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Date: May 31, 2012

From: Steve Varsa

To: Mr. Michael Schmoller, Hydrogeologist
Division of Air and Waste
Remediation and Redevelopment
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

cc: Mr. Chris Buhler, WIANG
(w/o attachment)

RE: Final Proposed Plan – Base-wide NFA PPs & RODs for Multiple ANG Installations – WIANG/Truax Field

The following items are:

- Requested Enclosed Sent Separately Via _____
- Report Specification Cost Estimate Shop Drawings
- Test Result Prints Test Sample Other

No. of Copies	Description
1	Final Proposed Plan – Wisconsin ANG/Madison

This data is submitted:

- At Your Request For Your Review For Your Action
- For Your Approval For Your Use For Your Information

General Remarks: Mr. Schmoller -

On behalf of Major Buhler, Environmental Manager (EM) at the 115th Fighter Wing, Wisconsin Air National Guard (WIANG), please find enclosed one copy of the above-referenced Final Proposed Plan (PP) for your information and use. As noted in the PP, a public meeting has been scheduled for Tuesday, June 26, 2012, to solicit public input on the PP. A 30-day public comment period for the PP also begins on Wednesday, June 6, 2012.

Please contact Major Buhler at (608) 245-4739, or me, if you have any questions. Thank you.

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



June 4, 2012

Major Chris Buhler
Wisconsin Air National Guard
115th Fighter Wing
3110 Mitchell Street
Madison WI 53704

Subject: Final Proposed Plan

Dear Major Buhler:

The Department has received and reviewed the final draft of the Final Proposed Plan for Installation Restoration Program Sites 1 through 8, Truax Field. The document provides a good summary of past activities at the site. As submitted the Department does not have comments or required changes to the document. The Department considers this activity completed.

Sincerely,



Michael Schmoller

**Final Proposed Plan for
Installation Restoration Program
Sites 1 through 8
115th Fighter Wing – Wisconsin Air National Guard
Truax Field – Madison, Wisconsin**



**Air National Guard Announces
Proposed Plan**

This Proposed Plan presents the Preferred Alternative of No Further Action (NFA) for the assessment of potential soil and groundwater contamination at the following Installation Restoration Program (IRP) sites located at the Wisconsin Air National Guard (WIANG) 115th Fighter Wing (115th FW) at Truax Field, in Madison, Wisconsin:

- IRP Site 1 - March 1981 Fuel Spill Near Petroleum, Oil, and Lubricant (POL) Facility Building 405
- IRP Site 2 - August 1985 JP-4 Spill Associated with Underground Storage Tank (UST) 1201-1
- IRP Site 3 - October 1983 Polychlorinated Biphenyl (PCB) Spill Associated with a Leaking Electrical Transformer Next to Building 1201
- IRP Site 4 - Former POL Storage and Distribution Facility
- IRP Site 5 - UST 1201-1
- IRP Site 6 - Building 1000
- IRP Site 7 - Buildings 401 and 409
- IRP Site 8, Area 1 - Flightline
- IRP Site 8 Area 2 - Area Between Buildings 412 and 414

The ANG is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 United States code (USC) §9617(a) and Section 300.430 9f(3) of the National Oil and Hazardous Substances Pollution Contingency Plan. This Proposed Plan provides the rationale for

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PUBLIC COMMENT PERIOD:

June 6, 2012 – July 6, 2012

The Air National Guard (ANG) will accept written comments on the Proposed Plan during the public comment period. Comment letters must be postmarked by July 6, 2012 and should be submitted to:

Environmental Manager
Wisconsin Air National Guard
115th FW / EMO
3110 Mitchell Street
Madison, WI 53704-2591
Email: 115fw.cev@ang.af.mil
Phone: (608) 219-4456
Fax: (608) 245-4550

To request an extension, send a request in writing to Environmental Management by July 6, 2012.

PUBLIC MEETING:

June 26, 2012

The ANG will hold a public meeting to explain the Proposed Plan and the Preferred Alternative of No Further Action. Oral and written comments will also be accepted at the meeting. The meeting will be held at:

Madison Area Technical College
3550 Anderson Street
Madison, Wisconsin

For more information, see the Information Repository at the following locations:

University of Wisconsin Memorial Library
728 State Street
Madison, WI 53706
Hours: Mon. – Thurs., 8 a.m. to 11:45 p.m.
Fri. and Sat., 8 a.m. to 9:45 p.m.
Sun., 10 a.m. to 11:45 p.m.
Phone: (608) 262-3193

the selection of No Further Action (NFA) at the eight Installation Restoration Program (IRP) sites identified. The IRP voluntarily follows the CERCLA requirements, and the eight IRP sites are not on the National Priority List (NPL). This Proposed Plan also summarizes information that can be found in greater detail in the various investigation study and cleanup reports for the IRP sites. Copies of site documents are

available for review at the University of Wisconsin Memorial Library located at 728 State Street, Madison, Wisconsin.

This Proposed Plan provides the rationale for selection of NFA as the Preferred Alternative at the eight IRP sites identified. In addition, this Proposed Plan includes a summary of investigation and cleanup activities conducted at the IRP sites.

This document is issued by the ANG, the lead agency for site activities. The Wisconsin Department of Natural Resources (WDNR) is the regulatory agency responsible for overseeing activities at the IRP sites. Subsequent to various investigative studies and cleanup actions at the IRP sites detailed below, the ANG, in consultation and in concurrence with WDNR, has concluded no further actions are required at the IRP sites.

Although this Proposed Plan recommends NFA for each of the IRP sites, a final determination will not be made until the public comment period ends and all comments are reviewed and addressed. The NFA decision for each IRP site may be reviewed and modified in the future if new information becomes available which indicates the presence of contamination or exposure routes that cause an unacceptable risk to human health or the environment. Therefore, the public is encouraged to review and comment on information presented in this Proposed Plan. For reference, a Glossary of Terms is provided at the end of this Proposed Plan.

The public is encouraged to gain an understanding of the IRP sites and the investigation and cleanup activities that have been conducted.

Site History and Background

The 115th FW is located at Truax Field (Airport) approximately 5 miles northeast of downtown Madison, Wisconsin in Dane County, as shown in Figure 1. The 115th FW presently occupies approximately 130 acres located on the east side of the Dane County Regional Airport, also known as Truax Field.

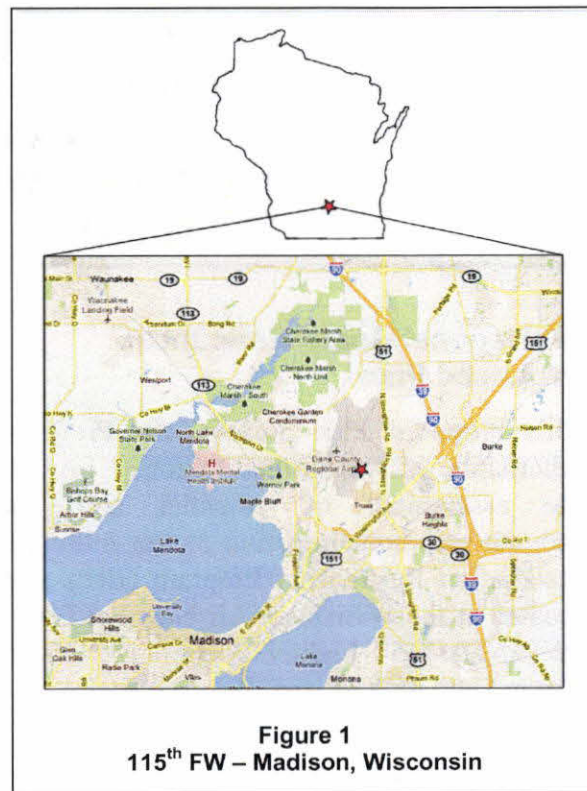


Figure 1
115th FW – Madison, Wisconsin

The installation was originally constructed in 1942 as an Army Air Base, and occupied 2,050 acres. At the end of World War II, the City of Madison assumed control of the facility from the War Assets Administration. Truax Field was reactivated in 1951 and occupied by the U.S. Air Force through 1968, and subsequently by the WIANG. In 1981, the WIANG installation at Truax Field became the 128th Tactical Fighter Wing, and later the 128th Fighter Wing with the conversion to F-16 Falcons. In October 1995, the unit at Truax Field was redesignated the 115th FW with no change in mission or aircraft. Since its inception in 1942, aircraft housed at Truax Field have varied but have predominantly been fighter/attack aircraft.

The Air Force leases the 115th FW property from the City of Madison, Wisconsin, and grants a license to the WIANG. The lease expires on October 3, 2050.

A total of eight IRP sites, as described on Page 1 of this Proposed Plan, have been identified and investigated at Truax Field. The locations of the IRP sites are depicted in Figure 2.

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Investigations and studies have been conducted at IRP Sites 1 through 8 to assess the potential impact of past activities on human health and the environment. Results of these investigations and studies are presented for each IRP site.

IRP Site 1 – March 1981 Fuel Spill Near POL Facility Building 405

IRP Site 1 is associated with an approximate 2,000-gallon spill of JP-4 jet fuel occurring March 6, 1981 due to refilling overflow at former POL pump house 405. Reportedly, an existing drainage ditch (about 100 feet long) next to the spill was dammed off. The fire department foamed the fuel and also flushed the fuel to direct it toward the ditch. The fuel soaked into the soil and was covered with straw. By April 9, 1981, as directed by the WDNR, the affected soil was removed to a depth of about 6 feet in the ditch, or to the limit of odor detection on the ditch side slopes. The material was then spread at 6 to 10 inches depth on four concrete pads located on what is now the parking lot west of Building 503. Through the summer of 1981, the contaminated soils were turned to enhance volatilization. During the following summer (1982), the excavated soils were disposed of off site. The location of IRP Site 1 is shown in Figure 3.

Preliminary Assessment – 1988

A Preliminary Assessment (PA) was completed in August 1988 summarizing the activities completed at IRP Site 1. Conclusions and recommendations in the PA Report state that because immediate corrective actions were taken, contamination with hazardous materials/hazardous wastes was mitigated, and a potential for migration does not exist. Therefore, IRP Site 1 posed no significant hazards to human health or the environment. The PA Report recommended no further study under the IRP. IRP Site 1 is located within the footprint of IRP Site 5.

Decision Document – 1988

A Decision Document was completed and submitted on December 1, 1988, documenting the decision of NFA at IRP Site 1. The NFA decision was accepted by WDNR.

On March 30, 2005, closure of IRP Site 1 was granted in a letter issued by the WDNR.

IRP Site 2 – August 1985 JP-4 Spill Associated with Underground Storage Tank (UST) 1201-1

IRP Site 2 relates to an August 3, 1985 fuel spill. Approximately 100 gallons of used JP-4 spilled onto the ground due to a broken pipe on a transfer cart while loading the used fuel into waste oil storage tank No. 1201-1. All fuel was contained by diking and blotting with absorbent booms. Local terrain was flat and no body of water was nearby. Three 55-gallon drums of contaminated soil were removed within two days of the incident. The location of IRP Site 2 is shown in Figure 4. IRP Site 2 is located within the footprint of IRP Site 2.

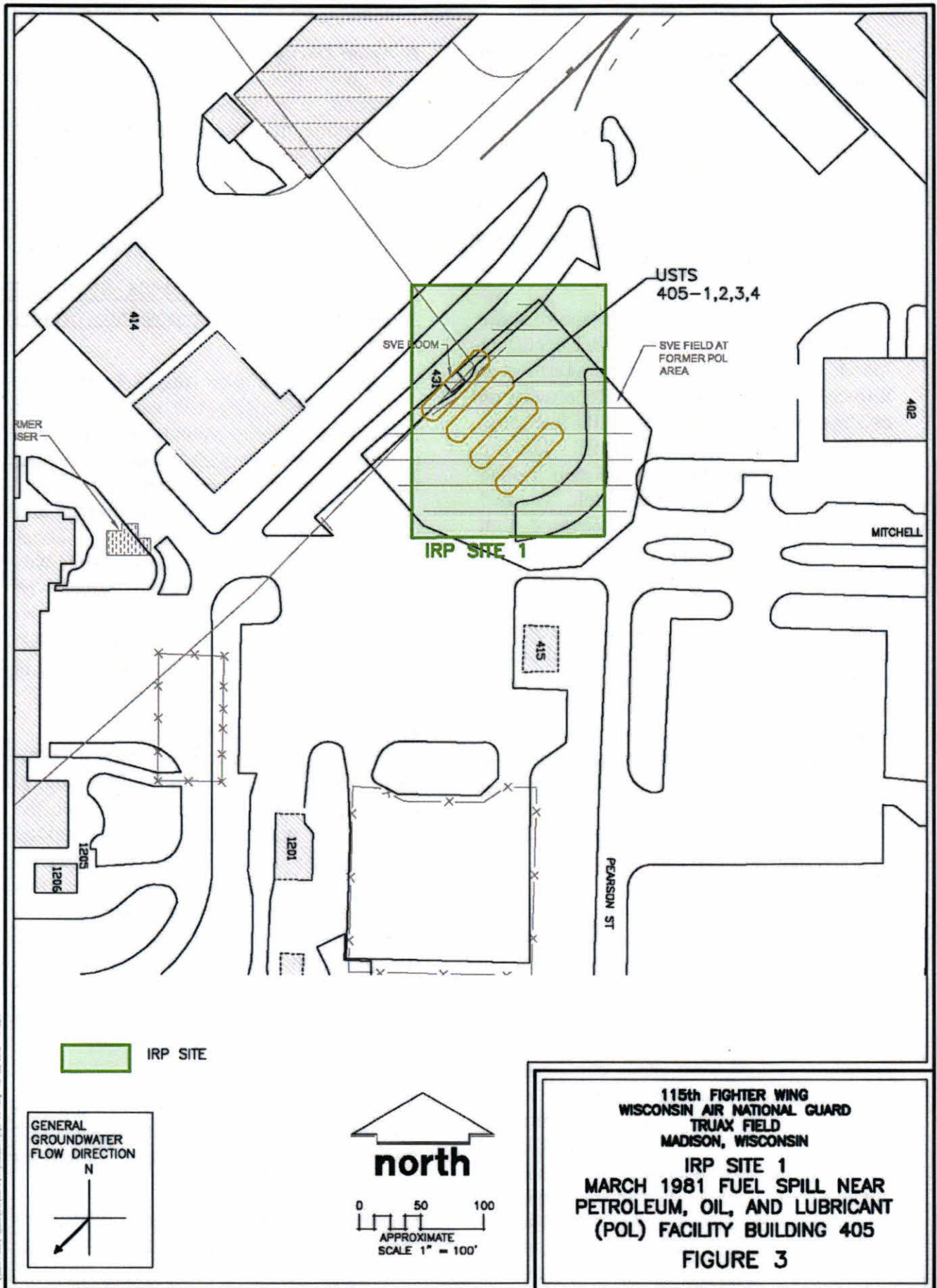
Preliminary Assessment – 1988

A PA was completed in August 1988 summarizing the activities at IRP Site 2. Conclusions and recommendations in the PA Report state that because immediate corrective actions were taken, contamination with hazardous materials/hazardous wastes was mitigated, and a potential for migration does not exist. Therefore, IRP Site 2 posed no significant hazards to human health or the environment. The PA Report recommended no further study of this site under the IRP.

Decision Document – 1988

A Decision Document (DD) was completed documenting the decision of NFA at IRP Site 2. The NFA decision was accepted by WDNR.

On March 30, 2005, closure of IRP Site 2 was granted in a letter issued by the WDNR.



IRP Site 3 – October 1983 Polychlorinated Biphenyl (PCB) Spill Associated with a Leaking Electrical Transformer Next to Building 1201

IRP Site 3, shown in Figure 5, pertains to a pole-mounted electrical transformer that was leaking dielectric fluid onto the ground below in 1983. Approximately 3 square feet of soil was affected by the leak. The leaking fluid was sampled for analysis of PCBs. Sample results indicated a PCB concentration of 1,800 parts per million (ppm). Soil samples were taken in and around the spill area, and the test results indicated PCB levels ranged from 0.3 to 31.6 ppm. A total of three 55-gallon drums of PCB-contaminated soil were removed and the area was retested for PCB contamination. The transformers were also removed to prevent further contamination. After removal, residual PCB concentrations in soil were tested to be less than 0.1 ppm. IRP is located within the footprint of IRP Site 5.

Preliminary Assessment – 1988

A PA was completed in August 1988 summarizing the activities at IRP Site 3. Conclusions and recommendations in the PA Report state that because immediate corrective actions were taken, contamination with hazardous materials/hazardous wastes was mitigated, and a potential for migration does not exist. Therefore, IRP Site 3 posed no significant hazards to human health or the environment. The PA Report recommended no further study of this site under the IRP.

Decision Document – 1988

A DD was completed and submitted on December 1, 1988, documenting the decision of NFA at IRP Site 3. The NFA decision was accepted by WDNR.

On March 30, 2005, closure of IRP Site 3 was granted in a letter issued by the WDNR.

IRP Site 4 – Former POL Storage and Distribution Facility

IRP Site 4 pertains to the former POL facility shown in Figure 6. The POL facility includes

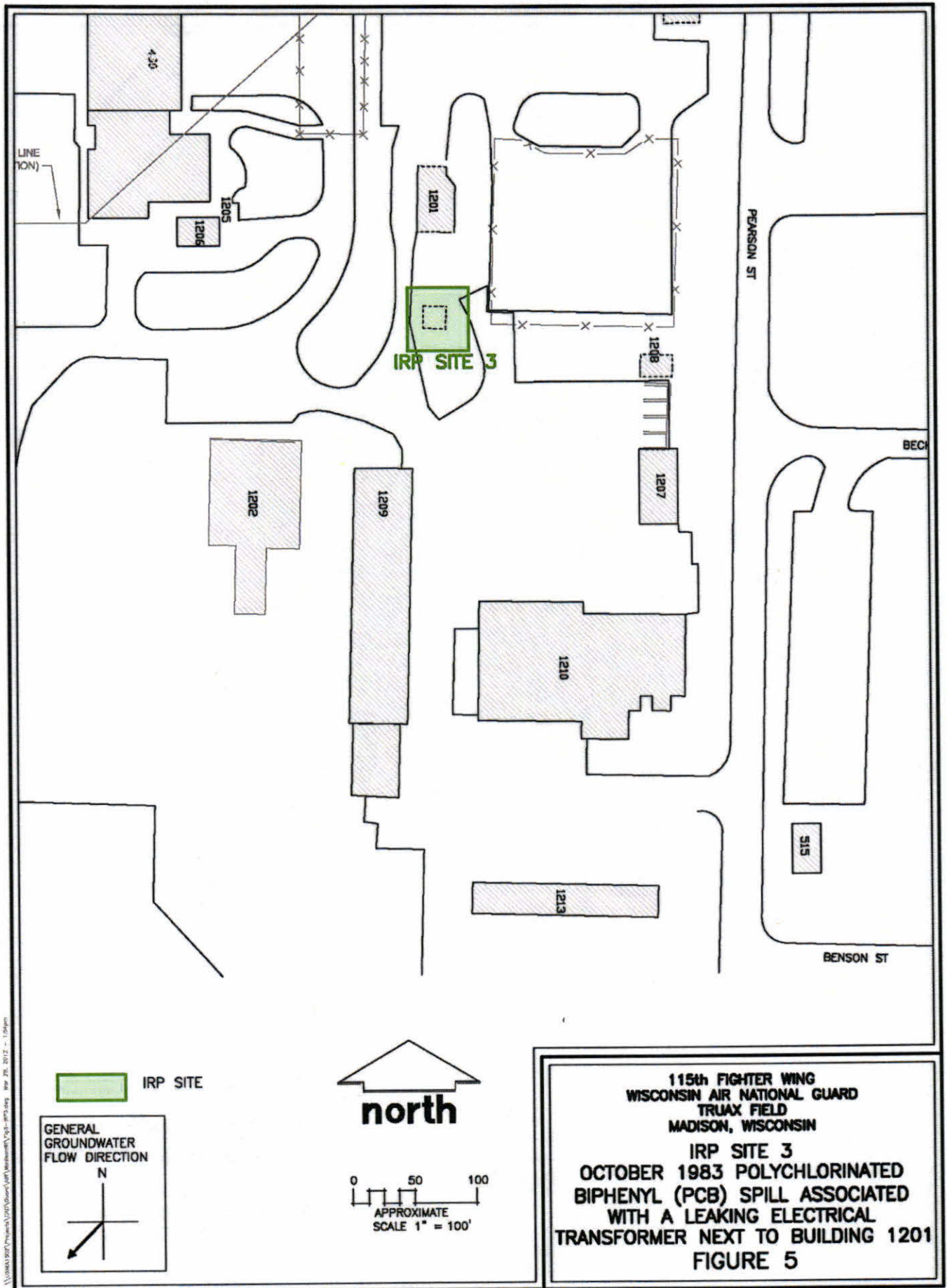
former pumphouse Building 405, existing Building 415, four 50,000-gallon USTs used to store aviation fuel, a bulk fuel intake system and refueling station (part of Building 405), pipeline connectivity to a refueling hydrant system, and five smaller USTs (up to 2,000 gallons) that were next to Buildings 414 and 415 and used for storing waste oils, solvents, and detergents. IRP Site 1 is also located at the former POL facility and is specific to the 1981 fuel spill. IRP Site 4 is the result of incremental impacts to soil and groundwater, which occurred over many years likely due to aged or compromised infrastructure, or operating mishaps. The four large USTs associated with IRP Site 4 were put into service in 1952, and were not removed until 1999.

Site Investigation – 1989-1990

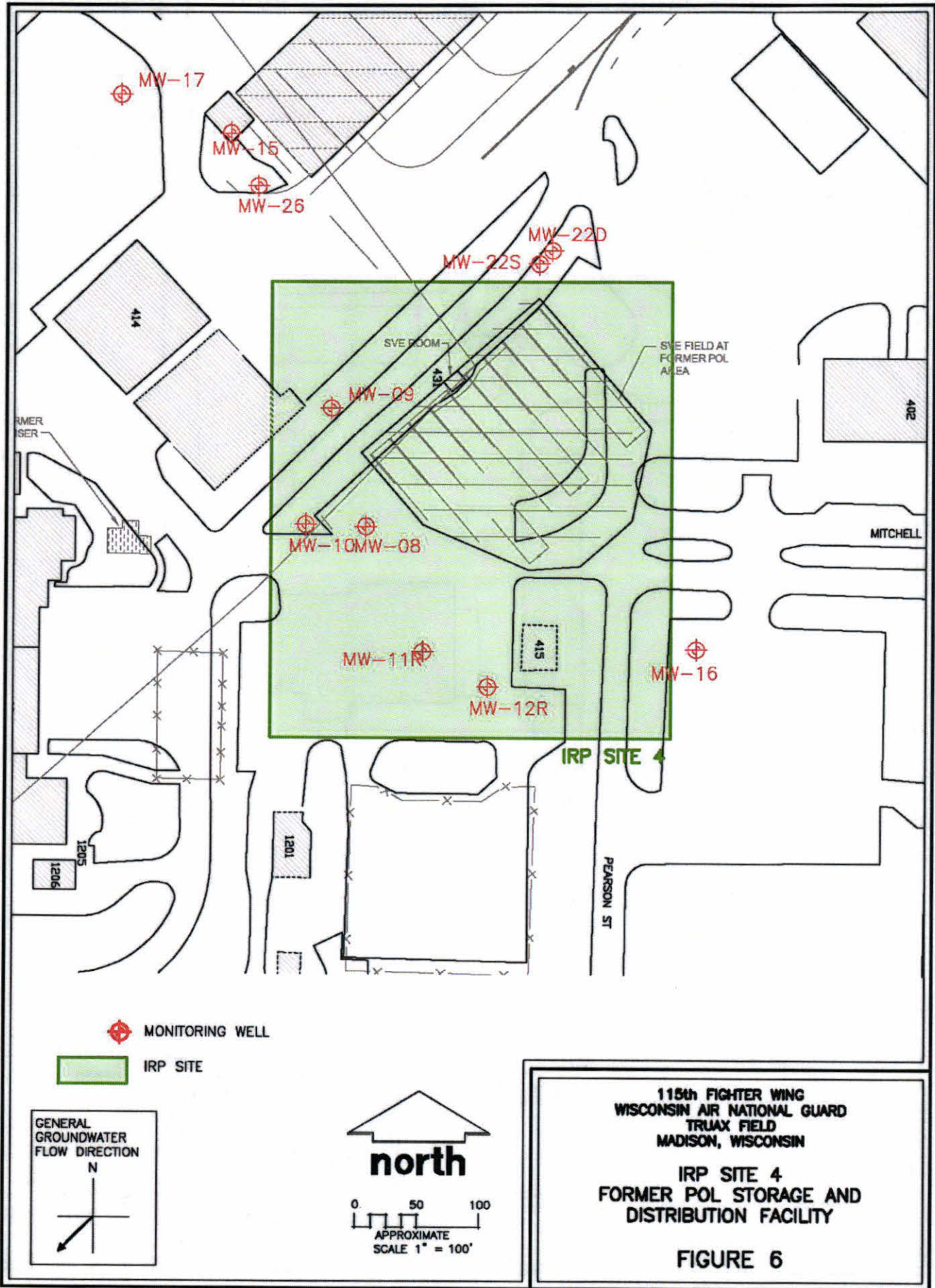
A site investigation (SI) was conducted between December 1989 and May 1990 at IRP Site 4. SI activities included tank tightness testing, advancement of soil borings, and installation and sampling of five groundwater monitoring wells. SI activities included tank tightness testing, advancement of soil borings, and installation of five groundwater monitoring wells.

All POL USTs were found to meet federal tank tightness criteria.

The five monitoring wells installed (MW-8, MW-9, MW-10, MW-11, and MW-12) were constructed flanking the former POL facility to the southeast, the primary groundwater flow direction. Measurable free (floating) product was observed in MW-8 after its development, while a thin product film was observed in wells MW-9 and MW-10. Analytical results for groundwater samples collected from monitoring well MW-9 exceeded Wisconsin Administrative Code – Natural Resources (NR) Chapter 140 Enforcement Standards (ES) (NR 140 ES) for benzene. Wells MW-8 and MW-10 were not sampled due to the presence of free product.



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Additional assessment activities were recommended based on results of the SI.

Site Assessment – 1991

Fifteen soil borings were advanced as part of a Site Assessment (SA) in 1991. These soil borings primarily focused on areas east of pumphouse Building 405 but also delineated the extent of soil contamination at IRP Site 4. Three additional monitoring wells were installed (MW-15, MW-16, and MW-17). Monitoring well identifiers were changed from “W” to “MW.”

Free phase product was determined to be no longer present in MW-8 and MW-10. Two rounds of groundwater sampling for petroleum constituents were completed in April 1991 from selected monitoring wells. Based on results of these sampling activities, applicable NR 140 standards were exceeded for selected volatile organic compounds (VOCs) in several of the monitoring wells. However, the upgradient extent of the groundwater plume was confirmed.

Based on results of the SA, it was recommended corrective actions be completed to remediate soil and groundwater at IRP Site 4, and excavate and remove the abandoned fuel pipelines for the supply and hydrant refueling systems associated with IRP Site 4. It was also recommended USTs located upgradient of the POL be removed and properly closed, in addition to identifying the source and extent of contamination encountered at MW-15 (later known as IRP Site 8, Area 2), located hydraulically upgradient of IRP Site 4. IRP Site 8, Area 2, is located approximately 400 feet northwest of IRP Site 4.

Subsurface Investigation – 1992

A subsurface investigation was completed in 1992 following the discovery of potential hydrocarbon-impacted soils underneath a flight apron planned for reconstruction. One monitoring well nest (MW-22S/MW-22D) was installed northeast of the POL facility, and groundwater samples were collected

from the newly-installed wells and monitoring wells MW-7, MW-9, MW-15, and MW-17 for analysis of VOCs.

Analyses of groundwater samples from wells MW-7, MW-9, MW-15, MW-17, MW-22S, and MW-22D for VOCs detected several compounds with concentrations exceeding NR 140 Prevention Action Limits (PALs) and ESs. It was concluded groundwater contamination is present at the southwestern end of the apron area, upgradient of the POL facility, close to well MW-15. It was also concluded that contaminants detected in the groundwater sample from well MW-9 are likely associated with the bulk fuel system.

Treatability Study in Support of Intrinsic Remediation (Natural Attenuation) – 1994-1997

Additional site characterization and groundwater modeling was conducted to support intrinsic remediation with long-term monitoring. Site characterization activities included the delineation of soil hydrocarbon contamination at the POL facility using direct measurement tools and analysis of collected soil samples.

From 1994 to 1996, groundwater sample data was collected from ten temporary monitoring wells, two hydropunch sample locations, and existing monitoring wells to evaluate the extent of the hydrocarbon plume in groundwater. The groundwater hydrocarbon plume was noted to have reduced in size between 1994 and 1996, based on the data collected. Additional physical and chemical hydrogeologic data was also collected, and groundwater modeling was conducted to predict the future behavior of the groundwater plume.

Based on results of the treatability study, it was concluded natural attenuation of the hydrocarbon contaminants in the groundwater plume was occurring at a predictable rate, and contaminant concentrations in hydraulically

downgradient monitoring points were equal or below values predicted in the groundwater modeling. It was also concluded hydrocarbon contaminants would naturally reduce in concentrations before potential downgradient receptors would be adversely affected.

Field Investigation – 1997

Three monitoring wells (MW-26, MW-27, and MW-28) were installed, one soil boring was advanced, and groundwater samples were collected from the IRP Site 4 monitoring wells to evaluate changes in the extent of the groundwater plume. Results of this investigation indicated groundwater concentrations had either declined or remained stable since the previous sampling events in 1994. Natural attenuation data were also collected to assist in development of a Remedial Action Plan.

Structural Integrity Testing – February 1998

The Structural Integrity Testing (SIT) program was conducted to determine if the POL facility could remain active and support the installation while an active remediation system for soil and groundwater was under construction and subsequent operation. All four 50,000-gallon USTs, and associated (adjacent) pipeline segments passed all integrity tests performed.

Remedial Action Plan – June 1998

A Remedial Action Plan (RAP) was prepared in 1998 using available site data to evaluate several remedial alternatives for contaminated groundwater and soil. Based on this evaluation, the RAP recommended remediation of contaminated groundwater using natural attenuation, with semiannual monitoring. The recommended remedial alternative for soil was excavation and ex-situ treatment followed by landfill disposal. The soil excavation was to be conducted when the POL facility was decommissioned.

POL Decommissioning and Soil Vapor Extraction (SVE) System Installation – 1999-2000

The former POL at IRP Site 4 was demolished in 1999 following construction of a new POL facility. Monitoring wells MW-8, MW-11, and MW-12 were properly plugged and abandoned to facilitate POL decommissioning. Replacement monitoring wells MW-8R, MW-11R, and MW-12R were installed following decommissioning activities.

An SVE system was installed for remediation of vadose zone soils. The SVE system consisted of 20 SVE trenches with perforated piping connected to an SVE blower housed in an SVE building (Building 431). The SVE system began operation on July 26, 2000. A total of 2,375 tons of contaminated soil was excavated during decommissioning of the POL and installation of the SVE system, and was transported off site for treatment and disposal at a landfill.

Over 8,500 pounds of hydrocarbons were removed from 2000 to 2004 by the SVE system at IRP Site 4. In 2004, VOC mass removal by the SVE system was reaching asymptotic levels. The SVE system was turned off on June 16, 2004 with the concurrence of the WDNR. Over 8,500 pounds of VOC mass was removed by the SVE system during its four years of operation.

Long-Term Groundwater Monitoring – 2000-2010

Groundwater sampling was conducted at IRP Site 4 monitoring wells annually from 2000 through 2005 and semiannually from 2005 through 2010. Groundwater samples were analyzed for petroleum volatile organic compounds (PVOCs); and through 2009, natural attenuation parameters.

PVOC analytical results for groundwater samples collected over this ten year period

show stable to decreasing trends. Upon completion of the site monitoring activities in October 2010, three monitoring wells (MW-8R, MW-11R, and MW-22D) continued to exhibit concentrations of selected PVOCs exceeding applicable NR 140 ESs.

Site Closure – March 2011

Based on a meeting with WDNR in October 2010, it was determined a request for site-specific closure would be appropriate to discontinue LTM activities, given the lack of receptors and significant hydraulic gradient. The 115th FW subsequently submitted a request for closure to the WDNR for IRP Site 4 in March 2011. On March 21, 2011, a letter granting conditional closure of IRP Site 4 was sent to the Base Environmental Manager at Truax Field from the WDNR. The site remains on the WDNR GIS database of contaminated sites. Closure was contingent on abandonment of IRP Site 4 monitoring wells and SVE lines associated with the former SVE system. These abandonment activities were completed in October 2011.

IRP Site 5 – UST 1201-1

IRP Site 5 pertains to a 3,000-gallon UST numbered 1201-1, located north of Building 1201, as shown in Figure 7. The UST was used to store waste oil. IRP Site 2 and IRP Site 5 geographically overlap and relate to the same UST. IRP Site 2 pertains to a specific 100-gallon release incident.

Site Investigation – 1989-1990

An SI was conducted between December 1989 and May 1990 at IRP Site 5. SI activities at IRP Site 5 included tank tightness testing, advancement of one soil boring, and the installation of one groundwater monitoring well (MW-13). UST 1201-1 failed its tank-tightness testing with a measured loss of 0.33 gallon per hour.

Monitoring well MW-13 was constructed approximately 70 feet south-southeast

(downgradient) of UST 1201-1. The one soil sample collected during the installation of MW-13 had nondetectable concentrations of total petroleum hydrocarbons (TPH).

Analytical results from the groundwater sample collected from monitoring well MW-13 exceeded the NR 140 ES for a nonpetroleum VOC, tetrachloroethylene (PCE, a solvent). It was determined UST 1201-1 was the probable source of PCE detected in the groundwater sample. It was recommended UST 1201-1 be removed and properly closed, and additional assessment be conducted. Installation of one additional monitoring well was recommended, to evaluate the extent of the solvent impacts to groundwater.

Site Assessment – 1991

Three soil borings were advanced around waste oil UST 1201-1 as part of an SA in 1991. Soil samples were analyzed for VOCs and SVOCs and yielded nondetectable results. Analytical results for the groundwater sample collected from MW-13 during the SA yielded nondetectable results for VOCs.

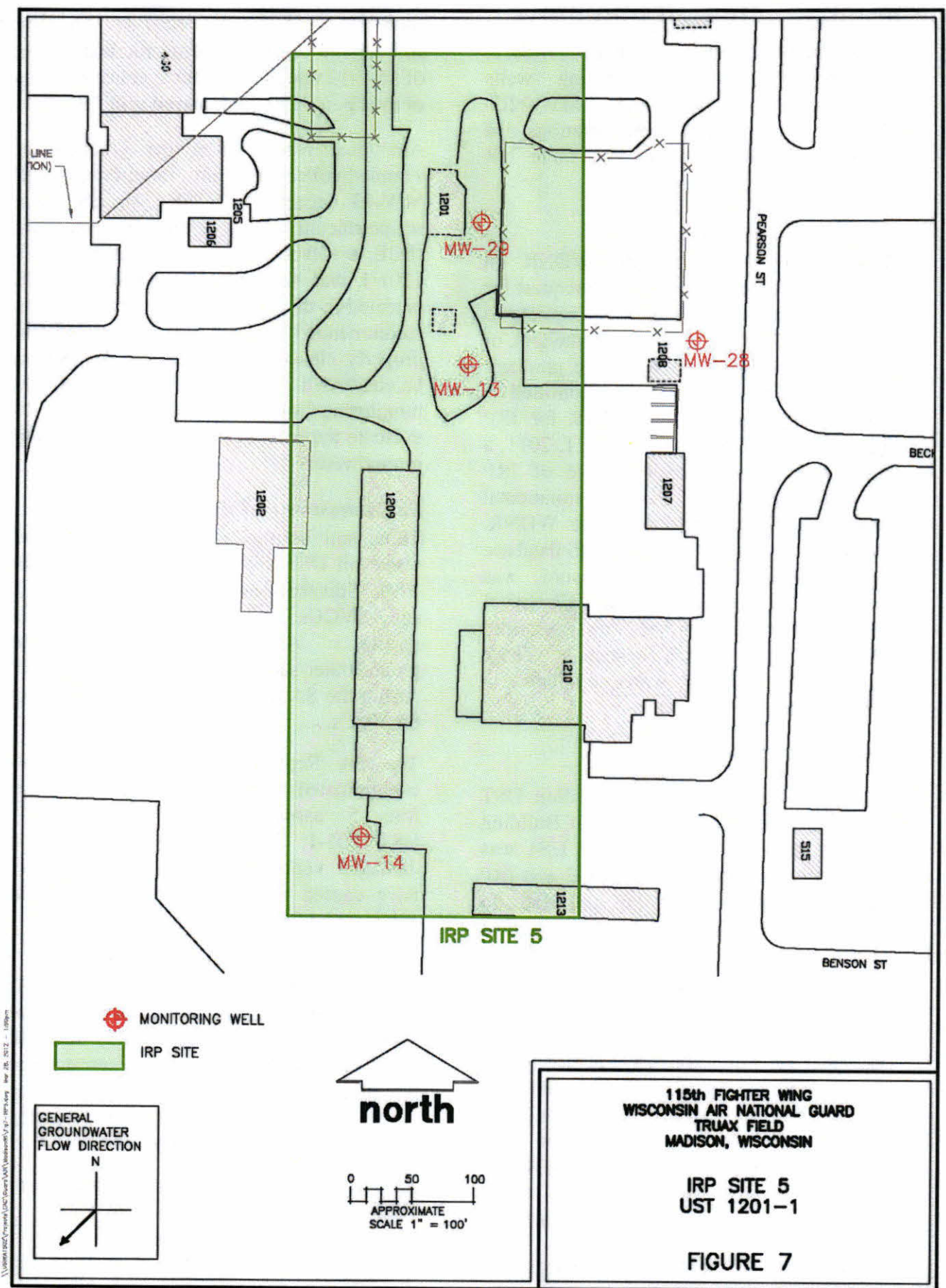
The SA Report concluded there is no contaminated soils and groundwater at IRP Site 5 associated with the use of UST 1201-1. It was also suspected a damaged vent line for UST 1201-1 may have caused the failed tank-tightness test conducted during the 1990 SI.

UST Closure Assessments – 1991

UST 1201-1 was removed in October 1991. It was determined from the closure assessment that UST-1201-1 had released petroleum product into the surrounding environment and additional subsurface investigation was needed to properly define the degree and extent of degradation.

Site Assessment/Closure Assessment Report – 1994

An assessment of former UST 1201-1 consisted of the collection of groundwater



samples from five soil borings, one augured on each side and one augured in the center of the former UST location. Groundwater samples were collected from each soil boring borehole and analyzed for VOCs, polycyclic aromatic hydrocarbons (PAHs), and metals. A petroleum VOC, benzene, was detected in all groundwater samples collected, with several samples having concentrations exceeding applicable NR 140 ES. As previous investigations documented detectable concentrations of VOCs and SVOCs were not encountered, the groundwater contamination could be attributed to an upgradient source; possibly the POL facility or the abandoned POL transfer supply line. The Site Assessment/Closure Assessment Report recommended clean closure for UST 1201-1.

Groundwater Sampling Activities – 1997-2004

Monitoring wells MW-13 and MW-14 were sampled in November 1997, and quarterly beginning in July 1998 through March 2000. Benzene was detected in groundwater samples collected from monitoring well MW-13 in November 1997 and June 1999, with the concentrations exceeding the applicable NR 140 ES. PCE was detected in monitoring well MW-14 during each sampling event, with concentrations exceeding the applicable NR 140 ES.

A 2001 closure request for UST 1201-1 from the 115th FW was denied by WDNR. The WDNR required the installation of an additional monitoring well near the former location of UST 1201-1, along with performing two rounds of groundwater monitoring for VOCs. MW-29 was subsequently installed in October 2001. No VOCs were detected in MW-29 during the two sampling events. The 115th FW again requested closure of UST 1201-1 in January 2002. In April 2002, the WDNR granted conditional closure of UST 1201-1, pending abandonment of monitoring wells MW-13 and MW-29.

One groundwater sample was collected from MW-14 in February 2004 and analyzed for VOCs and SVOCs. Sample results indicate solvent-related VOCs, including PCE, were detected at concentrations above the NR 140 Preventive Action Limit (PAL), but are below the ES.

Continued Monitoring and Closure – 2006-2007

An additional groundwater sample was collected from MW-14 in May 2006, with one solvent-related VOC continuing to exceed the applicable NR 140 ES. Monitoring wells MW-13 and MW-29 were properly plugged and abandoned in May 2006, thus allowing closure of UST 1201-1 to occur in June 2006. MW-14 was sampled again in November 2006, with nondetectable results for all VOC constituents. MW-14 was properly plugged and abandoned in May 2007. IRP Site 5 closure was then granted by the WDNR on July 17, 2007.

IRP Site 6 – Building 1000

IRP Site 6 is the location of five USTs and associated piping and dispensers located adjacent to the Vehicle Maintenance Building (Building1000), as depicted in Figure 8. UST 1000-1 was a 12,000-gallon gasoline tank. UST 1000-2 was a 6,000-gallon diesel tank. UST 1000-3 was a 250-gallon UST connected to an oil water separator. UST 1000-4, a 2,000-gallon tank, was reported as a clean closure; the tank was removed prior to 1990. UST 1000-5 is a 250-gallon used oil tank that was closed in April 1994. UST 1000-1 and UST 1000-2 were removed in August 1993, and UST-1000-3 was closed in April 1994, along with UST 1000-5.

Site Investigation – 1989-1990

An SI was conducted between December 1989 and May 1990 at IRP Site 6. SI activities at IRP Site 6 included tank tightness testing, soil sampling, and monitoring well installation. Tank tightness

testing was conducted on UST 1000-5 only and passing results were achieved.

Monitoring wells MW-1, MW-2, and MW-3 were installed around Building 1000. Nondetectable TPH results were observed for soil samples collected during the installation of these three wells. One chlorinated solvent cis-1,2-dichloroethene (cis-1,2-DCE) was detected in a groundwater sample collected from MW-1. The SI Report recommended additional sampling be performed at MW-1 to monitor the levels of chlorinated VOCs.

Site Assessment – 1991

The 1991 SA included the sampling of IRP Site 6 monitoring wells for VOCs and SVOCs. MW-3 was found to be damaged and was properly plugged and abandoned per WDNR requirements. As a result, MW-18 was installed to replace MW-3. Groundwater sample results indicated cis-1,2-DCE was present in MW-1 and MW-18 at detectable concentrations below the applicable NR 140 ES. The SA Report recommended that USTs 1000-4 and 1000-5 be properly closed per WDNR requirements even though they were previously removed. The SA Report also states the three remaining USTs were scheduled for removal and closure pending funding.

UST Closure Assessment – 1993-1994

USTs 1000-1 and 1000-2 were removed on August 19, 1993. Four of the five soil samples collected beneath the USTs as part of the closure activities had no detectable concentrations of gasoline range organics (GRO) or diesel range organics (DRO). The sample at the west end of UST 1000-2, and beneath the diesel fuel dispenser contained detectable concentrations of DRO. The WDNR has not established an ES or PAL for DRO.

In November 1993, additional groundwater samples were collected from MW-1 to comply with closure requirements for removed USTs 1000-1 and 1000-2. DRO and benzene were detected in MW-1. Following submittal of the UST closure

documentation, the WDNR granted fast-track closure for soils of USTs 1000-3 and 1000-5 in April 1994.

Groundwater Sampling – 1997

MW-1 was sampled for SVOC analysis in October 1997. Results were below analytical detection limits (i.e., nondetectable).

In November 1997, groundwater samples were collected from MW-1, MW-2 and MW-18; and analyzed for VOCs and natural attenuation parameters. No detectable concentrations of VOCs were found in groundwater from MW-2 and MW-18. VOCs, including benzene, were detected in MW-1. The reported concentration of benzene did not exceed the applicable NR 140 ES.

Remedial Actions by the 115th FW – 2001

In May 2001, two soil samples were collected from a patch of stressed vegetation in the area of the former pipeline associated with USTs 1000-1 and 1000-2. The DRO concentrations in these samples are 15,000 and 16,000 milligrams per kilogram (mg/kg).

Approximately 15 cubic yards of contaminated soil was excavated and transported to a landfill in August 2001. Four soil samples were collected from the excavation and analyzed for DRO and PVOCs. Laboratory analytical results indicated no detectable residual soil contamination remained at the site. In October 2001, the WDNR granted conditional site closure for Tank 1000-2, pending monitoring well abandonment.

Well Abandonments and Site Closure – 2006

In May 2006, monitoring wells MW-1, MW-2, and MW-18 were properly plugged and abandoned. After completion of abandonment activities in May 2006, the WDNR granted final site closure for USTs 1000-1 and 1000-2 on June 20, 2006, thus closing IRP Site 6.

IRP Site 7 – Buildings 401 and 409

IRP Site 7, shown in Figure 9, pertains to three used oil USTs formerly located near Buildings 401 and 409.

Site Investigation – 1989-1990

An SI was conducted in 1990 at IRP Site 7. SI activities at IRP Site 7 included tank tightness testing, soil sampling, and monitoring well installation. Tank tightness testing was conducted on all three USTs, with each UST achieving a passing test result.

Three monitoring wells (MW-4 through MW-6) were installed at IRP Site 7 and sampled.

A solvent, trichloroethene (TCE), was detected in MW-5 at a concentration exceeding the NR 140 ES. Vinyl chloride, a degradation product of TCE was also detected in MW-6 at a concentration exceeding the applicable NR 140 ES.

Site Assessment – 1991

Two soil borings were advanced near UST 409-2, and one monitoring well (MW-19) was installed near UST 401-2. Groundwater sampling from monitoring wells MW-4, MW-5, MW-6, and MW-19 was also performed for analyses of VOCs and SVOCs. Results from the investigation indicated the presence of TCE in MW 5 and MW 19; both exceeding the applicable NR 140 ES for TCE. Sample results for MW-6 were below analytical detection limits. Soil sample results from the two soil borings yielded nondetectable results.

Site Assessment for UST 409-2 – 1994

In March 1994, UST 409-2 was removed and two soil samples were collected during removal from the tank bed. The sample from below the northeast end of the tank contained detectable concentrations of TPH, while nondetectable results were reported in the

remaining soil sample. The WDNR has not established an ES or PAL for TPH.

Groundwater Sampling – 1997-2000

One round of groundwater sampling was conducted in November 1997, and quarterly groundwater sampling was completed from February 1999 through March 2000. The samples were analyzed for VOCs and inorganic parameters. TCE was detected in monitoring well MW-5 during the November 1997 sampling event, but was not detected in subsequent sampling events.

Soil Sample – March 1999

One soil sample was collected at the MW-6 location and submitted for analysis of selected SVOCs. Low concentrations of SVOCs were detected, and were not considered a concern due to the ground surface at this location being paved.

Closure of UST 409-2 – 2001

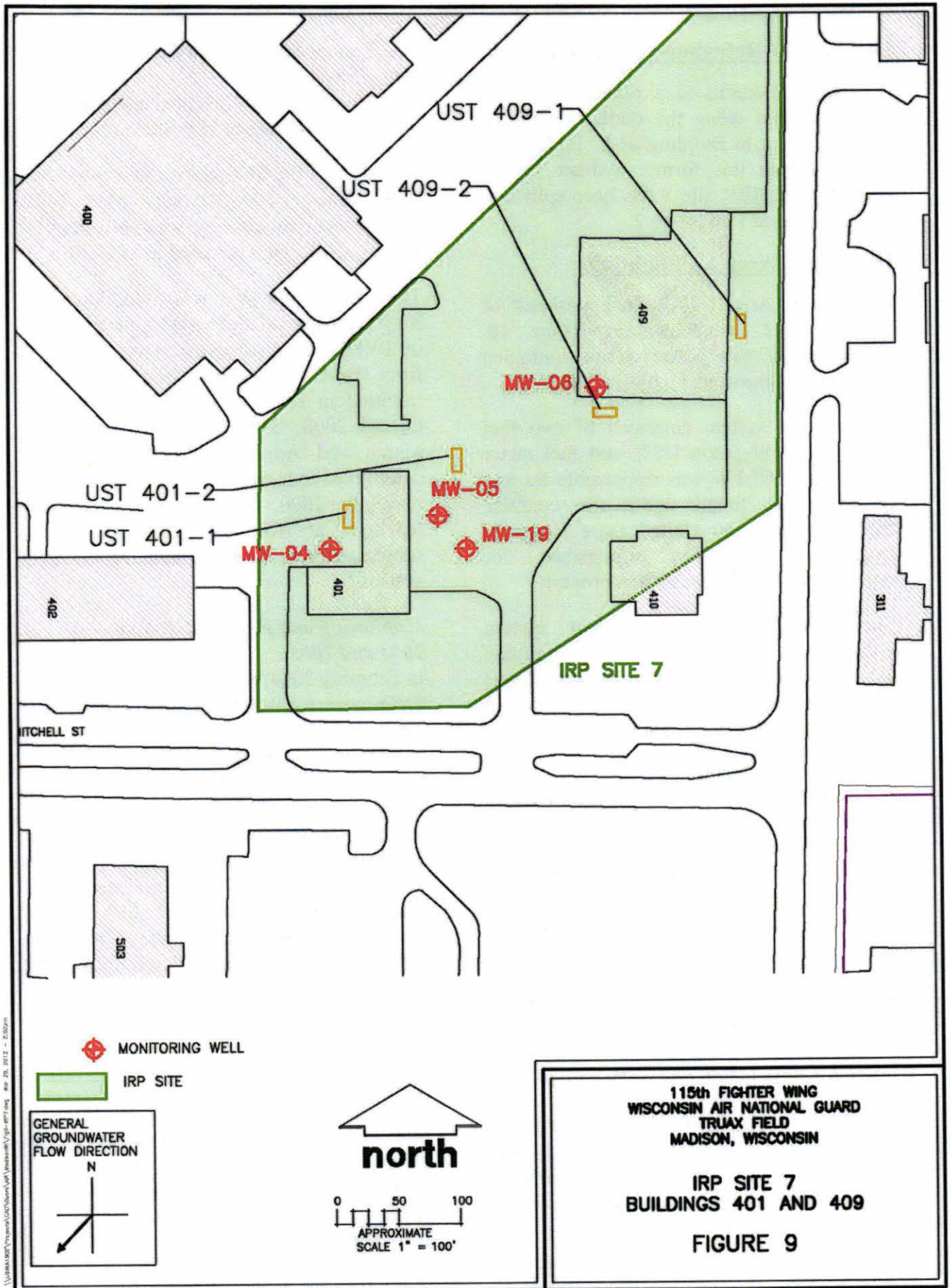
In January 2001, a closure request was submitted to WDNR for UST 409-2 by the 115th FW. The WDNR granted NFA for soils for UST 409-2 on March 27, 2001.

Groundwater Sampling – 2006

In February 2006, monitoring wells MW-4, MW-5, and MW-19 were sampled for VOCs by MWH. The only VOC detection for all three wells came from MW-19, with TCE exceeding the NR 140 PAL. Based on the February 2006 groundwater results, a request was made to the WDNR to abandon MW-4, MW-5, and MW-19. In June 2006, the WDNR granted conditional closure of IRP Site 7, pending abandonment of the three monitoring wells.

Well Abandonments and Site Closure – 2007

In May 2007, monitoring wells MW-4, MW-5, and MW-19 are properly plugged and abandoned, and well abandonment forms were submitted to the WDNR. The WDNR granted final site closure on July 17, 2007.



IRP Site 8 – Refueling Hydrant System

IRP Site 8 pertains to a refueling hydrant system located along the north side of the Base, adjacent to Building 412. Because of the wide area this former hydrant system encompassed, IRP Site 8 has been split into two areas, Area 1 and Area 2.

IRP Site 8, Area 1 – Flightline

IRP Site 8, Area 1 is located northeast of Building 412, as shown in Figure 10. Impacts at IRP Site 8, Area 1, are comingled with impacts associated with IRP Site 4.

The hydrant system consisted of two fuel lines, a 12,000-gallon UST, and fuel meter pits. The 115th FW was responsible for any contamination found under the concrete flightline, with the United State Corps of Engineers (USACE) responsible for remediation of off-Base airport property.

The USACE removed hydrant system infrastructure north of the 115th FW flightline in 1992. Contaminated soil encountered during the removal was excavated and treated via low temperature thermal desorption.

Subsurface Investigation – 1992

A subsurface investigation was completed in preparation of apron (Flightline) reconstruction. Monitoring wells MW-20, MW-21, MW-22S, MW-22D, and MW-23 were installed; and 19 soil borings for soil sampling were advanced. The investigation of soil at IRP Site 8 indicated there was an area of soil contamination located along the runway apron. This area coincides with the abandoned fuel hydrant system.

USACE Construction and Remediation – 1993

The USACE completed an SI, which covered the hydrant system north of the 115th FW flightline. The SI Report indicates contaminated soil exists near the fuel meter pits and the UST.

SVE System Start-up and Operation – 1996-1999

An SVE system was installed and started for remediation of soils at IRP Site 8, Area 1.

Operation of the SVE system was conducted from January 1996 through May 1998. Groundwater monitoring was performed at startup, with VOCs detected in MW-20.

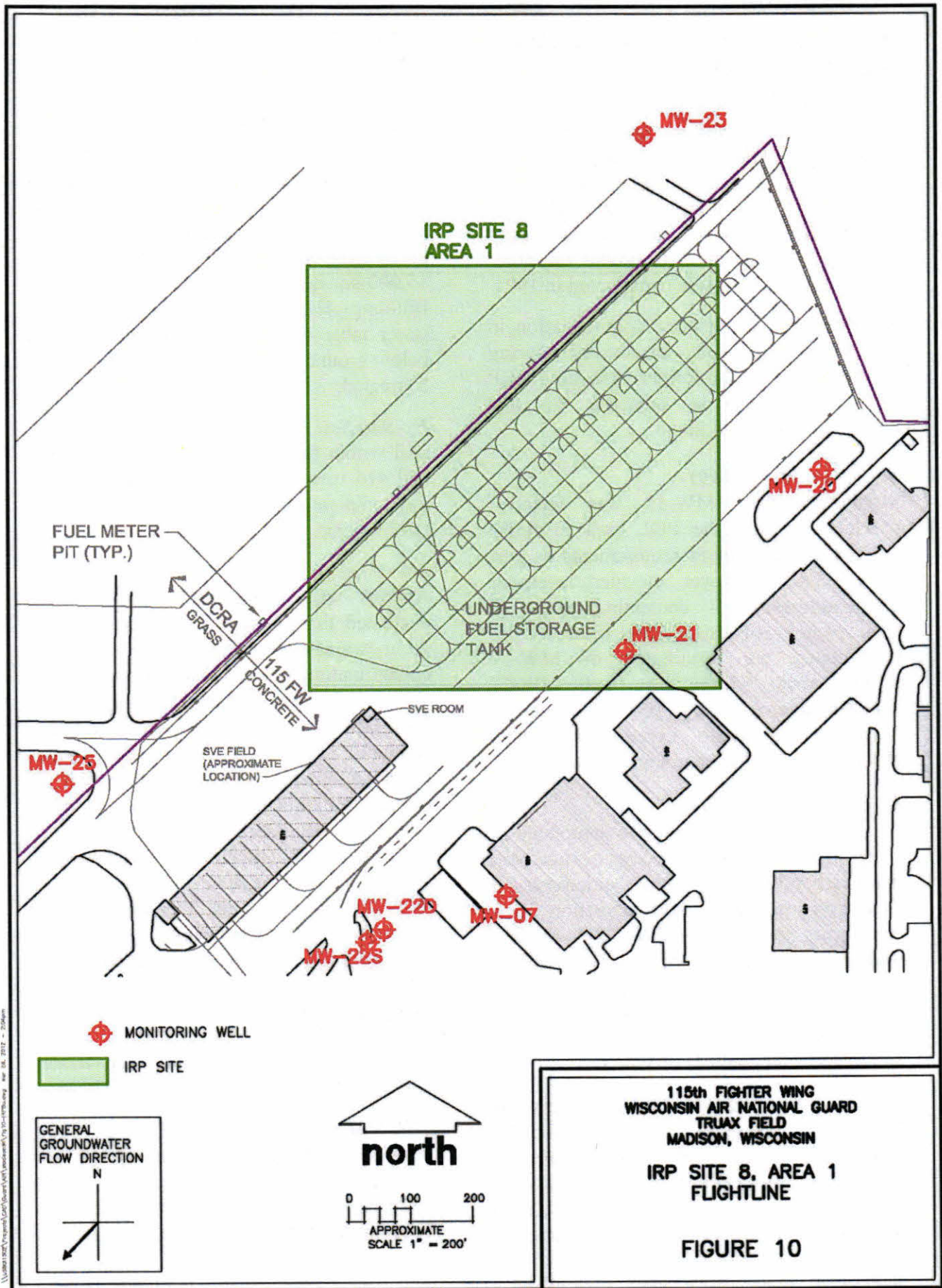
The SVE system was shutdown in May 1998 due to decreased concentrations of PVOCs in condensate water recovered from the SVE system. The system was restarted in December 1998, and operated through 2000. SVE condensate sampling in March and April 1999 did not contain detectable concentrations of PVOCs. In November 2000, the WDNR granted NFA for soils at IRP Site 8, Area 1, which subsequently ceased operation of the SVE system.

Monitoring and Remedial Actions – 2004 and 2005

In February 2004, MW-20 was sampled, and PVOCs were not detected. Excavation was conducted in 1992. In May 2004, seven soil borings were advanced along the limits of excavation to support an SA and closure report. Soil samples were collected from the soil borings, and the samples did not exceed NR 720 Residual Contaminant Levels. No groundwater samples were collected from these borings. Closure of IRP Site 8, Area 1, was requested in January 2005. The WDNR granted conditional closure of IRP Site 8, Area 1, pending abandonment of monitoring well MW-23.

Well Abandonments and Site Closure – 2006

Monitoring wells MW-7, MW-20, MW-21, and MW-25 were properly plugged and abandoned in May 2006. MW-23 was destroyed during the construction of taxiway delta. Following submittal of well abandonment documentation, the WDNR granted site closure with NFA in a letter dated June 21, 2006.



IRP Site 8, Area 2 – Area Between Buildings 412 and 414

IRP Site 8, Area 2 encompasses Buildings 412 and 414, and the jet fuel transfer lines associated with the former fuel hydrant system. IRP Site 8, Area 2 is shown in Figure 11. Building 414 was originally constructed in 1992 as a fuel cell. As a result of the conversion to F-16 aircraft the north half of Building 414 was constructed in 1994.

The soil and groundwater contamination in this area was first discovered during investigations of the former POL area (IRP Site 4), which is adjacent to and downgradient of IRP Site 8.

Site Assessment – 1991

Monitoring well MW-15 was installed 450 feet north of the POL area to fulfill upgradient background requirements as part of the SA. However, elevated levels of petroleum-based contaminants in groundwater samples collected from MW-15 necessitated the installation of MW-17 further north. Monitoring well MW-17 installed approximately 100 feet west of MW-15 did not exceed applicable NR 140 standards in samples collected.

Subsurface Investigation

A subsurface investigation was completed in 1992 following the discovery of potential hydrocarbon-impacted soils underneath a flight apron planned for reconstruction. One monitoring well nest (MW-22S/MW-22D) was installed northeast of the POL facility, and groundwater samples were collected from the newly-installed wells and monitoring wells MW-7, MW-9, MW-15, and MW-17 for analysis of VOCs.

Analyses of groundwater samples from wells MW-7, MW-9, MW-15, MW-17, MW-22S, and MW-22D for VOCs detected several compounds with concentrations exceeding NR 140 PALs and ESs. It was concluded groundwater contamination is present at the southwestern end of the apron area, IRP Site 8, Area 2, located hydraulically

upgradient of the POL facility, close to well MW-15.

Remedial Action Plan – 1992

Monitoring Well MW-25 was installed and sampled in 1992. Results of this investigation indicated a localized area of soil and groundwater contamination at the southwest end of Building 412. A RAP prepared in November 1992 recommended a 15,000-square-foot area between Buildings 412 and 414 be excavated to the water table depth (approximately 5-6 feet below ground surface) and the removed soil be treated.

Ex-Situ Soil Remediation – 1993

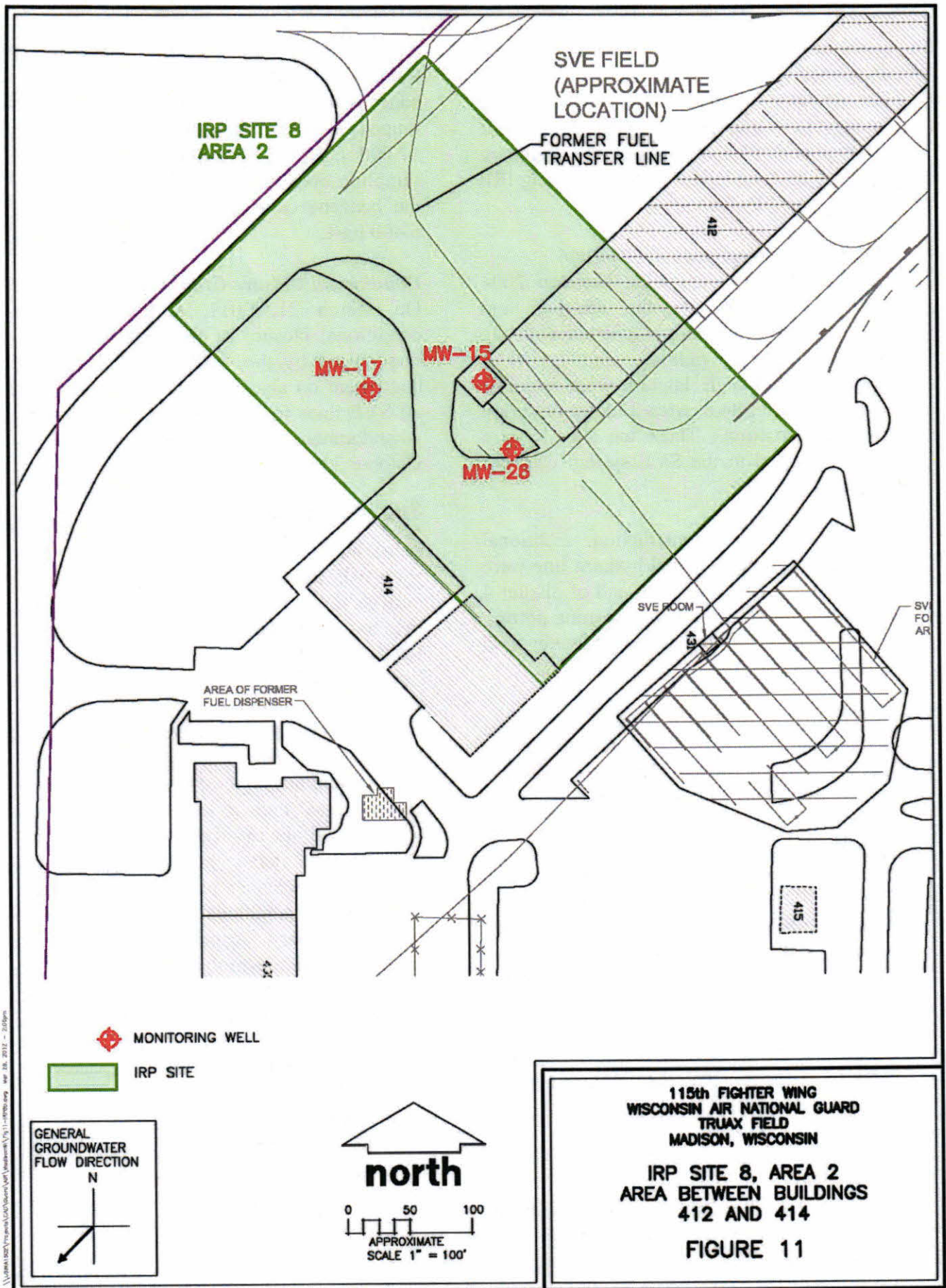
Soil within the area between Buildings 412 and 414 was excavated and remediated via low-temperature thermal desorption in the fall of 1993.

Site Assessment – 1994

An SA was completed in 1994, which evaluated the presence of hydrocarbons in groundwater near IRP Site 8, Area 2. The contamination was believed to be from the abandoned fuel hydrant pipeline and Hangar 412. The SA recommended conducting a detailed groundwater investigation to determine the extent of petroleum hydrocarbon contamination at the facility, conducting a risk-based study to determine the potential alternatives for groundwater corrective actions at the facility, and removing the fuel hydrant pipeline. The recommended groundwater investigation activities were completed from 1994 and 1996 as part of the Treatability Study in Support of Intrinsic Remedial Field Work at IRP Site 4. A total of 500 cubic yards of soil were excavated and treated during remedial action completed in 1994.

SVE System Enhancements – 1996

Two SVE laterals were laid along the west end of Building 412 along the utility corridor during flightline reconstruction. These laterals were then connected to and



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operated as part of the SVE system associated with IRP Site 8, Area 1. The IRP Site 8, Area 2 laterals were operated from January 1996 through November 2000. Over 2,100 pounds of hydrocarbons as GRO were removed by the SVE system remediating IRP Site 8, Area 2 by May 1998.

Building 412 Upgrades – 2004-2006

Building 412 was upgraded between 2004 and 2006 to include the removal and replacement of concrete associated with the flightline, aircraft parking, and taxiways. Ten additional SVE laterals were installed within the IRP Site 8, Area 2 footprint during this reconstruction. These ten laterals were then connected to the SVE system used for IRP Site 8, Area 1.

As part of this reconstruction, additional sections of the former fuel hydrant line were also removed from the north end of Shelter 4 to the perimeter road. The remaining portion of the hydrant line under the perimeter road was removed in August 2007.

SVE System Operation – 2006

In January 2006, the SVE system located in the northeast corner of Building 412 was started using the 12 SVE laterals placed in IRP Site 8, Area 2 for extraction. This system was operated until November 2006. An SA Report for IRP Site 8 Area 2 and Building 412 was prepared in November 2006. The SA Report requested an NFA status for IRP Site 8, Area 2 soils. The WDNR subsequently granted NFA status to IRP Site 8, Area 2 soils. The WDNR requested IRP Site 8, Area 2 groundwater continue to be monitored by including well MW-26 with the IRP Site 4 groundwater monitoring program.

Long Term Groundwater Monitoring – 2000-2010

Groundwater sampling was conducted at monitoring well MW-26 semiannually from 2006 through 2010. Groundwater samples were analyzed for PVOCs and natural

attenuation parameters (through 2009). Between 2006 and 2010, benzene concentrations at monitoring well MW-26 ranged from 1,800 µg/L (May 2009) to 17,000 µg/L in June 2007. For the last sampling event conducted in October 2010, the benzene concentration in MW-26 was 5,400 µg/L.

Conditional Closure Grant – March 2011

On March 21, 2011, a letter granting conditional closure of IRP Site 8, Area 2 was issued by the WDNR. Closure was contingent on abandonment of MW-26 and all SVE lines from the former SVE system. Abandonment activities were completed in October 2011.

Summary of Site Risks

Available soil and groundwater water data from IRP Sites 1 through 3 and 5 through 7 indicate detected contaminants do not pose a risk to human health or the environment. Impacted soils and groundwater at IRP Site 4 and IRP Site 8, Area 2 are managed in a manner to avoid unacceptable risks to Base personnel or construction workers. Risk avoidance practices include predominant coverage of the ground surface by concrete, and a limited presence of buildings within the footprint of these two sites, which have no basements and occupancy limited to portions of a normal work day. Additionally, no sources of potable water supplies or sensitive environmental receptors are threatened by the stagnant mass of fuel contaminants residing in the soil and groundwater at these two IRP sites. Continued natural reduction of remaining contamination is expected to occur. Therefore, it is the current judgment of the ANG, with the concurrence of the WDNR, that the Preferred Alternative of NFA identified in this Proposed Plan, is appropriate to protect human health, welfare, and the environment.

Both the Dane County Regional Airport and 155th FW receive water from the Madison

Water Utility, and groundwater is not used at or near the IRP Sites.

The WDNR has IRP Site 4 and IRP Site 8, Area 2 listed in the GIS database of contaminated sites.

Summary of Preferred Alternative

Based on existing information and data collected for IRP Sites 1 through 8, the ANG believes the Preferred Alternative of NFA is appropriate. The ANG expects the NFA Preferred Alternative will satisfy the following statutory requirements of CERCLA §121(b): (1) be protective of human health and the environment; (2) comply with Applicable or Relevant and Appropriate Requirements (ARARs); (3) be cost-effective; (4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and (5) satisfy the preference for treatment as a principal element.

Regulatory Participation

The WDNR has participated with the ANG in evaluating IRP Sites 1 through 8 including discovery, investigation, applicable monitoring and management activities, and subsequent NFA determination and site closure activities. Following ANG notification of the discovery of the releases, the WDNR has reviewed and approved the work plans and reports associated with the assessment and remediation activities completed at IRP Sites 1 through 8. The WDNR has provided letters or other documentation concurring with the recommendation for NFA at IRP Sites 1 through 8. The ANG, with concurrence of the WDNR, therefore, has determined NFA is the Preferred Alternative for IRP Sites 1 through 8.

Community Participation

The ANG provides information to the public regarding the cleanup of IRP Sites 1

through 8, through public meetings and Information Repository files for the IRP sites. The public is encouraged to gain an understanding of IRP Sites 1 through 8, and the investigation and evaluation activities that have been conducted.

The dates for the public comment period, the date, location, and time of the public meeting, and the locations of the Information Repository files, are provided on Page 1 of this Proposed Plan.

For further information on IRP Sites 1 through 8, please contact:

Environmental Manager
115th Fighter Wing
3110 Mitchell Street
Madison, WI 53704-2591
Phone: (608) 219-4456
Facsimile: (608) 245-4550
Email: 155fw.cev@ang.af.mil

Glossary of Terms

Specialized terms used in this Proposed Plan are defined below:

Applicable or Relevant and Appropriate Requirements (ARARs): The federal and state environmental laws that a selected remedy will meet. These requirements may vary among sites and alternatives.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA): The Cleanup Program focuses on human health and environmental concerns related to human health. The Cleanup Program is primarily carried out by the U. S. Environmental Protection Agency, working with the states, on sites designated for cleanup on the National Priorities List (NPL). The Cleanup Program emphasizes local source control and prevention of further spread from sources.

Contaminant: Harmful or hazardous matter introduced into the environment.

Decision Document: A document that provides a record of the reasons for selecting a particular alternative for a site.

Groundwater: Underground water that fills pores in soils or openings in rocks to the point of saturation. Groundwater is often used as a source of drinking water via municipal or domestic wells.

Information Repository: All documents that are considered, or relied on, in selecting the response action at a site, culminating in the Record of Decision for remedial action or an Action Memorandum for removal actions.

Installation Restoration Program (IRP): The Department of Defense program implemented at United States military bases to identify, investigate, and cleanup contamination resulting from past operations.

No Further Action (NFA): A determination there are no contaminants present at the site; or that any contaminants present at the site or that have migrated from the site have been remediated in accordance with applicable remediation statutes, rules and guidance such that no further action is necessary.

Preliminary Assessment (PA): The process of collecting and reviewing available information about a suspected contaminated site to determine whether the site requires further study.

Proposed Plan: A plan for a site cleanup that is available to the public for comment.

Remedial Action Plan (RAP): A plan that details the technical approach for implementing the remedial response.

Risk: A measure of the probability that damage to life, health, property, and/or the environment will occur as a result of a given hazard.

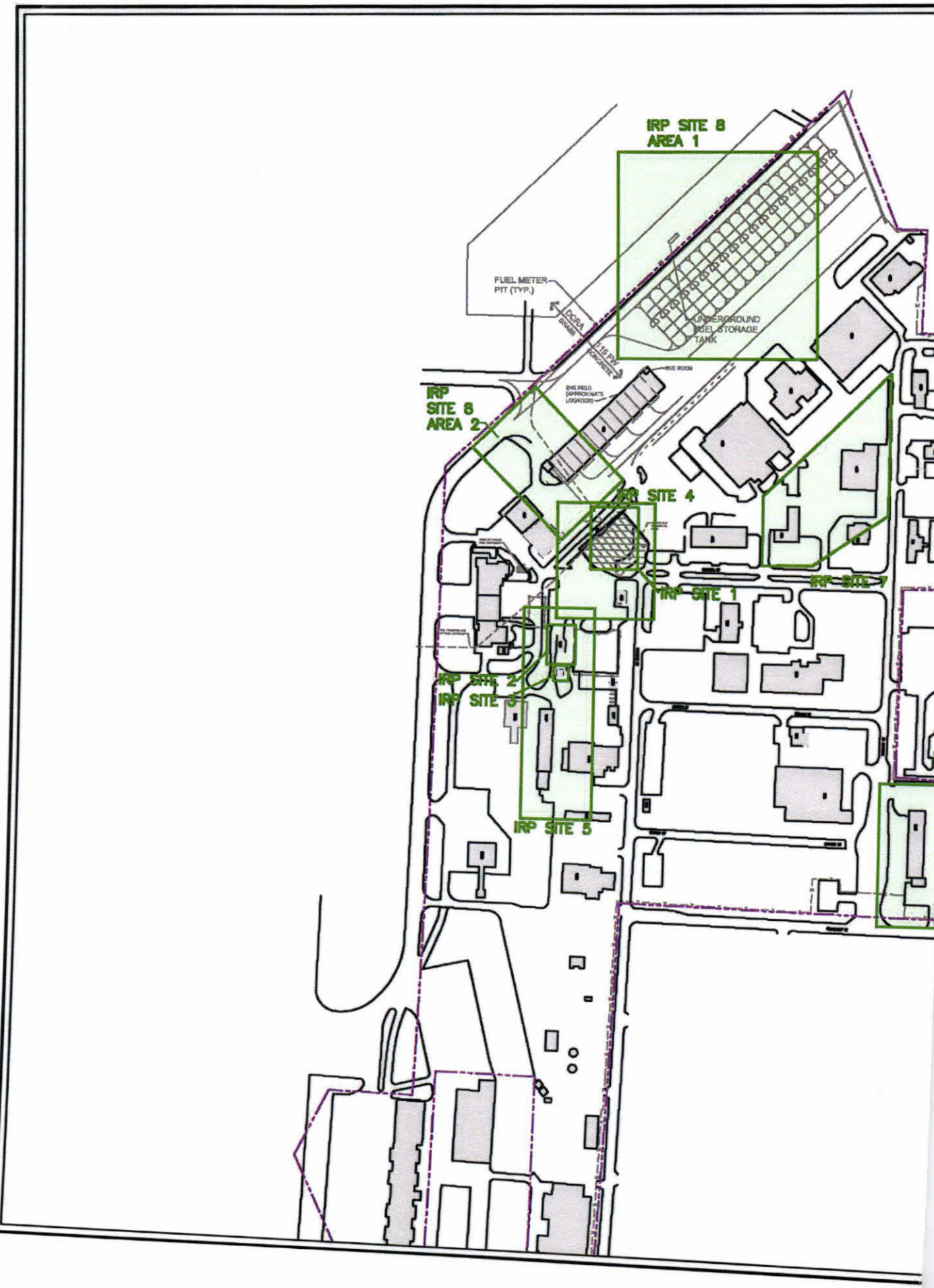
Site Investigation (SI): An investigation to confirm or deny the presence of contamination, but not necessarily delineate magnitude and extent.

From:

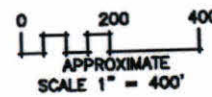
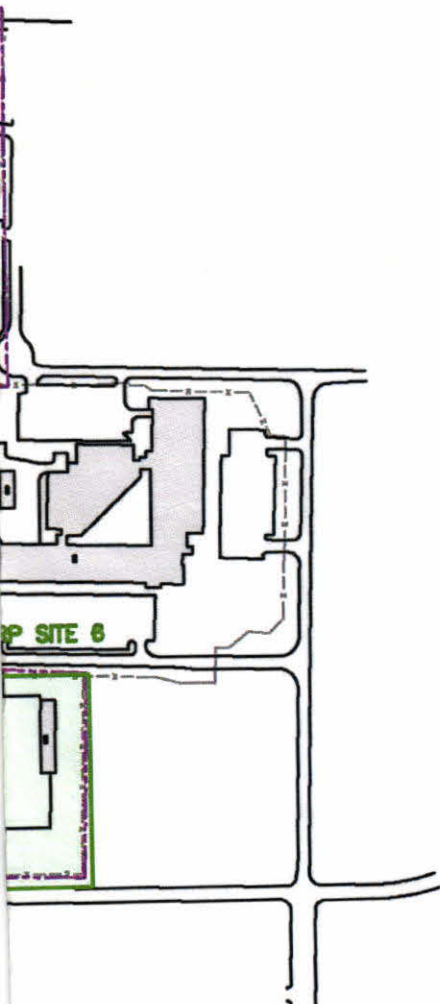
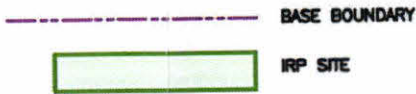
To:

**Environmental Manager
115FW/EMO
3110 Mitchell Street
Madison, WI 53704-2591**

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- IRP SITE 1 MARCH 1981 FUEL SPILL NEAR
(POL) PETROLEUM, OIL, AND LUBRICANT
FACILITY BUILDING 405
- IRP SITE 2 AUGUST 1985 JP-4 SPILL ASSOCIATED
WITH UNDERGROUND STORAGE TANK
(UST) 1201-1
- IRP SITE 3 OCTOBER 1983 POLYCHLORINATED
BIPHENYL (PCB) SPILL ASSOCIATED
WITH A LEAKING ELECTRIC
TRANSFORMER NEXT TO BUILDING 1201
- IRP SITE 4 FORMER POL STORAGE AND
DISTRIBUTION FACILITY
- IRP SITE 5 UST 1201-1
- IRP SITE 6 BUILDING 1000
- IRP SITE 7 BUILDINGS 401 AND 409
- IRP SITE 8
AREA 1 FLIGHTLINE
- IRP SITE 8
AREA 2 AREA BETWEEN BUILDINGS 412 AND
414



115th FIGHTER WING
WISCONSIN AIR NATIONAL GUARD
TRUAX FIELD
MADISON, WISCONSIN

IRP SITE LOCATIONS

FIGURE 2