 4	• All AFFF releases contained to sanitary sewer system.	Close out with no additional investigation.		
Site 5 – 1978 KC97 Crash Location	Group 2	<ul> <li>Unknown use and amounts of AFFF discharged directly onto ground (no pavement).</li> <li>One-time event.</li> </ul>	Initiate SI.		
Site 8 – 1964 F84 Crash Location	Group 4	• No AFFF use.	Close out with no additional investigation.		
Spray Nozzle Test Area (Primary Location)	Group 2	<ul> <li>Repeated application of AFFF directly into sand pit.</li> <li>No more than 20 gallons of AFFF used each year.</li> </ul>	Initiate SI.		
Spray Nozzle Test Area (Alternate Location)	Group 2	<ul> <li>Repeated application of AFFF directly into sand pit.</li> <li>No more than 20 gallons of AFFF used each year.</li> </ul>	Initiate SI.		
Oil-Water Separator (Building 510)	Group 4	• Potential for AFFF within the Oil-Water Separator (Building 510), but no known discharges or releases to the environment.	Close out with no additional investigation.		
Current WWTP (Building 650)	Group 4	• No known discharges or releases outside of WWTP.	Close out with no additional investigation.		
Treated Wastewater Outfall	Group 2	• Potential discharge of water contaminated with AFFF.	Initiate SI.		
Former Primary and Secondary Wastewater Settling Ponds	Group 2	<ul> <li>Known AFFF-impacted media.</li> <li>No containment.</li> <li>Unknown amounts of AFFF released.</li> </ul>	Initiate SI.		

 Table 4.1

 Preliminary Assessment Report Summary and Findings

 Volk Field CRTC Wisconsin

Volk Field CRTC, Wisconsin					
Locations	Group	Rationale	Recommendation		
Base Supply Building (Building 10)	Group 4	<ul> <li>Known AFFF storage, but no known releases.</li> </ul>	Close out with no additional investigation.		

Table 4.1Preliminary Assessment Report Summary and FindingsVolk Field CRTC, Wisconsin

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Preliminary Assessment Report

Walter, Edwin (Real Property). 2015. Personal communication. March 2. Zanter, Tom (Utility Supervisor). 2015. Personal communication. March 2.

# APPENDIX A

# PHOTO DOCUMENTATION

# PHOTOGRAPH LOG

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Photo 1



Photo 3



Photo 2



Photo 4

#### HGL—Preliminary Assessment Report—Volk Field Combat Readiness Training Center, Wisconsin



Photo 5



Photo 7



Photo 6



Photo 8



Photo 9



Photo 11



Photo 10







Photo 13



Photo 15

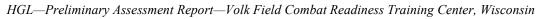




Photo 14



Photo 16



Photo 17



Photo 19



Photo 18





# **APPENDIX B**

# FIELD DOCUMENTATION

## POTENTIAL HAZARDOUS WASTE SITE FORMS

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	Soy (Inde	(hefer to) urce Waste Quantity.	Trinizative 7     Trinizative 7     Thomese Like     Thomese Like     Wole Specified     Okher  arracteristics Infor PA Table 1 for WC So	Rest e Foler" (check-all Type of (check-all that a (check-all that a) (check-all that a (check-all that a) (check-all th	School, or Workplace: Feet Feet Feet Feet Feet Feet Feet Dily Waste Dily Waste Mining Weste Mining Weste Explosives	
	Soy (Inde	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest e Riet General Type of (check all that a Coganics Coganics Ineganks Solvents Solvents Solvents Solvents Solvents Solvents	School, or Workplace: Feet Feet Feet Feet Feet Feet Feet Dily Waste Dily Waste Mining Weste School, or Workplace: Feet Dily Waste Mining Weste School, or Workplace: Feet Set School, or Workplace: Feet Set Set School, or Workplace: Feet Set Set Set Set Set Set Set	
Cool Cool Cool Cool Cool Cool Cool Coo	Soy (Inde	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest e Riet General Type of (check all that a Coganics Coganics Ineganks Solvents Solvents Solvents Solvents Solvents Solvents	School, or Workplace: Feet Feet Feet Feet Feet Feet Feet Dily Waste Dily Waste Mining Weste Mining Weste Explosives	
	Soy (Inde	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest e Riet General Type of (check all that a Coganics Coganics Ineganks Solvents Solvents Solvents Solvents Solvents Solvents	School, or Workplace: Feet Feet Feet Feet Feet Feet Feet Dily Waste Dily Waste Mining Weste School, or Workplace: Feet Dily Waste Mining Weste School, or Workplace: Feet Set School, or Workplace: Feet Set Set School, or Workplace: Feet Set Set Set Set Set Set Set	
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	501 (Incl 1975	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest ErBer Fination sore) General Type of (check all that all Check all that all Metals Organics Inceganics Sulvents Sulvents Sulvents Sulvents Sulvents Construction	School, or Workplace: Feet Feet Feet Feet Feet Feet Feet Feet Pesticides/Herbinde Adds/Bases Dily Waste Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Other Pesticides/Herbinde	
Cool Contentioned Swy/Sediment Contention C	501 (Incl 1975	(hefer to) urce Waste Quantity.	Trinizative 7     Trinizative 7     Thomese Like     Thomese Like     Wole Specified     Okher  arracteristics Infor PA Table 1 for WC So	Rest E Riet" General Type of (check all that all Organics Inceganks Suivents Suivents Saints/Pigme Saints/Pigme Saints/Pigme Construction Physical State that apply):	School, or Workplace: Feet of Waste oply: Pesticides/Herbicide Pesticides/Herbicide Dily Waste Dily Waste Norse Esplearives Esplearives  Mete  Mete  Derevillion Waste  for Waste as Deposited (check all	
	501 (Incl 1975	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest E Riet" General Type of (check all that all Organics Inceganks Suivents Suivents Saints/Pigme Saints/Pigme Saints/Pigme Construction Physical State that apply):	School, or Workplace: Feet Feet Feet Feet Feet Feet Pesticides/Herbicide Adds/Basis Dily Waste Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste Explosives Micing Weste	
Cool Contentioned Swy/Sediment Contention C	501 (Incl 1975	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest e Foler" General Type of (check all that a (check all that a Organics Organics Inorganks Solvents	School, or Workplace: Feet of Waste of Waste of Waste Dily Waste Dily Waste Dily Waste Mining Waste Dily Waste Dily Waste Dily Waste Dily Waste Other Sold Sold Sold Sold Sold	
Codi Cili and Gas Cili and Gas Non-metallic Minerals Source Type: (check all Mat apply) Cambrill Surface Empoundment Drums Tanks and Non-Sourc Contain Commical waste Pile Scráp Metal or June, MM Tallings Pile Trash Pile (open drum) Containth-did Source) Containth-did Source) Containth-did Source) Containth-did Source).	501 (Incl 1975	(hefer to) urce Waste Quantity.	Printepoye 1     Thomso Like     Wote Specified     Okher arracteristics Infor PA Table 1 for WC So     Tier*:	Rest e Foler" General Type of (check all that a (check all that a Organics Organics Inorganks Solvents	School, or Workplace: Feet Feet Feet Feet Feet Feet Feet Feet Feet Feet Pesticides/Herbicides Dily Waste Dily Waste Dily Waste Scioopha Waste Explesives Weste Other Feet Scioopha Waste Funicipal Waste Scioopha Waste Scioopha Waste Feet Other Scioopha Waste Scioopha Scioopha Waste Scioopha Scioopha Scioopha Waste Scioopha Scioopha Sciopha Scioopha Sciopha Sciopha Scioo	

6 Ground Water Used for Drinking	7. Ground Water Pathy		
Within 4 Miles:	Is There a Suspected Release to Ground Water <sup>1</sup> : El Yes No	List Secondary Target Population Served by Ground Water Withdrawn From: n = 1/4 Mile	
If Yes, Distance to nearest Drinking			
Well: 372 Feet	Have Primary Target Drinking. Water Wells Been Identified:	- >1/4 - 1/2 Mile	
Type of Drinking Water Wells Within A Miles	U Yes	>3/2+1 Mile	
(check all that apply):	If Yes, Enter Primary Target	>1 - 2 Mile	
M, Munidpel M Privam	Population: People <sup>3</sup>	>2-3 Mile	
Depth to Shallowest Aquifer:	Nearest Designated Wellhead	>il - 4 Mile	
Feet	Protection Area <sup>®</sup> :	Total Within 4 Miles <sup>4</sup>	
Karst Terrain/Aquifer Present:	☐ Underlies Silice ☐ ⇒0:4 Miller ☐ Note Within 4 Miller	* Live population fo for PA Table 2 * Mote nearest well for #5 on Der Pathway Scoreshoet	
	8. Surface Water Pathw	ray .	
thet apply): (S) Stream S) River [] [] Day [] Cosan []	Pand 🗍 Like Other	Surface Water: Faet Milles	
is There a Suspected Release to Surface	Water <sup>1</sup> -	Site is Located in: Annual - 10 yr Readplain > 10 yr - 100yr Readplain > 200yr - 500yr Readplain 50 > 500yr Readplain 50 > 500yr Readplain	
Drinking Water Intake Located Along th	e Surface Water Migration Path;	List All Secondary Target Drinking Water Intakes:	
		Mana: Willas Body, They Istily Providentian Served	
Have Primary Target Drinking Water Int	akes Been Identified:		
년 Yes If Yes, Distar 版 No Water Intake	ce to Nearest Drinking 21. Miles*	$\longrightarrow$	
I Yes, Enter Population Served by Targe	n Intake:		
People*		Total within 35 Aniles "	
Fisheries Located Along the Surface Wa	The second se	List All Secondary Target Fisheries <sup>19</sup>	
Mar With a With a state	te to Nearest Fishery:	Water Body/ Etchern Name : Elow Idal:	
Ves 🕅 No If Yes, Distant	Miles	*	
La Yes ( No K Yes, Distant Have Primary Target Fisheries Been Iden La Yes ( ) No			

Wetlands Located Along the Surface W	ater Migration	Ater Pathway (o Other Sensitive		Located Along the Surface Water	
Path		Migration Path			
□ Y== ⊠ №		Yes         If Yes, Distance to Nearest Sensitive           Xes         Environment:        Willes			
Have Primary Target Wetlands Been Id	lentified:	Have Primary Target Sensitive Environments Been Identified			
Hes No		List All Sensitive Environments <sup>13</sup> :			
List All Wetlands:					
Woter Brise : Elowidal: Eronature miles:		Water Body :	Elow (chi):	Sendition Emiliparment Types;	
	9. Sol	Exposure Path	vav		
Are People Occupying Residence or	Number of Wo			strial Sensitive Environments Been	
Attending School or Daycace on or Within 200 Fest of Area of Known or Suspected Contamination:		206- - 100 17 - 2,000 1,000	Identified on or Within 200 Feet of Areas of Known of Suspected Contamination:		
D res					
Ja No			If Yes, List Each Terrestrial Sensitive Environment <sup>5</sup> :		
If Yes, Enter Total Residential Population: People <sup>1</sup>		People <sup>7</sup>	*Refer to PA Table 7 for environment type:		
	1	. Air Pathway			
is there a Suspected Release to Air <sup>1</sup> :		Wétłands Loca	ted Within & M	illes of the Site <sup>6</sup> .	
Enter Total Population on or Within:		No IF Yes, How Many Acres: Acres			
		A second s		Other Sensitive Environments Located Within 4 Milles of the Site	
		Other Sensitive	Environment	Locared Within 4 Miles of the Sire:	
Qusite		Other Sensitive			
		Other Sensitive	Environmeno Al Yes No		
Qusite			し の 図 No		
Qnsite		List All Sensitiv	به ب		
Qnsite 0-1/4 Mile >1/4-1/2 Mile		List All Sensitiv	به ب	s Within 1/2 Mile of the Site <sup>5</sup> .	
Qnsite 0-1/4 Mile >1/4-1/2 Mile >1/2-1 Mile		List All Sensitiv Distance: S	englifice Chultoni	s Within 1/2 Mile of the Site <sup>5</sup> . Ment Type/Wetlands Area (acres):	
Qnsite 0-1/4 Mile >1/4-1/2 Mile >1/2-1 Mile >1-2 Miles		List All Sensitiv Distance: S Onsite G-1/4 Mile	A res No No No No No No No No No No	s Within 1/2 Mile of the Site <sup>5</sup> . ment Type/Wetlands Area (acres): S	

<sup>111</sup> Refers to question number on the PA scoresheet for early particular philoway

a second a second second			CONTRACT!	Identificatio	a statistic sector in the sector of the sect
otential Hazardo		reliminary /	Assessment	101	CERCLIS #:
	Form			CERCUS Dise	overy Date:
	1. Gen	eral Site Informa	don	4	
ame:	Street Address	2			
VOIK Field 1				1	12
Canip Douglas	State:	Zip Code: S46(8	JUNEON	Co. Coder	Cong. Dist:
atitude: Longitude:	<ul> <li>Approximate A</li> </ul>	Approximate Area of Site: Status of Site:			
13.50 23.47 W 90 15 11	32410-1.4	Acres	Addive	St Net Specified	
		Square Ft	Inactive	1 MA (GW plum	e, ec.)
ite Name: <u>Site</u> 5 - ite Description:	1978 KC97 CI	jash Side			
under a balls travel	the second se	r/Operator Inform	nation		
Dwiner: Malk Enth Street Address:	Marc	Street Address:			
odit vooress:		SU PEL PLOPESS.			
any: ( any Dough	0.5	City			
itale: Zip Code: WN S4615	Telechone	State:	Zip Code:	Telephone:	
Type of Ownership:		Type of Owner	ship:		
🗋 Private 🚺	County Municipal Wax Specified	Private Bederal Agen Names Scate indian		igal Déciñad	
Name: AAUS					
Name: <u>AAUS</u>	3. Site	Evaluator Inform	ation		
Name: <u>AAUS</u>	Agency/Organi	zation:	ation	Date Prepar	ed:
Name of Evaluator: Street Address:	Agency/Organi CHZA	izatian: 4 HUL  City:		States	ed:
Name: <u>ANG</u> State Indian Name of Evaluator: Street Address: 10123 Alliance Jul	Lage Agency/Organi CHZA	ization: 4 HILL	naut.	Constants	ed:
Name of Evaluator: Street Address:	Lage Agency/Organi CHZA	City:	naut.	States	ed:
Vame of Evaluator: State Indian Vame of Evaluator: Stophanic As itreet Address: 10123 Alliance Red Vame of ERA or State Agency (	Agency/Organi 2.1094 CHZM 1. SUIL 300 Contacts State:	City: City: Street Address	TElephone:	States	ed:
Name of Evaluator: State Indian Name of Evaluator: Street Address: 10123 Alliance Tu Name of ERA or State Agency ( City:	Agency/Organi 2. Logi CHZM 1. Suit 300 Contact Stata: 4. Site Disp	City: City: Street Address	Telephone:	State: Ø H	ed:
Name: <u>AAJS</u> State Indian Name of Evaluator: <u>Stophanic AS</u> Street Address: 10123 <u>Alliance PJ</u> Name of EPA or State Agency ( City: Emergency Response/Remova	Agency/Organi 2. Logi CHZM 1. Suit 300 Contact Stata: 4. Site Disp	City: City: Street Address Street Address CERCLIS Recom	TElephone: Use only) Imendation:	States	ed:
Name of Evaluator: Stephanic AS Street Address: 10123 Alliance FL Name of EPA or State Agency (	Agency/Organi 2. Logi CHZM 1. Suit 300 Contact Stata: 4. Site Disp	City: City: Street Address	Telephone: Use only) Imendation: Wry st	State: Ø H	

5. Gene	ral Site Characterist	tics		
Predominant Land Use Within 1 Mile of Site (check all that apply) I industrial Apriculture I DOI Commercial Mining Residential DOD Differ Federal Foreit/Fields DDF Catter	Site Settling: Dives Sub- (2) Nore (2) Nore (2) Nore	unt)\$/4	Years of Oper Beginning Y Ending Year	Bar
Type of Site Operations (check all that apply):	1		Waste Genera	ated:
Manufacturing (must check subcategory)     Lumber and Wood Products     fivorganic Chemicals     fivorganic Chemicals     Plants, Vamistes     Industriat Cryanic Chemicals     Agricultural Chemicals     Miscelfaneous Chemical Product     Phinary Motals     Metal Evoluting, Platting, Engravitin)     Metal Forging, Stampelg     Fabricated Structural Metal Products     Bectronic Equipment     Other Monufacturing     Minibg     Mielals     Coal     Cill and Sas     Non-metalia: Minerais	Large Quantity Struit Quantity Subitity D Subitity D Municipu "Converser" "Frodections File "Non-or Labe F	ity wage, or Disposal rGenerator Generator al al	Waste Depos Drs Waste Depos By: 20 Pres Pres Una Una Waste Access Sco No	te te son Diffile Ition Authorized ent Owner ent & former Owner utkonzed nown ible to the Public: earest Dwelling;
	Hote Speafiet	100 W / 1	-	Feet
	PA Table 1 for WC Scol		****	
Source Type: Source Waste Quantity (diedean that apply) (Include unit)	/: Tier=:	General Type of (check all that ap	and the second s	
Landfill  Surface Impoundment  Drant  Tanks and Non-Drum Containers  Chemical Waste Pile  Screp Netal or Tunk Pile  Tailings Pile  Tailings Pile  Tailings Pile  Contaminated drum  Land Treatment  Contaminated GW Plume  (unidentified source)  Contaminated Sulf  Dithes  No Squates	11 F 100000000	Physical State ( that apply):	ospinal Waste 📄 Vaste 📄 Demolition Waste	Pesudues/Hentidues Adda/Basies Dily Waste Mining Waste Mining Waste BipMosiyes Differ

If Ves, Distance to rearest Drinking	Is There a Suspected Release to Ground Water <sup>2</sup> : Si Yes In No Have Primary Target Drinking Water Wells Been Identified: Si Yes Si No If Yes, Enter Primary Target	List Secondary Tärget Population Served by Ground Water Withdrawn From: 0 - 1/4 Mile >1/4 - 1/2 Mile >1/7 - 1 Mile >12 Mile >2 - 3 Mile
Depth to Shallowest Aquifer:	Population: People <sup>3</sup> Nearest Designated Wellhead Frotection Area <sup>8</sup> :	>3 - 4 Mile
Karol Terrain/Aquifer Present:	Protection Area : Underlies Site > >0-9 Miles None withdn # Miles	"Nine poblication Vs for PA Table 2 "Note nations will for 45 on EW Pathway Scottsburg
	8. Surface Water Path	Vav
	Fond I Lake Uther Water <sup>1</sup> :	Feet Nilles Sike is Located in: Asioual - 10 yr Fladdplein > 10yr - 100yr Fladdplein > 10byr - Sköyr Fladdplein B + Söbyr Fladdplein.
Drinking Water Intake Located Along the Ves No Have Primary Target Drinking Water Inta Ves (f Yes, Distand No Water Intake	skes Been Identified: te to Nea <i>re</i> st Drinking	List All Secondary Target Drinking Water Inca Name Worke Bolly: Elow (cfi): Population Served:
If Yes, Enter Population Served by Target Intake:		Facel within 15 miles *
Fisheries Located Along the Surface Wat	er Migration Path: e to Nearest Fishery: Miles	List All Secondary Targel Fisheries <sup>10</sup> : Weler Sodyl Fisher Name - Hondyfal

191	the second se	later Pathway (c			
Wetlands Located Along the Surface W Path	əfer Migration	Migration Path:			
R YES No		Yes If Yes, Distance to Nearest Sensitive No Environment: Miles			
Have Primary Target Wetlands Been lo	tentificat.	Have Primary Target Sensitive Environments Been Identified:			
Yes. No		Noi Noi			
List All Wetlands:		List All Sensitive Environments <sup>11</sup> :			
Water Rodu : Flow lofs: Frontake wiles:		Water Rode -	Devisit.	Sensitive Emmonment Type;	
Are People Occupying Residence or	1	Exposure Path		stral Sensitive Environments Been	
Attending School or Daycare on or Within 200 Feet of Area of Known or Suspected Contamination:		ne: - 100 1 - 1,000 1,000	Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:		
D Yes So No			II Yes, List Each Terrestrial Sensitive Environment <sup>5</sup>		
If Yes, Enter Total Residential Population People <sup>2</sup>		nin 1 Mile: "Paople"	Theles of PATable 7 for environment types		
	1	0. Air Pathway			
Is there a Suspected Release to Air <sup>1</sup> ; Ves More Total Population on or Within:		Wetlands Loca		Wes of the Site <sup>s</sup> : w Many Acres: Acres	
Unsite		Other Sensitive Environments Located Within 4 Miles of the Site			
0.1/4 Mile		· · · · · · · · · · · · · · · · · · ·			
>1/4-1/2 Mile		List All Sensitive Environments Within 1/2 Mile of the Site <sup>6</sup> ; Distance: Sensitive Environment Type/Wetlands Area (acres).			
>1/2-1 MHz					
>1-2 Miles		Onsite	wetla	nds	
>2-3 Miles		0-1/4 Mile	wetta	nds	
>3-4 Miles		>1/4-1/2 Mile	_wette	ands	
Total Within 4 Milles 3-5		*Refer to PA Table 10 for calculations on air bathway exposures.			

<sup>12)1</sup> Refers to question number bit the PA scoresheet for each particular bathway

No. 2	all the second second	1000	The second second	Identificatio	
Potential Hazardous V	Vaste Site Pr Form	eliminary	Assessment	1621	CERCLIS-#:
	(UIII)			CERCLIS Dise	overy Date:
	1.5000	ral Site Inform	ation	·	
Name	Street Address	C in and the part have be			
Volk Field CRTS.			-	10	10.000
City: (amp Douglas	State:	Zip Code: 5468	County:	Co. Code:	Cong. Dist:
Latitude; Longitude	Approximate Ar	ea of Sile:	Status of Site:		
45.55 24. AN 90.15 . 2.74 V ~21		Acres Square Ft	Active I	Not Specified	
site Nume: Spray Nozale	Test Ann	. ( Prin	and he are a surger of the surger of		
		Operator Infor	mation		
owner: VOIK Field MG	6	Operator:			
Street Address:		Street Addres	52		
city: Counto Devalos		Gity:			
State: Zio Corie: WI 54648	Telephone:	State:	Zip Code:	Telephone:	-
	loipal Soedliked	Type of Owne Private Fedoral Age Name: State Indian	Count Count Munici	iosi KoldTiect	
1 Indian					
	3. Site F	valuator Inform	nation	-	
Name of Evaluator:	3. Site E Agency/Organiz Ct1214	valuator Inform ation: A (LL	nation	Date Prepar	ed:
Name of Evaluator: Stephanie Ase Loge Street Address:	Agency/Organiz CH2M	ation:		Date Prepar State:	
Name of Evaluator: Stephanic Aselage Street Address: 10123 Alliance Rd.	Agency/Organiz CH2M South 300	A /LL	anati.	State:	
Name of Evaluator: Stephanic Aselage Street Address: 10123 Alliance Rd.	Agency/Organiz CH2M South 300	AILL City: Cinco	anati.	State:	
Name of Evaluator: Stephanic Ase Lage Street Address: 10123 Alliance Rd. Name of EPA or State Agency Contac	Agency/Organiz CH2M 5.0.44 300 t: State:	AILL City: Cinco Street Addres	Telephone;	State:	
Name of Evaluator: Stephanic Ase Lage Street Address: 10123 Alliance Rd. Name of EPA or State Agency Contac	Agency/Organia Ctl2/M S.J. K 300 t: State: 4. Site Dispa	AILL City: Cinco	Telephone; use anly)	State:	
Name of Evaluator: Stephanic Aselogy Street Address: 1012 3 Alliance Rd. Name of EPA or State Agency Contac City: Emergency Response/Removal Asses Recommendation:	Agency/Organia Ctl2/M S.J. K 300 t: State: 4. Site Dispa	City: City: Cincu Street Addres Street Addres CERCUS Record Highert	Telephone; Use anly) mmendation:	State: DH	
Name of Evaluator: Stephanic Aselogy Street Address: 1012 3 Alliance Rd. Name of EPA or State Agency Contac City: Emergency Response/Removal Asses	Agency/Organia Ctl2/M S.J. K 300 t: State: 4. Site Dispa	AILL City: Cincu Street Addres	Telephone; Use anly) mmendation:	State: D H	

5. Gener	al Site Characteris	tics	
Predominant Land Use Within 1 Mile of Site (check all that apply): indusatal Agriculture Dol Commercial Mitning Other Federal Withing Other Federal Withing Other Federal Site (check all Agriculture Dol Kalling AuGr Site (check all Dol Commercial Dol Facility AuGr	Site Setting:	HEDRUD	Years of Operation: Beginning Year Ending Year
Type of Site Operations (check all that apply)	1		Waste Generated:
Manufaccuring (musi shedi subcategory)     Lumber and Wood Products     Inerganic Chemicals     Inerganic Chemicals     Palsic anid/or Rubber Products     Palsic anid/or Rubber Products     Palsic anid/or Rubber Products     Industrial Organic Chemicals     Industrial Organic Chemicals     Metal Coefficient Products     Metal Forging, Patring, Engraving,     Metal Forging, Stampling     Fabricakeo Structurel Metal Products     decomic Equipment     Other Manufacturing	Retail     Resycling     Juni(/Salvage Yan     Juni(/Salvage Yan     Musiadpe) Lavolill     Other Lavdill     DOD     DOE     DOE     OOrer Federal Fai;     RCRA     Treaswent, S     Lavye Quand     Small Quandil     Subtide D	d'iller Kurlage, ör Dispisal Sy Generator	Onsile     Offsile     Offsile     Offsile     Onsile and Offsile     Onsile and Offsile     Onsile and Offsile      Waste Deposition Authorized     Wresent Owner     Present & Former Owner     Onautionized     Unautionized     Unautionized
Mitalina Metals Guel Guel Guel Guel Gue Non-metallic Minierals	Munici     Indust     Tostweites*     "Protective R     "Non-or Late     Note Specified     Other	riai Iter"	Distance to Nearest Dwelling, School, or Workplace:
	aracteristics Infor PA Table 1 for WC Sco		1,
Source Type:     Source Waste Quantity:       (Preck all filecapply)     (include onit)       Landfill	Titer*:	Physical State of that apply:	nply); Pesticides/Hertikides Acids/Bases DWy Waste Municipal Waste relowing Waste Explosives

Is Ground Water Used for Drinking.	Is There a Suspected Release to	List Secondary Target Population Served by
Within 4 Miles:	Ground Water <sup>1</sup>	Ground Water Withdrawn From
	¥Q ves ⊡ no	D - 1/4 Mile
If Yes, Distance to nearest Drinking. Well:	Have Primary Target Drinking	>1/4-2/2 Mile
4210 Feel	Water Wells Been Identified:	>1/2-1 Mile
Type of Drinking Water Walls Within A Miles	The tes	>1-2 Mile
(check all that apply):	If Yes, Enter Primery Target Population:	=2-3 Mile
Q Private I Nane	People <sup>3</sup>	>3- 4 Mile
Depth to Shallowest Aquifer: Feet	Nearest Designated Wellhead Protection Area <sup>6</sup>	Tural Within & Miles4
Kurst Terrain/Aquifer Presenti Ves No	Undimites Size > 0-4 Miles Worke Within -4 Miles	*Use population Ky för PA Table 3 *Norg-nemation Ky för PA Table 3
	8. Surface Water Pathy	(8)
	Pond 🗌 Lake Other	Feet Miles
		Isite is Incated in
10 va w	Water	Site is Located in: Annual - 10 yr Floedplais - 70yr - 400yr Rhooplain - 100yr - 500yr Rhooplain - 500yr Rhoodplain 
<u>I</u> 145		<ul> <li>Minnwal - 10 yr Floedplaise</li> <li>&gt;10yr - 100yr Rhodplaise</li> <li>&gt;10yr - 500yr Rhodplaise</li> <li>&gt;500yr Rhodplaine</li> <li>&gt;500yr Rhodplaine</li> </ul>
100 va 11 m		Annual - 10 yr Floodplain - Tivr - 100yr Rhodplain - 3100yr - 500yr Rhodplain - 3500yr Rhodplain 
Drinking Water Intake Located Along the ST Vis The Have Primary Target Drinking Water Inta	e Surface Water Migrarion Path: akes Been Identified:	Annual - 10 yr Floodplain - Tivr - 100yr Rhodplain - 3100yr - 500yr Rhodplain - 3500yr Rhodplain 
R ves No Drinking Water Intake Located Along the R vis No Have Primary Target Drinking Water Inte	e Surface Water Migracion Path: akes Been Identified ce to Nearest Drinking	Annual - 10 yr Floodplain - Tivr - 100yr Rhodplain - 3100yr - 500yr Rhodplain - 3500yr Rhodplain 
Drinking Water Intake Located Along the Same Have Primary Target Drinking Water Inta Ves IFYes, Distan	e Surface Water Migracion Path: akes Been Identified: ce to Nearest Drinking :: Miles <sup>6</sup>	Annual - 10 yr Floodplain - Tivr - 100yr Rhodplain - 3100yr - 500yr Rhodplain - 3500yr Rhodplain 
Drinking Water Intake Located Along the Vis Vis No Have Primary Target Drinking Water Inta Ves If Yes, Distan Water Intake	e Surface Water Migracion Path: akes Been Identified: ce to Nearest Drinking :: Miles <sup>6</sup>	Annual - 10 yr Floodplain - Tivr - 100yr Rhodplain - 3100yr - 500yr Rhodplain - 3500yr Rhodplain 
Ves     No     No     Ves     Ves	e Surface Water Migration Path: akes Been Identified: se to Nearest Drinking Miles <sup>6</sup> t Intake:	List All Secondary Target Fisher(63 <sup>30</sup> ;
Ves     No     No     Ves     Ves	e Surface Water Migration Path: akes Been Identified: ce to Nearest Drinking :: Miles <sup>6</sup> t Intake:	Annel - 10 yr Floodplain > Tüyr - 100yr Ricolplain > 500yr - 500yr Ricolplain > 500yr Ricolplain List All Sconnidary Targer Drinkling Water In Name: Water Booy: Flow(Idg) regulation Scored Taral within 15 miles +
Drinking Water Intake Located Along the Water Intake Located Along the Water Intake Have Primary Target Drinking Water Inta Water Intake If Yes, Enter Population Served by Targe People <sup>4</sup> Fisheries Located Along the Surface Water	e Surfaçe Water Migration Path: akes Been Identified: ce to Nearest Drinking Miles <sup>6</sup> L Intake: er Migrafion Path se to Nearest Fishery; Miles	List All Secondary Target Fisher/es <sup>30</sup> ;

	a. Surface W	ater Pathway (	continued)		
Wetlands Located Along the Surface W Path:	ater Migration	Other Sensitive Environments Located Along the Surface Water Migration Path:			
D) Yes No		Ves If Yes, Distance to Nearest Sensitive If Yes, Distance to Nearest Sensitive Miles			
Have Primary Target Wetlands Been Identified.		Have Primary Target Sensitive Environments Been Identified.			
List All Wetlands:		List All Sensitive Environments1/			
Waree Book's How (cls): Foomane milles:		Water Body - Francisty, Seastman Environment Tras.			
	9, 501	Exposure Path	WBY.		
Are People Occupying Residence of Number of Wor Attending School of Devere on or Within 200 Feet of Area of Known or Suspected Contamination:		the second s	Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination: Ves. No If Yes, List Each Terrestrial Sensitive Environment <sup>5</sup> :		
Ves Va Ho					
Il Yes, Enter Total Residential Population People <sup>2</sup>		People <sup>2</sup>		Table 7 for emirenment types	
	1	0. Air Pathway			
Is there a Suspected Release to Air <sup>1</sup> : No ves wa Enter Total Population on or Within:		Carpenness in the second s		liles of the Sire <sup>s</sup> :Acres	
Unsite		Differ Sensitive Environments Located Within 4 Miles of The Silv Solution 1/2 Ust All Sensitive Environments Within 1/2 Mile of the Silv Distance: Sensitive Environment Type/Wetlands Area (acros):			
0-1/4 Mile					
>1/2-1 Mile					
>1-2 Miles		Dista	None		
+2+3 Miles		10-1/4-Mille	wellar	ds	
>3-4 Miles		>1/4+1/2 Mile	wette	inds	
Total Within 4 Miles 35		*Hefer to PA Table	st for atoutations o	m ali: patriaway experiences	

1.11 Refers to question number on the PA scoresheet for each particular pathway

Survey and Street and Street	The state of the state			Identi/icati	on
Potential Hazardous Wa	iste Site Pr	eliminary	Assessmen	t Stare:	CERCLIS #:
	Form			CERCLIS Dis	covery Date:
	1. Gene	eral Site Informa	tion	Q	
Name:	Street Address:				
Volk Field CRTC	States	Zip Code:	County:	Co. Code:	Cong. Dist:
Camp Douglas	State:	54618	JUNEAU	Concode:	CONR. DISC.
Latitude; Longitude;	Approximate An	ea of Site:	Status of Site:		
13 55 27 56 NAD 14 53 89 W		Acres	Active	Not Specifie	
	The second se	Square Ft	🗍 (naktiye	NA (GW plu	me, ac.i
ite Name: <u>Sprau</u> Novele ite Description: 0	Test An	ia LAHCENOS	are Location	1	-
additional Sc Occur wh	en primo	Operator Inform	n is not	accessi	ole
owner: VIOLE P. Ald CRTC.		Operator:			
Street Address:		Street Address			
City: Caryp Darglas		Ćity;		ā. e	-
Hate: Zptode: WI 54618	Telephone:	State:	Zip Code:	Telephone	
Type of Ownership:		Type of Owner	ship:		
Private     Private     Private     Private     Private     Not Soc     StAte     Not Soc     Not		Private Federal Agen Name: State Indian	D (6)	ity Gipal Specifiest r	
	3, Site E	valuator Inform	ation		
Name of Evaluator: Stephonic Aselage	Agency/Organiz CH2M	HILL		Date Prepa	red:
Street Address:		City:		State	
10123 Alliance Rd, S	DUNC BOD	Ciacinnati OH			
Name of EPA or State Agency Contact.		Street Address	1		
Citys	State: Telept		Telephone:		
	4, Site Disp	osition (for EPA	use only)		
Emergency Response/Removal Assesso	- Internet and the second s	CERCUS Recon	mendation:	Signature:	-
Recommendation		Lower Pr		Name (typ)	ed):
yes Na		NFRAP	and all		e de la compañía de la
		Dthert		Position	
Sela:		Dare:			

i

5. Gen	eral Site Characteri	istics	
Predominant Land Use Within 1 Mile of Site (check all that apply): industrial Agriculture in DOI Commencial Mining Stather Federal Residential DOD Stather Federal Facility: D, NG Conner		rbani Isburbani Isrbi	Years of Operation: Beginning Vean Ending Yean D Unknown
Type of Site Operations (check all that apply):	1		Waste Generated
Manufacturing (must check subcategory)     Lumber and Wood Products     Inonganic Chemicals     Plastic and/or Rubbas Products	<ul> <li>Kerali</li> <li>Resycling</li> <li>Junio/Salvage Ya</li> <li>Moni¢pal Langita</li> </ul>		{∑ Cvisite ☐ Officite ☐ Onisite and Offisite
Paints, Vinnishes     Industrial Cirganic Chemicals     Agripultural Chemicals     Miscellaneous Chemical Products     Grimary Metals     Metal Coating, Placing, Engraving	Other Landhill     DOD     DOD     DOE     DOE     DOI     Odier Federal Fe     RCRA		Waste Deposition Authorized By: M Present Owner Former Owner Present & Former Owner Unauthorized Unknown
Metal Forgling, Stamping     Falmicated Structural Motal Products     Geotronic Bulgoment     Other Manufacturing     Missing     Metals	Large Quan     Small Quan     Small Quan     Sotelle D     Munia     Munia     Munia     Munia	tty Generator tipal total	Waste Accessible to the Public:
Coe) Dil and Ezs Nore-mobilic Minerels	Converter*     Trolective     Trolective     Trolective     Thon-or Lat     Note Specified     Other	mer"	Distance to Nearest Dwelling, School, or Workplace: Feet
	Characteristics Info		
Source Type: Source Waste Quanti	to PA Table 1 for WC St ty: Tier*:	General Type o	2 Viteration
(direct a) (hat apply) (include unit)	w. ner.	(check all that a	
Landfill  Surface Empoundment  Drum  Tahles and Non-Diam Contribution  Chemical Waste Pile  Sorap Metal or Junk (Filor  Tablings Pile  Trash Pile (apter dhim)  Lund Treatment  Contaminated GW knume  Linkdentified source)  Contaminated SW/Seconest  Linkdentified Source)  Cantaminated Soll		C Construction	tospital Waste 🔲 Explosives
Other No Sources 'C=Constituent, W=Wastesstream, V=Veluppe, A=Area	-		D Gas

	7. Ground Water Pathw	/ay
Is Ground Water Used for Drinking Within & Miles: Ves No. If Yes, Distance to nearest Drinking Well. 2.1120 Feet Type of Drinking Water Wells: Within & Miles (check all that apply): None None	Is There a Suspected Release to Ground Water <sup>1</sup> : Yes No Have Primary Target DRinking Water Wells Been Identified: Ves No If Yes, Enter Primary Target Population: People <sup>3</sup>	List Secondary Target Population Served by Ground Water Withdrawn From: D- 1/4 Mile >1/4 1/2 Mile >1/2 - 1 Mile >1-2 Mile >2 - 3 Mile >3 - 6 Mile
Depth to Shallowest Aquifer: Feet Karst Terrain/Aquifer Present: res No	Nearest Designated Wellhead Protection Area <sup>5</sup> : Underlies Sile > 0-4 Miles None Wildoln 4 Miles	Total Withurt & Milles <sup>4</sup> <sup>5</sup> Use population in the PA Table 2 <sup>9</sup> Note meanest well for #5 on <i>GW</i> Philosoy Scorechant
erro.	8. Surface Water Pathy	vay
100	Pond. Ditake Other Water <sup>1</sup>	Surface Water: Feel Miles Site is Located in: Avoual - 10 yr Floodplain Site is Located in: Avoual - 10 yr Floodplain Site is Located in: Avoual - 10 yr Floodplain Site is Story: Floodplain Site is Story: Floodplain Site is Story: Floodplain
Drinking Water Intäke Located Along th Signal No Have Primary Target Drinking Water Int Ves If Ves, Distan No Water Intake If Ves, Enter Population Served by Targe People <sup>4</sup>	akes Been Identified: ice to Nearest Drinking a:Miles <sup>6</sup>	Like All Secondary Target Drinking Water Intakes:
Fisheries Located Along the Surface Wa	List, AN Secondary Target Fisherles <sup>10</sup> : Water Body ( Boison Wame : Flow (ch):	
Have Primary Target Fisheries Been Iden	ntilied	

	8. Surface W	ater Pathway (	continued)		
Wetlands Located Along the Surface W Path	later Migration	Other Sensitiv Migration Pati	ve Environments Located Along the Surface Water h:-		
No Yes		Ves If Yes, Distance to Mearest Sensitive Bore Environment:Miles			
Have Primary Target Wetlands Been l	tentified:	Have Primary	Targel Sensitive Environments Been Identified:		
D Yes		The res			
List All Wetlends:		List All Sensit	tive Environments));		
Water Asdr ( Flow (cls) Écontaise miles:		Water Body ;	Elane (cts): Jenselium Envilationnenit Tress		
	9. Sol	Exposure Path	Iway		
Suspected Contamination:		me	Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:		
			2 No W Yes, List Each Terrestrial Sensitive		
if Yes, Enter Total Residential Population: People <sup>7</sup>	Population:		*Refer to PA Table 7 for environment types		
1 (a)-1-1-1-1-	1	D. Air Pathway			
Is there a Suspected Release to Air <sup>1</sup> Tes Tes Enter Total Population on or Within:			ated Within 4 Miles of the Site <sup>s</sup> : If Yes, How Many Acres <sup>1</sup> Acres		
Dńsite		Other Sensitive Environments Located Within 4 Miles of the Sil			
Disite		List All Sensitive Environments Within 1/2 Mile of the Site <sup>6</sup> :			
					Qistance:
		>1-2 Miles		Onsile ISDAS	
>2-3 Milles		()-1/4 Mile	_wetlands		
>3-⊄ Wiles		>1/4-1/2 Mile	wetlands		
Total Within 410iles 34	_	* Kefer to PA Table 10 (on calculations on air pathway exposures			

142 Refers to question number on the PA storesheet for each paracular pathway

	Form			CERCUS Disc	Tuani Data:
C Trans				Price Date	Sucia Said.
	and the second s	eral Site Informa	ition		
Valle Field CPTC	Street Address				
Camp Dasglas	State:	Zip Code: 54618	County: JUNEAU	Co. Colle:	Cong. Dist:
Latitude: Longitude:	Approximate A		Status of Sile!		
13.56 6.33 N 90.15.42	ZIB	Acres Square Ft	inactive	No (Gin) plan	
Site Name: Dil / Jake		ulting 510	and the second second	T. V. Mar Cons. News	e, etc)
Bil/Water Floor drains ins	side fire shot	tion leads	to this !	ocation.	STOCION-
	Z. Owne	r/Operator Infor	mation		
owner: Wolf Field C <sup>a</sup>	278	Operator:			
Street Address:		Street Address	4		
A		City:			
CITY B MONE JOUGIAS		Second Sec.			
City: <u>OctOre</u> Douglas State: Zip Code: Col SHU18 Type of Dwnership: Private	Telephone:	State: Type of Owner	Zip Code: ship:	Telephone	
State: Lal Type of Dwnership:		State:	ship: Cour cy Muni	riv cipal Specified	
State: Zip Code: Col Shiels Type of Dwnership: Private I Federal Agency I Name: Application I State	Dounity Municipal Not Specified Other 3, Site	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform	ship: coun ey duni Tiers Othe	riv cipal Specified	
State: Zip Code: State: Zip Code: State: Shill S Type of Dwnership: Private Private Private Private Name: Association: Name of Evaluator:	Dounity Municipal Not Specified Other 3, Site 1 Agency/Organi	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization:	ship: coun ey duni Tiers Othe	riv cipal Specified	ыţ
State: Zip Code: State: Shiels Type of Dwnership: Private II Federal Agency II Name: ADG: II State II Name of Evaluator: Shop Workle Aselor	County Municipal not specified Other 3, Site 1 Agency/Organi 3,4	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization: HILL	ship: coun ey duni Tiers Othe	iv cipal Suecified C Date Prepari	EJ;
State: Zip Code: State: Shiels Type of Dwnership: Private II Federal Agency II Name: ADG: II State II Name of Evaluator: Shop Monite Aselor	County Municipal not specified Other Agency/Organi Agency/Organi Agency/Organi	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization:	ship: cour ey Cour Tiers Oute ation	Gy cipal Specifica	ei:
State: Zip Code: State: Shiels Type of Dwnership: Private II Federal Agency II State II Name of Evaluator: Stop Monite Aselor Street Address:	County Municipal Not Spectified Other 3. Site Agéncy/Organi 24 CH2H Sui (K. 300	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization: HILL IGRV:	ship: cy Goun Thers ation	iv cipal Suecified C Date Prepari	el:
State: Line Zip Code: State: Type of Dwnership: Private Federal Agency Name: Assigning State Indan Name of Evaluator: Street Address: JO12.3 Alliance Rd.	County Municipal Not Spectified Other 3. Site Agéncy/Organi 24 CH2H Sui (K. 300	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization: HILL Gity: CIACIT	ship: cy Goun Thers ation	iv cipal Suecified C Date Prepari	e4:
State: Zip Code: State: Silv 18 Type of Dwnership: Prote Prote Prote Protect Agency Name: Ab.G. State Indan Name of Evaluator: Stop Monite Aselon Street Address: 1012.3 Allvance Rd., Name of EPA or State Agency Con	County Municipal not Specified Other Agency/Organi Agency/Organi CH2H CH2H CH2H Suj & 300 ntact: State: 4. Site Disp	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization: HILL Gity: CIACIT Streat Address mosiltion (for EPA	ship: ey Count ey Other ation Teleptione: Use only]	iv cipal Suecified C Date Prepari	E4
State: Zip Code: State: Zip Code: State: Shile 18 Type of Dwnership: Private II Private II Priva	County Municipal not Specified Other Agency/Organi Agency/Organi CH2H CH2H CH2H Suj & 300 ntact: State: 4. Site Disp	State: Type of Owner Private Present Agen Nama: State Indian Evaluator Inform ization: HILL Gity: CIACIT Street Address position (for EPA)	ship: ship: ey Count ation ation Telephone: Use only] mendation:	iv cipal Suecified C Date Prepari	ei:
State: Zip Code: State: Silv 18 Type of Dwnership: Prote Prote Prote Protect Agency Name: Ab.G. State Indan Name of Evaluator: Stop Monite Aselon Street Address: 1012.3 Allvance Rd., Name of EPA or State Agency Con	County Municipal not Specified Other Agency/Organi Agency/Organi CH2H CH2H CH2H Suj & 300 ntact: State: 4. Site Disp	State: Type of Owner Private Federal Agen Nama: State Indian Evaluator Inform ization: HILL Gity: CIACIT Streat Address mosiltion (for EPA	ship: cy Count ation Telephone: Use only] nmendation: nony St	iv cipal Suecified Date Prepan Stäter O H	

5. Gener	al Site Characteri	stics	
Predominant Land Use Within 1 Mile of Site (check all that apply): Indusota Agekolyure Dos Commercial Mining Other Federal Residential DOD Recitor: A NG- Forest/Fields DOC Other	🗆 Su	itan dunkan sai	Years of Operation: Beginning Year Ending Year
Type of Site Operations (check all that apply)	1		Waste Generated:
Hkarufacturing (must direct subtategary)     Lurtiber and Wood Products     Diorgánic Chemicals     Mastic and/or Rubber Products     Páints, Vanisties	Retail     Recycling     Dunk/Sahrage Yai     Munic/pair Landiff     Odiyer Landiff     Odiyer		V Grane C Officie C) Oreite and Office Waste Deposition Authorized
Industrial Cinganic Chemicals     Agricultural Chemicals     Miscellaneous Chemical Product     Primary Mesals     Metal Combing, Politing, Engrining     Metal Forgang, Stamping	DDE DDE DDI Other Federal Fe RCRA Treatment, :	Storage, or Disposal	By: D. Present Owner Former Owner Present & Pormer Dwner Unauthorized Unknown Waste Accessible to the Public:
Fabilitated Structural Meral Products     Electronic Equipment     Dither Manufacturing     Minwy	Small Quant Sublide Q (401sid tridus		Vyaste Rocessione to the Public.
Metals   Const   Oil and Gas   Mon-metalike Wintersks	Converter"		Distance to Rearest Dwelling, School, or Workplace:
	PATable 3 for WC So	112 2 21 11	
Source Type: Source Waste Quantity:	and the second	General Type o	Watta
theck all (Sac apply)       (include aniti)         Larration		Construction	Prestickies/Herbiologe     Adds/Bases     Dily Weste     Municipal Waste     Mining Weste     Texplosives

	7. Ground Water Pathy	vay
Is Ground Water Used for Drinking Within 4 Miles:	7. Ground Water Pathy Is There a Suspected Release to Ground Water <sup>1</sup> : W Yes The Have Rrimary Targel Drinking Water Wells Been Identified: Ves No If Yes, Enter Primary Target Population: People <sup>3</sup>	Vay List Secondary Target Population Served by Ground Water Withdrawn From: 0 - 1/4 Mile >1/4 - 1/2 Mile >1/2 - 1 Mile >1 - 2 Mile -2 - 3 Mile >3 - 4 Mile
Depth to Shallowest Aquifer: Feet Karst Terrain/Aquifer Present: Nes No	Nearest Designated Wellhead Projection Area <sup>3</sup> : Underlies Site a 0-4 Miles Mone Within 4 Miles	"Use considering as for PATable 2 "Note respondention as for PATable 2 "Note respondention was for PATable 2
	8. Surface Water Pathy	Nav
	Pond I Lake DUAsc Water <sup>1</sup> ;	Surface Water: Feet Miles Site is Located in: Annual - 10 yr Floodplain Site - 200yr - 200yr Floodplain Sourt - 200yr Readplain Sourt - 200yr Readplain
	ikes Been Identified: ce to Nearest Orinking // Miles <sup>9</sup>	List All Secondary Target Drinking Water Intakes           Neme:         Water Body:         Bowlith):         Population Served:
Fisheries Located Along the Surface Wat Ves 🕅 No If Yes, Distance Have Primary Target Fisheries Been Ider Ves 🔯 No	e to Nearest Fishery; Miles	Mst All Secondary Target Fisherles <sup>10</sup> : Water Body, Sister Name : Fiew (chi):

B

	The second s	ater Pathway (		
Wetlands Located Along the Surface W Path	/ater Migration	Other Sensitiv Migration Pati		
D VE K) Ko		Y45	If Ves, Distance to Rearest Sensitive Environment:	
Have Primary Target Wetlands Been B	bentilled.	Have Primary	Target Sensitive Environments Been Identified	ŧ
D Vés Ø via		1000	1 Yes 10 No	
List All Wetlands:		List All Sensit	Gve Environments <sup>11</sup> ;	
<u>Vlater Bosiy</u> : Provids) Frontaire onles		Water Body :	How idit: Similiar Environment Trats	
		European Debie		
Are People Occupying Residence or		Exposure Path	iRave Terrestrial Sensitive Environments B	5.00
Attending School or Daycare on or Within 200 Feel of Area of Known or Suspected Contamination:			Identified on or Within 200 Feet of Areas Known or Suspected Contamination:	of
Ves 22 No			If Yes, List Each Terreskrial Sensitive	
If Yes, Enter Total Residential Population: People <sup>3</sup>		hin 1 Mile: People <sup>7</sup>	Environment <sup>e</sup> : Refer to PA Table 7 for amironment syop	-
	2	0. Air Pathway		_
Is there a Suspected Release to Air <sup>1</sup> . Yes Kir we Enter Total Population on or Within:			ated Within 4 Miles of the Site <sup>5</sup> . If Yes, How Many Acres: Acres	
Onsite		Other Sensitive Environments Located Within 4 Miles of the Sit		
0-1/4 Mile >1/4-1/2 Mile >1/2-1 Mile >1-2 Miles		Ves Zg No		
		List All Sensitiv	ve Environments Within 1/2 Mile of the Site":	
		Distance, Sensitiva.Environment Type/Wetlands Area (acre Onsite <u>NOAC</u>		
>3-4 Miles		>1/4-1/2 Mile	_wellands	4
Total Within 4 Miles		* Refer to FA Table	e 10 for calculations to all unlinear exponences	

111 Refers to question number on the PA scoresheet for each particular pathway

And the American State	NOV 2	N. 8. 7. 17	V. 10.00	Identificatio	in
Potential Hazardous W	aste Site Pr	eliminary	Assessmen	Statet	CERCLIS #
a second second second second	Form			CERCUS DIS	overy Date;
				Cenetia Dist	nacth mare.
	and the second se	tel Site Inform	ation		
VALK Field CRTC	Street Address				
Sity:	State:	Zip Code:	County:	Co. Code:	Cong: Dist:
Came Douglas	EU1	54618	Junear	the second se	Beeller minn
atitude: Longitude:	Approximate Are		Status of Site		-1
13.3. 7.12" 90 16 33 57"	N8.8	Acres	The active	_ Not Specified	
		quare Fc	evizence [5	A GW plur	ni, elc.)
ite Name: Curecht WWT	P (Bildias	6501			
	2. Orliner/	Operator Info	rmation		
Juner Wolk Field CET		Operator:			
Sueet Address:		Street Addres	\$2		
situ: Camp Dosolas	-	Gity:	-	-	
State: Zip Code:	Telephone:	State:	Zip Code.	Telephone	
Type of Ownership: Private: Count State Industry Name: ANG IN Not Si State Other: Indian	ipai secifiéd	Type of Owne Private Federal Age Name: State Todian	ingy Dau	inty altipal Specifical er	
	3. Site Fr	aluator Inform	nation		
Name of Evaluator:	Agency/Organiza	the second second second		Date Prepar	ed:
Stephanie Aselage	1 CHZM			1000000000	
10123 Alliance Rd.	Solle 320	City: Cincinnati		State: OH	
Name of EPA or State Agency Contact		Street Addres	5.		
Elty:	States	1	Telephone:		
	A. Site Dispo	sition (for EPA	use anių)	1.1.1	
Emergency Response/Removal Assess		CERCLIS Reco	mmendation	Signature:	
Recommendation?		Lister	Priority SI	Name (type	d}:
Date		Date:		Position:	

Predominant Land Use Within 1 Mile	e of Site (check all	Site Setting:		Years of Coeration:
Predominant Land Use Within 1 Mile of Site (check all that apply): Dindusoral agriculture Do: Commercial Mining Objer rodorol Statistical Doc Site rodorol Forest/Fields Doc Objer		Site setting: Urban Situmban Situmban Situmban		Beginning Year Ending Year []] Unknown
Type of Site Operations (check all th	er ebbly):			Waste Generated:
PlanuFacturing (meet divert subdategony:     Lumber and Wood Products     Inorganic Otemicals     Plastic and/or Rubber Products				Consite Officie Consite and Officie
Peints, VamiStes     Indestried Organic Chemicals     Nghculoural Chemicals     Miscellaneous Chemical Produ     Primary, Mesals     Notal Cowing, Plakey, Engravito.		Other Landfill DOC DOE DOE OCU Cother Federal Fe RCEA	A	Waste Deposition Authorized By: Present Owner Present A Former Owner Present & Former Owner Unnuthorized
Mozal Forging, Stamping     Fabricatest Soluctural Metal Product     Becolonic Equipment     Dither Manufacturing	iis	Lange Quan	Smrage, or Disubsal Voj Generator Voj Generator Soal	Waste Accessible to the Publi
Hining     Metals     Cae)     Oli and Gas     Non-metalis Ninerals		Indus Indus Convenient Finalitäve Inter Non-or Lais Note Specified	itaer"	Distance to Nearest Dwelling, School, or Workplade:
	and the second second second second	aracteristics Info	an age of a set of the	Feet
Saurce Type: Sou	irce Waste Quantity:	Tief":	General Type d	of Waste
(check all that apply) Inde Londrill		1001001	Radioactive V	Pesticides/Herbin     Actos/Beses     Cay Waste     Munklpal Waste     Munklpal Waste     Explosives
Contaminated GW Plume (renkleditied source) Contaminated SW/Sadiment (unitentified source) Contaminated SW/Sadiment (unitentified source) Contaminated Soli	=		thar apply):	of Waste as Deposited (check all S. Solid S. Sludge D. Powder S. Liquio

	7. Ground Water Pathy	vav
Is Ground Water Used for Drinking Within 1 Miles: Ves No If Yes, Distance to nearest Drinking Well 21009 Feat Type of Drinking Water Wells Within 4 Miles: [check all that apply]: S Municipal Private None	Is There a Suspected Release to Ground Water <sup>11</sup> Is Thes Have Primary Target Drinking. Water Wells Been Identified: Yes Wi Yes, Enter Plimary Target Population: People <sup>3</sup>	List Secondary Target Population Served by Ground Water Withdrawn From: 0 - 1/4 Mile >1/4 1/2 Mile >1/2 - 1 Mile >1 2 Mile >2 - 3 Mile >3 - 4 Milo
Depth to Shallowest Aquifer: Feet Karst Terrain/Aquifer Present: Nes Nes	Nearest Designated Wellhead Protection Area <sup>6</sup> : UnderNes Site >0-4 Miles Wone Widdin 4 Miles	Textral Within & Milizs <sup>#</sup> "Lise population is fix #A Table 2 "Nine meaners well for #S on SW Pathway Scondition
	Pond 🔲 Lave Dithen	Shortest Overland Distance From Any Source to Surface Water: Feet Miles
Is There a Suspected Release to Surface	Site is Lacared in: ∴ Anesal - 10 yr Floodplain ) > 20yr - 100yr Floodplain > 100yr - 500yr Floodplain Ø >500yr Floodplain	
Drinking Water Intake Located Along th Main Huve Primary Target Brinking Water Int Ves If Ves, Distar Main Weter Intake	skes Been Identified; ace to Nearest Drinking	List All Secondary Target Drinking Water Intakes: Name: Water Body: How Iofpi: Population Served:
III Yes. Enter Population Served by Targa	it Intake;	Fott) within 15 Mile++
Fisheries Located Along the Surface Wa ver (2) No If Yes, Distan	List All Secundary Target Fisheries <sup>19</sup> : Wate Book Fishery Name :	

	8. Surface W	later Pathway (	continued)	
Wetlands Located Along the Surface W Path:	later Migration	Other Sensitiv Migration Path	e Environments Located Along the Surface Water of	
Si Ves		No No	W Yes, Distance to Nearest Sensitive Environment: Miles	
Have Primary Target Wetlands Been h	dentified	Have Primary	Target Sensitive Environments Been Identified	
C) Yes Sa Na		1	C) Ves VZ Ho	
List All Wetlands:		List All Sensit	Ive Environments <sup>11</sup> ;	
Water Budy: <u>Store (cit</u> ): Stormans midet:		Water Riddy :	Flow (els): Sensuave Environment Type.	
		-		
the transition of the second second second	9, 50	Exposure Path	way	
Suspected Contamination:		<b>g</b> né	Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:	
□ 755 1830 1940			If Yes, List Each Terrestrial Sensitive Environment <sup>s</sup>	
If Yes, Enter Total Residential Population:People2		People?	*Refer to PAITable 7 for environment types	
	1	0. Air Pathway		
Is there a Suspected Release to Air <sup>1</sup> : Ves No Enter Total Population on or Within:			ated Within 4 Miles of the Site <sup>5</sup> - II Yes, How Many Acres: Acres	
Onsita		Other Sensitive Environments Localed Within 4 Miles of the Sit		
0-1/9 Mile			Ma Ha	
>1/4-1/2 Mile		List All Sensitiv	te Environments Within 1/2 Mile of the Site <sup>6</sup> :	
		Distance: Sensitive Environment Type/Weilands Erea (acres);		
+1-2 Miles		Onsite Blace		
>2-3 Milles		0-1/4 Mile	wetlands	
≠3-4 Miles		>1/4-1/2 Mile	wetlands	
Tatal Within 4 Miles 35		"Highlin to HA Table	e weades vewrited ife no cholicaled of 01	

<sup>1-D</sup> Refers to question number on the PA scoresheet for each particular pathway

		Form			CERCUS Disc	and a match
		1. Gén	eral Site Inform	ation		
Name: Volk P.c.	d conc	Street Address				
Camp D	zalaco	State:	zip Code: 5식(네 &	County: Junca	Ca. Code:	Cong. Dist:
Latitude: 86_/1255_N	Longitude: 10 16 32 61 90 61 9 69 W			Status of Site:	Nex Specified	
ICC MEDERDONIC		N-2		ter settling d secondi		asta:
		2. Owner	/Operator Infor	mation		
Owner: [[n]]c itreel Address;	Field CRTS	à	Operator: Street Address	u.		
city: Comp	Doualas		City:			
State: W	SHELS	Telephones	State:	Zip Code:	Telephone	
Type of Ownership	95		Type of Owner	rship;		
Private Federal Agency Name: <u>A</u> [30 State	C Court	ipal pecified	Privata Privata Federal Agen Name: State	ncy During	pal	
Private Federal Agency Name: <u>A</u> [30 State	Count Munic	pecified.	Private Federal Agen Name: State	ncy Count Munic Worsy Ocher	pal	_
Private Federal Agency Name: A130 State Hodian Name of Evaluator	S Count Munic Nots D Munic	Beclied 3. Site I	Privata Pederal Agen Name: State Indian Evaluator Inform zation:	ncy Count Munic Worsy Ocher	pal	eri:
Private Predenal Agency Name: A130 State Name of Evaluator Street Address: 10123 A1	5 Diana Rd. 5	Agentav/Organi CH2M	Evaluator Inform City: Cincin	ncy Count Munic NorS Owner	pai	veri:
Name:     Apercy       Name:     Apercy       Name:     Apercy       State     Apercy       Indian     Indian   Name of Evaluator Street Address: 10123	5 Count Munic Nots Dithe C	Agentav/Organi CH2M	Privata Pederal Agen Name: State Lindian Evaluator Inform zation. 4 AILL City:	ncy Count Munic NorS Owner	Date Prepar	en:
Private Private Prederal Agency Name: A130 State Name of Evaluator Street Address: 10123 A1 Name of EPA or St	5 Diana Rd. 5	Ibel pecified 3. Site 1 Agentsy/Organi CH2M Surfe 300 State:	Privata Pederal Agen Narme: State Indian Evaluator Inform zation: 4 HILL City: <u>Cincton</u> Street Address	ncy Count Munit Nor Sy Docker Nation	Date Prepar	veri:
Private Private Prevent Address Private Address Prever Address: Private Priva	5 Count Munic Not 5 Dithe Not 5 Dithe Not 5 Dithe Count Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Set Set Coge Not 5 Dithe Set Set Coge Not 5 Dithe Set Set Set Set Set Set Set Set Set Set	Ipel perfiled 3. Site 1 Age:ncv/Organi CH2M Surfe 300 State: 4. Site Disp	Private Private Provenal Agen Name: Name: State State Indian Evaluator Inform tation. HILL City: Cincton Street Address CERCLIS Record	Telephone: use only) umendation:	Date Prepar	en:
Private Private Predenal Agency Name: All C State Name of Evaluator Street Address: 10123 All Name of EPA or St Elity:	5 Count Munic Not 5 Dithe Not 5 Dithe Not 5 Dithe Count Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Count Set Set Coge Not 5 Dithe Set Set Coge Not 5 Dithe Set Set Coge Not 5 Dithe Set Set Set Set Set Set Set Set Set Set	Ipel perfiled 3. Site 1 Age:ncv/Organi CH2M Surfe 300 State: 4. Site Disp		Telephone:	Date Prepar State: GH	

S. Gener	al Site Characteristi	es	-	
Predominant Land Use Within I Mile of Site (check all that apply); Industrial Agricolture DOI Commercial Mining Residential DOD B Other Federal Forest/Fields DOE Other	Site Setting:	tuan	Years of Oper Beginning Y Ending Year	ear
Type of Site Operations (check all that apply):	di i		Waste Gener	ated:
Manufacturing (num; pheck substitute v)     Lumber and Wood Pypducts     Inorganic Chemicals     Plastic and/or Rubber Products	Retail     Recycling     Junk/Salvage vand     kuunkipal kandikt		C ore Ore Ore	
Palnks, Varnishas     Industrial Organic Chemicals     Agricultural Organic Chemicals     Agricultural Organical Product     Missellaneous Chemical Product     Primisry Methods     Metal Costing, Ninding, Englatione	Other Landfill     ODD     ODD     ODD     ODD     Other Federal Facilit     RCRA     Treatmank, Stor		By: Pre Fon Unit Unit Unit	10,10,100
Fabricated Structural Metal Pixaluas     Electronic Equipment     Other Planetecturing	Large Quantity	Generalion Generalion	D ve	ible to the Public:
Mining Metals Coal Coal Gillion Gas Nod-metallic Minerals	industrial Growenber Growenber Frauwakws File Frauwakws File File File File File File File File		-70	earest Owelling. orkplace: Faet
	aracteristics Inform PA Table 1 for WC Score		1	
Source Type: Source Waste Quantity: (check all that apply) (include unit) Landful Surface Impoundment Drums Tanks and Non-Deen Costainers Chemical Waste Nie Scrap Netal or Junk Nie	00	General Type o (check all that ap details Organics Inorganics Solvents Raints/Pigmar Laboratory/Hi	ipivi: Li Mis C Dispital Walke	Piunksipäi Wasts Mining Wastu Explosives
Screpheced of John Me Trash Plic (open drum) Land Treshmenu Contemmous 15W Plumo (unidentified source) Contemmous 5W/Sodewent (unidentified source) Contemmated Soli Other No Sources		Physical State o diacapply):	Demoiloon Waste	otner

Is Ground Water Used for Drinking	7. Ground Water Pathy	
If Yes. Distance to nearest Drinking Within A miles: Vithin A miles: Vithin A miles: Vithin A miles: No No No No No No No No No No	Is There a Suspected Release to Ground Water <sup>1</sup> Ves Have Primary Target Orloking Water Wells Been Identified: Ves No If Ves, Enter Primary Target Population: People <sup>3</sup>	List Secondary Target Population Served by Ground Water Withdrawn Fram: 0 - 1/4 Mile >1/4 - 1/2 Mile >1/2 - 1 Mile >1 - 2 Mile >2 - 3 Mile
Depth to Shallowest Aquifer: Feet Karst Terrain/Aquifer Present: Ves No	Nearest Designated Wellhead Protection Area <sup>6</sup> . Underlies Site > 0-4 Miles None Watin 4 Miles	Total Within 4 Miles <sup>4</sup> <sup>4</sup> Use population as for PA Table 2 "Note nearest well for 45 on GW Pathway Symposium"
	8: Surface Water Pathy	Naý
100	Mond [] Lake DUher W/ster <sup>5</sup> ;	Sutface Water: Feet Miles Site is Located in: Annuel - 10 yr Floedblain Site is Located in: Annuel - 10 yr Floedblain Site is Located in: Annuel - 10 yr Floedblain Site is Located in: Site
	akes Been Identified. de fo Nearest Drinking 27 Milles <sup>e</sup>	List All Secondary Target Drinking Water Intakes           Name         Water Body:         Nov (cis):         Posulation Served:
Péople*		Fotal within 25 Mile *
C (cs st) in	e to Nearest Fishery; Mifes	List All Secondary Target Fisheries <sup>10</sup> . Water Body/ Estery Utms . Box (0)):
Have Primary Target Fisheries Been Ider	nilled:	

the second second second		later Pathway (c		A 10 - 1 - 1 - 1	
Watlands Located Along the Surface W Path:	later Migration	Other Sensitive Environments Located Along the Surface Water Migration P3th			
120, Yes □ 14a		Ves No		, Distance to Nearest Sensitive onments Miles	
Have Primary Target Wetlands Been lo	Have Primary Target Sensitive Environments Been Identified:				
D YS Di No	List Ali Sensible Environments <sup>11-</sup>				
List All Wetlands:					
Water Body : <u>How 6.59</u> : Excelage miles:	Water Body :	Flow (cfs);	Sangiling Environment Type,		
	-		_		
	9. Sol	Exposure Path	way		
suspected contamination:			Have Terrestrial Sensitive Environments Been identified on or Within 200 Feet of Areas of Known or Suspected Contamination:		
Ves	1.77		D Yes Day Ma		
No No	-	If Yes, List Each Terrestrial Sons			
If Yes, Enter Total Residentia) Population: People <sup>2</sup>		People <sup>7</sup>	Environmen( <sup>5</sup> ) *Kolur to PA Table 7 for anvironment types		
	1	O. Air Pathway			
Is there a Suspected Release to Alf <sup>1.</sup> Ves No Enter Total Population on or Within:				Nies of the Site <sup>5</sup> : w Many Acres: Acres	
Onsite		Other Sensitive Environments Located Within 4 Miles of the Site			
0-1/4 Mile	Di Ves Dio Mo				
>1/4-1/2 Mile		List All Sensiti		ts Within 1/2 Mile of the Site <sup>6</sup> :	
>1/2-1 Mile		Distance: S	antitive Environ	mem_Type/Wetlands,Area [acres];	
>1-2 Miles		Onsite Wettands			
52-3 Miles		Q-1/4 Mile	wetlan	1	
33-4 Miles		>1/4-1/2 Mile	wettan	ds	
Total Within 4 Miles <sup>4,5</sup>	Theler to VA Table 10 for calculations on ≈ parlimation exponence				

<sup>112</sup> Refers to question number on the PA scoresneet for each particular pathway

# **APPENDIX C**

## **RECORDS OF COMMUNICATION**

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THEL	Date: 2 Mar 15 Time: 10: 20	<b>COMMUNICATION RECO</b>
	ate: ANG Volk Field, WI	
Interviewer: Ste		
Organization: Cl		Phone: 513-587-7088
Position/role on	this project: Base Lead	Email: Stephanie.aselage@ch2m.com
Interviewee: D		
Organization: V		Phone:
Position/Job Title		
How Long in this		arl
	Base in current and pre-	vious positions? 22 gears
	milar positions at other	bases?
No		
Which bases?		
How long?		
_		
Discussion:		
101 -	wT Ponds a	re lined w/PVC liner (60 mil
no a.f.t		unped to Lemonauleir River
	- insulter 1 h	
t no	daycares or	schools or residences on base.
N_FIL	undernes of	a series of the server of the
* 0	1 for status	had some practices as current
+ ()	fire station	- may same procences as small
	THE OILTION	
* d	1 Draw 45-	and a lacase as such subs
7.0		condary lagoons on north Side o
	base - Operat	tion before 1970s until 1995.
	ale s c	
		and and an an an and the con-
	na produce na seconda de la constante de	a a construction and a second a second a second a second a

	Date: 3/2/2016 Time: /0: 00 A.M.	OMMUNICATION RECO
Name of Base, Sta	te: ANG Volk Field, WI	
Interviewer: Step	hanie Aselage	
Organization: CH	2M HILL	Phone: 513-587-7088
Position/role on t	nis project: Base Lead	Email: Stephanie.aselage@ch2m.com
	Wine WALTER	
Organization: U	OLK CIVIL ENGINE	ertig Phone:
Position/Job Title:	REAL ESTATE SPELL	Kist Email:
How Long in this P	osition? 22 YEARS	
	ase in current and previou	
Have you held sim	ilar positions at other bas	es?
NO		
Which bases?		
NA		
How long?		
NIA		
Discussion:		
Ţ	Firstation (1987.	current]
old		3-1986
	DWTP 1995 - CUR	
		OS-CURRENT)
		,
79	\$ production well	s asite still operational
	161.62	W5, bluff)
	- 1 )	
	- 1 - 1	
• 80.70 7.10	- 1 1	
	- 1 1	
	- 1 1	
	- 1 - 1	
	- 1 1	
	- 1 1	

	Date: Time:	COMMUNICATION RECO
	ate: ANG Volk Fiel	ld, WI
Interviewer: Step		
Organization: CH		Phone: 513-587-7088
Position/role on t	this project: Base	Lead Email: Stephanie.aselage@ch2m.com
	om Zanter	
Organization:		Phone:
Position/Job Title	: Vility Sa	penisor Email:
How Long in this !	Position? 124	rs
How long at this I	Base in current and	d previous positions? [Zurs
	nilar positions at c	other bases?
		NA
Which bases?		
eriteri anewer		NA
How long?		
in the law Pr		NA
		· · · · · · · · · · · · · · · · · · ·
Discussion:		
N Fr	1 0	<b>TN</b>
VIAL	21 (0 mo	<u>TP</u>
0]	-motor supe	rator @ FTA -7 Water goes to 55 th
	1 1 1	
- Ch		dechlorate @ indudual well houses
- 62	1 0	afternate (w2 is being rebuilt)
97		+ server I building on ton. I bin
- W	on bluf	
	en blut	280 ft
	on blut	
	en blut	

	Date: Time:	CC	MMUNICATION RECOF
Nama of Para Si	tate: ANG Volk Field	1 1471	
Interviewer: Ste		1, 11	
Organization: Cl			Phone: 513-587-7088
	this project: Base Lo	and	
Position/role on	this project: base to	eau	Email: Stephanie.aselage@ch2m.com
	Tiffany Gass		
Organization:	Volk Field i	CRTC	Phone:
Position/Job Title	e: Supply		Email:
How Long in this	Position?		
How long at this	<b>Base in current and</b>	previous p	ositions?
Have you held si	milar positions at ot	ther bases?	
Which bases?			
How long?			
-	cliand up Secondar Droper	Jujabs	(< 1 gallon) of AFFF interner. orbant pads, placed in 1 container + disposed of othing released to astride

THEL Date: 02 MLr **COMMUNICATION RECORD** Time: 1000 Name of Base, State: ANG Volk Field, WI Interviewer: Stephanie Aselage Organization: CH2M HILL Phone: 513-587-7088 Position/role on this project: Base Lead Email: Stephanie.aselage@ch2m.com matt Ornes Interviewee: Fire Organization: Phone: Position/Job Title: Chief Email: How Long in this Position? yers 8 20 How long at this Base in current and previous positions? VELTS Have you held similar positions at other bases? Yes Which bases? 115th FW How long? 15 years as a traditional guard, 2 ves full time **Discussion:** 1996 - current Current 30-40 gals release Santradius adlar 22.01 Sunitary Server to & Current FTA MING (987 -Fire Station to oil/water -> toan storag Lacked Separator SS then then -7 gallon bulk storage tank ~1000 Spray nousle test areas gallons each truck 4-5 -> Once grac > 5 trucks ~1000 action Stor day fire stato \* 2 types of AFFF in C 3M 39, (fights ethanol fires 3-69 AR-AFFF

#### Fire Chief / fire chief designee / fire suppression system manager

AFFF

- 1. What type of AFFF was used on this installation (i.e. 3%, 6%, High Expansion Foam)? 32
- 2. What manufacturer's AFFF products are used on this installation (i.e. 3M, Ansul, Chemguard)? Chemgand 30 gals Notional + Chemgand 3. Where has the AFFF solution been handled (mixed, contained, transferred, etc.)?
- BIDAS 10, 510

Hangars and Buildings

- 4. Are your automated fire suppression systems currently charged with AFFF or have they been retrofitted for use of high expansion foam? NA
- 5. Do you have an inventory of the amount of AFFF stored on the installation or-present in automated fire suppression systems? Change and 30 gals (3-62) 400 fellow & Supply National 1240 (32) 400 Killins & Supply
- 6. Can you describe the procedure on how the suppression systems are supplied with AFFF?
- 7. Have there been inadvertent releases of AFFF from hangar fire suppression systems? When?
  - NIA
- 8. How are releases handled (i.e. when the suppression system goes off)? Trucks and Trailers
- 9. Provide a list of trucks and trailers currently carrying AFFF and where they are parked/stored? (rash 2 (RIV), Crosh 3+9 (P23s) (rash 10 (Striker) 98 P-34 (P-19R) Eng 8
- 10. How much AFFF (gallons) is carried/stored in the specified trucks and trailers? 2-57 3-500 9-500 10-210 8-30 (3-62-)
- 11. Do you test the trucks for spray patterns to make sure equipment is working properly? VES
- 12. How often are these spray tests performed and can you provide the locations of these

13. Can you describe the procedure on how trucks and trailers are supplied with AFFF? Where does this resupply occur? Is there secondary containment in this area?

Form pump (tank to truck) Form transfer pump (truck to truck) Hand (ill (dump buckets) Resupply mostly by the bulk tenk No second y coate mont

In station sil/water seperator

- 14. Can you provide the procedures on how these vehicles are cleaned/decontaminated and where vehicle cleaning is performed currently as well as in the past?
- 15. When AFFF was used during a fire training exercise, how was the AFFF cleaned up and disposed of?

### Records, Spill logs, Historical Information

- 16. Do you have recollection or records of AFFF being used in response to:
  - a. Fuel releases to prevent fires
  - b. Historical emergency response sites (i.e. crash sites and fires)
  - c. Emergency runway landings where foam might have been used as a precaution
- 17. If not written records or incomplete written records, do you have anecdotal/verbal information and locations of spills or other emergency response incidents where AFFF was used?
- 18. What are the non-FTA locations where:
  - a. AFFF release systems are installed (i.e. Hangars, Wastewater Treatment Plants, and Fire Stations)
  - b. Where are these locations that currently contain or have contained AFFF (Building numbers)
  - c. If converted from AFFF, when did they convert the system to high expansion foam N/A
- 19. Can you provide any other locations where AFFF has been stored, released, or used (i.e. hangars, buildings, fire stations, firefighting equipment testing and maintenance areas, emergency response sites, storm water/surface water, waste water treatment plants, and AFFF ponds/lagoons)?

## Environmental Manager

### <u>FTAs</u>

- 20. Confirm all FTAs identified during research are correct, and list FTAs identified during site visit.
- 21. What are the years of operation for each FTA?

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