
**ABBREVIATED ACCIDENT PREVENTION PLAN
INTERIM LAND USE CONTROLS IMPLEMENTATION
Former Sahuarita Air Force Range
Range Complex No. 1 Munitions Response Site,
Range Complex No. 2 Munitions Response Site, &
Range Complex No. 3 Munitions Response Site
Pima County, Arizona**

Prepared for:

Arizona Department of Environmental Quality (ADEQ)

Prepared by:

**UXO Pro, Inc.
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Laurel, MD 20707**

FINAL

February 7, 2024

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ACRONYMS AND ABBREVIATIONS

AAPP	Abbreviated Accident Prevention Plan
ADEQ	Arizona Department of Environmental Quality
AHA	Activity Hazard Analysis
CFR	Code of Federal Regulation
EM	Engineer Manual
EMS	Emergency Medical Services
EZ	Exclusion Zone
FUDS	Formerly Used Defense Site
HAZWOPER	Hazardous Waste Operations and Emergency Response
LUCs	Land Use Controls
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
SAFR	Sahuarita Air Force Range
SSHP	Site Safety and Health Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
UTV	Utility Task Vehicle
UXO	Unexploded Ordnance
UXOQP	UXO Qualified Person

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CHAPTER 1. SIGNATURE SHEET

ABBREVIATED ACCIDENT PREVENTION PLAN

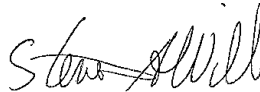
1.1 PLAN PREPARED BY

February 1, 2024

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CHAPTER 2. BACKGROUND INFORMATION

This Abbreviated Accident Prevention Plan (AAPP) has been prepared by UXO Pro, Inc. (UXO Pro) in accordance with U.S. Army Corps of Engineers (USACE) Engineering Manual (EM) 385-1-1 and EM 385-1-97 including Errata Sheets and Changes. The AAPP was developed to guide the safe performance of the installation of interim Land Use Controls (LUCs) while practicing munitions and explosives of concern (MEC) and anomaly avoidance at the Former Sahuarita Air Force Range (SAFR), Sahuarita, Pima County, AZ.

2.1 CONTRACTOR NAME

UXO Pro, Inc.
14750 Sweitzer Lane, Suite 150
Laurel, MD 20707

2.2 CONTRACT NUMBER

Contract No. CTR044162

2.3 PROJECT NAME

Interim LUCs Implementation, Former SAFR, Munitions Response Site (MRS) No. 1, 2, & 3, Sahuarita, Pima County, AZ

2.3.1 Project Site Description

The former SAFR encompasses approximately 27,000 acres and is situated south of Tucson, Arizona in Pima County (Appendix A, Figure 1-1). The site includes three Munitions Response Sites (MRSs) identified as Range Complex No. 1, Range Complex No. 2, and Range Complex No. 3, which make up approximately 10,567 acres. The remaining acreage of the former SAFR FUDS is outside of the MRSs and owned by state and local government agencies, private commercial and industrial businesses, and private residents (Appendix A, Figure 1-2). The former SAFR FUDS is bordered by the Town of Sahuarita and the Santa Cruz River to the west, the City of Tucson to the north, and the Santa Rita Mountains to the east and south.

2.3.2 Project Objectives

The major project objective tasks for UXO Pro are to perform MEC and anomaly avoidance while installing interim LUCs in the form of warning signs and kiosks. Also, UXO Pro will provide unexploded ordnance (UXO) Team Leader and UXO/anomaly avoidance support for Arizona Department of Environmental Quality (ADEQ) personnel during visits to areas of interest within the MRS boundaries.

2.3.3 Site Background

2.3.3.1 See this section of the project work plan provided in conjunction with this submittal.

2.3.3.2 Site History

2.3.3.2.1 See this section of the project work plan provided in conjunction with this submittal.

2.3.3.3 Conceptual Site Model

2.3.3.3.1 See this section of the project Work Plan provided in conjunction with this submittal.

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2.4 SITE ACTIVITIES

The major phases of work for this project are to install warning signs and kiosks to inform site users of the potential hazards associated with MEC and procedures to avoid and report items which may be associated with military munitions. During all fieldwork phases, workers will be escorted by a UXO Qualified Person (UXOQP) and will follow anomaly avoidance procedures outlined in the UXO Pro Standard Operating Procedure (SOP) 1 – Anomaly Avoidance. The UXOQP will also be the UXO Team Leader and will supervise the field operations and will be qualified as a UXO Safety Officer to allow for the implementation of this AAPP.

2.5 ACTIVITIES REQUIRING ACTIVITY HAZARD ANALYSIS

The following work activities on this project require an Activity Hazard Analysis (AHA). The AHA forms are in Appendix B of this AAPP.

- UXO/Anomaly Avoidance and Escort

2.6 IDENTIFIED HAZARDS

Below is a partial list of potential munitions hazards and suspected environmental hazards at the SAFR project site based on hazards previously reported during previous investigations. A comprehensive list of munition types can be referenced in the work plan or the Preliminary Final V4 Remedial Investigation/Feasibility Study (USACE, 2020).

Table 1: Potential Hazards List (partial list)

Potential Chemical and Munitions Hazards (Reported or suspected hazards within the MRS)	
MEC (UXO & Discarded Military Munitions - surface and subsurface)	Explosives
Artillery (e.g., 20 mm incendiary projectiles)	Trinitrotolulene (TNT)
Mortars (e.g., 4.2-inch White Phosphorous)	Dinitrotoluene (DNT)
Bombs (e.g., 100 lbs. practice bombs with spotting charges, fragmentation indicates possible High Explosive)	Trinitrobenzene (TNB)
Fuzes and igniters	Dinitrobenzene (DNB)
Incendiary fillers (e.g., white & red phosphorus)	Tetranitroanilinemethyl (tetryl)
Small arms ammunition (.50 caliber)	Hexahydrotrinitrotriazine (RDX)
Environmental Hazards	
Venomous snakes, spider, and insect bites	Slips, trips, and falls due to uneven terrain
Heat or cold related injuries	Insect and tick bites and related diseases
Inclement weather	Wild animal bites and scratches
Sharp branches, thorns, and vegetation	Pathogens

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CHAPTER 3. STATEMENT OF SAFETY AND HEALTH POLICY

In recognition of the responsibilities of UXO Pro and the need for management to establish a policy regarding the prevention of on-the-job injuries, this AAPP has been developed. Through application of these safety policies and procedures, it is UXO Pro's primary goal in the prevention of accidents and injuries to UXO Pro employees resulting from occupational assigned tasks.

Each employee must take a serious interest in the prevention of injuries. In administering the program, management fully intends to provide the leadership and direction to which supervisory personnel and employees will respond. It is UXO Pro's earnest request that all concerned devote their serious attention toward making this Safety and Health Program an integral part of the day-to-day business operations. No job is so important, and no service is so urgent, that we cannot take the time to perform our work safely.

All site operations will be performed in accordance with applicable federal, state, and local regulations and procedures, Occupational Safety and Health Administration (OSHA) requirements and this AAPP. All UXO Pro employees, subcontractors and site visitors shall comply with the requirements of this plan.

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CHAPTER 4. RESPONSIBILITIES AND LINES OF AUTHORITY

UXO Pro is ultimately responsible for the implementation of the Safety and Health Program on this project site, including all UXO Pro employees, subcontractor employees, and all others on the worksite. All personnel are responsible for continuous adherence to this AAPP and safety and health procedures during the performance of their work, and these safety and health requirements will be strictly enforced. UXO Pro personnel will act as an advisor to ADEQ concerning all MEC/UXO concerns and when disagreements or issues arise that are not covered in the approved plans, the UXO Pro personnel will stop work and immediately elevate the concern to project and program managers for quick resolution.

4.1 IDENTIFICATION AND ACCOUNTABILITY OF PERSONNEL RESPONSIBLE FOR SAFETY

No person may work in a manner that conflicts with the intent of, or the inherent safety and environmental precautions expressed in, these procedures. All on-site personnel will be trained in accordance with this document. All personnel will have stop work authority if they identify a potential hazard or procedure that may have the potential to cause an injury. Appendix C provides the resumés for the following UXO Pro personnel.

4.1.1 UXO Pro Project Manager– Steve Willis

Responsibilities include:

- Ensures conformance with UXO Pro corporate and other regulatory policies and procedures
- Coordinates project with the ADEQ Project Manager
- Ensures the project has the necessary resources to operate safely
- Ensures that the project personnel satisfy UXO Pro and regulatory safety and health requirements.
- Sets the tone for safety on the job site
- Ensures personnel have the equipment, training, and resources to perform the job safely
- Ensures that the project personnel implement the project AAPP
- Ensures that the project personnel have the appropriate regard for safe job performance.

4.1.2 UXO Pro UXO Team Leader – Keith Rivera

Responsibilities include:

- Coordinates with UXO Pro Project Manager
- Assists the UXO Pro Project Manager in the execution of all aspects of project work
- Provides field safety oversight and implements the safety plans
- Provides safety briefings and UXO/anomaly avoidance and UXO escort procedures

4.1.3 UXO Pro Safety and Quality Manager– Keith Rivera

Responsibilities include:

- Oversees the development, maintenance, and implementation of the AAPP/Site Safety and Health Plan (SSHP), as required
- Performs Safety Program audits as required
- Provides consultation to UXO Pro and ADEQ Project Managers and personnel
- Makes changes to the AAPP/SSHP if warranted by changed site conditions

- Administers and enforces the General Health and Safety Program
- Determines the level of personnel protection required
- Investigates significant near misses, accidents and illnesses and implements corrective action plans
- Establishes employee exposure monitoring notification programs
- Develops site specific employee/community emergency response plans based on expected hazards
- Stops any operation that threatens the health or safety of the team or surrounding population
- Confirms each UXO Pro team member's suitability for work based on physician's recommendation
- Upgrades or downgrades levels of protection based on site observations or monitoring results
- Provides technical, analytical, and report writing support to ensure the technical quality of deliverables to the customer.

4.2 LINES OF AUTHORITY

Figure 4-1 lists the project personnel, their involvement in the project and the organization these individuals represent. Table 2 provides the contact information for the project team.

Figure 4-1: Project Management Organization Chart

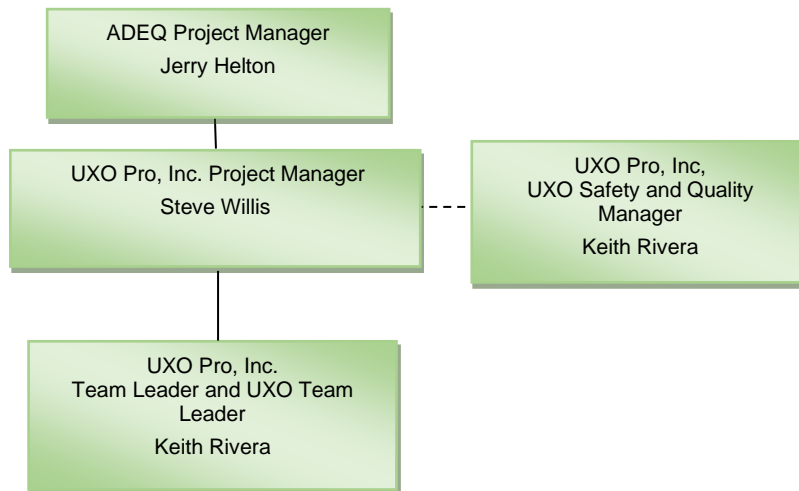


Table 2: Project Contacts

Name	Organization/Title	Cell number	E-mail
Thomas Bourque	UXO Pro, President, and Program Manager	(941) 224-7170	tom@uxopro.com
Keith Rivera	UXO Pro, UXO Team Leader/Escort	(435) 840-3569	keith@uxopro.com
Keith Rivera	UXO Pro, Project Safety & Quality Manager	(435) 840-3569	keith@uxopro.com
Steve Willis	UXO Pro, Project Manager	(480) 316-3373	steve@uxopro.com
Jerry Helton	ADEQ, Project Manager	(520) 209-4265	helton.jerry@azdeq.gov
Colby McCormick	Arizona Department of Administration, Loss Prevention Consultant	(480) 381-5781	Colby.mccormick@azdoa.gov
Steve Rusiecki	Arizona State Land Department	(602) 542-2695	srusiecki@azland.gov
Barbara Boschert	ADEQ, Public Involvement Coordinator	(602) 771-8007	Boschert.barbara@azdeq.gov
Justyn Beach	ADEQ, Project Manager	(602) 771-0264	Beach.justyn@azdeq.gov

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CHAPTER 5. TRAINING

Prior to commencement of site activities, the UXO Team Leader will ensure that all UXO Pro employees engaged in hazardous waste operations are informed of the nature and degree of exposure to chemical and physical hazards that are likely to result from participation in site operations. UXO Pro will accomplish this by ensuring that all employees or subcontractors entering the site have received the appropriate OSHA and site-specific training prior to participation in site activities. OSHA-required training (i.e., Hazardous Waste Operations and Emergency Response [HAZWOPER]) will be conducted prior to site mobilization. Site-specific training will be held at the time of site mobilization and will be reinforced during the daily safety briefings, which all site workers will be required to attend.

5.1 NEW HIRE SAFETY AND OCCUPATIONAL HEALTH ORIENTATION TRAINING

The UXO Team Leader will conduct necessary on-the-job training for all assigned personnel at the time of mobilization. This training will include classroom type instruction covering the topics specified for site-specific training, and on-site participation in the following:

- Details of the AAPP/SSHP
- Employee rights and responsibilities
- Sequence of work events
- Identification of safety issues for the site
- Identify safety staff and lines of authority
- Safe work practices
- Proper lifting techniques
- Recognition of potential MEC
- Nature and extent of anticipated chemical, physical, and biological hazards
- Measures and procedures for controlling site hazards
- Emergency Response and Contingency Plan
- Emergency procedures for clean-up of chemical spills
- Location of medical services
- Site communication
- Evacuation routes
- Rules and regulations for vehicle use
- Safe use of field equipment
- Handling, storage, and transportation of hazardous materials
- Use, care, and limitations of personal protective equipment (PPE)
- Hazard communication per OSHA 29 Code of Federal Regulations (CFR) 1910.1200.

5.2 GENERAL TRAINING

All UXO Pro employees who participate in hazardous waste site activities receive 40 hours of OSHA HAZWOPER training in accordance with 29 CFR 1910.120 and 29 CFR 1926.65. If it has been more than a year since any worker has received the 40 Hour OSHA HAZWOPER training, he or she must also have a current HAZWOPER 8-Hour Refresher Training in accordance with 29 CFR 1910.120 and 29 CFR 1926.65 prior to working on the site.

All current certifications and training tables for UXO Pro personnel will be maintained on site (paper or digitally) for the duration of the project. Individuals without proper training records will not be permitted to work on site.

5.3 SUPERVISORY TRAINING

On-site UXO Pro managers and supervisors, who are responsible for directing others, will receive the same training as the general site workers for whom they are responsible. He/she will also receive an additional 8 hours of OSHA-required HAZWOPER supervisory training in accordance with 29 CFR 1910.120 and 29 CFR 1926.65 to enhance their ability to provide guidance and make informed decisions.

The UXO Team Leader, with specific responsibilities for safety and health guidance on site, will receive the training provided to general site workers and their supervisors. He also will receive a the 30-hour OSHA Construction Safety class in accordance with Department of the Army EM 385-1-1, 01.A.17, (30 November 2014).

5.4 PERIODIC SAFETY AND HEALTH TRAINING FOR SUPERVISORS AND EMPLOYEES

5.4.1 Tailgate Safety Briefing

Tailgate Safety Briefings consist of providing short training sessions in various subjects that give the site worker knowledge and confidence in performing duties in a potentially hazardous environment. The Tailgate Safety Briefing will be provided by the UXO Team Leader or designee prior to commencing work each day and will include such items as:

- Expected weather conditions
- General site hazards
- Biological hazards on site
- MEC hazards
- PPE required at each site
- Emergency evacuation procedures
- AHAs for site operations
- Heat or cold stress precautions
- Buddy system procedures
- A review of any safety violations or concerns from the previous day
- Any other significant events involving safety.

Additional briefings will be provided, as needed, concerning the use of safety equipment, emergency medical procedures, emergency assistance notification procedures, accident prevention, the work plan, and site orientation to ensure that accomplishment of the project can be conducted in a safe and effective manner. All site workers are required to attend the tailgate safety briefing daily.

5.4.2 Daily Debriefing

At the end of each workday, the operation lead or designee, if appropriate, will provide a debriefing for all employees and review the day's work to determine if changes are warranted before beginning activities the following day.

5.4.3 Periodic Site Training

On the first workday of each work week/period or more frequently if needed (such as when new employees arrive at the job site), a pertinent topic will be selected and elaborated upon by the UXO Team Leader during the Tailgate Safety Briefing. These safety meetings will help ensure the safety and health of site

personnel in the performance of regular work activities and in emergency situations. Safety meetings will be documented in the appropriate log and the Tailgate Safety Brief Form (Appendix B) will be completed. The following is a general list of what will be discussed:

- Names and titles of key personnel responsible for site safety and health, and hazards present at the site
- Components of the AAPP
- General site safety
- Hazards and symptoms of contaminant exposure (chemical) as applicable
- Routes of exposure from on-site contaminants (as applicable)
- Physical hazards (fall protection, noise, heat stress, etc.)
- Biological hazards
- Location and availability of written hazard communication program
- Site and activity PPE (including purpose, donning, doffing, and proper use)
- AHAs for site operations
- Work practices by which employees can minimize risks for hazards
- Safe use of engineering controls and equipment use
- Site control measures
- MEC suspected on site
- MEC/UXO hazards and precautions
- Reporting requirements for UXO, spills, and emergencies
- Personnel decontamination procedures (as applicable)
- Contingency plans (communications, phone numbers, emergency exits, assembly points, etc.)
- Worker Right to Know/Hazard Communication
- Emergency equipment locations and use (fire extinguishers, spill kits, First Aid kits, etc.)
- Equipment safety.

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CHAPTER 6. SAFETY AND HEALTH INSPECTIONS

General safety and health inspections are described throughout this AAPP. UXO Pro site personnel will conduct safety inspections daily, or more frequently if conditions warrant. The UXO Team Leader will be responsible for daily safety inspections of the project. In addition to extensive site experience, the UXO Team Leader has also received the OSHA 30-hour Construction Safety training.

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CHAPTER 7. ACCIDENT REPORTING

This section provides the requirements for implementing the accident reporting provisions of UXO Pro. This AAPP requirement applies to all work performed by UXO Pro for the project.

Should an accident or mishap occur on the site, regardless of the severity, it will be fully investigated by UXO Pro, and all reports and records will be documented on the UXO Pro Accident Report Form (Appendix B). Copies will be maintained on site for the duration of site activities. A permanent copy will be maintained in UXO Pro's Laurel, Maryland office. Accidents/incidents will be reported in accordance with EM 385-1-1. All accident/incident reports will be reviewed by the Director of Safety and Quality and the Corporate Health and Safety Manager to ensure all root causes of the accident/incident have been adequately addressed in order to prevent future recurrences on this or any other project sites.

The UXO Pro Project Manager will be notified immediately by telephone of any accidents and will follow up with UXO Pro's Accident Report Form. UXO Pro's Project Manager will notify the ADEQ Project Manager immediately or designated representative for review within one working day after the event. UXO Pro will thoroughly investigate all accidents.

Any accident involving a fatality, an in-patient hospitalization, an amputation, or loss of an eye will be reported by the UXO Pro Project Manager telephonically to the nearest OSHA Area office and ADEQ within 8 hours for a fatality and as soon as possible but not more than 24 hours afterwards for the other injury categories. If all information is not known at that time, an initial report will be made, and a follow-up report will be submitted after all the facts are documented.

Person(s) who become ill or injured during work activities must immediately inform the UXO Team Leader, regardless of the severity of the illness or injury. If the medical emergency is severe enough, the UXO Team Leader will order a cessation of work and will call 911 to initiate the Emergency Medical Services (EMS). All personnel at the work site will use the buddy system, staying within sight of their partner. If a partner becomes incapacitated or severely ill, EMS will be notified. If a cessation of work is ordered, all personnel should:

- Assist the UXO Team Leader, if required, in administering First Aid
- Assist in transporting the injured victim
- Assist emergency response personnel when requested.

All workers receiving medical treatment, other than First Aid, by a medical professional will obtain a medical release on the date of treatment stating one of the following: (1) the employee is not fit for duty; (2) the employee is fit for restricted duty; or (3) the employee is fit for duty. A copy of the release will be attached to the accident report and submitted to the ADEQ Project Manager.

7.1 EXPOSURE DATA

All work-related incidents occurring to UXO Pro employees should be reported for statistical purposes. All recordable incidents count against UXO Pro's recordable incident experience when they occur, to either an employee or a subcontractor working under the direct supervision of UXO Pro Project Manager or UXO Team Leader. Personnel man-hours will be defined as hours worked by all persons assigned to the project including subcontractor employees under direct supervision of UXO Pro.

7.2 ACCIDENT INVESTIGATIONS, REPORTS, AND LOGS

Investigation and documentation of emergency responses will be initiated by the UXO Team Leader. This is important in all cases, but especially so when the incident has resulted in personal injury, property damage, or environmental impact. The documentation will be a written report and will include the following:

- Accurate, concise, and objectively recorded information

- Authentic Information: Each person making an entry must sign and date that entry. Nothing is to be removed or erased. If details are changed or revised, the person making the change should strike out the old material with a single line and initial and date the change.
- Titles and names of personnel involved
- Actions taken, decisions made, orders given, to whom, by whom, when, what, where, and how, as appropriate
- Summary of data available
- Possible exposure of personnel
- Copies of the Employer's Report of Occupational Injury or Illness (OSHA 300) will be completed and forwarded to the UXO Pro Project Manager.

All accidents will be investigated, and immediate steps will be taken to prevent recurrence. ADEQ Project Manager will be notified of any accidents occurring on this project site. Should an accident occur on the site, all reports and records will be documented. Copies will be maintained on site for the duration of site activities. A permanent copy will be maintained in the UXO Pro Corporate Office.

7.3 IMMEDIATE NOTIFICATION OF MAJOR ACCIDENTS

An accident that has, or appears to have, any of the following consequences will be immediately reported to the ADEQ Project Manager in person, telephonically, or by email:

- A fatal injury or illness
- Permanent totally disabling injury or illness
- Permanent partial disabling injury or illness
- One (1) or more persons hospitalized as inpatients as a result of a single occurrence
- \$500,000 or more in accidental property damage
- Three (3) or more individuals become ill or have a medical condition which is suspected to be related to a site condition, or a hazardous or toxic agent on the site

Except for rescue and emergency measures, the accident scene will not be disturbed until it has been released by the investigating official.

All recordable mishaps will be reported to the ADEQ Project Manager within 24 hours after notification. In addition, the following will be reported within 24 hours:

- Property damage exceeding \$5,000
- Days away injuries
- Days away illnesses
- Restricted/transfer injuries.

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CHAPTER 8. EMERGENCY PLANNING

The following subsections describe the plans, programs, and procedures that will be used during site operations. The UXO Team Leader will perform pre-emergency planning before starting field activities and during the mobilization and site-specific training phase of the project and will coordinate emergency response with police/fire/rescue personnel and the nearest hospital.

8.1 COMMUNICATIONS

Emergency resources are listed in **Table 3**. These emergency contact numbers must be posted with each telephone, and in each site vehicle. Directions to the Northwest Medical Center are provided in Appendix A, Figure 1-3.

Table 3: Emergency Contact Numbers

Contact	Phone Number
Fire	520-297-3600 or 911
Police	520-344-7000 or 911
Hospital: Northwest Medical Center	(520) 416-7100
Ambulance	911
Poison Control Hotline	(800) 222-1222
U.S. Environmental Protection Agency (USEPA) National Response Center	(800) 424-8802
CHEMTREC	(800) 424-9300
Federal OSHA Emergency Hotline	(800) 321-OSHA (6742)
UXO Pro Project Manager: Steve Willis	(480) 316-3373
UXO Pro UXO Team Leader: Keith Rivera	(435) 840-3569
UXO Pro Project Safety and Quality Manager: Keith Rivera	(435) 840-3569
ADEQ Project Manager: Jerry Helton	(520) 628-6733 (Office) (520) 591-6657 (Cell)

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CHAPTER 9. SITE SANITATION AND HOUSEKEEPING PLAN

An adequate supply of potable (drinkable) water will be provided on site at all times. Adequate sanitation facilities will be provided at each work site to ensure proper personal hygiene. Site sanitation will be established and maintained in accordance with OSHA 29 CFR 1910.120(n), as follows:

- Containers used for potable water will be capable of being tightly closed, equipped with a tap, and maintained in a clean and sanitary condition.
- A container used for distribution of drinking water will be clearly labeled as to its contents and not used for any other purpose.
- Water will not be dipped from the container and use of a common cup will not be allowed.
- Where single service cups are provided, separate sanitary containers will be provided for the storage of the unused cups and for the disposal of the used cups.
- Water coolers of drinking water will be placed in the support zone.
- Outlets and storage containers for non-potable water, such as water for firefighting or decontamination will be clearly labeled to indicate that the water is not suitable for drinking with the following: "CAUTION – WATER UNSAFE FOR DRINKING, WASHING, OR COOKING." There will at no time be a cross connection or open potential between a system furnishing potable water and a system furnishing non-potable water.
- Washing facilities will consist of potable running water, soap, and drying towels. These will be used by all personnel exiting the EZ prior to eating, drinking, tobacco use or other hand to face activities. A portable eyewash will be available with site First Aid kits.
- Pathogens (coronavirus):
 - Follow all national, state, and local public health orders and guidance.
 - Utilize frequent handwashing with soap and/or hand sanitizer with at least 70% alcohol.
 - Clean and sanitize surfaces frequently, including inside vehicles, offices, and portable toilets.
 - Reduce or eliminate physical work and/or travel by air or mass transit during times of outbreaks or increased risk.
 - Provide pathogen PPE as necessary or requested, such as gloves, masks, and/or goggles for essential work in close proximity with others of unknown infection status.

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CHAPTER 10. FIRST AID

A First Aid kit will be kept with the site visit team(s). Personnel who have any type of injury (including First Aid injuries) will report to the UXO Team Leader so that he can replace used supplies in the First Aid kit and can investigate to determine the root cause(s) of the accident in order to prevent recurrences. The UXO Team Leader will also be responsible for making the determination as to whether professional medical assistance will be required.

The UXO Team Leader will summon a med-evac helicopter or an ambulance, as required, and will direct emergency personnel to the victim, and provide any assistance required by the emergency personnel. Maps displaying the route to the hospital will be maintained in each site vehicle. A map showing the hospital location is provided in Appendix A.

All treatment will be recorded and any necessary forms completed for documentation of the injury or illness.

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CHAPTER 11. PERSONAL PROTECTIVE EQUIPMENT

11.1 WORK CLOTHING

When occupational exposures remain after the implementation of engineering and work practice controls, appropriate PPE will be utilized to control employee exposures. UXO Pro will provide appropriate PPE including gloves, face masks, eye protection for protection.

Employees will use the appropriate PPE unless, in unusual circumstances, the employee believes that using the PPE will prevent the administering of First Aid or would pose an increased risk. Any incident where the use of PPE is declined will be investigated and documented by the UXO Team Leader.

Single-use PPE, such as surgical gloves, will be disposed of after each use, or as soon as possible after the equipment has become damaged. Multi-use PPE, such as coveralls or utility gloves, will be cleaned and decontaminated after each use or when they become contaminated in order to maintain its effectiveness. Multi-use PPE will be removed, then disposed of, or repaired as soon as possible after becoming damaged.

When PPE is removed, it will be placed in an appropriately designated area or container for storage, washing, decontamination or disposal. PPE will be removed and disposed of or decontaminated before leaving the area.

11.1.1 Protective Masks

Protective Masks in combination with eye protection devices, such as safety glasses, goggles, or face shields, will be worn whenever situations generate an eye, nose, or respiration hazard and are reasonably anticipated.

11.1.2 Hearing Protection

UXO Pro will make hearing protection available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater. Hearing protection, if required, will comply with ANSI S3.19-1997 requirements at a minimum, and will be replaced, as necessary. Hearing protection will be required for all personnel working in and around any operations likely to produce high noise levels. Where required, sound pressure level measurements will be made by the UXO Team Leader or other qualified personnel using calibrated instruments. Personnel required to use a sound level meter will be trained in its use and calibration requirements prior to use on site.

11.1.3 High Visibility Apparel

High visibility apparel will be worn whenever visibility is diminished or whenever workers are in proximity to moving hazards or whenever moving hazards can be reasonably anticipated.

11.1.4 Protective Leg Chaps

Protective Leg Chaps are not anticipated to be used for the site visits; however, protective gaiters or chaps will be encouraged to protect against venomous snakes if they are suspected to be present.

11.1.5 Gloves

Gloves shall be worn downrange always to protect hands from accidental slips trips or falls. Gloves will be worn when it can be reasonably anticipated that the employee may have hand contact with potentially

infectious materials. Disposable (single use) gloves will not be washed for reuse and will be disposed of after each use or if their ability to function as a barrier is compromised. Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they exhibit signs of deterioration or when their ability to function as a barrier is compromise

11.1.6 Safety Glasses

Safety glasses with a minimum ANSI Z87.1 rating, will be worn during field operations to protect the eyes from flying debris or accidental impact with vegetation. These glasses will help in mitigating dust in the eye. If goggles are worn, they will have the appropriate safety rating as well.

11.1.7 Hard Hats

Hard hats shall be worn while working around heavy equipment and when the need arises to protect against overhead and falling object hazards. No heavy equipment or activities around them are expected to occur during this project.

This space is intentionally left blank

CHAPTER 12. MACHINE GUARDS

The work on this project should not require the use of equipment that would require Machine Guards, so no machine guard plan is incorporated.

This space is intentionally left blank

CHAPTER 13. HAZARDOUS SUBSTANCES

The work on this project will not require the use of hazardous substances, so no hazardous substance plan is incorporated.

This space is intentionally left blank

CHAPTER 14. TRAFFIC CONTROL

The work on this project will not involve exclusion zones or any traffic control, so no traffic control plan is incorporated.

This space is intentionally left blank

CHAPTER 15. HAZARDOUS ENERGY CONTROL PROGRAM AND PROCEDURES

The work on this project should not require the use of equipment that would require a Hazardous Energy Control Program.

This space is intentionally left blank

CHAPTER 16. EQUIPMENT OPERATION

The work on this project will involve the use of Utility Task Vehicles (UTVs). Operators and passengers of the UTVs will wear over-the-ankle boots, long pants, and gloves. All operators and passengers will wear properly fastened seat belts. The UTVs will not carry more passengers than the UTV is designed for, and all passengers must keep their limbs inside the vehicle at all times. Prior to operating the UTV, the Operator will conduct a walkaround inspection of the vehicle to ensure the vehicle is in proper operating condition. The operator shall exercise caution while operating the vehicle on slopes or dangerous surfaces and when crossing any public road.

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CHAPTER 17. REFERENCES

17.1 FEDERAL REGULATIONS

- Comprehensive Environmental Response, Compensation & Liability Act 42 (42 USC §9601, et seq.).
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Part 300).
- U.S. Environmental Protection Agency (USEPA), 2001. Requirements for Quality Assurance Project Plans. USEPA QA/R-5. March.
- USEPA, 2006. Guidance on Systematic Planning Using the DQOs Process, QA/G-4. February.

17.2 UNITED STATES ARMY CORPS OF ENGINEERS PUBLICATIONS

- U.S. Army Corps of Engineers (USACE) Engineering Manual (EM) 200-1-15 Military Munitions Response Actions, 2018.
- USACE EM 200-1-4 Risk Assessment Handbook, Human Health Evaluation, 1999.
- USACE EM 200-1-12 Conceptual Site Models, 2012
- USACE EM 385-1-1. Safety and Health Requirements Manual, 2014.
- USACE EM 385-1-97 Explosives, Safety and Health Requirements Manual, 2013, Change 1 & Errata Sheets 1-6.

17.3 DEPARTMENT OF DEFENSE PUBLICATIONS

- DoD 6055.09-M, Ammunition and Explosive Safety Standards, Administrative Reissue, 2010
- DoD Manual (DoDM) 4715.20, DERP Management, 9 March 2012.
- Department of Defense Explosive Safety Board, 2015, TP 18, Minimum Qualifications for Personnel Conducting Munitions and Explosive of Concern-Related Activities, July 2015.

17.4 SITE HISTORY DOCUMENTS

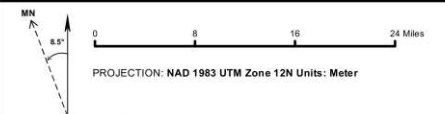
- USACE, 2020. Preliminary Draft V4 Remedial Investigation/Feasibility Study, Former SAFR, MRS No. 1, 2, & 3., Sahuarita, Pima County, AZ. August.

Appendix A: Figures

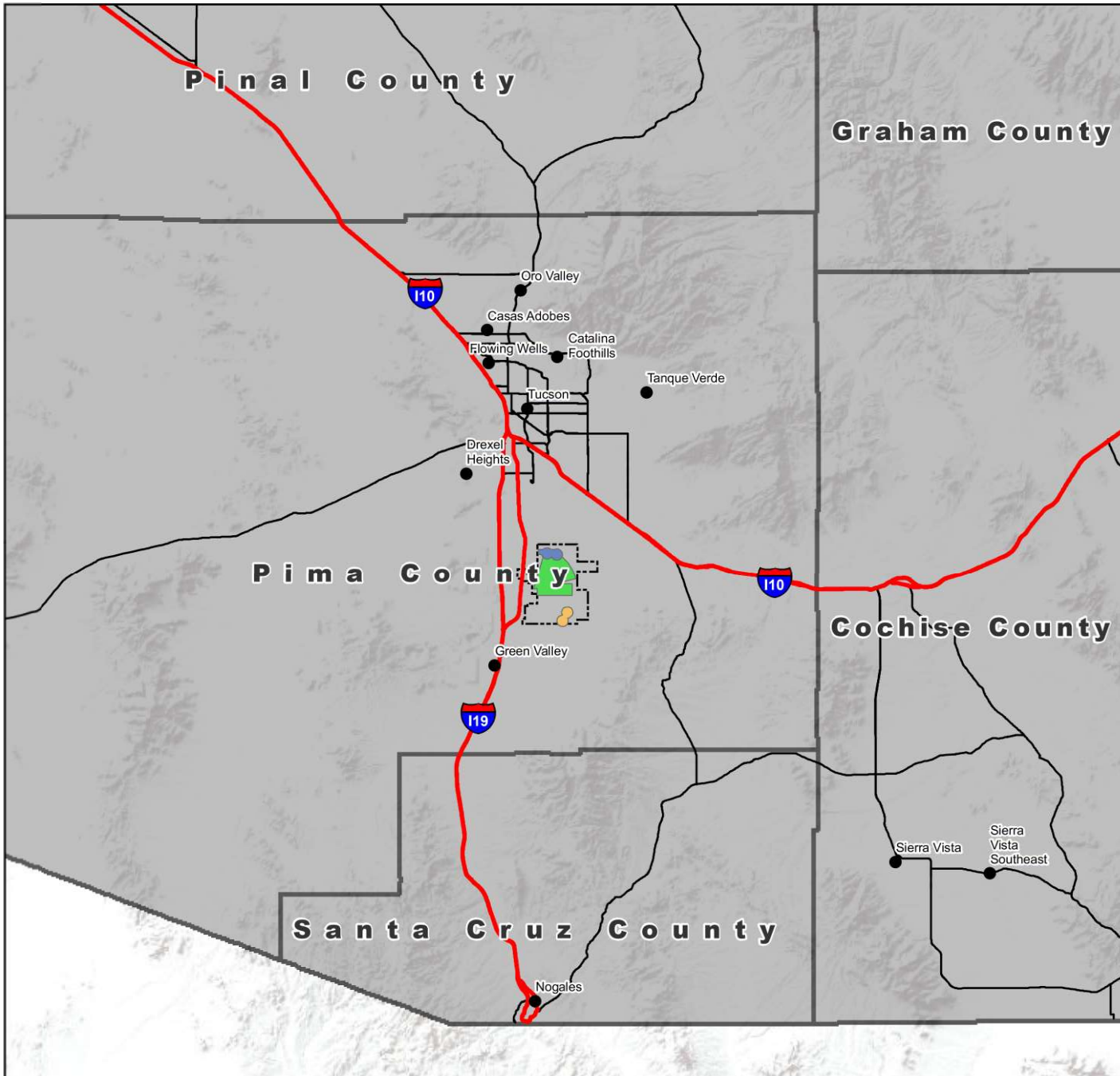
Former Sahuarita Air Force Range
Remedial Investigation / Feasibility Study
FUDS Projects: J09AZ057601,
J09AZ057602, J09AZ057603
Pima County, Arizona
Figure 1-1
Project Location

Legend

- Cities
- Interstates Highways
- Highways
- Range Complex No. 1 (1,391 Ac.)
- Range Complex No. 2 (7,929 Ac.)
- Range Complex No. 3 (1,247 Ac.)
- ▭ Sahuarita AFR



DESIGNED BY: JK	FIGURE: 1-1	VERSION: 3
DRAWN BY: JK	SCALE: 1:968,912	PROJ NO: 15033
CHECKED BY: BH	DATE: 6/15/2020	
SUBMITTED BY: JK	FILE: 1-1_Project_Location_v3	



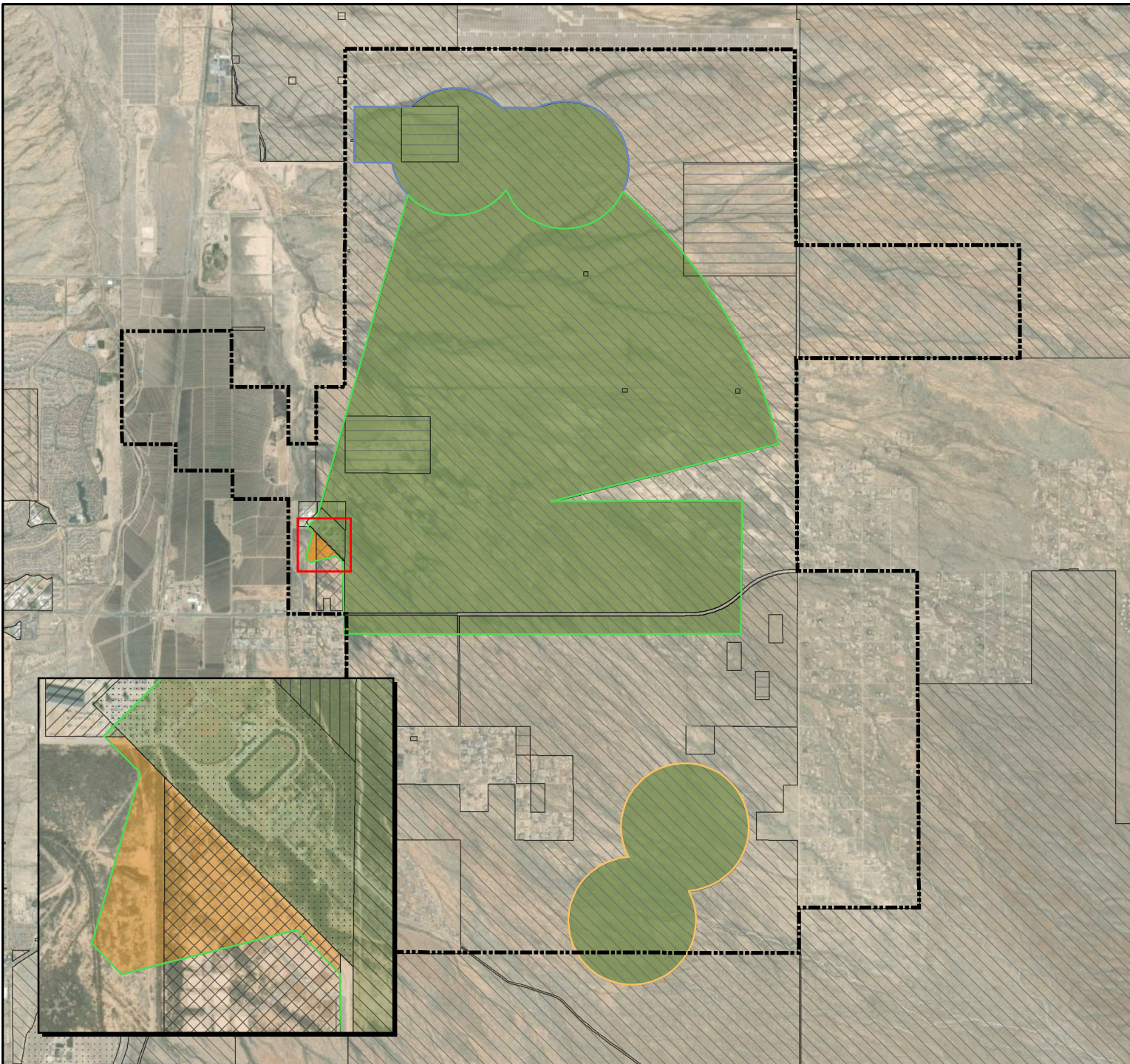
Abbreviations:
FUDS: Formerly Used Defense Site
AFR: Air Force Range
Ac: Acres
No: Number

Notes:

Sources:
MRS boundaries: USACE (2015)



Former Sahuarita Air Force Range
Pima County, Arizona
Figure 1-2
Former SAFR FUDS and Surrounding
Land Use



Legend

Sahuarita AFR Property Boundary

Munitions Response Sites

Range Complex No. 1 (1,390 Acres)

Range Complex No. 2 (7,923 Acres)

Range Complex No. 3 (1,247 Acres)

RIFS Right-of-Entry Granted

Yes

No

Land Ownership

Arizona Electric Power Coop

City of Tucson

Pima County

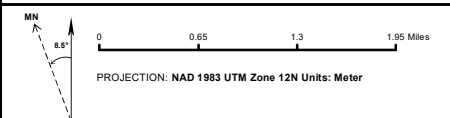
Sahuarita Acres

Sahuarita School District

State of Arizona

Other/Private

Note: Figure is from Remedial Investigation / Feasibility Study, Figure 3-1 (U.S. Army Corps of Engineers, September 2022)



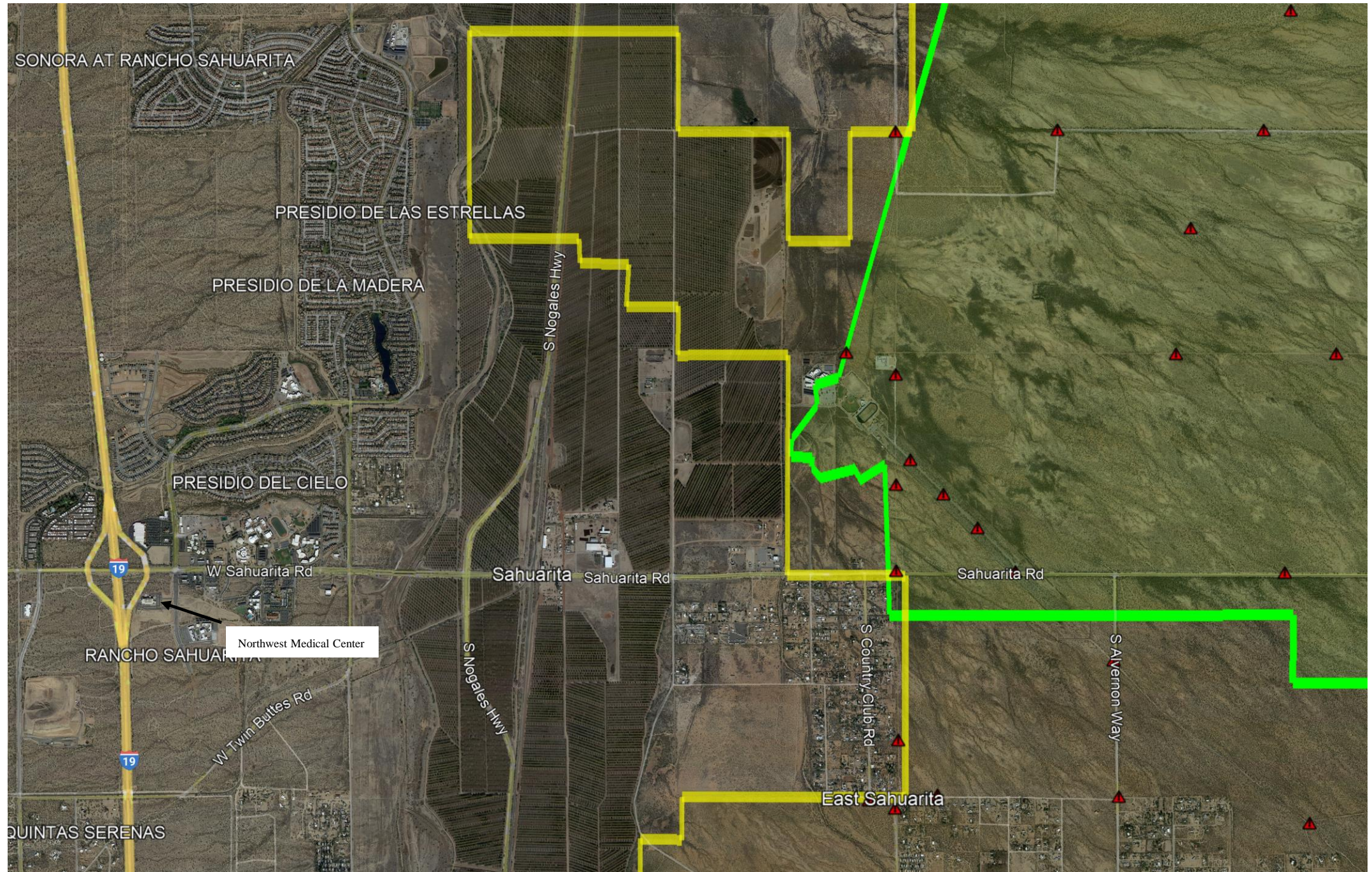
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DRAWN BY: JK	SCALE: 1:80,000
CHECKED BY: BH	DATE: 07/10/2023
SUBMITTED BY: JK	FILE: 31_RightsOfEntry_Status_v4

Abbreviations:
FUDS: Formerly Used Defense Site
AFR: Air Force Range

Notes:

Sources:
MRS boundaries: USACE (2015)

Figure 1-3 Northwest Medical Center Location



Appendix B: Forms

Activity Hazard Analysis (AHA)

Activity/Work Task: Anomaly Avoidance Site Monitoring	Overall Risk Assessment Code (RAC) (Use highest code)					L
Project Location: Former Sahuarita Air Force Range	Risk Assessment Code (RAC) Matrix					
Contractor: UXO Pro, Inc.	Severity	Probability				
Date Prepared: 1/26/2024		Frequent	Likely	Occasional	Seldom	Unlikely
Prepared by (Name/Title): Samuel 'Keith' Rivera	Catastrophic	E	E	H	H	M
Signature (Name/Title): Samuel 'Keith' Rivera Project Manager 	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L
Notes: (Field Notes, Review Comments, etc.)	Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)					
	"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely.				RAC Chart	
	"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible				E = Extremely High Risk	
	Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.				H = High Risk	
				M = Moderate Risk		
				L = Low Risk		
Job Steps	Hazards		Controls			RAC
Visual Search of Project Area	• MEC hazards		Munitions & Explosives of Concern (MEC) precautions will be taken at all times while working the project site including: • A strict no smoking/no fire policy will remain in effect • Only UXO Technician qualified personnel will examine or handle potential MEC • Anomaly avoidance will strictly be adhered to for any intrusive activity.			L
Instrument Assisted Monitoring Activity	• Heat Stress/Sunburn		• Heat stress monitoring per Site Safety Plan • Ensure adequate hydration by drinking water or electrolyte fluids • Follow a work-rest schedule per the Site Safety Plan • Establish rest areas which take advantage of shaded areas for breaks • Wear lightweight, long-sleeved shirts and long pants • Wear cap and use sunscreen			L
	• Muscle Strain		• Proper stretching prior to and during the activity and occasional breaks from repetitive activities			

Job Steps	Hazards	Controls	RAC
	<ul style="list-style-type: none"> • Biological hazards – snakes, bees, wasps, mosquitoes, spiders, centipedes, scorpions, parasites, and hazardous plants. • Uneven working surfaces – slip, trip, fall hazards. • Hazardous materials at site 	<ul style="list-style-type: none"> • Training in biological hazards avoidance per the Safety Plan. • Avoid and do not handle wildlife • Use insect repellent as necessary. • Wear long sleeves/long pants and caps with neck guards if warranted • Be observant while walking • Use sturdy work boots with ankle support and non-slip soles. • Work slopes along the least incline of slope across the slope versus up/down slope • Be observant for water collection areas contributing to slick surfaces and mud • Observe for signs of hazardous materials such as leaking containers, ground stains, odors, unusual corrosion, fluids, hazmat placards • Current HAZWOPER Training to include 40 Hour certificate and annual 8 Hour Refresher • Brief potential hazardous materials presence and known site history at the Site Safety kickoff meeting for all personnel 	<p>L</p> <p>L</p> <p>L</p>

Equipment to be Used	Training Requirements/Competent or Qualified Personnel name(s)	Inspection Requirements
<ul style="list-style-type: none"> • Appropriate geophysical equipment • Footwear with ankle support and non-slip soles (no steel toes around metal detector) • Personnel Protective Equipment (PPE) to include leather gloves, safety glasses, or goggles, safety vest/shirt and hard hat • First aid kit • Fire extinguisher • Hand held excavation equipment (Shovels/picks) • Communications equipment 	<ul style="list-style-type: none"> • UXO Escort will assure that all controls are being followed; all equipment is being utilized, and all personnel have received appropriate training • UXO personnel will meet training and experience requirements outlined in DDESB TP-18 • Site-specific training, slip/fall hazards • PPE training • Site-specific flora/fauna to include first aid • Fire extinguisher training • Site Specific training in the use of hand tools • Cell phone and hand-held radio training 	<ul style="list-style-type: none"> • Equipment inspected daily prior to use • PPE inspected daily prior to use. UXO Technicians using metal detection equipment will avoid using metal safety toe boots. • PPE inspected daily prior to use • First aid kits checked daily and inspected weekly • Fire extinguishers checked daily and inspected monthly • Equipment inspected daily prior to use • Communications equipment checked daily prior to use



TAILGATE SAFETY BRIEFING

Date:

Location:

Time:

AM PM

Team #:

1. Reason for Briefing:			
<input type="checkbox"/>	Daily Safety Briefing	<input type="checkbox"/>	New Site Procedure
<input type="checkbox"/>	Initial Safety Briefing	<input type="checkbox"/>	New Site Information
<input type="checkbox"/>	New Task Briefing	<input type="checkbox"/>	Review of Site Information
<input type="checkbox"/>	Periodic Safety Meeting	<input type="checkbox"/>	Other (Specify):
2. Personnel Attending:			
	Name	Signature	Position
3. Briefing Given By:			
	Name	Signature	Position
4. Topics: (Check All That Apply)			
<input type="checkbox"/>	Site Safety Personnel	<input type="checkbox"/>	Decontamination Procedures
<input type="checkbox"/>	Site/Work Area Description	<input type="checkbox"/>	Emergency Response/Equipment
<input type="checkbox"/>	Physical Hazards	<input type="checkbox"/>	On-Site Injuries/Illnesses
<input type="checkbox"/>	Chemical/Biological Hazards	<input type="checkbox"/>	Reporting Procedures
<input type="checkbox"/>	Heat/Cold Stress	<input type="checkbox"/>	Directions to Medical Facility
<input type="checkbox"/>	Work/Support Zones	<input type="checkbox"/>	Drug and Alcohol Policies
<input type="checkbox"/>	PPE	<input type="checkbox"/>	Medical Monitoring
<input type="checkbox"/>	Safe Work Practices	<input type="checkbox"/>	Evacuation/Egress Procedures
<input type="checkbox"/>	Air Monitoring	<input type="checkbox"/>	Communications
<input type="checkbox"/>	Task Training	<input type="checkbox"/>	Confined Spaces

UXOPro

<input type="checkbox"/>	MEC Precautions	<input type="checkbox"/>	Team Separation
<input type="checkbox"/>	Emergency Landing Zones	<input type="checkbox"/>	Other:
5. Remarks:			



Accident Report Form

Name: _____		SSN: _____	Log #: _____
SECTION 1 – GENERAL INFORMATION			
D.O.B.: _____	Sex: _____	Age: _____	OSHA Recordable Incident: Yes No
Job Title: _____			
Date of Report: _____	Date of Incident: _____	Time of Incident: _____	
Task/Operation Being Conducted: _____			
PPE Worn: _____			
SITE CONDITIONS AT TIME OF ACCIDENT / INCIDENT			
Temperature: Direction: Other: _____	Humidity: Cloud Cover: _____	Wind Speed: Precipitation: _____	
Type of Incident (Circle One):	Personal Injury Motor Vehicle	Personal Illness Property Damage	Chemical Exposure Near Miss
If chemical exposure, what material(s) was(were) involved: _____			
What was the nature of exposure (contact, inhalation, etc.): _____			
Other Individual(s) Involved: _____			
SECTION 2 – PERSONAL INJURY/ILLNESS INFORMATION			
Nature/Type of Injury/Illness (laceration, strain, etc.): _____			
Cause of Injury/Illness: _____ _____			
Body Part(s) Affected: Primary: _____ Secondary: _____			
Injury/Illness Required (Circle One): On Site/Clinic First Aid Treatment Emergency Room Treatment; Hospitalization			
Injury/Illness Resulted In (Circle one): Loss of Work Time Limitation of Duties Fatality Other (Explain): _____			
Status at Time of Report:	Returned to Work: (Date) Hospitalized: (Anticipated Stay) Convalescing: (Anticipated Length of Convalescence:) Other: _____		
On Site First Aid Treatment Given: 			

UXOPro

Off Site First Aid or Other Medical Treatment (attach documentation, including Physician statement):

SECTION 3 – MOTOR VEHICLE ACCIDENT

Type of Vehicle/Equipment	Type of Collision	Seat Belt Use
Automobile/SUV Van/Truck MHE/EMM Other:	Side Swipe Rear End Backing Head on Broadside Roll	Front Seat: Yes / No Back Seat: Yes / No

Property/Material/Items Involved

Name of Item:	Owner:	Damage Estimate: \$
---------------	--------	------------------------

Accident/Near Miss Description (Use additional paper if needed): _____

SECTION 4 – POST-ACCIDENT/INJURY/ILLNESS REVIEW

Has the Home Office been notified? Yes _____ No _____ If Yes, When? _____ By Whom? _____

Were operations conducted using approved SOPs or an APP/ SSHP?

Yes Reference: _____ No Explain: _____

SUXOS's Comments: _____

Employee Comments: _____

WITNESSES

Name	Organization	Phone Number

UXO*Pro*

Employee Signature:	Date: _____
SUXOS Signature:	Date: _____
Actions Completed by: _____	Date: _____
Corporate Review by: _____	Date: _____

Appendix C: Resumes



Steven A. Willis, R.G.
Senior Scientist

(480) 316-3373
steve@uxopro.com
Web site: www.uxopro.com

EXPERIENCE SUMMARY

Mr. Willis has 35 years' experience in geologic and hydrologic investigations, managing all aspects of field investigations for various public, private, and governmental entities. He has managed projects from initial investigation through the development and implementation of soil and groundwater remediation strategies, including multi-phase projects totaling several million dollars. Mr. Willis' Remedial Investigation/Feasibility Study RI/FS experience includes impacted soil and groundwater investigations of gasoline/diesel fuel releases at UST and bulk storage operations sites; chlorinated solvents, waste oil, metals, and residual pesticide releases. His experience includes 11 years of supporting Arizona Department of Environmental Quality (ADEQ) regulatory oversight at Formerly Used Defense Sites (FUDS), Base Realignment and Closure (BRAC), Military Munitions Response Program (MMRP), and Installation Restoration Program (IRP) sites, which were performed in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and Resource Conservation and Recovery Act (RCRA) guidance and regulations; 10 years' experience managing Arizona Water Quality Assurance Revolving Fund (WQARF) sites and public water system evaluations under contract to ADEQ; completion of Phase I, II, and III site assessments.

Education:

B.A., Cum Laude, Geology/Chemistry, Bridgewater State College, Bridgewater, Massachusetts.

Registrations/Certifications/Training

Arizona Registered Geologist #30448 (1995)
40 hour HAZWOPER 02/1995
8 Hour Annual OSHA HAZWOPER Refresher Training

Experience and Background

Senior Scientist, UXOPro, Inc.

Consultant to the ADEQ Federal Projects Unit, providing technical support to ADEQ and oversight of federal contractors working at FUDS, MMRP, BRAC, and IRP sites; responsible for

reviewing federal contractor and US Army Corps of Engineer (USACE) documents and providing recommendations to ADEQ on Sampling and Analysis Plans, UFP-QAPPs, and other CERCLA-required documents, including RI and FS Reports, Remedial Design Plans, Action Memoranda, Engineering Evaluation/Cost Estimates, Time Critical and Non-Time Critical Removal Actions, Proposed Plans, Decision Documents, and CERCLA Record of Decision; provide Quality Assurance review laboratory analytical and Data Validation reports in accordance with DoD QSM and US EPA data validation guidance; make recommendations to ADEQ regarding appropriateness of investigations and remedial actions; represent ADEQ's interests at public and stakeholder meetings; prepare meeting minutes; attend Technical Project Planning meetings to assist with development of project Data Quality Objectives, Scope of Work, and remedy selection, including Institutional Controls, Removal Actions, and Long-Term Monitoring. Mr. Willis also prepared sampling plans and provided field support to collect soil and groundwater confirmation samples as a Quality Assurance check on contractor sampling techniques and analytical laboratory performance. Mr. Willis is also responsible for project management tasks, such as developing project Scope of Work and cost estimates, maintaining compliance with project budgets, managing subcontractors, and coordinating UXO technical and field support to ADEQ for munitions-related projects. Specific projects include:

• **Former Williams Air Force Base (Air Force)**

- Multiple soil and groundwater investigations and remediation activities at this BRAC site; petroleum fuels, chlorinated solvents, and pesticides; remedial activities include soil vapor extraction, Steam Enhanced Extraction, Enhanced Bioremediation, and Chemical Oxidation. Provides technical review and comments on multiple Federal contractor reports; provides technical support to ADEQ at monthly meetings with EPA and USAF; supported ADEQ at Remediation Advisory Board (RAB) meetings; provides field oversight of Federal contractors during field investigation and sampling activities; manages subcontractors to provide additional task-specific technical support to ADEQ.
- PFAS soil and groundwater Preliminary Assessment and Site Inspection under the USAF's nationwide Environmental Restoration Program for emerging contaminants.
- CERCLA Site Investigation at a former munitions and chemical agent burial site.

• **Ft. Huachuca (Army)**

- FUDS; provided technical review and comment on RI/FS work plans and reports, Proposed Plan, and Decision Documents for a former training range and artillery target area located on environmentally sensitive Bureau of Land Management properties; conducted 5-Year Review site inspection. Provides technical support to ADEQ at Systematic Program Planning (SPP) meetings with Army and USACE.
- MMRP; provided technical review and comment on RI/FS work plans and reports, Proposed Plan, and Decision Documents at a former artillery range and range fan affecting adjacent partially developed private land outside of the installation

boundaries (EAA Range 2).

- MMRP; provided technical review and comment on TCRA and RI/FS work plans and reports, Proposed Plan, and Decision Document for a former minefield training area. Provides technical support to ADEQ at Systematic Program Planning (SPP) meetings with Army and USACE.
- IRP; provided technical review and comment on CERCLA RI/FS plans and reports, Proposed Plan, and Decision Document for impacted groundwater at a former municipal waste landfill.
- IRP; provided technical review and comment on CERCLA RI/FS plans and reports for a former asphalt mixing plant.
- IRP; provided technical review and comment on UST investigation plans and reports under Arizona UST statutes.

• ***Yuma Proving Ground (Army)***

- MMRP; Provided technical review and comments on RI/FS plans and reports, and Time Critical/Non-Time Critical Removal Actions for a former mortar impact area. Provides technical support to ADEQ at Systematic Program Planning (SPP) meetings with Army and USACE.
- MMRP; Historical Records Review, Site Inspection, and RI/FS plans and reports for a former military training encampment (Camp Laguna)
- IRP; Provided technical review and comments on CERCLA RI/FS plans and reports for a former chemical weapons testing area and associated disposal pits.
- IRP; Provided technical review and comments on CERCLA RI/FS plans and reports, Proposed Plan, Decision Document, and bioventing Remedial Design for a former above ground fuel testing site; conducts field oversight of Army and USACE contractors during soil and groundwater investigations.
- IRP; Provided technical review and comments on UST investigation plans and reports; supports ADEQ Federal Projects and UST Units at meetings with Army; conducts field oversight of Army and USACE contractors during soil and groundwater investigations.

• ***Yuma Marine Corps Air Station (Navy)***

- MMRP; Provided technical review and comments on RI/FS plans and reports, Proposed Plans, and Record of Decision at several former small arms and moving base ranges; supports ADEQ at meetings with EPA and Dept. of the Navy.
- IRP; Provided technical review and comments on RI/FS plans and reports and Remedial Design for a groundwater contaminant plume containing chlorinated hydrocarbons and 1,4-dioxane; provided oversight of Navy contractors during groundwater investigations and monitoring events.
- IRP; Provided technical review and comments on PFAS RI/FS plans and reports; supports ADEQ at meetings with EPA and Dept. of the Navy.

- ***Camp Navajo (Army/National Guard)***

- RCRA: Provided technical support to ADEQ Hazardous Waste Unit for CERCLA-RCRA transition, RCRA Post-Closure permitting, and Long-Term Monitoring for a former Open Burn/Open Detonation area overlying a deep bedrock aquifer.
- IRP; Provided technical review and comments on groundwater Long-Term Monitoring reports at a former TNT washout facility.

- ***Kofa National Wildlife Refuge (USACE)***

- FUDS RI work plan review and provide input at TPP meetings to assist in development of DQOs and Scope of Work.

- ***Davis-Monthan Air Force Base.***

- IRP; Provided technical review and comments on sampling reports for a soil investigation and remediation at a former small arms range.

Office Manager, Locus Technologies Phoenix Office

Responsible for business development, marketing, proposal writing, financial projections, establishment of yearly financial goals, management of Locus and contract personnel, and technical project management. Successful marketing efforts include the Arizona Superfund Response Action Contract (2004, 2009), State of Arizona Safe Drinking Water – Water System Assessments contract (2009), Santa Clara Valley Water District (2010), as well as numerous individual projects ranging from Phase I environmental site assessments to multi-million dollar remedial investigations.

Project Manager, Arizona Department of Environmental Quality (ADEQ) West Central Phoenix WQARF (State Superfund) Site, Phoenix, Arizona

Project Manager and principal geologist for an early response action evaluation and remedial investigation at a mixed-use industrial site with PCE, TCE, and chromium contaminated soil and groundwater. Responsible for all project financial management, scheduling, development of investigation rationale and methodologies, permitting, subcontractor oversight, design and supervision of contaminant source area investigation, borehole geophysical logging, aquifer testing, groundwater monitoring, completion of work plans and technical reports, including draft remedial investigation report; assisted ADEQ in development of private property access agreements and coordination with private property owners and City of Phoenix Public Works. Conducted responsible party investigation, completed conceptual design and conducted oversight and evaluation of a soil vapor extraction pilot test.

Project Manager, ADEQ Tyson Wash WQARF Site, Quartzsite, Arizona

Project Manager for an RI/FS project with PCE and TCE contaminated groundwater. Responsible for all project financial management, subcontractor oversight, permitting, and development of investigation rationale and methodologies; Activities included source area delineation, aquifer pumping tests, vertical contaminant profile in groundwater, surface

geophysics, monitoring well completions, groundwater sampling, and oversight of risk assessment and groundwater fate and transport modeling using MODFLOW. Assisted ADEQ with community relations; interacted with Citizens' Advisory Board, and completed presentations for public meetings. Developed initial remedial strategy, and completed the design for a pilot groundwater pump-and-treat/re-injection remediation system and laboratory microcosm study in preparation for enhanced bioremediation. Supervised installation of the pilot remedial system on a private third party property and conducted remediation system monitoring and evaluation.

Project Manager, ADEQ UST State Contract, Arizona

Project Manager responsible for development of site assessment and remediation strategies at orphaned sites under contract to ADEQ. Responsibilities included direct management of technical personnel and subcontractors, design and implementation of investigation methodologies and soil and groundwater remediation strategies for gasoline and diesel fuel impacted sites throughout Arizona. Completed permitting for and supervised construction of SVE, air sparging, and dual-phase extraction remediation systems and performed oversight of system operation and maintenance and completed quarterly reports for Maricopa County Air Quality Division to assure compliance with permitting requirements.

Project Geologist, RCRA Corrective Action Site, Oil Refinery, El Paso, Texas

Support and evaluations for a 150-well phase-separated hydrocarbon recovery program and vapor extraction system at the refinery site. Responsibilities included preparation of health and safety incident statistics for the environmental program at the refinery and support for waste stream management and permitting.

Project Geologist, Santa Clara Valley Water District, California

Project geologist for a study to evaluate the potential impacts to groundwater caused by expanded use of recycled water for irrigation. Developed a multi-faceted approach to obtain defensible conclusions for the project. The project included literature review, mathematical modeling, bench scale testing, and a full-scale pilot study. The scope of the project included several emerging contaminants, and incorporated field technologies such as depth-discrete soil moisture lysimeters to obtain necessary data.

Group Leader/Project Manager, Confidential Retail Client

Managed more than 200 investigations at UST sites having impacted soil and/or groundwater for one of Arizona's largest gasoline retailers; supervised a group of over 20 professionals and technical staff; responsible for all project-related financial management and allocation of labor and coordination with various national company offices to acquire project personnel to ensure timely and under-budget completion of projects. Projects ranged from supervision of UST removal and associated soil sampling to complete site characterization, development and

implementation of risk assessments and remediation programs; design of remedial pilot tests; completion of corrective action plans; implementation and field oversight of remediation system construction, including soil vapor extraction, air sparging, and groundwater pump and treat systems; negotiations with the ADEQ on compliance issues and presentation of information at public meetings.

Project Manager, Confidential Retail Client, Yuma, Arizona

Project manager for a site assessment/remediation at a retail UST facility with gasoline and diesel impacted groundwater; development of rationale to complete site characterization; completion of a corrective action plan and negotiations with the ADEQ to obtain approval of a proprietary closed-loop bioremediation technology; supervised the installation of 42 remediation wells and construction of the closed-loop remedial system; oversight of remedial system operation.

Project Geologist, Petroleum Pipeline Release, Arizona.

Managed the investigation of impacted soil and groundwater due to a large petroleum pipeline release, part of which was on tribal land. Responsible for development of investigation rationale and methodologies, coordination with state and tribal regulatory agencies, subcontractor oversight, and reporting; Assisted the project engineer in the design and implementation of an innovative closed loop bioreactor remedial system to remove phase separated hydrocarbons and remediate soil and groundwater.

Project Geologist, Sunnyvale, California

Designed an in-situ enhanced anaerobic bioremediation pilot test for the remediation of chlorinated organic compounds, including TCE and Freon-113.

Project Geologist, Port of Los Angeles

Project included the installation of 186 soil and groundwater borings along a 5-mile section of existing and proposed petroleum pipeline. The samples were located in right of ways owned by the Port of LA and City of Los Angeles, as well as on Port of LA and tenant properties. Project coordination activities included the completion of access agreements and scheduling with various industrial, commercial, and government tenants, Los Angeles Department of Health Services well permits, City of Los Angeles right of way permits, coordination and scheduling of drilling subcontractors, coordination with Port of LA project managers, and coordination with the Port of LA's pipeline installation construction contractor. LNAPL samples were collected from the shallow water table to establish a chemical fingerprint for the various contaminant plumes encountered.

Hazardous Materials Audit, Confidential Client

Performed a hazardous materials survey for a former paint coatings manufacturing facility in

San Francisco, California. Duties included site reconnaissance, lead-based paint sampling, evaluation of data, and preparation of a final report.

Project Geologist, SPCC Plan Review and Permitting, Confidential National Mining Client

Reviewed and made recommendations to client for improvements to existing SPCC Plan. Initiated process for permit renewal.

Project Manager, Lead and Asbestos Investigation/Abatement Former Asphalt Terminal, Tucson, Arizona.

Project manager for an investigation of potential lead, asbestos, and petroleum hydrocarbon contamination of soil and groundwater at a former asphalt bulk storage facility; supervised the installation of groundwater monitoring wells; collected soil samples to assess the potential impact of lead and asbestos in surface soils; project manager and inspector for a comprehensive asbestos and lead paint survey and asbestos abatement; supervised the abatement of all asbestos-containing materials from the facility prior to site demolition and completed a final report.

Project Manager, Water System Evaluations and Capacity Development, Arizona Department of Environmental Quality Safe Drinking Water Contract

Under contract to ADEQ, completed water system evaluations and operations and maintenance manuals for several small public water systems; completed water system financial audits and business plans; completed rate increase applications for approval by the Arizona Corporation Commission; provided miscellaneous consulting services, including the completion of financial assistance and planning and design grant applications to the Arizona Water Infrastructure Finance Authority, and consulted on miscellaneous technical issues related to the water system operational activities.

Project Manager, Phase I and II Environmental Site Assessments, Various Locations

Completed numerous environmental site assessments for real estate development companies throughout Arizona. Responsibilities included conducting site investigations, review of historical air photo and environmental databases, completion of phase I ESA reports, and design of phase II sampling programs.

Publications

Cashwell, J. M., **Willis, S.**, Clarke, J., Marotte, R., Mcaughlin, D., and Freedman, D.L., 2004, *Evaluation of Cultures for Bioaugmentation of a PCE Plume*, in Remediation of Chlorinated and Recalcitrant Compounds, Fourth International Conference, Monterey, California.



Samuel "Keith" Rivera
PM, CQM/OE, CQA

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Mr. Rivera is an Unexploded Ordnance (UXO) Technician with greater than twenty-one years of active Explosive Ordnance Disposal (EOD) and UXO experience with over 14 years of experience managing MEC QA/QC programs. Mr. Rivera has served in most all UXO management positions: Project Manager, Safety and Quality Manager, Site Manager, SUXOS, UXOSO, UXOQC Specialist, UXO Team Leader, and DGM Team Leader positions. He is experienced with MMRP and CERCLA planning, investigation, remediation, and monitoring, and knowledgeable in the USACE DID, QASP, UFP QAPP, and the three-phase inspection process. He is proficient in quality related elements of Geophysical Data Processing using GeoSoft Oasis Montaj, RTK and RTS GPS survey equipment and related software, electromagnetic induction (EMI) detectors and magnetometers including advanced discrimination technologies and sensors as well as knowledgeable in TEMENTADS and Metal Mapper advanced geophysical classification. Mr. Rivera has been involved and informed on the evolution of the USACE and NAVFAC MMRP and increasing quality standards and shift to the UFP QAPP, Wide Area Assessments, and Advanced Discrimination technologies. He's attended multiple M2S2 workshops and online webinars. Previously, he served as an Active Duty soldier for 8 years in the U.S. Army including multiple deployments.

Education

Master of Business Administration

Columbia College of Missouri, Columbia, MO 2018

Associates in Environmental Science

Columbia College of Missouri, Columbia, MO 2018

Bachelor of Science, Business Management

Columbia College of Missouri, Columbia, MO 2014

Additional Training

Certified Manager of Quality / Organizational Excellence (CMQ/OE)

American Society for Quality, No. 40851, 2013

Certified Quality Auditor (CQA)

American Society for Quality, No. 16833, 2010

Construction Quality Management (CQM)

USACE / NAVFAC, 2015

Naval School, Explosive Ordnance Disposal.

EOD Certification 1997

Registrations/Certifications

OSHA 40-Hour HAZWOPER, Annual 8-Hour Refreshers; 2018

OSHA Supervisor Certification; 2018

EOD Technician, U.S. Army 1997

Loss Control Prevention; 2006

OSHA 10-Hour Construction Safety Program; 2006

OSHA 2-Hour Advanced Demolition Course; 2006

Environmental and Safety Supervisor; 2005

Self-Contained Toxic-Environment Protective Outfit (STEPO) Certification; 2001

Hazardous Material Handling and Transportation; 2000

Resource Conservation and Recovery Act (RCRA) Certification; 1999

Experience and Background

May 2017 – Present Project Manager, UXO Pro Inc.

Provides technical consulting services for state regulators in the arena of chemical and conventional military munitions remediation and characterization activities. Conduct reviews and prepares technical comments for work plans and project reports in various stages of the CERCLA and RCRA phases of characterization and remediation. Develop project specific assessment checklist to conduct site visits ensuring compliance with established work plans. Provides technical research of Formerly Used Defense Sites determining expected explosive hazards to ensure the conceptual site model is reflective of operations performed at the MMRP location. Conducts site investigations augmenting state regulators to ensure adequate characterization of project locations by federal agencies and contractors. Participate in the technical project planning process assisting clients in developing data quality objectives to base future decision-making. In Arizona he provided technical support and field Quality Control for the **27th Ave Remediation Site, Maricopa County**, where homemade explosives were used on a 113-acre residential property and is providing technical reviews for the **Camp Navajo**

RCRA permit Contingency Plan and related documents. In Alabama, he is providing technical oversight on the **Fort McClellan Charlie Area Removal Action project** and on various remediation project sites at Redstone Arsenal to include **MSFC-03, RSA-113, RSA-112, RSA-58, RSA-313, RSA-052, RSA-061, RSA-264, RSA-188, RSA-114, RSA-278, RSA-051, RSA-110, RSA-066, RSA-068, RSA-110, RSA 234, RSA-257** and **RSA-063**. In California, he has provided technical support for the **BLM Area B** site. In Massachusetts, he has provided technical support at **Tisbury Pond** and **Hingham NAD**. In Michigan, he has provided technical support at **Waugoshance**. In New Jersey, he is providing technical support for **Lakehurst Area MRS ZZ005 and ZZ006, Ft. Hancock,** and **Raritan Arsenal**. In Texas, he is providing technical support for **Ft. Bliss, Ft. Hood, Camp Fannin** and **Camp Bowie**. In the Commonwealth of Puerto Rico, Mr. Rivera provides oversight on the surface and underwater remediation efforts at **Culebra Island** and **Vieques**.

January 2016—June 2017 Superintendent, Tetra-Tech ECI

As a UXO Superintendent for Tetra-Tech, Mr. Rivera assumed field managerial duties at the needs of the company (i.e. SUXOS, UXOSO and UXOQCS). While in between UXO-related projects, Mr. Rivera provided technical support in writing/reviewing of SOPs, AHAs, Work Plans, QAPPs, Construction Completion Reports, After Action Reports, etc. on several completed, ongoing, and projected projects throughout the United States. Completed field projects included performance as the UXOSO/ Project Quality Manager on three separate projects in **Abilene, Texas at the Horse Hollow Wind Farm (Surface Removal, Subsurface Removal, and Down Hole Detection)** as well as in **Quantico, Virginia at the Treatability Study Area** performing QC duties for the **Removal Action** and **TEMTADS Advanced Geophysical Classification Verification** process.

December 2015 Site Manager/SSHO – Historical Research Reviewer, GSI

Oversaw all site aspects of the **PA/SI** project. The PA/SI was on two suspect landmine sites with possible **CWM**. Operations included **visual surveys and soil sampling**. Primary author for the PA/SI Final Report. Additionally, Mr. Rivera performed review, from a technical MEC perspective, on 5 U.S. **chemical sites** for a **MMRP Historical Research Project**. Sites included **Yuma, Ogden, Savannah, Lakehurst, and Schofield**.

August 2015 – December 2015 Site Manager, GSI

Mr. Rivera managed all site aspects. This included subcontractor coordination, operations, safety, quality, client and customer coordination, demolition, document planning, modification, etc. Project was an **ICM manual removal action** with one of the

smallest known MEC items (Rook) and a multitude of experimental ordnance items.
Primary author for the Removal Action Final Report

June 2015 – August 2015 SUXOS, GSI

During construction operations, Mr. Rivera all operational aspects, including subcontractors and heavy equipment, in excavation and **removal action** operations for the primary fuel pipelines throughout Guam.

August 2013 – June 2015 MEC Quality Manager, Environet/GSI,

Mr. Rivera was responsible for developing, implementing & managing the MEC Quality Program for Environet/GSI pertaining to many projects. Responsibilities included developing the QC program for the Hawaii contracts to include tailoring specifics to fit the requirements of each Task Order (TO). Worked closely with the project team and quality control personnel to develop the measurement and data quality objectives for current contracts with continuous process improvement and root cause analysis duties. Provided expert field advice on munitions response quality factors and recommended improvements to field operations that provided measurable data and reduced variability of workmanship between technical teams. Reviewed and ensured all deliverables met or exceeded specifications and standards in contract Scope of Works and Applicable or Relevant and Appropriate Requirements (ARARs). Additionally, Mr. Rivera performed as the **UXOQCS** during all phases of the **Area C RI/FS**.

December 2011 – August 2013 Safety Officer and Quality Control Specialist, Environet/GSI

Mr. Rivera's duties included all aspects of Safety and Quality Control on multiple sites in **Hawaii and Guam** to include multiple subcontractor organizations. Participated in all Client and applicable NAVFAC coordination meetings during **removal operations** in **Anderson AFB, Guam**. Worked closely with other members of the Project Team during **removal operations** in the **Former Waikoloa Maneuver Area, Hawaii**.

September 2011 – December 2011 SUXOS, Environet

Mr. Rivera took over the **removal action** projects in both **He'eia and Pali, Hawaii** in order to facilitate completion by coordination and implementation of productive and efficient means of operations. Oversaw all operational aspects to include multiple subcontractors which resulted in closure of the site prior to the expected projected date.

May 2010 – September 2011 UXOQCS / SUXOS, Environet

Mr. Rivera worked directly with the Project Manager, SUXOS and UXOSO during **removal actions** at three separate sites on **Oahu, Hawaii (He'eia, Pali, and Wakane)**. Responsible party concerning verification of all project training, 3 phase inspection processes, and company acceptance of all work related deliverables. Worked very closely with the Client to ensure contract satisfaction. Developed methodologies to increase efficiency of production while enhancing quality of product. Oversaw development, implementation, and company acceptance of all processes and product in order to meet scope, schedule, budget, and client satisfaction for the project. Additionally, Mr. Rivera was one of the key developers in the company MEC professional development program (UXO Tech I – SUXOS). Mr. Rivera served as the backup **SUXOS at the Former Waikoloa Maneuver Area, Hawaii**, when needed, in order to ensure fluid transitions and steady operations were continued

November 2009 – May 2010 UXO Team Supervisor, Environet

Mr. Rivera served as the UXO Team Supervisor responsible for implementing the **removal action** work plan at the **Former Waikoloa Maneuver Area, Hawaii** in conducting subsurface sweep and intrusive operations. Performed daily briefing to identify specific project quality considerations and quality standards and procedures. Ensure compliance with applicable U.S. Army Corps of Engineers quality assurance plans and approved work plan standards. Maintained records of team field activities while adhering to and maintaining high for quality and work standards.

April 2009 – November 2009 Quality Control Specialist, Tetra-Tech, ECI

Worked directly for the MEC QCM and with the Project Manager and SUXOS. Drafted all Field Change Requests and modified SOP's concerning the **Ft. McClellan, Alabama Charlie Ranges removal action and lead abatement project**. Responsible party concerning all training and inspection processes. Worked very closely with the Client on a daily basis to ensure a fluid relationship between the company operation and client satisfaction.

September 2008 – April 2009 UXO Technician III & Quality Control Manager, Ammo-Tech

Head Team Leader for the company. Lead UXO team daily operations conducting **environmental remediation duties and removal actions at the K Ranges in Camp Lejeune, North Carolina** as well as conducted personnel training. Demolition supervisor duties and input on operational planning and future operations. Transitioned to the QC Manager and worked directly with the Project Manager and Operations

Manager. Drafted all the SOPs concerning Ammo-Tech's UXO program. Coordinated all guideline changes between the operation and the client. Worked very closely with the client on a daily basis to ensure a fluid relationship between the company operation and client satisfaction. Coordinated and maintained accountability and files for all assigned personnel and records to ensure teams were mission capable and the project met client satisfaction. All phases of work were scrutinized to ensure the needs of the project and client were being met.

June 2008 – September 2008 CMC Safety and Quality Control Manager, Tetra-Tech, ECI

In **Baghdad, Iraq**, Mr. Rivera worked directly with the Project Manager and Operations Manager on the **Coalition Munitions Clearance (CMC) Project**. Drafted all SOPs concerning Tetra-Tech's CMC program. Coordinated all guideline changes between the operation and the client. Worked closely with the client on a daily basis to ensure a fluid relationship between the company operation and client satisfaction. Tracked the progress of quality and safety for every site on the CMC project and mentor a continual streamlined program for all fields QC/Safety's. Reported directly to the Corporate Managers.

April 2008 – June 2008 SUXOS, UXOQCS, Tetra-Tech, ECI

In **CMC Ashraf, Iraq**, Mr. Rivera held multiple roles to include the **UXOQCS** and **SUXOS** at different stages of multiple site **removal actions**. Mr. Rivera performed the duties of **Ashraf's Quality Control Specialist** to facilitate smoother close out of CMC Ashraf. Fill-in **SUXOS** on site allowing preparation for next CMC site startup. Oversaw operational and quality control issues for five full teams working directly with the U.S. Army and Marines to clear suspected targeted insurgent dig sites. Coordinated and maintained accountability and files for all assigned personnel and records to ensure teams were mission capable and the project met Client satisfaction.

May 2006 – April 2008 Environmental Safety Supervisor/Quality Control Officer and Property Manager, Tetra-Tech, ECI

Environmental Safety Supervisor/Quality Control Officer and Property Manager for several mobile explosives teams at several sites across **Iraq (ASP Wolf, Dulab, ASP 3, Jaguar Middle/South, and Ashraf)**. Oversaw all Safety aspects and Quality Control issues for 150-400 people during various operations in a combat zone. Coordinated and maintained accountability and files for all assigned property and equipment to ensure teams were mission capable. Conducted reconnaissance missions throughout the entirety of Iraq assessing future work sites in support of destroying explosives and IED

making material on the Coalitions Munitions Clearance contract under the Army Corps of Engineers and Department of Defense.

December 2005 - May 2006 Team Leader, UXO Technician III, Iraq, Tetra-Tech, ECI

Performed as a **UXO Technician III** on various mobile teams (1, 3, 5, 6, 8, and 10) at multiple sites (**BIAP, Speicher, NAJAF, ASP 7**) on the **Captured Enemy Ammunition and CMC** contracts.

August 2005 - December 2005 UXO Tech II, USA Environmental

Performed as a **UXO Tech II** on mobile team 1 at **BIAP, Baghdad, Iraq**.

August 2004 - August 2005 UXO Tech II, Tetra-Tech, ECI

At **Al Ashraf and Najaf, Iraq**, Mr. Rivera participated in demolition and collection duties on a daily basis. Trained and performed proficiently with a forklift and PLS with no accidents/incidents. Performed on demolition team responsible for over one hundred (100) tons, as a minimum, of demolition daily. Chosen to perform on a three-man geological survey team for input of demolition access route.

March 2004 - August 2004 UXO Tech II, Shaw Group E & I

At the **Former Lowery Bombing Range, CO**, Mr. Rivera participated in **removal action** range work duties including operating heavy machinery (i.e. Backhoes, Forklifts, Front-end loaders, etc.). Additional duties performed guiding geological survey teams during assessment operations. Fluent knowledge of magnetometers and safety equipment.

February 2002 - March 2004 Team Leader/Operations Non-Commissioned Officer, U.S. Army

Successfully performed as a Team Leader in the 62nd Ordnance Company (Explosive Ordnance Disposal) in Tooele and Salt Lake City, Utah areas. Mr. Rivera supervised, performed and trained others in the skills of safe yet rapid render safe and /or disposal of hazardous foreign and domestic explosive, chemical and improvised explosive devices of military or commercial origin. Performed range clearances at Camp Williams, UT and Gowen Air Field, ID. Security NCO in handling all materials and records pertaining to clearances and sensitive items with no incidents. Controlled and maintained all classified materials and equipment in monetary values of over \$500,000. Performed as a back-stop EOD Team Leader for Ft. Carson during their deployment. Performed, with distinction, liberation duties during a time of war as an Explosive Ordnance Disposal Team Leader in support of Coalition Forces and Military/police forces. Supervised a two-man team while rendering safe and/or destroying in excess of

250,000 hazardous items. Maintained and accounted for equipment valued in excess of Two Hundred and Twenty Thousand (US) Dollars with no losses. Selected by Commander and First Sergeant to coordinate three multi-area range clearances due to ability to take charge and accomplish any mission. Taught vehicle search and Explosive Ordnance Recognition classes to over 800 civilians and military personnel. Performed as Operations Non-Commissioned Officer for Re-Deployment duties from Operation Enduring Freedom (Iraq/Kuwait/Qatar/Saudi Arabia) without incident or injury for all personnel and equipment.

November 2001 - February 2002 Team Leader, U.S. Army

Performed on vulnerability assessment team for the implementation of Force Protection standards for all fellow soldiers during the 2002 Winter Olympic Games and Paralympic Games in Salt Lake City, UT. Successfully trained in excess of three hundred military and civilian personnel in the areas of bomb threat and search procedures.

November 1997 - November 2001 EOD Team Member, U.S. Army

Successfully performed as an EOD Team Member in the 62nd Ordnance Company (Explosive Ordnance Disposal) in Tooele, Utah. Performed, under supervision of a Team Leader, safe yet rapid render safe and /or disposal of hazardous foreign and domestic explosive, chemical and improvised explosive devices of military or commercial origin. Selected for advancement and subsequent promotion as a Team Leader. Maintained One Hundred percent accountability of team equipment valued at over One Hundred and Fifty Thousand (US) Dollars. During Operation Joint Guardian in Kosovo, Mr. Rivera performed with distinction, peace keeping duties as an Explosive Ordnance Disposal Technician in support of US, North Atlantic Treaty Organization (NATO) & United Nations (UN) aid groups and military / police forces. Supervised two personnel while rendering safe and/or destroying in excess of 12,000 hazardous explosive items. Taught numerous classes to military/civilian/and UNMIK (foreign) police forces on explosive safety and recognition. Additionally, Mr. Rivera maintained, as the NBC NCO, over Three Hundred and Eighty-Three Thousand Dollars (US) worth of equipment with One Hundred percent accuracy. Performed on range clearance teams at Camp Roberts, California; Camp Williams, Utah; and Sierra Army Depot, California.