

**Record of Decision
Installation Restoration Program
Sites 1, 2, 3, 5, 6, and 7**

FINAL



**161st Air Refueling Wing
Arizona Air National Guard Base
Sky Harbor International Airport – Phoenix, Arizona**

Prepared For

**NGB/A7OR
Joint Base Andrews, Maryland**

June 2014

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**National Guard Bureau
Contract No. DAHA92-01-D-0007
Delivery Order: 0116**

Prepared For

**NGB/A7OR
Joint Base Andrews, Maryland**

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Acronyms

ADEQ	Arizona Department of Environmental Quality
Airport	Sky Harbor International Airport, Phoenix, Arizona
ANG	Air National Guard
ANGB	Air National Guard Base
AR	Administrative Record
ARAR	applicable or relevant and appropriate requirement
ARW	Air Refueling Wing
AS	air sparge
AVGAS	aviation gasoline
AZ ANG	Arizona Air National Guard
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS ID	Comprehensive Environmental Response, Compensation and Liability Information System Identification
1,2-DCE	1,2-dichloroethylene
DD	Decision Document
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DoDM	Department of Defense Manual
ESOH CAMP	Environmental Safety and Occupational Health Compliance Assessment Management Plan
°F	degrees Fahrenheit
EE/CA	Engineering Evaluation/Cost Analysis
FS	Feasibility Study
IR	Information Record
IRP	Installation Restoration Program
µg/L	microgram(s) per liter
mg/kg	milligram(s) per kilogram
msl	mean sea level
MTBE	methyl-tert butyl-ether
NASA	National Aeronautics and Space Administration
NCP	National Oil and Hazardous Substance Contingency Plan
ND	not detected
NE	not established
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
O&M	operation and maintenance
OU	Operable Unit
PA	Preliminary Assessment
PCE	tetrachloroethylene
POL	petroleum, oil, and lubricants
PP	Proposed Plan
RA	Remedial Activities

Acronyms

RI	Remedial Investigation
ROD	Record of Decision
SA	Site Assessment
SARA	Superfund Amendments and Reauthorization Act
SI	Site Investigation
SSCL	Suggested Soil Cleanup Level
SVE/AS	soil vapor extraction/air sparge
SVOC	semivolatile organic compound
TAL	Target Analyte List
TCA	trichloroethane
TCE	trichloroethylene
TPH	total petroleum hydrocarbons
U.S.	United States
USEPA	United States Environmental Protection Agency
UST	underground storage tanks
VOCs	volatile organic compounds

1.0 Declaration

1.1 Site Name and Location

Facility Name: 161st Air Refueling Wing (161ARW),
Arizona Air National Guard (AZ ANG)
Site Location: Sky Harbor International Airport
Phoenix, Arizona
CERCLIS ID Number: Not Applicable
Operable Unit/Site: Installation Restoration Program (IRP) Sites 1, 2, 3, 5, 6, and 7

1.2 Statement of Basis and Purpose

This Decision Document presents the Selected Remedy for IRP Sites 1, 2, 3, 5, 6, and 7, located at the 161ARW, AZ ANG, Sky Harbor International Airport, Phoenix, Arizona (ANGB), which was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986, and to the extent practicable, the National Oil and Hazardous Substance Contingency Plan (NCP). This decision is based on the Administrative Record (AR) for IRP Sites 1, 2, 3, 5, 6, and 7.

This Decision Document is issued by the Air National Guard (ANG), as the lead agency. The ANG is managing remediation of contamination at the following IRP sites in accordance with CERCLA, as required by the Defense Environmental Restoration Program (DERP):

- IRP Site 1 – JP-4 Hydrant Area
- IRP Site 2 – Hazardous Waste Storage Area
- IRP Site 3 – Fuel Bladder Area
- IRP Site 5 – Ammunition Dump
- IRP Site 6 – Petroleum, Oil, and Lubricant (POL) Area
- IRP Site 7 – Old Oiled Road Area

As the lead agency, the ANG has selected No Further Action (NFA) for the above-listed IRP sites. The ANG coordinates IRP matters with the Arizona Department of Environment Quality (ADEQ) who is the lead regulatory agency in this matter. The ADEQ confers with the United States Environmental Protection Agency (USEPA), as necessary.

1.3 Description of Selected Remedy

The ANG and AZ ANG, with concurrence from the ADEQ, have determined that no further CERCLA remedial action is necessary to address residual contamination at IRP Sites 1, 2, 3, 5, 6, and 7.

1.4 Statutory Determinations

This Record of Decision (ROD) presents the selected NFA decision under CERCLA for IRP Sites 1, 2, 3, 5, 6, and 7. The NFA for IRP Sites 1, 2, 3, 5, 6, and 7, is protective of human

health and the environment, complies with promulgated requirements that are applicable or relevant and appropriate to the remedial action, and is cost effective.

The selected remedy represents the maximum extent to which permanent solutions can be used in a practicable manner at the IRP sites. It provides the best balance of trade-offs in terms of balancing criteria, while also considering the bias against off-site treatment and disposal and considering state and community acceptance.

The NFA decision at IRP Sites 1, 2, 3, 5, 6, and 7 is based on the assumption of continued non-residential land use at these locations. IRP Sites 1, 2, and 3, and portions of IRP Sites 5 and 7, are located on property returned to the City of Phoenix. The 161ARW will confirm the continued non-residential use for portions of IRP Sites 5 and 7 under AZ ANG control, every three years as part of the Environmental Safety and Occupational Health Compliance Assessment Management Plan (ESOHCAMP).

The ROD presents the selected NFA for IRP Sites 1, 2, 3, 5, 6, and 7. Restoration activities for IRP Sites 1, 2, 3, 5, 6, and 7 at the 161ARW are now considered to have reached the Response Complete stage, pursuant to the Department of Defense Manual (DoDM) 4715.20, Enclosure 3, Section 4b(15), page 40. No other remedial action is necessary to ensure protection of human health and the environment.

1.5 Authorizing Signatures

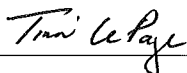
This signature sheet documents the ANG approval and ADEQ concurrence of NFA in this ROD for IRP Sites 1, 2, 3, 5, 6, and 7.



Benjamin W. Lawless, P.E.
Chief, Operations Division
Installations and Mission Support Directorate
Air National Guard

7/15/14

Date



Tina LePage
Remedial Projects Section Manager
ADEQ

6/20/14

Date

2.0 Decision Summary

The Decision Summary identifies the NFA decision, explains how the NFA decision fulfills statutory and regulatory requirements, and provides a substantive summary of the AR file that supports the NFA decision. Following completion of the ROD, the ANG has determined IRP Sites 1, 2, 3, 5, 6, and 7, have reached the Response Complete stage.

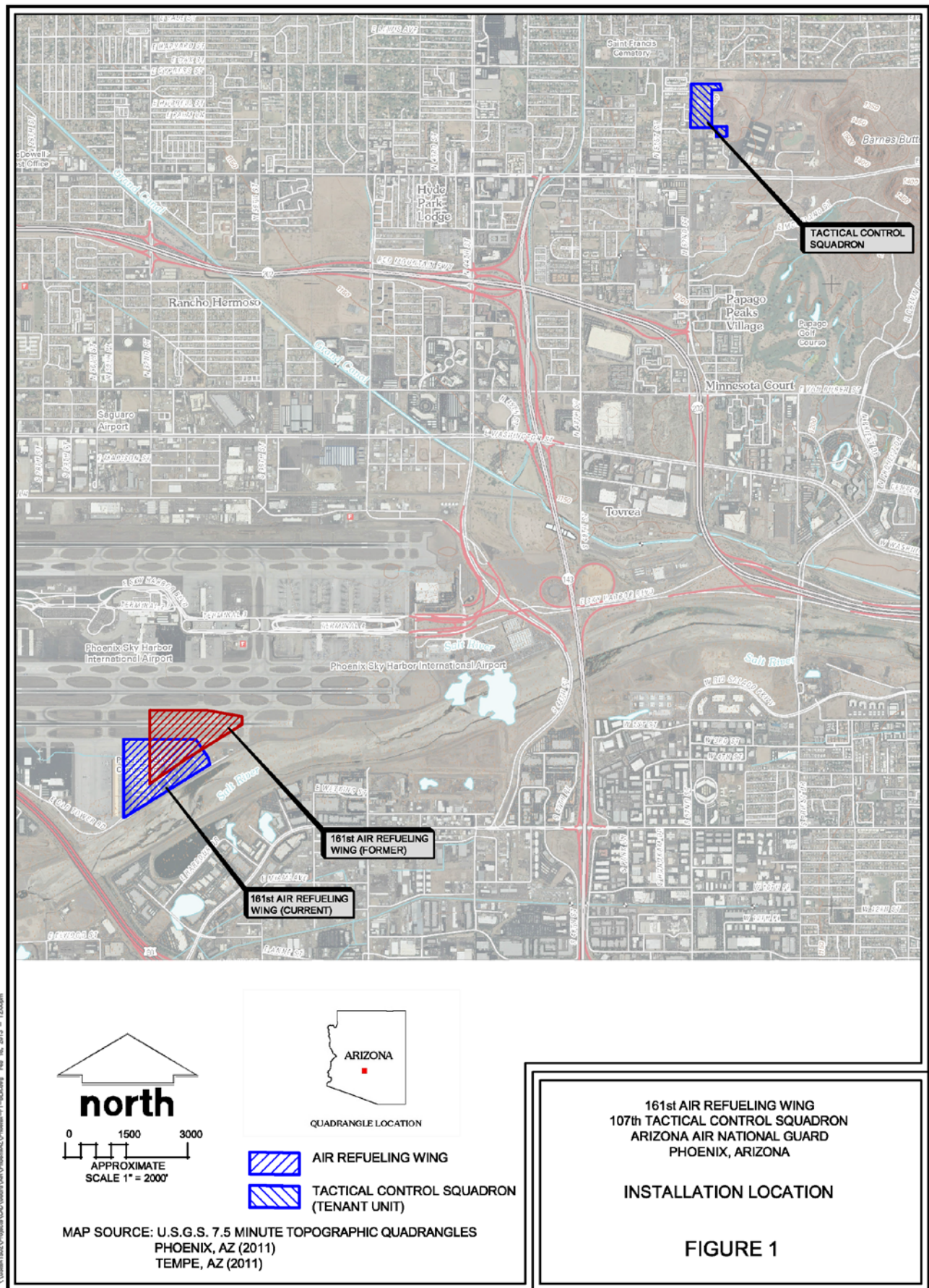
2.1 Site Name, Location, and Description

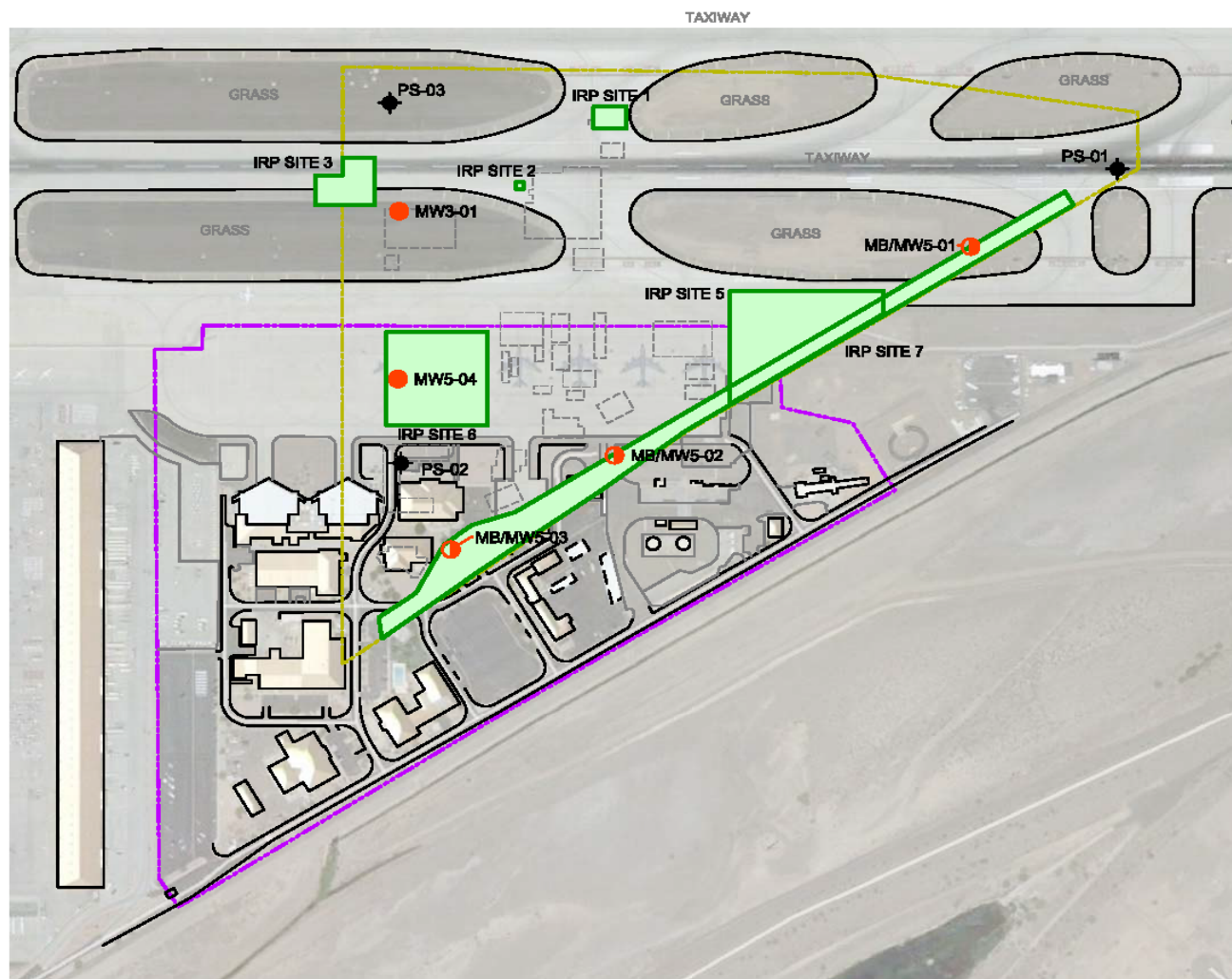
The 161ARW, AZ ANG, is located at the Sky Harbor International Airport (Airport) within the City of Phoenix, Arizona (Figure 1). The ANGB occupies approximately 51 acres at the south end of the Airport. The Air Force leases the land from the City of Phoenix, and then grants a license to the AZ ANG. The lease expires in 2048. Areas north and west of the ANGB are occupied primarily by the Airport and south and east of the ANGB are undeveloped lands adjoining the Salt River valley. The channel of the Salt River is immediately south of the ANGB. The ANGB has been occupied continuously since its construction in 1952.

In 1999 and 2000, the Airport was expanded by the addition of a third runway and associated taxiway. To accommodate the Airport expansion, it was necessary to relocate the ANGB facilities approximately 800 feet southwest of its original location (Figure 2). The boundary outline of the ANGB prior to relocation in 1999 and 2000 is also depicted in Figure 2. By July 2001, the ANG no longer controlled or leased the former installation property outside of the current Base boundary.

During its operational history, 161ARW personnel have engaged in various activities, aircraft maintenance and engine testing, aerospace ground equipment maintenance, and ground vehicle and facilities maintenance. These activities involve: corrosion control, nondestructive inspection, fuel cell and engine maintenance, hydraulics maintenance, and wheel and tire maintenance. Chemicals historically stored and used on site in conjunction with the various ANGB activities include: fuels (JP-4, JP-8, and AVGAS), hydraulic fluids, solvents, degreasers, paints, paint removers, oil, and ethylene glycol. Hazardous waste has been limited to spent and/or contaminated hazardous materials. As part of the Department of Defense's (DoD's) IRP; the ANG initiated activities to identify, evaluate, and remediate former disposal or spill sites containing hazardous substances. The ANG is publishing this ROD to document public comment on selection of the NFA under CERCLA alternative, for the six IRP sites at the Base, as required in Section 117(a) of CERCLA. These sites consist of the following:

- IRP Site 1 – JP-4 Hydrant Area
- IRP Site 2 – Hazardous Waste Storage Area
- IRP Site 3 – Fuel Bladder Area
- IRP Site 5 – Ammunition Dump
- IRP Site 6 – Petroleum, Oil, and Lubricant (POL) Area
- IRP Site 7 – Old Oiled Road Area





SITE 1 JP-4 HYDRANT AREA
 SITE 2 HAZARDOUS WASTE STORAGE AREA
 SITE 3 FUEL BLADDER AREA
 SITE 5 AMMUNITION DUMP AREA
 SITE 6 PETROLEUM, OIL, AND LUBRICANT (POL) AREA
 SITE 7 OLD OILED ROAD AREA

● BACKGROUND MONITORING WELL

○ BACKGROUND SOIL BORING/MONITORING WELL

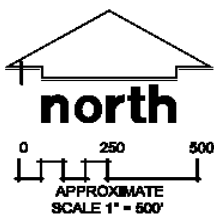
◆ PIEZOMETER

--- FORMER BUILDING

■ IRP SITE LOCATION

— CURRENT BASE BOUNDARY

- - - FORMER BASE BOUNDARY



161st AIR REFUELING WING
 ARIZONA AIR NATIONAL GUARD
 SKY HARBOR INTERNATIONAL AIRPORT
 PHOENIX, ARIZONA

IRP SITE LOCATIONS

FIGURE 2

The locations of IRP Sites 1, 2, 3, 5, 6, and 7, are depicted in Figure 2. IRP Site 4, a hazardous waste collection area, is not included as part of this ROD. IRP Site 4 is associated with the 107th Tactical Control Squadron, located at the Papago Army Military Reservation approximately 4 miles northeast of the ARW. The ADEQ references IRP Site 6 as Leaking Underground Storage Tank identification number #2453, for Facility 0-000092.

As the lead agency for remedial activities, the ANG has conducted environmental investigations at IRP Sites 1, 2, 3, 5, 6, and 7, in accordance with CERCLA under DERP, which was established by Section 211 of SARA of 1986. As the regulatory review agency, the ADEQ provides primary oversight of the environmental restoration actions. Funding is provided by the Defense Environmental Restoration Account, a funding source approved by Congress to clean up contaminated sites on DoD installations.

2.2 Site History and Enforcement Activities

This section provides background information and summarizes investigations that led to the ROD. It describes the CERCLA response actions undertaken at IRP Sites 1, 2, 3, 5, 6, and 7.

Prior to 1950, the 161ARW property was used for agricultural production and included one homestead. In 1951, ANG leased the land south of the Airport and constructed an ANG Base. In 1960, the 197th Fighter Squadron was redesignated the 161st Fighter Group. The mission of the 161st Fighter Group changed in 1962, when it was redesignated as the 161st Air Transportation Group. In 1968, the unit became the 161st Aeromedical Airlift Group. In 1972, the 161st Aeromedical Airlift Group was redesignated as the 161ARW. The 161ARW's primary missions are to support aerial refueling during wartime missions and provide aircrew and specialized support training to maintain KC-135E refueling capabilities during peacetime.

The 161ARW has stored waste oils, recovered fuels, corrosion inhibitors, spent cleaners, and solvents, and various types of hazardous materials throughout its history in support of its missions. Although some of the Base's historical operations have resulted in the storage and use of petroleum and hazardous materials, not all of these operations relate to IRP Sites 1, 2, 3, 5, 6, and 7.

Description of previous investigation activities conducted at IRP Sites 1, 2, 3, 5, 6, and 7, can be found in Section 2.5.6 of this ROD. The ANG conducted investigation activities at IRP Sites 1, 2, 3, 5, 6, and 7. The ANG conducted corrective action activities at IRP Sites 6, and 7, as described in greater detail in Section 2.5.6 of this ROD. Following completion of the investigation and corrective action activities, the 161ARW received NFA concurrence from the ADEQ for IRP Sites 1, 2, 3, 5, 6, and 7. No regulatory enforcement actions have been reported for IRP Sites 1, 2, 3, 5, 6, and 7 at the AZ ANG.

2.3 Community Participation

NCP Section 300.430(f)(3) establishes a number of public participation activities that the lead agency must conduct following preparation of the Proposed Plan (PP) and review by the support agency.

The ANG and AZ ANG have kept the community and other interested parties apprised of 161ARW activities through fact sheets, press releases, and public meetings, as necessary. A Community Relations Plan was initiated by the ANG in August 1992. IRP documents relevant

to the environmental studies performed at IRP Sites 1, 2, 3, 5, 6, and 7, can be found in the AR maintained at the Environmental Management Office of the 161ARW AZ ANG, in Phoenix, Arizona. The AR file for the documents utilized in selecting a response action for IRP Sites 1, 2, 3, 5, 6, and 7, is provided as Attachment 1. As part of the effort to inform the community about IRP Sites 1, 2, 3, 5, 6, and 7, the Information Record (IR) for IRP Sites 1, 2, 3, 5, 6, and 7, has been placed at the Phoenix Public Library – Saguaro Branch, and the ADEQ public record files, and are available for public review. The Phoenix Public Library – Saguaro Branch is located at 2808 North 46th Street in Phoenix, Arizona. The ADEQ is located at 1110 West Washington Street, in Phoenix, Arizona. The IR contains reports and correspondence pertaining to IRP Sites 1, 2, 3, 5, 6, and 7.

The ANG published a public notice to announce the availability of the PP for IRP Sites 1, 2, 3, 5, 6, and 7, recommending no further remedial action under CERCLA, in the Arizona Republic on November 29, 2013. The notice was also posted along with the PP at the Phoenix Public Library – Saguaro Branch. From November 29, 2013 through December 29, 2013 the ANG held a 30-day public comment period to accept comments on the PP, and information contained in the IR. Documentation of the Public Notice is included as Attachment 2. In the public notice, the ANG announced a public meeting would be held if contacted by the public by December 29, 2013. A public meeting on the PP was reserved pending receipt of a request for such a meeting from the public. No request for a meeting was received from the public. Furthermore, no comments were submitted during the public comment period, as documented in the Responsiveness Summary (Attachment 3). Comments received from the City of Phoenix after completion of the public comment period are also summarized in Attachment 3.

2.4 Scope and Role of Operable Unit or Response Action

The NFA decision for IRP Sites 1, 2, 3, 5, 6, and 7, presented in this ROD, is intended to protect public health and welfare, and the environment. No additional response actions will be necessary under the NFA for IRP Sites 1, 2, 3, 5, 6, and 7.

2.5 Site Characteristics

2.5.1 Physiography and Climate

The climate in Phoenix is defined as arid. Phoenix is located on an alluvial valley at an elevation of approximately 1,100 feet above mean sea level (msl). The mean annual temperature in Phoenix is 72.9 degrees Fahrenheit (°F). The average daily high temperature in July is 94.8°F. The average daily low temperature of 55.5°F occurs in December.

Precipitation averages 8.29 inches annually. The wettest month is August, with average precipitation of 1.2 inches. June is the driest month, with an average precipitation of 0.2 inch. Net precipitation for the area is negative 63 inches per year. Rainfall intensity based on a 1-year, 24-hour rainfall is 1.5 inches.

2.5.2 Geology

The ANGB is located in the Basin and Range physiographic province, which is characterized by north to northwest trending fault-block mountains separated by broad, down-dropped basins filled with mountain-derived alluvium. The basement complex that floors the basins and forms the mountains which surround Phoenix is composed of granite, gneiss, and schist of Precambrian-age, conglomerate of Cretaceous/Tertiary age, and andesite of Tertiary age. The

valleys are filled with unconsolidated alluvium which varies in thickness from 0 feet to more than 5,100 feet, and possibly as much as 10,000 feet in some locations. The ANGB is underlain by unconsolidated and semi-consolidated alluvium to depths of several thousand feet.

2.5.3 Hydrogeology

The primary source of groundwater in the area is basin-fill sediments. Three distinct water bearing units are identified in the sub-basins in the area: an upper alluvial unit, a middle fine-grained unit, and a lower conglomerate unit. Bedrock, consisting of metamorphic and igneous rock, underlies the basin-fill sediments and is not considered an aquifer. Groundwater occurs under unconfined conditions throughout the area. Depth to water ranges from just below ground surface (bgs) to more than 800 feet bgs. In the area of the ANGB, depth to groundwater is approximately 79 feet. The permeability of the unsaturated zone is 1.4×10^{-3} centimeters per second (cm/sec). The groundwater flow direction is generally to the west.

2.5.4 Surface Water Hydrology

The Salt River flows westward in east-central Arizona through Phoenix to its confluence with the Gila River. About 25 miles east of Phoenix, the Salt River joins the Verde River. Water conservation reservoirs were constructed on the upper part of the watershed in the early 1940s. Water is released from the reservoirs into the channels of the Salt and Verde Rivers and flows downstream to Granite Reef Dam, a low-head diversion dam, where it is diverted into two canals for irrigation and municipal use in and near Phoenix.

The ANGB is located adjacent to the Salt River and the southern perimeter of the ANGB is within its 100-year flood plain. Airport drainage flows overland and through storm drains to outfalls into the Salt River.

Surface water supplies 80 percent of the city of Phoenix's drinking water; the remaining 20 percent is supplied by water wells. Water for the Airport and the ANGB is provided by the city of Phoenix municipal water system. There are no drinking water supply wells within a 3-mile radius of the ANGB.

2.5.5 Ecology

According to the Arizona Game and Fish Department, there are no endangered or threatened species of flora or fauna within a 1-mile radius of the ANGB. There are no critical habitats, wetlands, or wilderness areas within a 1-mile radius of the ANGB. The site habitat is limited by its urban location and use as an active Base.

2.5.6 Previous Site Characterization Activities

A total of six IRP Sites were identified at the Base during a Preliminary Assessment (PA) conducted in 1988 or a Site Investigation (SI) conducted in 1992. The six sites identified include IRP Site 1 (JP-4 Hydrant Area), IRP Site 2 (Hazardous Waste Storage Area), IRP Site 3 (Fuel Bladder Area), IRP Site 5 (Ammunition Dump), IRP Site 6 (POL) Area), and IRP Site 7 (Old Oiled Road Area). Investigation activities were conducted at each IRP site, as detailed below.

IRP Site 1 – JP-4 Hydrant Area

IRP Site 1 is located within the footprint of the northern portion of the former ANGB, which is now the location of airport taxiways. IRP Site 1 was formerly an area with concrete pavement

and gravel-covered ground near the JP-4 hydrants at the west side of the aircraft parking apron (Figure 3). The JP-4 hydrants were located in a fenced area immediately east of former Control Building No. 3. The hydrant system consisted of a series of pumps, pipes, and valves located aboveground and underground, used in aircraft refueling.

Reportedly, small releases of JP-4 fuel may have occurred in the area in the past, and the area received potentially impacted surface runoff from the northern portion of the aircraft parking area. The total amount of fuel released is estimated to be a small volume, with actual amounts unknown.

Activities completed at IRP Site 1 include a PA in 1988, a Site Investigation (SI) in 1992, a Site Assessment (SA) in 1993, groundwater monitoring from 1993 to 1994, a Decision Document (DD) in 1996, an Engineering Evaluation/Cost Analysis (EE/CA) in 1998, and Site Closure activities in 1999.

Preliminary Assessment – 1988

A PA of the ANGB was conducted in 1988, which identified IRP Site 1. The PA included interviews with past and present ANBG personnel and a field survey. The PA also included a review of available installation and regulatory records regarding IRP Site 1, and documented initial site surface conditions. The PA recommended an SI to determine whether a release has occurred to soil and groundwater.

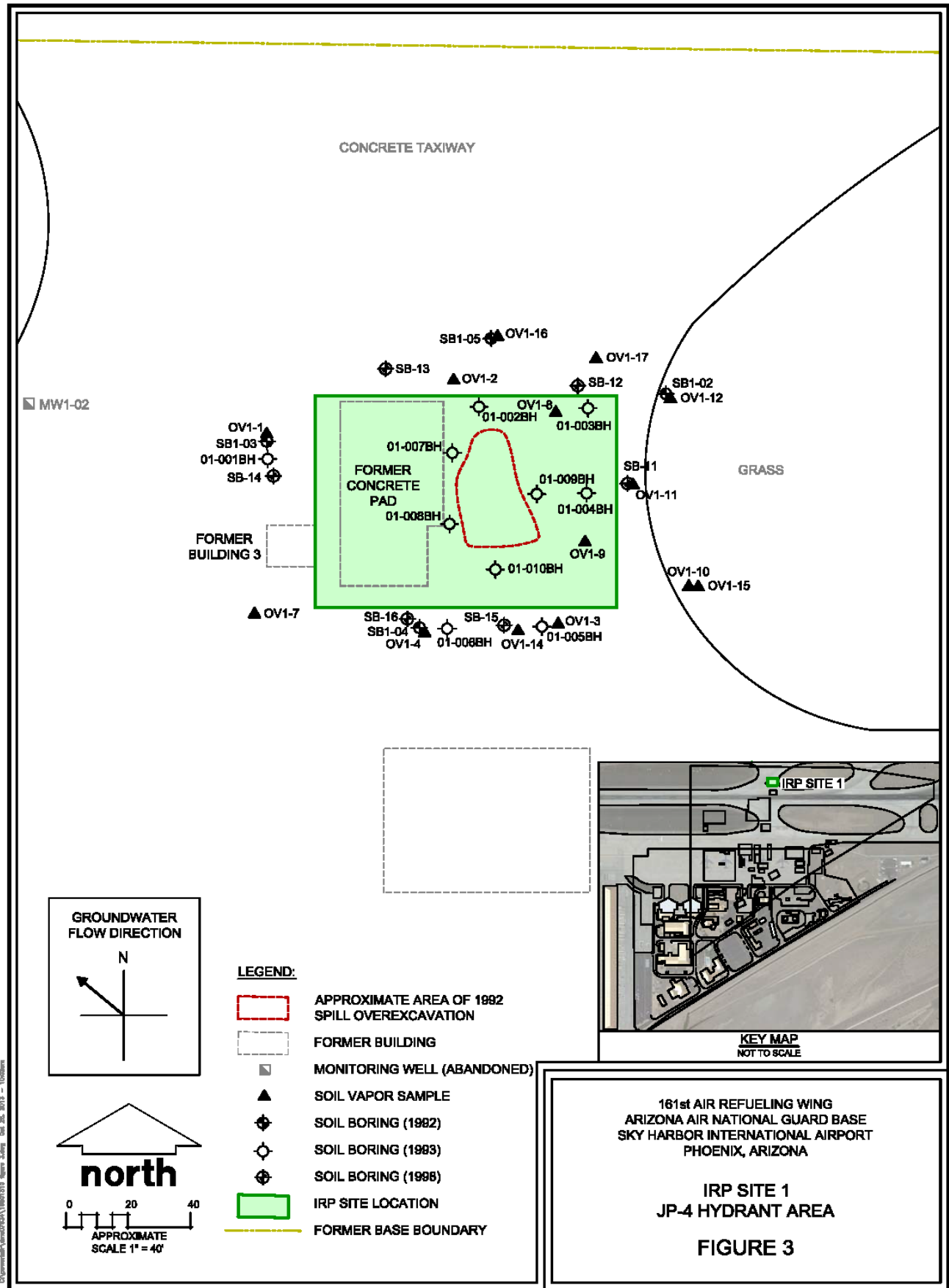
Site Investigation – 1992

From 1990 through 1991, an SI was conducted at IRP Site 1, including the completion of seventeen soil borings completed, which were soil-vapor sampled for field screening purposes. Based on these results, four soil borings were completed and one monitoring well was installed. Groundwater flow direction was determined through the installation of three piezometers at the ANGB.

Twelve soil samples and two groundwater sample collected from these locations were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and total petroleum hydrocarbons (TPH). The VOC, SVOC, and TPH results for soil and groundwater from IRP Site 1 were compared to background concentrations. TPH was detected in soil samples above background concentrations. Acetone and bis(2-ethylhexyl)phthalate are common laboratory contaminants but were not detected in associated blanks. 1,2-Dichloroethylene (1,2-DCE) and trichloroethylene (TCE) were detected at or below detection limits in groundwater. The results were reported to be similar to background concentrations. Based on the data collected, it was concluded there was no significant contamination at IRP Site 1 and the site does not indicate a substantial threat to human health or the environment.

Site Assessment – 1993

A spill of 500 to 1,000 gallons of JP-4 fuel occurred in the IRP Site 1 area in September 1992. Approximately 10 cubic yards of soil were excavated and removed in the area of the spill. Additional soil and groundwater sampling was conducted early in 1993 to assess the area of the spill, including completion of ten soil borings. Two soil samples each from the soil borings and two groundwater samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), TPH, and methyl-tertiary-butyl-ether (MTBE). Five soil borings and three monitoring wells were also installed and sampled to collect background data at the ANGB. TPH was the only contaminant found in 12 of 20 soil samples and concentrations were above the



Suggested Soil Cleanup Level (SSCL) of 100 milligrams per kilogram (mg/kg) in five samples. BTEX, MTBE, and TPH were not detected in the two groundwater samples collected. The assessment work delineated the lateral extent of contamination, while the vertical extent of contamination could not be delineated due to the presence of the JP-4 hydrant system components. The TPH contamination was deemed related to the 1992 surface spill and, therefore, not part of the IRP. The SA Report recommended no further soil remediation at the spill site was warranted. The SA Report also recommended periodic monitoring of the one monitoring well at IRP Site 1 to determine potential groundwater contamination.

Groundwater Monitoring – 1993 to 1994

As part of the Remedial Investigation (RI) completed for IRP Sites 6 and 7, four rounds of groundwater monitoring were conducted from the site monitoring well at IRP Site 1 in 1993 and 1994. Samples collected were analyzed for VOCs and TPH, with reported concentrations less than in groundwater above ADEQ cleanup standards.

Decision Document – 1996

A DD for IRP Site 1 was submitted to the ADEQ in January 1996 that recommended NFA. The ADEQ concurred with the NFA classification recommendation for IRP Site 1 in a March 6, 1996 letter (Attachment 4).

Engineering Evaluation/Cost Analysis – 1998

An EE/CA was performed in 1998 for potential non-time-critical removal actions involving soil within the upper 4 feet (shallow soil) in 1998. The shallow soil removal was necessary as part of the ANGB relocation project, which was completed to accommodate expansion of the Airport. Plans for the ANGB relocation project included removal of shallow soil across most of the ANGB. The EE/CA used existing soil data obtained from previous investigation at IRP Site 1, as well as soil sample data from six additional soil borings completed during the EE/CA to evaluate shallow soil conditions. Evaluation of the soil data from these borings indicated that none of the shallow soil sample data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs at IRP Site 1.

Site Closure Activities – 1999

The monitoring well at IRP Site 1 was properly closed in August 1999.

The activities at IRP Site 1 are summarized in Table 1.

Table 1
Study/Investigation Summary: IRP Site 1
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
PA	1986	Interviews with current and former Base personnel and a site survey.
SI	1992	TPH was detected in soil samples above ADEQ cleanup standards. 1,2-DCE and TCE were detected at or below detection limits in groundwater. No substantial threat to human health or the environment indicated.

Table 1
Study/Investigation Summary: IRP Site 1
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
SA	1993	Additional soil and groundwater sampling was conducted in an area of a 500- to 1,000-gallon JP-4 fuel spill. Groundwater monitoring in one well is recommended.
Groundwater Monitoring	1993 – 1994	One groundwater well was sampled quarterly for one year, with no concentrations were detected above ADEQ cleanup standards.
DD	1996	An NFRAP DD was prepared for IRP Site 1 in January 1996. ADEQ concurred with the NFA recommendation on July 22, 1996.
EE/CA	1998	Shallow soil samples from six soil borings installed indicated that none of the data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs.
Site Closure	1999	The monitoring well at IRP Site 1 was properly abandoned in August 1999.

A summary of maximum detected concentrations reported for soil at IRP Site 1 is provided in Table 2.

Table 2
Corrective Action Levels Screening Results for Soil
IRP Site 1 – JP-4 Hydrant Area
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Action Level* (Background Level)
Soil (mg/kg)		
TPH	2,000	18,000 (ND-9,000)
Toluene	<0.50	2,700 (ND-0.013)
Total Xylenes	<0.1	2,800 (ND)
Groundwater (µg/L)		
1,2-Dichloroethylene	5	70 (ND)
Trichloroethylene	2	5 (ND-11)
Notes: * ADEQ Non-residential Soil Remedial Level (soil); Human Health-Based Guidance Levels for the Ingestion of Contaminants in Drinking Water (groundwater). mg/kg = Milligram(s) per kilogram. µg/L = Microgram(s) per liter. TPH = Total petroleum hydrocarbons. ND = Not detected.		

IRP Site 2 – Hazardous Waste Storage Area

IRP Site 2, a hazardous waste storage area, is located in the western portion of the footprint of the former ANGB, now the location of an airport taxiway. IRP Site 2 was located west of former Building 2 (Figure 4). At this location, waste JP-4, solvent, hydraulic fluid, and oil were stored in labeled drums on a concrete pad. IRP Site 2 is a rectangular area approximately 20 by 30 feet enclosed by a brick wall and chain-link fencing. The area was used for waste storage beginning around 1982. Full drums stored in the area were periodically pumped out by a contractor. Wastes were suspected to have been released at IRP Site 2, although the total amount is estimated to be a small volume, with actual amounts unknown.

Activities completed at IRP Site 2 include a PA in 1988, an SI in 1992, groundwater monitoring from 1993 to 1994; a DD in 1996, an EE/CA in 1998, and Site Closure activities in 1999.

Preliminary Assessment – 1988

A PA of the ANGB was conducted in 1988, which identified IRP Site 2. The PA included interviews with past and present ANGB personnel and a field survey. The PA also included a review of available installation and regulatory records regarding IRP Site 2 and documented initial site surface conditions. The PA recommended an SI to determine whether a release had occurred to soil and groundwater.

Site Investigation – 1992

In 1992, an SI was conducted at IRP Site 2 with eleven soil borings completed and soil vapor analyzed for field screening purposes. Based on these results, three soil borings were completed and one monitoring well was installed and sampled. Retained soil and groundwater samples were analyzed for VOCs, SVOCS, TPH, and metals. Five soil borings and three monitoring wells were also installed and sampled to collect background data at the ANGB. Groundwater flow direction was determined with the installation of three piezometers at the ANGB.

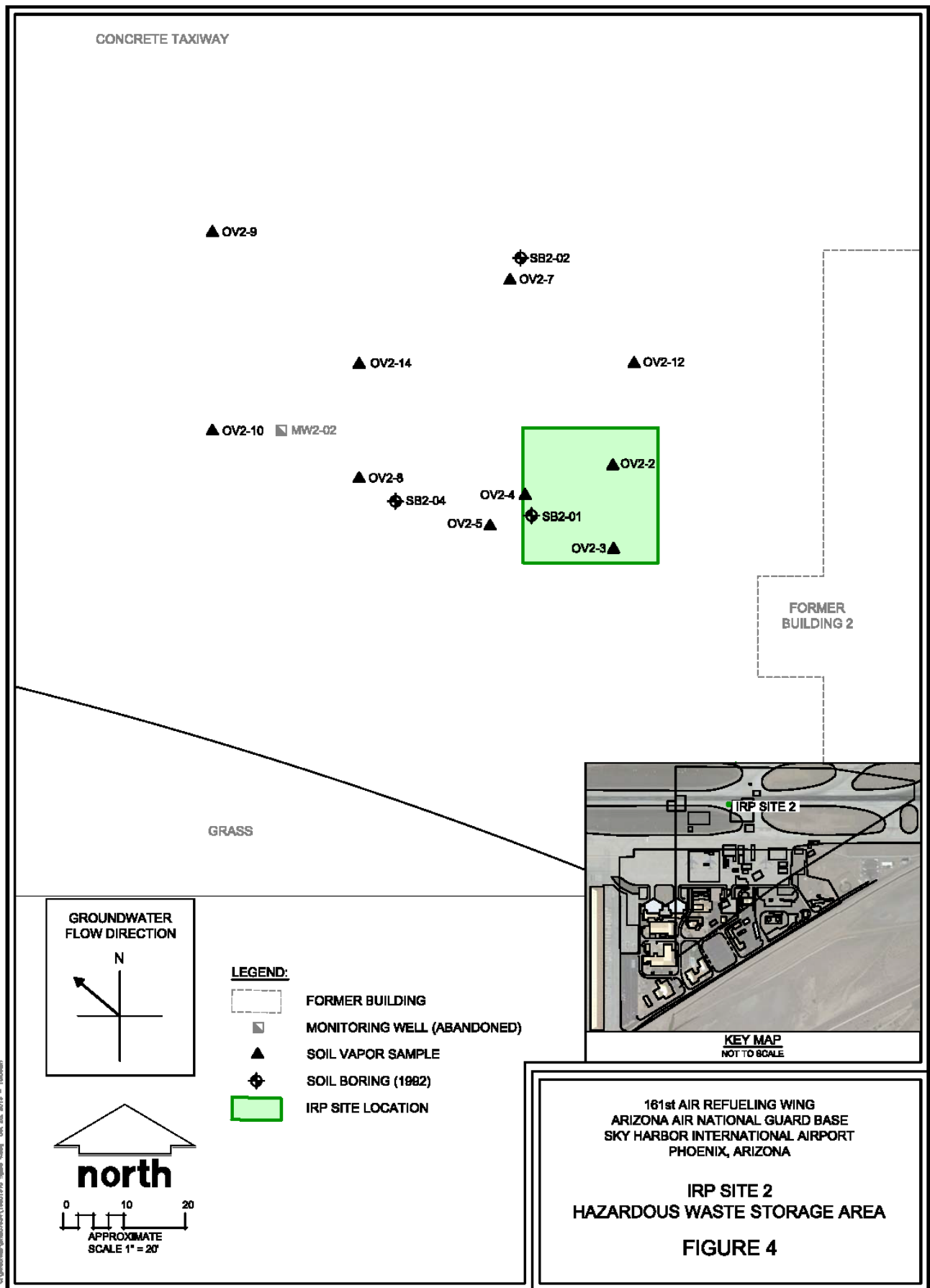
Thirteen soil samples and two groundwater samples were collected at IRP Site 2. Acetone was detected in two soil samples, but below ADEQ standards. SVOCs were not detected above laboratory reporting limits. TPH was detected in two soil samples, one of which was above the ADEQ standard, but below background levels. Eleven metals were detected above background levels in soil; however, two metals, aluminum and beryllium were the only analytes found at IRP Site 2 that exceeded the ADEQ cleanup standards.

Two groundwater samples contained detections of 1,2-DCE and TCE above background levels. In addition, concentrations of sodium and zinc were slightly above background concentrations in the two samples.

The SI also included a preliminary risk evaluation. Based on the data collected at IRP Site 2 and the preliminary risk evaluation, it was concluded IRP Site 2 was not a substantial threat to human health or the environment.

Groundwater Monitoring – 1993 to 1994

As part of the RI completed for IRP Sites 6 and 7, four rounds of groundwater monitoring were conducted from the monitoring well at IRP Site 2 in 1993 and 1994. Samples were collected were analyzed for VOCs and TPH. Benzene was reported in two of the four groundwater samples collected, with reported concentrations less than the ADEQ cleanup standard.



Decision Document – 1996

The ANG submitted a DD for IPR Site 2 to the ADEQ in January 1996, which recommended NFA. The ADEQ concurred with the NFA classification recommendation for IRP Site 2 in a July 8, 1996 letter (Attachment 5).

Engineering Evaluation/Cost Analysis – 1998

An EE/CA was performed in 1998 for potential non-time-critical removal actions involving soil within the upper 4 feet (shallow soil) in 1998. The shallow soil removal was necessary as part of the ANGB relocation project, which was completed to accommodate expansion of the Airport. Plans for the ANGB relocation project included removal of shallow soil across most of the ANGB. The EE/CA used existing soil data obtained from previous investigation at IRP Site 2. No new soil borings were installed at IRP Site 2. Evaluation of the existing soil data for IRP Site 2 indicated that none of the shallow soil sample data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs.

Site Closure Activities – 1999

The monitoring well at IRP Site 2 was properly closed in August 1999.

The investigation activities at IRP Site 2 are summarized in Table 3.

Table 3
Study/Investigation Summary: IRP Site 2
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
PA	1988	Interviews with current and former Base personnel and a site survey. SI recommended
SI	1992	TPH was detected in one soil sample above the ADEQ standard. Aluminum and beryllium exceeded the ADEQ cleanup standards in soil. A preliminary risk evaluation concluded that IRP Site 2 was not a substantial threat to human health or the environment.
Groundwater Monitoring	1993-1994	Quarterly groundwater monitoring conducted as part of RI for IRP Sites 6 and 7.
DD	1996	An NFRAP DD was prepared for IRP Site 2 in January 1996. ADEQ concurred with the NFA recommendation on July 22, 1996.
EE/CA	1998	Evaluation of existing soil data indicated no shallow soil samples exceeded applicable ADEQ standards for TPH or VOCs.
Site Closure	1999	The monitoring well at IRP Site 2 was properly abandoned in August 1999

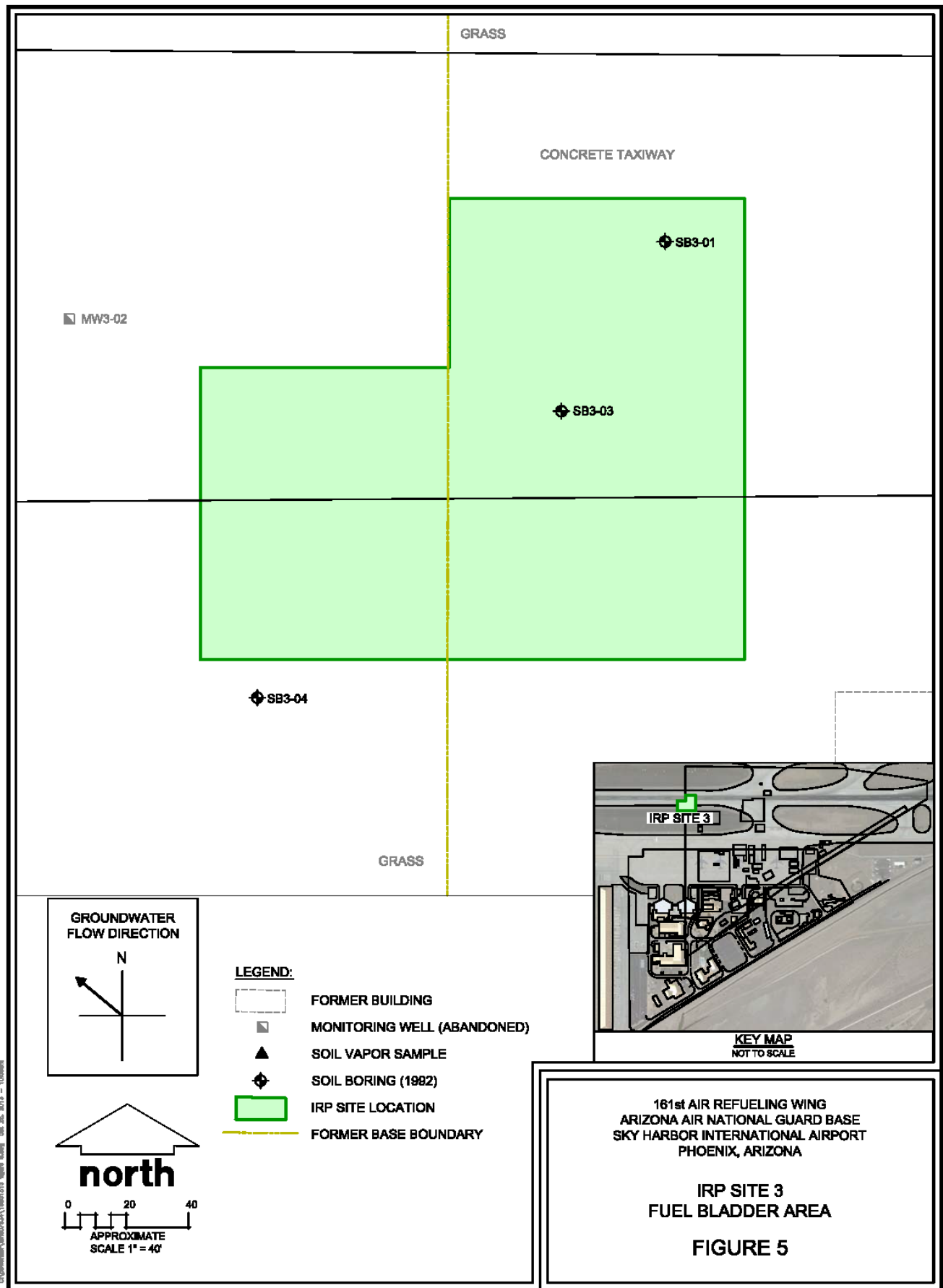
A summary of maximum detected concentrations reported for soil and groundwater at IRP Site 2 is provided in Table 4.

Table 4
Corrective Action Levels Screening Results for Soil and Groundwater
IRP Site 2 – Hazardous Waste Storage Area
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Action Level* (Background Concentration)
Soil (mg/kg)		
TPH	210	18,000 (ND – 9,800)
Acetone	17	14,000 (ND)
Aluminum**	13,600	NE (3,830 – 10,400)
Arsenic	10	1,000 (4 – 8.2)
Beryllium**	0.6	0.14 (0.2 – 0.55)
Calcium	33,100	NE (2,170 – 32,800)
Lead	154	400 (3.4 – 18.4)
Magnesium	11,200	NE (2,290 – 10,200)
Manganese	720	est. 7,190 (218 – 468)
Nickel	35.9	2,000 (14.6 – 31.1)
Silver	3.7	1,000 (0.61 – 2.6)
Sodium	1,80	NE (127 – 726)
Zinc	130	100,000 (33.8 – 79.6)
Groundwater (µg/L)		
1,2-Dichloroethylene	7	70 (ND – 1)
Trichloroethene	5	5 (ND – 1)
Benzene	2	5 (ND-230)
Sodium	146,000	NE (107,000 – 138,000)
Zinc	36.8	5,000 (18.8 – 64.8)
Notes: * ADEQ Non-residential Soil Action level (TPH in soil); ADEQ Human Health-Based Guidance Levels for the Ingestion of Contaminants in Drinking Water and Soil ** Preliminary Risk Assessment determined the concentration in soil did not pose an unacceptable risk. mg/kg = Milligram(s) per kilogram. µg/L = Microgram(s) per liter. NE = Not established. ND = Not detected.		

IRP Site 3 – Fuel Bladder Area

IRP Site 3 is located along the western edge of the former ANGB, just west of former Building No. 25 (Figure 5). The area around IRP Site 3 is currently an airport taxiway. The area was used in 1972 and 1973 for the temporary storage of JP-4 and leaded aviation gasoline (AVGAS) in three 30,000-gallon bladders while the POL area was being refurbished. During the time bladders were used, one of the AVGAS bladders leaked fuel from around an inspection hatch.



The amount of fuel released is unknown, but is suspected it may have amounted to several thousand gallons.

Activities completed at IRP Site 3 include a PA in 1988, an SI in 1992, groundwater monitoring from 1993 to 1994; a DD in 1996, Site Closure activities in 1997, and an EE/CA in 1998.

Preliminary Assessment – 1988

A PA of the ANGB was conducted in 1988, which identified IRP Site 3. The PA included interviews with past and present ANBG personnel and a field survey. The PA included a review of available installation and regulatory records regarding IRP Site 3 and documented initial site surface conditions. The PA recommended an SI to determine whether a release has occurred to soil and groundwater.

Site Investigation – 1992

An SI conducted in 1992 included soil and groundwater sampling at IRP Site 3. Three soil borings and two monitoring wells were drilled and sampled at IRP Site 3. The monitoring wells were positioned downgradient and upgradient of IRP Site 3. Five soil borings and three monitoring wells were also installed and sampled to collect background data at the ANGB. Groundwater flow direction was determined through the installation of three piezometers at the ANGB.

Fourteen soil and two groundwater samples were analyzed for VOCs, SVOCs, TPH, and lead. Ethylbenzene, toluene, or xylenes were detected in at least one soil sample and TPH was detected in five samples from IRP Site 3, but none of the concentrations exceeded ADEQ cleanup standards. No SVOCs were detected above laboratory reporting limits. Ethylbenzene, toluene, xylenes, and TPH were detected above background concentrations in soil at IRP Site 3.

1,2-DCE was at or above background levels in two groundwater samples and TPH was detected in one groundwater sample above background levels. Benzene, ethylbenzene, and xylenes were detected in two groundwater samples at or above background levels in groundwater samples collected from the up-gradient monitoring well. Contaminants detected in the upgradient samples are attributed to IRP Site 6.

The SI also included a preliminary risk evaluation. Based on the data collected at IRP Site 3 and the preliminary risk evaluation, the SI Report concluded IRP Site 3 was not a substantial threat to human health or the environment. The detected TPH was attributed to an upgradient location, later identified as IRP Site 6.

Groundwater Monitoring – 1993 to 1994

As part of the RI completed for IRP Sites 6 and 7, four rounds of groundwater monitoring was conducted from the monitoring wells at IRP Site 3 in 1993 and 1994. Samples were collected were analyzed for VOCs and TPH. Benzene was reported in two of the four groundwater samples collected, with reported concentrations less than the ADEQ cleanup standard. Elevated concentrations of benzene detected in one site monitoring well were attributed to and addressed as part of up-gradient IRP Site 6.

Decision Document and Site Closure – 1996 and 1997

A DD for IRP Site 3 was submitted to the ADEQ in January 1996 that recommended NFA. The ADEQ concurred with the NFA classification recommendation for IRP Site 3 in a June 28, 1996 letter (Attachment 6). The monitoring wells at IRP Site 3 were properly closed in 1997.

Engineering Evaluation/Cost Analysis – 1998

An EE/CA was performed in 1998 for potential non-time-critical removal actions involving soil within the upper 4 feet (shallow soil). The shallow soil removal was necessary as part of the ANGB relocation project, which was completed to accommodate expansion of the Airport. Plans for the ANGB relocation project included removal of shallow soil across most of the ANGB. The EE/CA used existing soil data obtained from previous investigations at IRP Site 3. No new soil borings were installed at IRP Site 3. Evaluation of the existing soil data for IRP Site 3 indicated that none of the shallow soil sample data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs.

The investigation activities at IRP Site 3 are summarized in Table 5.

Table 5
Study/Investigation Summary: IRP Site 3
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
PA	1988	Interviews with current and former Base personnel and a site survey. SI recommended.
SI	1992	Based on the data collected and the preliminary risk evaluation, concluded there was no substantial threat to human health or the environment
Groundwater Monitoring	1993-1994	Quarterly groundwater monitoring conducted as part of RI for IRP Sites 6 and 7.
DD	1996	An NFRAP DD was prepared for IRP Site 3 in January 1996. ADEQ concurred with the NFA recommendation on July 22, 1996.
Site Closure	1997	Site monitoring wells were properly abandoned in 1997.
EE/CA	1998	Evaluation of existing soil data indicated that no shallow soil samples exceeded applicable ADEQ standards for TPH or VOCs.

A summary of maximum detected concentrations reported for soil and groundwater at IRP Site 3 is provided in Table 6.

Table 6
Corrective Action Levels Screening Results for Soil and Groundwater
IRP Site 3 – Fuel Bladder Area
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Action Level* (Background Concentration)
Soil (mg/kg)		
Ethylbenzene	0.016	27,000 (ND)
Toluene	0.021	40,000 (ND – 1)
Xylenes	0.150	28,000 (ND)
TPH	140	18,000 (ND – 9,800)
Groundwater (µg/L)		
1,2-Dichloroethylene	3	70 (ND – 1)
Benzene**	990	5 (ND-230)
Ethylbenzene	1.2	700 (ND)
Xylenes	1.0	10,000 (ND-9)
TPH	2,000	NE (ND – 2,000)
Notes: * ADEQ Non-residential Soil Action level (soil); ADEQ Human Health-Based Guidance Levels for the Ingestion of Contaminants in Drinking Water and Soil ** Concentration in upgradient well determined to be associated with IRP Site 6. mg/kg = Milligram(s) per kilogram. µg/L = Microgram(s) per liter. ND = Not detected		

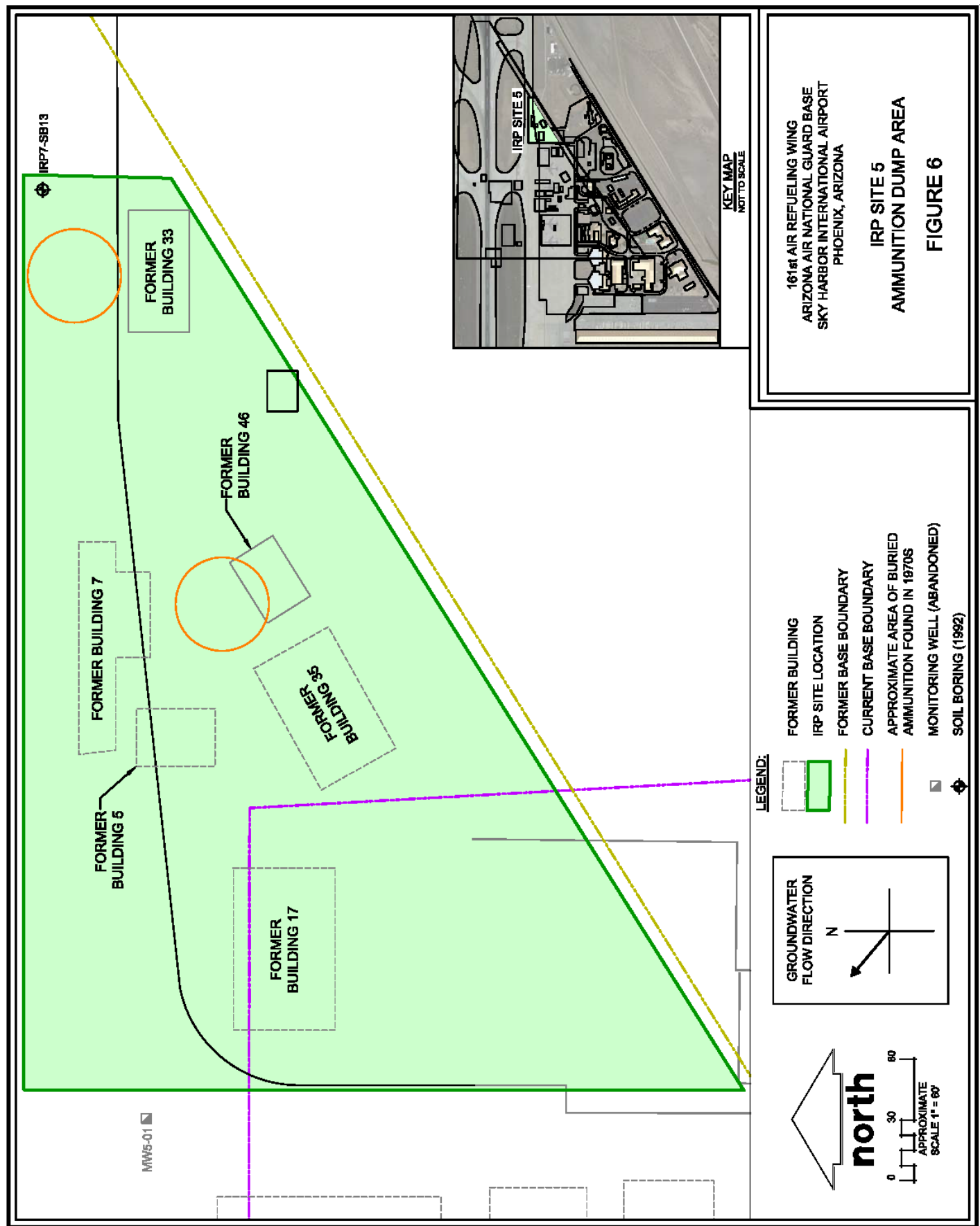
IRP Site 5 – Ammunition Dump

IRP Site 5 is located near the northeast corner of the existing ANGB boundary, with most of IRP Site 5 now located outside of the existing ANGB. IRP Site 5 encompasses two areas; one located near former Building No. 46 and one located near the former ANGB fire station building, where .50-caliber ammunition was found buried at a depth of 6 to 8 feet (Figure 6). Ammunition was discovered in these areas at a depth of 6 to 8 feet during trenching activities in the late 1970s. The quantity of ammunition material buried at IRP Site 5 was uncertain.

Activities completed at IRP Site 5 include a PA in 1988, an SI in 1992, groundwater monitoring from 1993 to 1994; a DD in 1996, an EE/CA in 1998, and Site Closure activities in 1999.

Preliminary Assessment – 1988

A PA of the ANGB was conducted in 1988, which identified IRP Site 5. The PA included interviews with past and present ANBG personnel and a field survey. The PA included a review of available installation and regulatory records regarding IRP Site 5 and documented initial site surface conditions. The PA recommended an SI to determine whether a release has occurred to soil and groundwater.



Site Investigation – 1992

An SI was conducted in 1992 that included geophysical surveys of the IRP Site 5 area, in an effort to confirm the suspected historical ammunition disposal location, and completion of one soil boring for collection of soil and groundwater samples. No geophysical anomalies were identified near the fire station building, and anomalies observed in other areas were attributed to buried utilities. Acetone, aluminum, and manganese were detected in concentrations above background conditions. Copper, silver, zinc, and nitrate exceeded background groundwater concentrations. None of the groundwater samples had concentrations of analyzed compounds that exceeded applicable ADEQ cleanup standards.

The SI also included a preliminary risk evaluation. Based on the data collected at IRP Site 5 and the preliminary risk evaluation, the SI Report concluded IRP Site 5 did not present a significant threat to human health or the environment.

Groundwater Monitoring – 1993 to 1994

As part of the RI completed for IRP Sites 6 and 7, four rounds of groundwater monitoring was conducted from the monitoring well at IRP Site 5 in 1993 and 1994. Samples collected were analyzed for VOCs and TPH. Benzene, ethylbenzene, and xylenes were reported in one or more of the groundwater samples collected. The detected concentrations were determined to be associated with IRP Site 6.

Decision Document – 1996

A DD recommending NFA for IRP Site 5 was prepared and submitted to the ADEQ in January 1996. The ADEQ concurred with the NFA classification recommendation in the DD for IRP Site 5 in a July 22, 1996 letter (Attachment 7).

Engineering Evaluation/Cost Analysis – 1998

An EE/CA was performed in 1998 for potential non-time-critical removal actions involving soil within the upper 4 feet (shallow soil) in 1998. The shallow soil removal was necessary as part of the ANGB relocation project, which was completed to accommodate expansion of the Airport. Plans for the ANGB relocation project included removal of shallow soil across most of the ANGB. The EE/CA used existing soil data obtained from previous investigations at IRP Site 5.

No new soil borings were installed at IRP Site 5. Evaluation of the existing soil data for IRP Site 5 indicated none of the shallow soil sample data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs.

Site Closure Activities –1999

The monitoring well at IRP Site 5 was properly closed in August 1999.

The activities at IRP Site 5 are summarized in Table 7.

Table 7
Study/Investigation Summary: IRP Site 5
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
PA	1988	Interviews with current and former Base personnel and a site survey. An SI was recommended.

Table 7
Study/Investigation Summary: IRP Site 5
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
SI	1992	No geophysical anomalies were identified in geophysical survey. No soil or groundwater samples detected VOCs, metals, or nitrates in concentrations above ADEQ standards. The preliminary risk evaluation concluded IRP Site 5 posed no significant threat to human health or the environment.
Groundwater Monitoring	1993-1994	Quarterly groundwater monitoring conducted as part of an RI for IRP Sites 6 and 7.
DD	1996	An NFRAP DD was prepared for IRP Site 5 in January 1996. ADEQ concurred with the NFA recommendation on July 22, 1996.
EE/CA	1998	Evaluation of existing soil data indicated that no shallow soil samples exceeded applicable ADEQ standards for TPH or VOCs.
Site Closure	1999	The monitoring well at IRP Site 5 was properly abandoned in August 1999.

A summary of maximum detected concentrations reported for soil and groundwater at IRP Site 5 is provided in Table 8.

Table 8
Corrective Action Levels Screening Results for Soil and Groundwater
IRP Site 5 – Ammunition Dump
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Action Level* (Background Concentration)
Soil (mg/kg)		
Acetone	10	14,000 (ND)
Nitrate**	28	NE (2)
Manganese	736	7,190 (218 – 468)
Aluminum**	10,500	1,500 (3,830 – 10,400)
Groundwater (µg/L)		
Copper	33.8	1,300 (ND – 28.4)
Silver	7.2	1,000 (ND – 6.8)
Zinc	96.8	5,000 (18.6 – 64.8)
Nitrate	6.3	10,000 (ND – 2.7)

Table 8
Corrective Action Levels Screening Results for Soil and Groundwater
IRP Site 5 – Ammunition Dump
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Action Level* (Background Concentration)
Notes: * ADEQ Human Health-Based Guidance Levels for the Ingestion of Contaminants in Drinking Water and Soil (1990). ** Preliminary Risk Assessment determined the concentrations of nitrate and aluminum in soil did not pose an unacceptable risk. mg/kg = Milligram(s) per kilogram. µg/L = Microgram(s) per liter. NE = Not established. ND = Not detected.		

IRP Site 6 – Petroleum, Oil, and Lubricant (POL) Area

IPR Site 6 consists of the former POL storage area, which included ten underground storage tanks (USTs), connections, and distribution piping located on the southwest side of the former ANGB in the vicinity of former Building No. 21 (Figure 7). IRP Site 6 is located in the aircraft parking apron of the existing ANGB. The USTs at the POL consisted of the following:

- Four 50,000-gallon JP-4 tanks.
- Four 25,000-gallon JP-4 tanks.
- One 7,500-gallon diesel tank.
- One 2,000-gallon waste oil tank.

The POL was used to store JP-4, diesel fuel, and waste oil from 1950 to 1999. The POL was closed in 1999 and demolished during relocation of the ANGB. IRP Site 6 is tracked as release number 2453, and the 161ARW assigned Facility 0-000092. The release was closed on July 14, 2010.

During site monitoring activities conducted as part of the SI for IRP Site 3 in 1992, petroleum contamination was found in groundwater at a monitoring well located upgradient from IRP Site 3. The contamination, which appeared to be unrelated to IRP Site 3, was attributed to the POL area and identified as IRP Site 6. The SI recommended further investigation at IRP Site 6 to determine the extent of petroleum hydrocarbons in soil and groundwater.

Activities completed at IRP Site 6 include a PA in 1990, an SI in 1992, an RI in 1993 and 1994, an RI Addendum in 1995 and 1996, groundwater monitoring from 1995 to 2000, remedial pilot testing in 1997, a Feasibility Study (FS) and EE/CA in 1998, UST removal and shallow soil excavation in 2000, remedial activity implementation, operation and maintenance (O&M) and monitoring from 1998 through 2009, an Explanation of Significant Differences (ESD) and Five-Year Review in 2008 and 2009, and Site Closure in 2010 and 2014.

Preliminary Assessment – 1990

A PA of the ANGB was conducted in 1990, which detailed the USTs and materials stored at IRP Site 6. The PA included a review of available installation and regulatory records regarding IRP Site 6 and documented initial site surface conditions. There were no reported releases at the POL Area, and NFA was recommended.

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Site Investigation – 1992

Based on the petroleum impacts detected in groundwater at IRP Site 3, an SI was conducted in 1992, with completion of one soil boring, which was converted to a monitoring well. Groundwater flow direction was determined through the installation of three piezometers at the ANGB. Three soil and two groundwater samples were collected and analyzed for VOCs, SVOCs, and TPH. Five soil borings and three monitoring wells were also installed and sampled to collect background data at the ANGB.

BTEX, naphthalene, and TPH were detected above background levels in the soil samples. BTEX, naphthalene, and TPH were detected above background levels in the groundwater samples, with the concentration of benzene in groundwater exceeding the applicable ADEQ cleanup standard.

The SI also included a preliminary risk evaluation. Based on the data collected at IRP Site 6 and the preliminary risk evaluation, the SI Report recommended an additional assessment be completed to evaluate the extent of petroleum impacts at IRP Site 6.

Remedial Investigation – 1993 and 1994

An RI was conducted at IRP Site 6 in 1993 and 1994, which included soil sampling from fifteen soil borings and installation of seventeen monitoring wells. Four rounds of groundwater sampling were conducted. Forty-five soil samples and a total of 89 groundwater samples were analyzed for VOCs, SVOCs, and TPH.

Concentrations of benzene, total xylenes, and TPH in soil were reported to be above ADEQ cleanup standards. Benzene, ethylbenzene, and trichloroethane (TCA) were reported to exceed ADEQ cleanup standards in the groundwater samples. SVOCs were not detected above ADEQ standards in the soil or groundwater samples. An ADEQ cleanup standard has not been established for TPH in groundwater, although concentrations exceeded background levels.

Remedial Investigation Addendum – 1995 and 1996

Additional investigational activities were conducted as part of the RI in 1995 and 1996, which included installing nine new monitoring wells, and advancement of one soil boring. Twenty-two groundwater samples were collected from the nine new wells and 13 pre-existing wells and analyzed for VOCs and TPH. Benzene was detected in 19 groundwater samples, exceeding the ADEQ standard of 5 µg/L in 17 samples. Ethylbenzene exceeded the ADEQ action level of 700 µg/L in one sample. TPH was detected in 5 groundwater samples, but no ADEQ action level existed for TPH in groundwater. Two soil samples were analyzed for microbiological parameters only.

Reported fuel releases from UST system transfer lines at the POL and an unspecified source in the motor pool area were identified as the sources of petroleum hydrocarbon contamination at IRP Site 6. A layer of free product was detected on the groundwater surface in two monitoring wells at IRP Site 6. The source of TCA contamination in groundwater at IRP Site 6 was attributed to an off-site source located upgradient of the ANGB.

A baseline risk assessment included in the RI concluded that groundwater contamination presented a potential risk to human health. Continued commercial and industrial land use was

assumed, based on the location of the Base within the Airport. The RI recommended additional investigation to further delineate the extent of contamination at IRP Site 6. It also recommended completion of an FS to develop, screen, and evaluate alternatives for remediation of IRP Site 6.

Subsequently soil contamination and groundwater contamination at IRP Site 6 were segregated into two Operable Units (OUs); OU-1 for soil and OU-2 for groundwater.

Groundwater Monitoring – 1995 through 2000

As part of the investigation of IRP Site 6, semiannual and, later, quarterly groundwater monitoring was conducted from 1995 to 2000 to monitor the extent of the groundwater contamination plume. As part of the RI Addendum in 1996, two additional monitoring wells were also installed during this period to complete groundwater delineation activities west of the ANGB, and four additional monitoring wells were installed at the POL facility to better identify the extent of impacts in this area.

Remedial Pilot Test – 1997

To address contaminated soil and groundwater at IRP Site 6, a soil vapor extraction (SVE) and air sparge (AS) pilot test was performed in August 1996. The SVE/AS pilot test equipment was operated as an interim Remedial Action measure until June 1999, when a full-scale SVE/AS system was installed. Over this time, the interim system removed approximately 308,000 pounds of hydrocarbons.

Feasibility Study – 1998

An FS was completed for IRP Site 6 in June 1998, which evaluated several remedial alternatives as potential remedies to address soil and groundwater contamination at IRP Site 6. The recommended remedial technology for soil contamination (OU-1) was SVE and for groundwater contamination (OU-2) was AS. The ADEQ concurred with the remedial approach in 1998.

Engineering Evaluation/Cost Analysis – 1998

An EE/CA was performed in 1998 for potential non-time-critical removal actions involving soil within the upper 4 feet (shallow soil) in 1998. The shallow soil removal was necessary as part of the ANGB relocation project, which was completed to accommodate expansion of the Airport. Plans for the ANGB relocation project included removal of shallow soil across most of the ANGB. The EE/CA used existing soil data obtained from previous investigations at IRP Site 6, as well as soil sample data from 20 additional soil borings advanced at IRP Site 6 during the EE/CA. Evaluation of the soil data from these borings indicated that none of the shallow soil sample data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs at IRP Site 6.

The EE/CA evaluated several removal action alternatives including No Action. Based on the removal action alternatives evaluation, the No Action alternative was recommended because the contaminant levels in the shallow soil did not exceed ADEQ soil cleanup levels. Soil excavation and off-site treatment by thermal desorption was also recommended as a contingency, in the event that shallow soil contamination exceeding the ADEQ soil cleanup level were encountered during the installation relocation.

UST Removal and Shallow Soil Excavation – 2000

As part of the installation relocation project, the ten USTs at the POL area were removed in July 2000 followed by demolition of the POL facilities in the IRP Site 6 area. Petroleum hydrocarbon-impacted soil was observed during removal of the USTs at the POL. Because this area had already been investigated and characterized as IRP Site 6, additional assessment and/or removal activity was not necessary. However, it was determined that petroleum-impacted soil on the bottom of the 25,000-gallon JP-4 UST excavation pit would not meet compaction requirements for the installation relocation project. Therefore, approximately 2,300 tons of petroleum-impacted soil were excavated and treated off site by thermal desorption.

Remediation System Design, Implementation, O&M, and Monitoring – 1998 through 2009

An SVE/AS remediation system design for IRP Site 6 was completed in October 1998 and approved by the ADEQ. The design plan included a groundwater monitoring program and remediation system O&M Plan. The remedial design incorporated the abandonment of some existing wells due to the ANGB relocation. Installation of the SVE/AS system was finished in December 2000 and included 18 vapor extraction wells, 26 air sparging wells, and 8 vapor monitoring wells.

The SVE/AS remediation system was operated from 2001 to 2007 removing an estimated 585,000 pounds of hydrocarbons. During this time, groundwater and vapor monitoring was performed at IRP Site 6 to monitor the effectiveness of the SVE/AS system, as well as attainment of remedial goals. Following shutdown of the SVE/AS remediation system in 2007, vapor and groundwater monitoring continued into early 2009 in order to confirm remediation was complete. BTEX and petroleum hydrocarbons were not detected above the reporting limit in any of the monitoring wells sampled during the final groundwater sampling round in January 2009. As closure criteria focused on the protection and cleanup of groundwater, and shallow impacted soils were removed from IRP Site 6 during POL tank removal activities, confirmation soil sampling was not conducted.

Explanation of Significant Differences and Five-Year Review – 2008 and 2009

An ESD was completed in 2008 to review the progress of remedial activities and review the risks associated with the remaining contamination. Five-Year review for IRP Site 6 was completed in 2009, summarizing the activities completed to date and site status. The Five-Year Review determined the corrective action activities would result in a reduction of concentrations of hazardous materials to levels that will allow for unrestricted use of the Site. Based on this review and associated public comment period, no further Five-Year Reviews are planned.

Site Closure Activities – 2010 and 2014

A Final Closure Report for IRP Site 6 was prepared in 2010 summarizing the remediation activities and associated monitoring. The report recommended NFA for IRP Site 6. The ADEQ concurred with the NFA recommendation in a July 2, 2010 letter (Attachment 8). The SVE/AS system and monitoring wells remain in place at IRP Site 6. Following ADEQ concurrence of a Project Closeout (PCO) Work Plan, the remaining on-Site wells will be properly plugged and abandoned, and the remediation system dismantled. The three background monitoring wells will be transferred to the City of Phoenix for their use.

The investigation activities at IRP Site 6 are summarized in Table 9.

Table 9
Study/Investigation Summary: IRP Site 6
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
PA	1990	PA reported no releases; NFA was recommended.
SI	1992	Benzene in groundwater exceeded the applicable ADEQ cleanup standard. A preliminary risk evaluation recommended an additional assessment to evaluate the extent of petroleum impacts.
RI	1993-1994	Benzene, xylenes and TPH concentrations exceeded ADEQ cleanup standards in soil. Benzene, ethylbenzene, xylenes and TCA concentrations exceeded ADEQ cleanup standards in groundwater samples
RI Addendum	1995-1996	Additional monitoring wells completed and sampled to delineate the extent of hydrocarbon impacts. Baseline risk assessment concluded groundwater contamination presented a potential risk to human health and recommended additional investigation to delineate the extent of contamination and completion of an FS to evaluate alternatives for remediation.
Groundwater Monitoring	1995 – 2000	Semiannual and quarterly groundwater monitoring events were conducted from 1995 to 2000 to monitor the extent of the groundwater contamination plume.
Remedial Pilot Test	1997	308,000 pounds of hydrocarbons were removed during interim remedial operations of the SVE/AS system after an SVE/AS Pilot Test was conducted in 1996.
FS	1998	The FS recommended SVE for soil contamination (OU-1) was and AS for groundwater contamination (OU-2).
EE/CA	1998	Based on EE/CA evaluation of soil removal action, the No Action alternative was recommended. Soil excavation and off-site treatment by thermal desorption was recommended in the event that shallow soil contamination was encountered during the installation relocation.

Table 9
Study/Investigation Summary: IRP Site 6
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
UST Removal/Excavation	2000	Ten USTs were removed in July 2000 followed by demolition of the POL facilities. Approximately 2,300 tons of petroleum-impacted soil were excavated and treated off-site by thermal desorption.
Remediation System Design, Implementation, and Monitoring	1998 – 2009	A total of an estimated 585,000 pounds of hydrocarbons was removed during operation of the SVE/AS remediation system, which included 18 vapor extraction wells, 26 air sparging wells, and 8 vapor monitoring wells. Groundwater monitoring continued into early 2009 to confirm remediation was complete.
ESD and Five-Year Review	2008 - 2009	An ESD was completed in 2008, and a Five-Year Review was prepared in 2009, determining if IRP Site 6 could be closed with unrestricted use.
Site Closure	2010 and 2014	A Final Closure Report was submitted to ADEQ in 2010. The ADEQ concurred with the NFA recommendation on July 2, 2010. Well abandonment and other associated PCO activities will be completed in 2014.

A summary of maximum detected concentrations reported for soil and groundwater at IRP Site 6 is provided in Table 10.

Table 10
Corrective Action Levels Screening Results for Soil and Groundwater
IRP Site 6 – Petroleum, Oil, and Lubricant (POL) Area
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Final Concentration	Action Level* (Background Concentration)
Soil (mg/kg)			
Benzene	6	NA**	1.4 (ND)
Ethylbenzene	80	NA**	2,700 (ND)
Xylenes	190	NA**	2,800 (ND)
TPH	7,000	NA**	18,000 (ND – 9,800)
Toluene	28	NA**	2,700 (ND – 1)

Table 10
Corrective Action Levels Screening Results for Soil and Groundwater
IRP Site 6 – Petroleum, Oil, and Lubricant (POL) Area
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Final Concentration	Action Level* (Background Concentration)
Groundwater (µg/L)			
Benzene	21,000	ND	5 (ND – 230)
Ethylbenzene	2,900	ND	700 (ND)
Toluene	580	ND	1,000 (ND – 1)
Xylenes	920	ND	10,000 (ND – 9)
Naphthalene	250	250***	NE (ND)
TPH	7,000	130***	NE (ND – 2,000)
Notes: * ADEQ Nonresidential Soil Action level (soil); ADEQ Human Health-Based Guidance Levels for the Ingestion of Contaminants in Drinking Water and Soil. ** Performance of the SVE system for treating soil was based off of vapor sampling of off-gas from SVE wells. Therefore, post-remediation soil sampling was not required. *** Not analyzed since re-start of the AS/SVE system in 2001. mg/kg = Milligram(s) per kilogram. µg/L = Microgram(s) per liter. NE = Not established. ND = Not detected. NA = Not analyzed.			

IRP Site 7 – Old Oiled Road Area

IRP Site 7 is a flat elongated area covered by asphalt and some grass that extends along the southeast boundary of the former ANGB (Figure 8). The area reportedly was the former location of an old mining road where waste oil was historically spread on the road surface.

Activities completed at IRP Site 7 include an SI in 1992, an RI in 1995, a DD in 1996, an EE//CA in 1998, and shallow soil excavation in 2000.

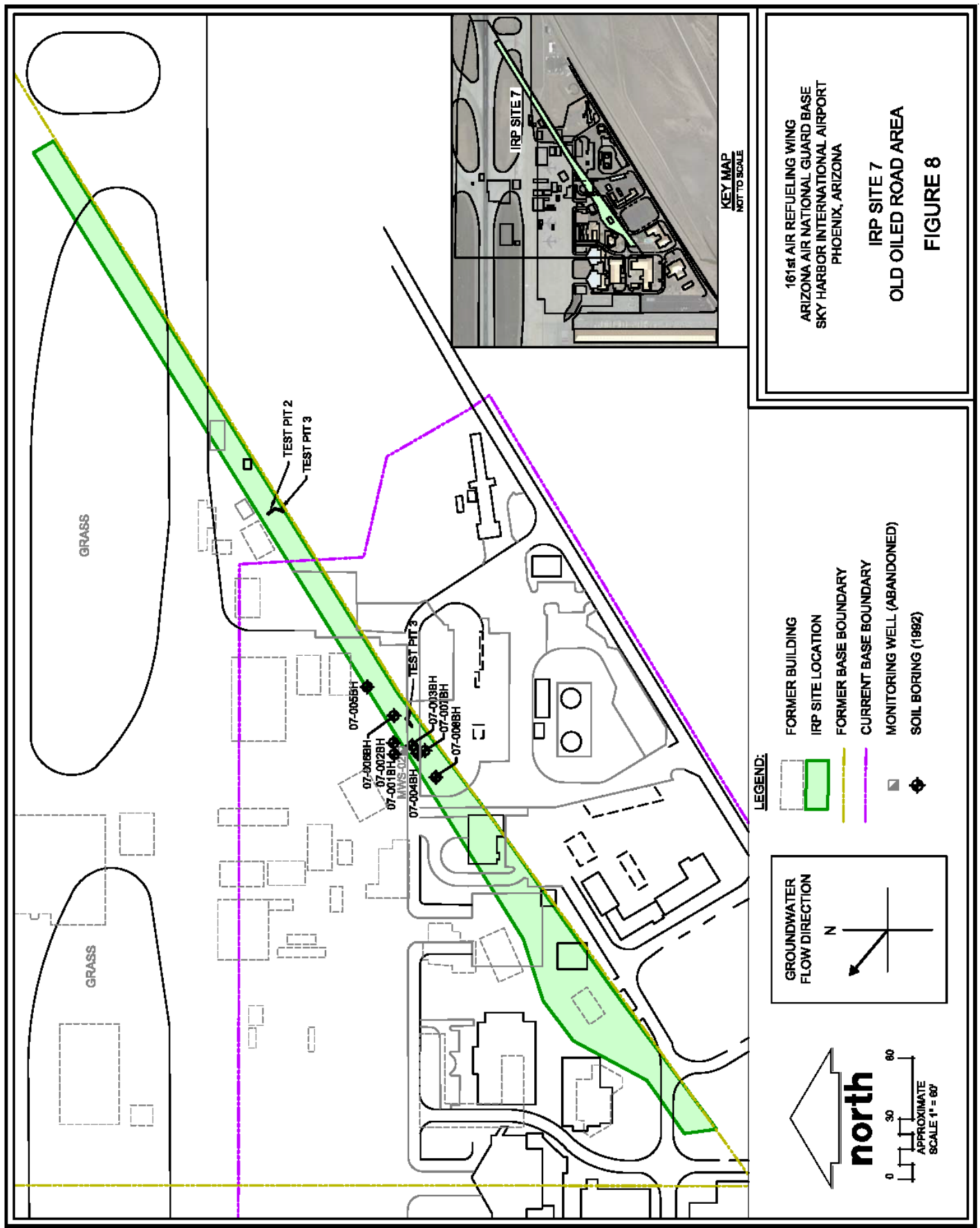
Site Investigation – 1992

As part of the SI activities, IRP Site 7 was identified through the detection of TPH concentrations above ADEQ cleanup standards in two background soil samples in the vicinity of the IRP Site 7 area. Additional assessment was recommended to evaluate the TPH exceedance.

Remedial Investigation – 1995

The RI completed in 1995 included additional soil sampling to investigate the TPH concentrations found in shallow subsoil during the SI activities. Four investigative soil samples were collected from three test pit areas at IRP Site 7 and analyzed for aromatic hydrocarbons and TPH. No aromatic hydrocarbons were detected and TPH was detected in two samples.

Eight soil borings were drilled and twenty soil samples were collected at IRP Site 7 during the RI. Soil samples were analyzed for VOCs, SVOCs, and TPH. TPH was detected in soil samples exceeding the applicable ADEQ cleanup standard. Toluene was also detected, but at



concentrations less than the applicable ADEQ cleanup standard. No SVOCs were detected in any soil samples. Based on the apparent limited extent of contamination at IRP Site 7, it was recommended in the RI that NFA was necessary at IRP Site 7. The RI also recommended that future investigation could be necessary at IRP Site 7 if contamination is found during construction activities associated with ANGB relocation.

A baseline risk assessment was not performed at IRP Site 7 since TPH was the only contaminant detected above ADEQ's cleanup levels. Because the chemical constituents of TPH vary, the risk assessment could not be calculated for IRP Site 7. However, a risk was deemed to exist.

Decision Document – 1996

A DD for IRP Site 7 was submitted to the ADEQ in January 1996 that recommended NFA. The ADEQ concurred with the NFA classification recommendation for IRP Site 7 in a July 8, 1996 letter (Attachment 9).

Engineering Evaluation/Cost Analysis – 1998

An EE/CA was performed in 1998 for potential non-time-critical removal actions involving soil within the upper 4 feet (shallow soil) in 1998. The shallow soil removal was necessary as part of the ANGB relocation project, which was completed to accommodate expansion of the Airport. Plans for the ANGB relocation project included removal of shallow soil across most of the ANGB. The EE/CA used existing soil data obtained from previous investigations at IRP Sites 1, 2, 3, 5, 6, and 7, as well as soil sample data from 75 additional soil borings at the ANGB to evaluate shallow soils. Nine soil borings were installed at IRP Site 7 during the EE/CA. Evaluation of the soil data from these borings indicated none of the shallow soil sample data exceeded applicable ADEQ soil cleanup levels for TPH and VOCs at IRP Site 7.

The EE/CA evaluated several removal action alternatives including No Action. Based on the removal action alternatives evaluation, the No Action alternative was recommended because the contaminant levels in the shallow soil did not exceed ADEQ soil cleanup levels. Soil excavation and off-site treatment by thermal desorption was also recommended as a contingency, in the event that shallow soil contamination exceeding the ADEQ soil cleanup level were encountered during the installation relocation.

Shallow Soil Excavation – 2000

As part of the ANGB facility relocation project, the TPH-impacted soils at IRP Site 7 were excavated and removed off site for thermal treatment and disposal.

The investigation activities at IRP Site 7 are summarized in Table 11.

Table 11
Study/Investigation Summary: IRP Site 7
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
SI	1992	IRP Site 7 identified through detection of TPH concentration above ADEQ standards in background soil sampling. Additional soil assessment recommended.

Table 11
Study/Investigation Summary: IRP Site 7
161ARW, AZ ANG, Phoenix, Arizona

Study/Investigation	Date	Study/Investigation Summary
RI	1995	TPH exceeded ADEQ cleanup standard in 11 of 24 soil samples. NFA was recommended based on limited extent of contamination. A baseline risk assessment was not performed.
DD	1996	A DD recommending NFA was submitted to the ADEQ in January 1996. NFA status/closure for IRP Site 7 issued July 8, 1996.
EE/CA	1996	Evaluation of existing and newly-collected soil data indicated no shallow soil samples exceeded applicable ADEQ standards for TPH or VOCs.
Shallow Soil Excavation	2000	TPH-impacted soils at IRP Site 7 were excavated and removed from the ANGB as part of the facility relocation project.

A summary of maximum detected concentrations reported for soil at IRP Site 7 is provided in Table 12.

Table 12
Corrective Action Levels Screening Results for Soil
IRP Site 7 – Old Oiled Road Area
161ARW, AZ ANG, Phoenix, Arizona

Contaminant	Highest Concentration	Final Concentration	Action Level* (Background Concentration)
Soil (mg/kg)			
TPH	30,000	ND	18,000 (ND – 9,800)
Toluene	0.75	ND	200 (ND – 1)
Notes: * ADEQ Non-Residential Soil Action Level. mg/kg = Milligram(s) per kilogram. ND = Not detected.			

2.6 Potential Future Land and Resource Uses

The current missions of the ANGB are to support aerial refueling during wartime and to provide aircrew and specialized support training to maintain KC-135E refueling capabilities during peacetime. The ANGB conducts its activities in an environmentally sound manner, efficiently and effectively complying with the letter, spirit, and intent of applicable environmental statutes, regulation, and standards.

In support of its primary mission, the facility has historically stored and used various types of hazardous materials. Current waste management practices at the facility are performed in compliance with applicable laws and regulations to protect human health and the environment.

The general land-use categories for the facility include open space, restricted and safety/environmental zones, airfield pavement, aircraft maintenance, and aircrafts operations areas. Special land use categories include industrial (including POL operations), and hazardous waste storage areas. Command and support structures include administration operations, medical services, communications activities, and recreational facilities. There are no plans to change the facility role and general use of the land and groundwater.

IRP Sites 1, 2, 3, 5, 6, and 7 are located on property leased by the ANG from the City of Phoenix since 1946. All of the sites are in close proximity to the runways, taxiways and industrial facilities related to support of air operations. Land use surrounding the Base is primarily industrial. Land use at the installation is currently industrial and is expected to remain industrial in the future. Facilities at the ANGB include two large hangars (one of which was converted to support offices) equipped to provide full maintenance services for the unit; a “hush house” for out-of-frame engine tests; facilities for administration, recreation, and health services; and a 53,000-square-yard aircraft apron. The source of drinking water for the ANGB is the City of Phoenix. Eighty percent of the City of Phoenix's drinking water comes from surface water; the remaining 20 percent is supplied by water wells. There are no drinking water supply wells within a 3-mile radius of the ANGB.

2.7 Summary of Site Risks

This section includes brief summaries of the completed investigations at IRP Sites 1, 2, 3, 5, 6, and 7, which are the basis for the selected remedy of NFA at each site. The ANG has determined IRP Sites 1, 2, 3, 5, 6, and 7, to be at the Response Complete stage.

For IRP Sites 1, 2, 3, 5, and 7, the ANG is relying on continued non-residential land use for reducing potential risks associated with remaining constituents of concern. IRP Sites 1, 2, and 3, and portions of IRP Sites 5 and 7, are located on property returned to the City of Phoenix. For portions of IRP Sites 5 and 7 remaining under AZ ANG control, the 161ARW will confirm the non-residential conditions remain as part of the ESOHCAMP process. Five-year reviews are not planned.

IRP Site 1 – JP-4 Hydrant Area

IRP Site 1 is a small JP-4 fuel release site in an area formerly covered with concrete pavement and gravel near the JP-4 hydrants at the west side of the aircraft parking apron (Figure 3). Activities completed at IRP Site 1 include a PA in 1988, an SI in 1992, an SA in 1993, groundwater monitoring from 1993 through 1994, a DD in 1996, an EE/CA in 1998, and site closure activities in 1999.

IRP Site 1 was identified during the PA conducted in 1988. Based on the 1992 SI, it was concluded there was no significant contamination at IRP Site 1 and the site does not indicate a substantial threat to human health or the environment. Groundwater monitoring conducted in 1993 and 1994 showed no contaminant levels in groundwater above ADEQ cleanup standards. No concentrations of TPH or VOCs exceeded applicable ADEQ soil cleanup levels in shallow soil samples during the 1998 EE/CA. No site risks have been identified for IRP Site 1. On

March 6, 1996, the ADEQ concurred with NFA status for IRP Site 1 (Attachment 4). No further corrective action is planned at IRP Site 1.

IRP Site 2 – Hazardous Waste Storage Area

Hazardous wastes (JP-4, PD-680 solvent, hydraulic fluid, and 7808 oil) were stored in drums on a concrete pad at IRP Site 2 beginning around 1982. Wastes were suspected to have been released in small volumes, with actual amounts unknown. Activities completed at IRP Site 2 include a PA in 1988, an SI in 1992, groundwater monitoring from 1993 through 1994, a DD in 1996, an EE/CA in 1998, and Site Closure activities in 1999.

IRP Site 2 was identified during the PA conducted in 1988. Based on the data collected at IRP Site 2 during the 1992 SI and the preliminary risk evaluation conducted in 1992, it was concluded that IRP Site 2 was not a substantial threat to human health or the environment. Groundwater monitoring conducted in 1993 and 1994 showed no contaminant levels in groundwater above applicable ADEQ cleanup standards. No site risks have been identified for IRP Site 2. On July 8, 1996, the ADEQ concurred with NFA status for IRP Site 2 (Attachment 5). A review of soil data in 1998 revealed remaining concentrations of TPH or VOCs did not exceed applicable ADEQ soil cleanup levels. No further corrective action is planned at IRP Site 2.

IRP Site 3 – Fuel Bladder Area

IRP Site 3 was used in 1972 and 1973 for the temporary storage of JP-4 and leaded aviation gasoline (AVGAS) in three 30,000-gallon bladders while the POL area was being refurbished. During the time bladders were used, one of the AVGAS bladders leaked fuel from around an inspection hatch. The amount of fuel released is unknown. Activities completed at IRP Site 3 include a PA in 1988, an SI in 1992, groundwater monitoring from 1993 through 1994, a DD in 1996, site closure activities in 1997, and an EE/CA in 1998.

IRP Site 3 was identified during the PA conducted in 1988. Based on the data collected at IRP Site 3 during the 1992 SI and the preliminary risk evaluation conducted in 1992, it was concluded that IRP Site 3 was not a substantial threat to human health or the environment. No site risks have been identified for IRP Site 3. Groundwater monitoring conducted in 1993 and 1994 showed no contaminant levels in groundwater attributed to the Site above applicable ADEQ cleanup standards. Elevated concentrations of benzene and TPH in groundwater were found to be associated with IRP Site 6, and addressed as part of the corrective action activities completed at IRP Site 6. On June 28, 1996, the ADEQ concurred with NFA status for IRP Site 3 (Attachment 6). A review of soil data in 1998 revealed remaining concentrations of TPH or VOCs did not exceed applicable ADEQ soil cleanup levels. No further corrective action is planned at IRP Site 3.

IRP Site 5 – Ammunition Dump

Ammunition was found buried at IRP Site 5 at a depth of 6 to 8 feet during trenching activities in the late 1970s. The quantity of ammunition material buried at IRP Site 5 was uncertain. Activities completed at IRP Site 5 include a PA in 1988, an SI in 1992, groundwater monitoring from 1993 through 1994, a DD in 1996, an EE/CA in 1998, and site closure activities in 1999.

IRP Site 5 was identified during the PA conducted in 1988. Based on the data collected at IRP Site 5 during the 1992 SI and the preliminary risk evaluation conducted in 1992, it was concluded that IRP Site 5 was not a substantial threat to human health or the environment. No concentrations of TPH or VOCs exceeded applicable ADEQ soil cleanup levels in shallow soil samples during the 1998 EE/CA. No site risks have been identified for IRP Site 5. Groundwater monitoring conducted in 1993 and 1994 showed no contaminant levels in groundwater above applicable ADEQ cleanup standards associated with the Site. Elevated concentrations of benzene, ethylbenzene, and xylenes detected in groundwater were determined to be associated with IRP Site 6. On June 28, 1996, the ADEQ concurred with NFA status for IRP Site 5 (Attachment 7). No further corrective action is planned at IRP Site 5.

IRP Site 6 – Petroleum, Oil, and Lubricant (POL) Area

IRP Site 6 consists of the former POL storage area, which included ten USTs, connections, and distribution piping located on the southwest side of the former ANGB in the vicinity of former Building No. 21. IRP Site 6 is tracked as release number 2453, and the 161ARW assigned Facility 0-000092. The release was closed on July 14, 2010. The POL was used to store JP-4, diesel fuel, and waste oil from 1950 to 1999. The POL was closed in 1999 and demolished during relocation of the ANGB. Activities completed at IRP Site 6 include a PA in 1990, an SI in 1992, an RI in 1993 and 1994, and RI Addendum in 1995 and 1996, groundwater monitoring from 1995 to 2000, remedial pilot testing in 1997, an FS and EE/CA in 1998, UST removal and soil excavation in 2000, remedial activity implementation, O&M, and monitoring from 1998 through 2009, an ESD and Five-Year Review in 2008 and 2009, and Site Closure in 2010 and 2014.

IRP Site 6 was identified during the PA conducted in 1988. A preliminary risk evaluation conducted during the 1992 SI recommended an additional assessment be completed to evaluate the extent of petroleum impacts at IRP Site 6. A baseline risk assessment included in the RI concluded that groundwater contamination presented a potential risk to human health. Both current and future pathways of human exposure were analyzed for estimating risks to human health due to subsurface soil and groundwater contamination detected during the RI. Pathways included possible soil ingestion and possible fugitive dust inhalation by construction workers and possible drinking water ingestion in the instance that groundwater is used as a potable water source. For the future scenario at IRP Site 6, an unacceptable pathway risk was indicated for groundwater exposure through ingestion for adult workers. No dilution of contaminants was assumed; therefore, the risk calculated represented the most conservative estimate.

An interim SVE/AS system removed approximately 308,000 pounds of hydrocarbons between 1997 and 1999. In 1998, An EE/CA recommended the No Action alternative for soil removal at IRP Site 6 was recommended because the contaminant levels in the shallow soil did not exceed ADEQ soil cleanup levels. An SVE/AS remediation system was operated from 2001 to 2007 removing an estimated 585,000 pounds of hydrocarbons. Groundwater monitoring continued into early 2009 in order to confirm remediation was complete. During a ESD conducted in 2008, it was determined there had been no changes to human health exposure assumptions or land use scenarios since development of the 1996 FS and the exposure assumptions used in the baseline risk assessment were considered to be protective for current and future conditions. A Five Year review was completed in 2009. There are no plans for a Five-Year Review in 2014.

A Final Closure Report for IRP Site 6 was prepared in 2010 summarizing the remediation activities and associated monitoring. The report recommended NFA for IRP Site 6. On July 2, 2010, the ADEQ concurred with NFA status for IRP Site 6 (Attachment 8). Other than completing PCO activities in 2014, no further corrective action is planned at IRP Site 6.

Elevated methane has been detected at concentrations greater than the lower explosive limit in vapor monitoring points during the remediation activities. The methane has been attributed to the natural biodegradation of petroleum constituents in the subsurface. Methane gas is not regulated by the ADEQ, and is independent of the IRP activities. The three background monitoring wells are being transferred to the City of Phoenix so they may continue monitoring methane levels near IRP Site 6.

IRP Site 7 – Old Oiled Road Area

IRP Site 7 is the former location of an old mining road where waste oil was historically spread on the road surface. Activities completed at IRP Site 7 include an SI in 1992, an RI 1995, a DD in 1996, an EE/CA in 1998, and shallow soil excavation in 2000.

IRP Site 7 was identified during the background sampling conducted as part of the 1992 SI. A baseline risk assessment was not performed at the site since TPH was the only contaminant detected above ADEQ cleanup levels. Because the chemical constituents of TPH vary, the risk assessment could not be calculated for the site; however, a risk was deemed to exist. The 1995 RI recommended that future investigation could be necessary at IRP Site 7 if contamination is found during construction activities associated with ANGB relocation. No concentrations of TPH or VOCs exceeded applicable ADEQ soil cleanup levels in shallow soil samples during the 1998 EE/CA. NFA status/closure for IRP Site 7 was issued July 8, 1996 (Attachment 9). TPH-impacted soils were excavated and removed from IRP Site 7 in 2000, with confirmation sampling confirming remaining impacts less than applicable ADEQ standards. No further corrective action is planned at IRP Site 7.

2.8 Statutory Determination Summary

Based on the investigation and corrective action activities completed at IRP Sites 1, 2, 3, 5, 6, and 7, and remaining site risks, the ANG has determined the selected remedy of No Action Required is protective of human health and the environment, complies with Applicable or Relevant and Appropriate Requirements, is cost-effective, and uses permanent solutions. The utilization of alternative treatment technologies, resource recovery technologies is not applicable under the recommended remedy. The ANG has also concluded additional reduction in the volume, toxicity, or mobility of the constituents of concern or off-site disposal of untreated wastes is necessary.

Restoration activities for IRP Sites 1, 2, 3, 5, 6, and 7, are now considered to be at the Response Complete stage, where the ANG has determined it meets the remedial action objectives, documented the determination, and sought regulatory agreement. Therefore, no additional activity is required or necessary to ensure protection of human health and the environment

2.9 *Documentation of Significant Changes*

The PP for IRP Sites 1, 2, 3, 5, 6, and 7, was released for public comment on November 29, 2013. The PP identified NFA as the preferred alternative for each of the IRP sites. No written or verbal comments were submitted during the public comment period. It was determined that no significant changes to the preferred alternative, as originally identified in the PP, were necessary or appropriate.

3.0 Responsiveness Summary

This section provides a summary of the public comments regarding the PP for NFA at IRP Sites 1, 2, 3, 5, 6, and 7, 161ARW, ANGB. At the time of the public review period, the ANG had selected NFA for IRP Sites 1, 2, 3, 5, 6, and 7. No written comments were received on the PP during the public comment period. Based upon the lack of verbal or written comments to the ANG's PP during the public comment period, the ANG's PP is judged to be accepted by the public.

3.1 Stakeholder Comments and Lead Agency Responses

Following the completion of the public comment period, the City of Phoenix provided comments regarding the status of the three monitoring wells to be transferred to the City of Phoenix, and a procedural comment regarding the pending well plugging and abandonment activities. A copy of these comments and ANG's responses are included in the Responsiveness Summary (Attachment 3).

In a letter dated February 4, 2014, the ADEQ provided comments to the Responsiveness Summary, included as Attachment 10. The ADEQ comments and ANG's responses to these comments are as follows:

General Comment 1: The statement "The remaining monitoring wells at the site are planned to be closed in 2013." should be changed throughout the text of the Proposed Plan to reflect the current year of closure for the onsite wells.

Response to General Comment 1: The Record of Decision specifies the remaining monitoring wells, except those to be transferred to the City of Phoenix, are planned for proper plugging and abandonment in 2014. As the Proposed Plan has already been finalized and submitted for public comment, no changes are proposed to this document.

Specific Comment 1: Attachment 1 – A Work Plan describing the planning procedures to close and/or abandon the remaining wells on the site should be provided to and approved by ADEQ. The Work Plan should include a list of wells that are to be closed and the specific wells that are to have ownership transferred to the City of Phoenix.

Response to Specific Comment 1: The ANG is preparing a Work Plan to complete the proposed well abandonment activities, and will include the information requested. The Work Plan will be submitted to the ADEQ for review and comment prior to its implementation.

3.2 Technical and Legal Issues

No technical or legal issues were identified during the public review period of the PP. There are no technical or legal issues that require additional discussion.

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4.0 References

- ADEQ, July 1990. Preliminary Assessment, 161st AREFG Air National Guard, Sky Harbor International Airport, Phoenix, Arizona.
- ANG/CEVR, May 1998. Engineering Evaluation/Cost Analysis Approval Memorandum, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona.
- ERM, May 2010. Final Closure Report for Site 6. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for Air National Guard, Andrews AFB, Maryland.
- ERM, November 2009. Final Five-Year Review Report for Site 6. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for Air National Guard, Andrews AFB, Maryland.
- ERM, May 2003. Management Action Plan Update. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.
- ERM, October 2002. Management Action Plan Update. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.
- ERM, September 2002. Final ERP Site 6 Contingency Remedial Plan. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.
- ERM, July 2001. Final Construction Completion Report. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.
- ERM, March 2001. Well Abandonment and Replacement Report, Arizona Air National Guard Base Relocation Project, 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona.
- ERM, February 2001. Final Closure Report. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.
- ERM, April 2000. Final Action Memorandum. 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona. Prepared for ANG/CEVR, Andrews AFB, Maryland.
- ERM, March 1999. Final Decision Document for IRP Site No. 6, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for Air National Guard, Andrews AFB, Maryland.

ERM, February 1999. Management Action Plan Update. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for Air National Guard, Andrews AFB, Maryland.

ERM, January 1999. Final Engineering Evaluation and Cost Analysis. 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, October 1998. 100% Design Submittal for Remedial Design of Soil Vapor Extraction and Air Sparging System, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM. September 1998. Draft Engineering Evaluation/Cost Analysis Technical Memorandum, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM. July 1998. Final Engineering Evaluation/Cost Analysis Work Plan Addendum, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, June 1998. Final Feasibility Study. 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, November 1997. Final Pilot Study Evaluation Report. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, June 1996. Final Pilot Study Work Plan Soil Vapor Extraction, Air Sparging, and Bioventing. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona. Prepared for ANG/CEVR, Andrews AFB, Maryland.

HMTC, July 1988. Preliminary Assessment. Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for National Guard Bureau, Andrews AFB, Maryland.

International Technologies Corporation (IT), June 1993. Decision Document Site 3 – Fuel Bladder Area, 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.

IT, August 1992. Community Relations Plan. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for National Guard Bureau, Andrews AFB, Maryland.

IT, November 1992. Final Site Investigation Report, Volumes 1 through 3. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for National Guard Bureau, Andrews AFB, Maryland.

IT, September 1990a. Final Site Investigation Field Sampling Plan. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for National Guard Bureau, Andrews AFB, Maryland.

- IT, September 1990b. Final Project Management Plan. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for National Guard Bureau, Andrews AFB, Maryland.
- OpTech, May 1996. Remedial Investigation Report Addendum For IRP Site 6, Volumes 1 through 3, 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for HQ ANG/CEVR Andrews AFB, Maryland.
- OpTech, August 1995. Remedial Investigation Report For IRP Sites 6 and 7, Volumes 1 through 4, 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for HQ ANG/CEVR Andrews AFB, Maryland.
- OpTech, August 1995b. Final Hydrocarbon Analysis of Soils at IRP Site No. 7. 161st Air Refueling Group, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for HQ ANG/CEVR Andrews AFB, Maryland.
- OpTech, July 1995a. Decision Document for IRP Site 1. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.
- OpTech, July 1995b. Decision Document for IRP Site 2 Hazardous Waste Storage Area. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.
- OpTech, July 1995c. Decision Document for IRP Site 5 Ammunition Dump. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona, Air National Guard Readiness Center, Andrews AFB, Maryland.
- OpTech, April 1993. Final Site Assessment for JP-4 Hydrant Area. 161st Air Refueling Group, Sky Harbor Air National Guard Base, Phoenix, Arizona, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.

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**ATTACHMENT 1 – ADMINISTRATIVE RECORD FOR
IRP SITES 1, 2, 3, 5, 6, AND 7**

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ATTACHMENT 1

ADMINISTRATIVE RECORD

This is the Administrative Record file for Installation Restoration Program (IRP) Sites 1, 2, 3, 5, 6, and 7 at the 161st Air Refueling Group, Sky Harbor Air National Guard Base, Phoenix, Arizona, Record of Decision (ROD), dated June 2014. The file contains site-specific documents used by the Air National Guard staff in selecting a response action at each site.

The administrative record file is available for review at:

Administrative Record File:

Capt. Craig Alann, Environmental Manager
161st Air Refueling Wing
Arizona Air National Guard
3200 East Old Tower Road
Phoenix, Arizona 85034-6098

An Information Repository has also been established, and can be reviewed at the following location:

Phoenix Public Library – Saguaro Branch 2808 North 46 th Street Phoenix, Arizona (602) 262-6802

Questions about this administrative record file should be directed to the Environmental Manager.

ADEQ, July 1990. *Preliminary Assessment, 161st AREFG Air National Guard, Sky Harbor International Airport, Phoenix, Arizona.*

ANG/CEVR, May 1998. *Engineering Evaluation/Cost Analysis Approval Memorandum, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona.*

ERM, May 2010. *Final Closure Report for Site 6. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for Air National Guard, Andrews AFB, Maryland.*

ERM, November 2009. *Final Five-Year Review Report for Site 6. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for Air National Guard, Andrews AFB, Maryland.*

ERM, May 2003. *Management Action Plan Update. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona, Prepared for ANG/CEVR, Andrews AFB, Maryland.*

ERM, October 2002. *Management Action Plan Update. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, September 2002. *Final ERP Site 6 Contingency Remedial Plan. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, July 2001. *Final Construction Completion Report. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, March 2001. *Well Abandonment and Replacement Report, Arizona Air National Guard Base Relocation Project, 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, February 2001. *Final Closure Report. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, April 2000. *Final Action Memorandum. 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona*. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, March 1999. *Final Decision Document for IRP Site No. 6, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix Arizona*, Prepared for Air National Guard, Andrews AFB, Maryland.

ERM, February 1999. *Management Action Plan Update. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for Air National Guard, Andrews AFB, Maryland.

ERM, January 1999. *Final Engineering Evaluation and Cost Analysis. 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona*. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, October 1998. *100% Design Submittal for Remedial Design of Soil Vapor Extraction and Air Sparging System, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM. September 1998. *Draft Engineering Evaluation/Cost Analysis Technical Memorandum, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM. July 1998. *Final Engineering Evaluation/Cost Analysis Work Plan Addendum, 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona*, Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, June 1998. *Final Feasibility Study. 161st Air Refueling Wing, Sky Harbor Air National Guard Base, Sky Harbor International Airport, Phoenix, Arizona*. Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, November 1997. *Final Pilot Study Evaluation Report. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona.* Prepared for ANG/CEVR, Andrews AFB, Maryland.

ERM, June 1996. *Final Pilot Study Work Plan Soil Vapor Extraction, Air Sparging, and Bioventing. 161st Air Refueling Wing, Arizona Air National Guard, Sky Harbor International Airport, Phoenix, Arizona.* Prepared for ANG/CEVR, Andrews AFB, Maryland.

HMTC, July 1988. *Preliminary Assessment. Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for National Guard Bureau, Andrews AFB, Maryland.

International Technologies Corporation (IT), June 1993. *Decision Document Site 3 – Fuel Bladder Area, 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.

IT, August 1992. *Community Relations Plan. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for National Guard Bureau, Andrews AFB, Maryland.

IT, November 1992. *Final Site Investigation Report, Volumes 1 through 3. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for National Guard Bureau, Andrews AFB, Maryland.

IT, September 1990a. *Final Site Investigation Field Sampling Plan. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for National Guard Bureau, Andrews AFB, Maryland.

IT, September 1990b. *Final Project Management Plan. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for National Guard Bureau, Andrews AFB, Maryland.

OpTech, May 1996. *Remedial Investigation Report Addendum For IRP Site 6, Volumes 1 through 3, 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for HQ ANG/CEVR Andrews AFB, Maryland.

OpTech, August 1995. *Remedial Investigation Report For IRP Sites 6 and 7, Volumes 1 through 4, 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for HQ ANG/CEVR Andrews AFB, Maryland.

OpTech, August 1995b. *Final Hydrocarbon Analysis of Soils at IRP Site No. 7. 161st Air Refueling Group, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for HQ ANG/CEVR Andrews AFB, Maryland.

OpTech, July 1995a. *Decision Document for IRP Site 1. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona,* Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.

- OpTech, July 1995b. *Decision Document for IRP Site 2 Hazardous Waste Storage Area. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona*, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.
- OpTech, July 1995c. *Decision Document for IRP Site 5 Ammunition Dump. 161st Air Refueling Group, Arizona Air National Guard, Sky Harbor Air National Guard Base, Phoenix, Arizona*, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.
- OpTech, April 1993. *Final Site Assessment for JP-4 Hydrant Area. 161st Air Refueling Group, Sky Harbor Air National Guard Base, Phoenix, Arizona*, Prepared for Air National Guard Readiness Center, Andrews AFB, Maryland.

ATTACHMENT 2 – PUBLIC NOTICE OF PROPOSED PLAN

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**Public Meeting Notice Ad Proof
Air National Guard, Phoenix, Arizona**

Published in The Arizona Republic

**Air National Guard Proposes No Further Action at the
161st Air Refueling Wing, Phoenix, Arizona**

The Air National Guard (ANG) announces the availability of a Proposed Plan for No Further Action for Installation Restoration Program (IRP) Sites 1, 2, 3, 5, 6, and 7, located at the Arizona Air National Guard, 161st Air Refueling Wing, at Sky Harbor International Airport, in Phoenix, Arizona. Various releases to soil and/or groundwater have occurred at IRP Sites 1, 2, 3, 5, 6, and 7. Soil and groundwater investigations and applicable corrective action activities were conducted at IRP Sites 1, 2, 3, 5, 6, and 7 from 1988 through 2013. As a result of these activities, it is the ANG's and Arizona Department of Environmental Quality's (ADEQ's) current judgment the Preferred Alternative of No Further Action for IRP Sites 1, 2, 3, 5, 6, and 7 is appropriate to protect public health, welfare, and the environment.

The ANG, in coordination with ADEQ, encourages the public to review and comment on the Proposed Plan. The formal public comment period begins on November 29, 2013 and ends on December 29, 2013. The ANG will choose the final remedy after taking public comments into account.

If there is interest in having a public meeting, the public must contact the ANG by December 29, 2013. The ANG will issue additional public notices to announce a date, time, and location of a meeting, at which time the ANG will provide an opportunity to explain the Proposed Plan and Preferred Alternative, and accept additional oral and written comments. Additional oral or written comments will also be accepted at the meeting.

The Information Repository for IRP Sites 1, 2, 3, 5, 6, and 7 is available at:

Phoenix Public Library – Saguaro Branch,
2808 North 46th Street, Phoenix, Arizona,
(602) 262-6802;

Hrs: Tuesday, Wednesday, and Thursday: : 10 a.m. - 8 p.m.,
Monday and Saturday: 9 a.m. - 5 p.m.,
Sunday: 1 p.m. - 5 p.m.

**For additional information or to provide comments to the
Proposed Plan, please contact:**

Major Craig Alann Environmental Manager
161st Air Refueling Wing
Arizona Air National Guard
3200 East Old Tower Road, Phoenix, Arizona 85034-6098
Phone: (602) 302-9254; Fax: (602) 302-9088
craig.alann@ang.af.mil

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THE ARIZONA REPUBLIC

STATE OF ARIZONA }
COUNTY OF MARICOPA } SS.

**Air National Guard Proposes No Further Action at the
161st Air Refueling Wing, Phoenix, Arizona**

The Air National Guard (ANG) announces the availability of a Proposed Plan for No Further Action for Installation Restoration Program (IRP) Sites 1, 2, 3, 5, 6, and 7, located at the Arizona Air National Guard, 161st Air Refueling Wing, at Sky Harbor International Airport, in Phoenix, Arizona. Various releases to soil and/or groundwater have occurred at IRP Sites 1, 2, 3, 5, 6, and 7. Soil and groundwater investigations and applicable corrective action activities were conducted at IRP Sites 1, 2, 3, 5, 6, and 7 from 1988 through 2013. As a result of these activities, it is the ANG's and Arizona Department of Environmental Quality's (ADEQ's) current judgment the Preferred Alternative of No Further Action for IRP Sites 1, 2, 3, 5, 6, and 7 is appropriate to protect public health, welfare, and the environment.

The ANG, in coordination with ADEQ, encourages the public to review and comment on the Proposed Plan. The formal public comment period begins on November 29, 2013, and ends on December 29, 2013. The ANG will choose the final remedy after taking public comments into account.

If there is interest in having a public meeting, the public must contact the ANG by December 29, 2013. The ANG will issue additional public notices to announce a date, time, and location of a meeting, at which time the ANG will provide an opportunity to explain the Proposed Plan and Preferred Alternative, and accept additional oral and written comments. Additional oral or written comments will also be accepted at the meeting.

The Information Repository for IRP Sites 1, 2, 3, 5, 6, and 7 is available at:

Phoenix Public Library – Saguardo Branch,
2808 North 46th Street, Phoenix, Arizona,
(602) 262-6806;

Hrs: Tuesday, Wednesday, and Thursday: 10 a.m. - 8 p.m.,
Monday and Saturday: 9 a.m. - 5 p.m.,
Sunday: 1 p.m. - 5 p.m.

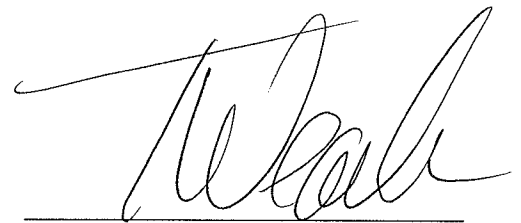
**For additional information or to provide comments to the
Proposed Plan, please contact:**

Major Craig Alann, Environmental Manager
161st Air Refueling Wing
Arizona Air National Guard
3200 East Old Tower Road, Phoenix, Arizona 85034-6098
Phone: (602) 302-9254; Fax: (602) 302-9088
craig.alann@ang.af.mil

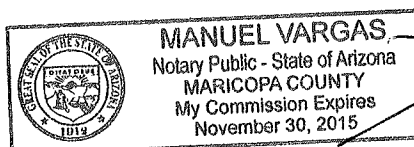
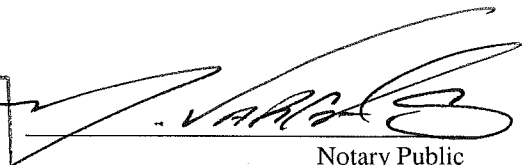
Tabitha Weaver, being first duly sworn, upon oath deposes and says: That she is a legal advertising representative of the Arizona Business Gazette, a newspaper of general circulation in the county of Maricopa, State of Arizona, published at Phoenix, Arizona, by Phoenix Newspapers Inc., which also publishes The Arizona Republic, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates as indicated.

The Arizona Republic

11/29/2013



Sworn to before me this
2nd day of
December A.D. 2013

Notary Public

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ATTACHMENT 3 – RESPONSIVENESS SUMMARY TO PROPOSED PLAN

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LIST OF ACRONYMS

ANG	Air National Guard
IRP	Installation Restoration Program
NGB	National Guard Bureau
AZ ANG	Arizona Air National Guard

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FINAL RESPONSIVENESS SUMMARY

Public Comment Period: November 29 through December 29, 2013
Proposed Plan for Installation Restoration Program Sites 1, 2, 3, 5, 6, and 7
161st Air Refueling Wing, Arizona Air National Guard
Sky Harbor International Airport – Phoenix, Arizona

This Responsiveness Summary has been prepared by the Air National Guard (ANG) as part of the process for making a recommendation of the Preferred Alternative of No Further Action for Installation Restoration Program (IRP) Sites 1, 2, 3, 5, 6, and 7, 161st Air Refueling Wing, Arizona Air National Guard (AZ ANG), Sky Harbor International Airport, Phoenix, Arizona. A Proposed Plan for the Preferred Alternative of No Further Action at IRP Sites 1, 2, 3, 5, 6, and 7 was issued by the National Guard Bureau (NGB) on November 29, 2013. This Responsiveness Summary documents public comments and issues raised during the public comment period on the Proposed Plan, and presents responses to those comments.

The Proposed Plan and Information Repository for IRP Sites 1, 2, 3, 5, 6, and 7 were made available to the public during this public comment period at the Phoenix Public Library – Saguaro Branch, 2808 North 26th Street, Phoenix, Arizona. As published on November 29, 2013 in The Arizona Republic, the public comment period began on November 29, 2013, and ran through December 29, 2013. During this public comment period, the public was encouraged to provide comments on the Proposed Plan to the Environmental Manager (EM) for the 161st Air Refueling Wing (ARW). The public was also encouraged to contact the EM for the 161st ARW if there was interest in holding a public meeting to discuss the Proposed Plan and Preferred Alternative.

No comments were received on the Proposed Plan during the public comment period, and no interest was received on holding a public meeting, as documented in the attached electronic message (Attachment 1).

One comment from the City of Phoenix (COP) was received by the 161st ARW EM on January 3, 2014 (Attachment 2):

Comment 1

I received a copy of the final proposed plan for 161st ARW at AZ ANG. I noticed on page 15, it states that the guard plans to abandon all remaining wells in 2013. The COP Aviation hopes that statement was broad reaching and does not apply to the 3 groundwater monitoring wells the COP and AZ ANG have been working on a transfer of ownership agreement. COP sent AZ ANG a draft legal agreement months ago. Can you please tell me where the AZ ANG is on that agreement? Our legal team has reached out several times to your legal team, but we have not received a reply.

Please note that when AZ ANG decides to abandon any or all wells on our lease property, the COP Aviation has a Tenant Improvement (TI) process that must be followed. The TI project manager is Tom Ramson his phone number is 602-273-8805 and his email is Tom.Ramson@phoenix.gov.

Response to Comment 1:

All remaining monitoring wells, with the exception of the three monitoring wells to be transferred to the COP, are to be plugged and abandoned. The ANG is currently preparing a work plan to complete the well abandonment activities, which are expected to occur in two to three months. The ANG acknowledges the COP Aviation TI process as commented, and will be in contact with the TI project manager prior to initiating these activities.

The Legal Department of the Air National Guard is completing its review and approval of the agreement, with the full intention of completing the transfer as planned. It is anticipated the agreement will be completed in the next month.

With the exception of completion of the well ownership transfer agreement and well abandonment activities, there are no technical or legal issues identified that require additional discussion.

ATTACHMENT 1

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Stephen Varsa

From: Alann, Craig A Maj USAF ANG 161 ARW/EMO [Craig.alann@ang.af.mil]
Sent: Monday, January 06, 2014 11:04 AM
To: Stephen Varsa
Subject: RE: End of Public Comment Period for the Proposed Plan for IRP Sites 1, 2, 3, 5, 6, and 7, Sky Harbor installation
Attachments: Groundwater wells and closure plans (4.61 KB)

Hello Stephen,
Please see attached email. I guess I missed this in the plan. Bottom line is that 1) the wells are still open (were not closed in 2013; partially due to federal budget constraints), 2) the three wells that CoP wants has still not been transferred by NGB (CoP sent bill of sale to NGB whom has not responded back to CoP yet) and 3) I'm not entirely sure when NGB will follow through with funding/contract to close the wells that aren't transferred to CoP.

Is this something that should be changed in the proposed plan? I have reassured CoP that we will are still committed to our past agreements for well transfer/closure and that the statement referenced by CoP in the PP is not accurate.

No other comments received.

Thanks,
-Craig Alann

Craig Alann, Major, 161st ARW
Environmental Manager, AZANG
(602) 302-9254 DSN-853

-----Original Message-----

From: Stephen Varsa [<mailto:Steve.Varsa@mwhglobal.com>]
Sent: Monday, December 30, 2013 2:06 PM
To: Alann, Craig A Maj USAF ANG 161 ARW/EMO
Subject: End of Public Comment Period for the Proposed Plan for IRP Sites 1, 2, 3, 5, 6, and 7, Sky Harbor installation

Major Alann -

The public comment period for the above-referenced proposed plan ended on December 29, 2013. Please forward copies of any comments received, or reply to confirm no comments have been received and no request for a public meeting was made regarding the above-referenced project.

Thank you again for your assistance on this project,

Steve

Stephen Varsa

MWH

11153 Aurora Avenue

Des Moines, Iowa 50322

(515) 253-0830

ATTACHMENT 2

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Stephen Varsa

From: julie.riemenschneider@phoenix.gov
Sent: Friday, January 03, 2014 4:58 PM
To: Alann, Craig A Maj USAF ANG 161 ARW/EMO
Subject: Groundwater wells and closure plans

Hi Craig,
Happy New Year, I hope all is going good for you.

I received a copy of the final proposed plan for 161 air refueling wing at AANG. I noticed on page 15, it states that the guard plans to abandon all remaining wells in 2013. The COP Aviation hopes that statement was broad reaching and does not apply to the 3 groundwater monitoring wells the COP and AANG have been working on a transfer of ownership agreement. COP sent AANG a draft legal agreement months ago. Can you please tell me where the AANG is on that agreement? Our legal team has reached out several times to your legal team, but we have not received a reply.

Please note that when AANG decides to abandon any or all wells on our lease property, the COP Aviation has a Tenant Improvement process that must be followed. The TI project manager is Tom Ramson his phone number is 602-273-8805 and his email is Tom.Ramson@phoenix.gov.

Hope to hear from you soon.

Thank you,

Julie Riemenschneider
Remediation/Compliance Project Manager
Aviation - Planning and Environmental
City of Phoenix
work: 602-683-2633
blackberry: 480-427-9694
julie.riemenschneider@phoenix.gov

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**ATTACHMENT 4 – MARCH 6, 1996 NO FURTHER ACTION DETERMINATION
LETTER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - IRP SITE 1**

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ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Russell F. Rhoades, Director

March 6, 1996
FFU96,066

Major Pete Balza
161st Air Refueling Group (ANG)
2001 S. 32nd Street
Phoenix, AZ 85034-6098

DCN: Sky Harbor 8 05730
Title: NFRAP DD (Site 1) - ADEQ
Comments

ARF

06 Mar 1996

RE: Arizona Department of Environmental Quality (ADEQ) Comments on the Decision Document for IRP Site No. 1 - JP-4 Hydrant Area, Received January 24, 1996, 161st Air Refueling Group, Arizona Air National Guard

Dear Major Balza:

The Arizona Department of Environmental Quality (ADEQ) Federal Facilities Unit has conducted a review of the above referenced document and concurs with the no further action conclusion. However, no further action is applicable only under the IRP program, and does not relieve the Air National Guard of any continuing compliance or remedial activities required under any other ADEQ program.

If you have any questions concerning this correspondence, please contact me at (602) 207-4137.

Sincerely,

A handwritten signature in black ink that reads "Amanda E. Stone".

Amanda E. Stone
Project Manager
Federal Facilities Unit

cc: Mike Frey, National Guard Bureau
Quinn Thacker, ADEQ UST

AES/aes

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**ATTACHMENT 5 – JULY 8, 1996 NO FURTHER ACTION DETERMINATION
LETTER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - IRP SITE 2**

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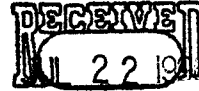


ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Russell F. Rhoades, Director

July 8, 1996
FFU96,166



F-5161

Major Pete Balza
161st Air Refueling Group (ANG)
2001 S. 32nd Street
Phoenix, AZ 85034-6098

DCN: Sky Harbor 8 43979
Title: NFRAP DD (Site 2) - ADEQ
Comments
ARF

08 Jul 1996

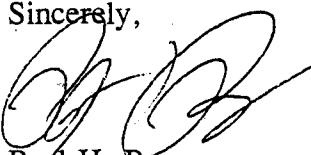
RE: Arizona Department of Environmental Quality (ADEQ) Comments on the Decision Document for IRP Site No. 2 - Hazardous Waste Storage Area, Received January 24, 1996, 161st Air Refueling Group, Arizona Air National Guard

Dear Major Balza:

The Arizona Department of Environmental Quality (ADEQ) Federal Facilities Unit has conducted a review of the above referenced document and concurs with the no further action conclusion. However, no further action is applicable only under the IRP program, and does not relieve the Air National Guard of any continuing compliance or remedial activities required under any other ADEQ program.

If you have any questions concerning this correspondence, please contact me at (602) 207-4218.

Sincerely,



Paul H. Perry
Project Manager
Federal Facilities Unit

cc: Mike Frey, National Guard Bureau
Quinn Thacker, ADEQ UST

AES/aes

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**ATTACHMENT 6 – JUNE 28, 1996 NO FURTHER ACTION DETERMINATION
LETTER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - IRP SITE 3**

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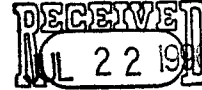


ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Russell F. Rhoades, Director

June 28, 1996
FFU96,165



E-5161

Major Pete Balza
161st Air Refueling Group (ANG)
2001 S. 32nd Street
Phoenix, AZ 85034-6098

DCN: Sky Harbor 8 44181
Title: NFRAP DD (Site 3) - ADEQ
Comments
ARF 28 Jun 1996

RE: Arizona Department of Environmental Quality (ADEQ) Comments on the Decision Document for IRP Site No. 3 - Fuel Bladder Area, Received January 24, 1996, 161st Air Refueling Group, Arizona Air National Guard

Dear Major Balza:

The Arizona Department of Environmental Quality (ADEQ) Federal Facilities Unit has conducted a review of the above referenced document and concurs with the no further action conclusion. However, no further action is applicable only under the IRP program, and does not relieve the Air National Guard of any continuing compliance or remedial activities required under any other ADEQ program.

If you have any questions concerning this correspondence, please contact me at (602) 207-4218

Sincerely,

Paul H. Perry
Project Manager
Federal Facilities Unit

cc: Mike Frey, National Guard Bureau

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**ATTACHMENT 7 – JULY 22, 1996 NO FURTHER ACTION DETERMINATION
LETTER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - IRP SITE 5**

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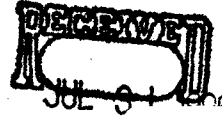


ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Russell F. Rhoades, Director

July 22, 1996
FFU97,012



E-5161

Major Pete Balza
161st Air Refueling Group (ANG)
2001 S. 32nd Street
Phoenix, AZ 85034-6098

DCN: Sky Harbor 8 14933
Title: NFRAP DD (Site 5) - ADEQ
Comments
ARF

22 Jul 1996

RE: Arizona Department of Environmental Quality (ADEQ) Comments on the Decision Document for IRP Site No. 5 - Ammunition Dump, Received January 24, 1996, 161st Air Refueling Group, Arizona Air National Guard

Dear Major Balza:

The Arizona Department of Environmental Quality (ADEQ) Federal Facilities Unit has conducted a review of the above referenced document and concurs with the no further action conclusion. However, no further action is applicable only under the IRP program, and does not relieve the Air National Guard of any continuing compliance or remedial activities required under any other ADEQ program.

If you have any questions concerning this correspondence, please contact me at (602) 207-4218

Sincerely,

Paul H. Perry
Project Manager
Federal Facilities Unit

cc: Mike Frey, National Guard Bureau

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**ATTACHMENT 8 – JULY 2, 2010 NO FURTHER ACTION DETERMINATION LETTER
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - IRP SITE 6**

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Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov



Benjamin H. Grumbles
Director

July 2, 2010
FPU #11-005

Michael Grimm
Air National Guard
ANG/CEVR
3500 Fetchet Avenue
Andrews Air Force Base, Maryland 20762

Re: Arizona Department Environmental Quality (ADEQ) comments on Environmental Restoration Program Final Closure Report for Site 6, 161st Air Refueling Wing

Dear Mr. Grimm:

ADEQ has reviewed the above referenced report dated February 2010, prepared by ERM-West, Inc. (ERM) and received May 11, 2010. Based on data indicating contaminants of concern (COC) concentrations are less than ADEQ Soil Remediation Levels (SRLs), Groundwater Protection Levels (GPLs), and Aquifer Water Quality Standards (AWQS), at this time the ADEQ concurs with Air National Guard.

The closure is based on the current understanding of site conditions and supporting evidence as contained in the Administrative Record file and summarized in the report. If ADEQ receives evidence in the future that either questions the accuracy of the documented nature and extent of site contamination, or questions the results of the selected remedy to protect human health and the environment, the site may be re-opened for additional investigation and if necessary, response action by the Air National Guard in coordination with ADEQ.

If you have any questions regarding this correspondence, please contact me at (602) 771-4410.

Sincerely,

Wendy Flood
ADEQ Project Manager
Federal Projects Unit

cc: Capt. Craig Alann, Arizona Air National Guard
Anthony Griego, PE, ERM-West, Inc. (electronic)
Joe Francis, City of Phoenix (electronic)
Kevin Snyder, Hydrologist, ADEQ (electronic)

Northern Regional Office
1801 W. Route 66 • Suite 117 • Flagstaff, AZ 86001
(928) 779-0313

Southern Regional Office
400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

Att. 8-3

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**ATTACHMENT 9 – JULY 8, 1996 NO FURTHER ACTION DETERMINATION
LETTER ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY - IRP SITE 7**

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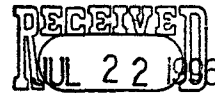


ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor

Russell F. Rhoades, Director

July 8, 1996
FFU96,164



E-5161

Major Pete Balza
161st Air Refueling Group (ANG)
2001 S. 32nd Street
Phoenix, AZ 85034-6098

DCN: Sky Harbor 8 44655
Title: NFRAP DD (Site 7) - ADEQ
Comments
ARF 08 Jul 1996

RE: Arizona Department of Environmental Quality (ADEQ) Comments on the Decision Document for IRP Site No. 7 - Hydrocarbon Analysis of Soil at IRP site No. 7, Received January 24, 1996, 161st Air Refueling Group, Arizona Air National Guard

Dear Major Balza:

The Arizona Department of Environmental Quality (ADEQ) Federal Facilities Unit has conducted a review of the above referenced document and concurs with the no further action conclusion. However, no further action is applicable only under the IRP program, and does not relieve the Air National Guard of any continuing compliance or remedial activities required under any other ADEQ program.

If you have any questions concerning this correspondence, please contact me at (602) 207-4218

Sincerely,

A handwritten signature in dark ink, appearing to read "Paul H. Perry", written over a horizontal line.

Paul H. Perry
Project Manager
Federal Facilities Unit

cc: Mike Frey, National Guard Bureau

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