

APPENDIX H
UXO SURVEYOR'S REPORT

**PHASE II
UXO STATEMENT OF WORK**

**PHASE II STATEMENT OF WORK
FOR TEST PIT EXCAVATION AND
UXO SURVEYS AT TOOEELE ARMY DEPOT-SOUTH AREA, TOOEELE, UTAH**

1.0 SUMMARY OF SERVICES TO BE PROVIDED:

The basic task to be completed by the Subcontractor includes conducting a surficial screening for unexploded ordnance (UXO) and excavating test pits and screening for UXO during excavation operations. All activities will be conducted at TEAD-S in the areas of SWMU 33 and SWMU 37 (see attached figure). No UXO has been identified during previous surveys conducted within the SWMU areas, however because of the potential for the presence of UXO, to ensure the safety of site personnel, and to fulfill the requirements of the TEAD-S RCRA Part B Permit that governs the installation, UXO screening activities will be required. The task will be conducted in accordance with the requirements outlined in this RFQ. The services required are summarized below:

- Conduct surficial screening at 10 proposed shallow boring locations within SWMU 37. Shallow borings at this SWMU are planned to be 18 inches below land surface (BLS). The surficial survey will be conducted in the immediate areas where shallow intrusive sampling will be conducted. Equipment used for screening will be capable of detecting anomalies a minimum of 24 inches BLS.
- Excavate a total of ten test pits. Eight test pits will be excavated to a maximum depth of 10 feet BLS at SWMU 33; two test pits will be excavated to a maximum depth of 8 feet BLS at SWMU 37. UXO screening activities will be conducted at all stages during excavation activities. SAIC will be responsible for collection of environmental samples. (These samples are anticipated to be collected from the excavation bucket.)
- Preparation of a brief work plan detailing the methods and procedures that will be employed during the screening and excavation activities, the uncertainties and level of confidence associated with all activities, and a discussion of the health and safety activities related to the site evaluation activities. All health and safety procedures must adhere to applicable U.S. Army standards as they relate to UXO.
- Preparation of a brief report summarizing the results of the surveys. At a minimum this report will include site maps indicating the location of any subsurface anomalies, a discussion of the survey methods, procedures and techniques, and the level of confidence associated with all activities and findings. Site maps will be provided to the Subcontractor by SAIC.

2.0 BACKGROUND

The UXO/excavation activities will be conducted at two SWMUs located at TEAD-S. SWMU 33 - Building 536 (CAMDS Salt Storage) and SWMU 37 - Slag Piles and Bomb Fragments. Below are the summaries of the history of each SWMU.

- *SWMU 33 - Building 536 CAMDS Salt Storage* - Building 536 is a two and on-half story structure covering an area approximately 50 by 175 feet and is built on a gravelly sandy soil. Building 536

is currently used as a hazardous waste storage area and is operating under an approved RCRA Part B permit. The depth to groundwater in this area is approximately 145 BLS. This storage was used from 1983 to 1988 as a storage facility for drums of "dried organic salts" that were byproducts of operations at the chemical agent munitions disposal site (CAMDS) located on TEAD-S. No salts are currently stored at this area. The area of concern for UXO/excavation activities is a ditch located southeast of the corner of building 536. Miscellaneous debris was identified in this ditch during the sample staking visit (April 1994). Because the source and content of the debris identified in the ditch, it was determined that further study in this area would be required. It is in this area that the test pits are planned to be excavated. The history of TEAD-S's association with ordnance necessitates the need for UXO screening during the test pit activities. The topography of this area is generally flat and accessible to vehicular traffic.

- *SWMU 37 - Slag Piles and Bomb Fragments* - SWMU 37 is an approximately 20 to 30 feet deep former gravel pit that has been used as a dumping area for slag and ash. The pit has sloping sides and entry into the pit is easily accessible to machinery (e.g., excavator) and high-clearance vehicles (i.e., pick-up trucks, 4x4s). The specific history of SWMU 37 and how and when the material was placed in the SWMU is unknown. It is believed that the material in the pit is a byproduct of a deactivation furnace located on TEAD-S. The slag (or ash) piles are approximately 5 feet wide, 10 feet long and 3 feet high. Scattered among the slag piles are rusted bomb fragments (bomblets) of unknown origin. UXO screening is being requested for this area based on the visual observations of bomb fragments.

3.0 SCHEDULE AND TERM

The completion period for field investigation activities will be agreed upon in writing by SAIC and the Subcontractor before field activities commence. Extension of the specified performance time frames of the term of this agreement will also be mutually agreed upon, in writing. Test pit excavation field activities are expected to begin 3 October 1994 and continue uninterrupted until all work is completed. It is anticipated that it will require 5-6 working days to complete the UXO screening and test pits excavation. Work days will average 10 hours in length, dependent on available daylight and on weather conditions. The Subcontractor will schedule manpower, equipment, and materials required to begin work on 3 October 1994. SAIC will notify the Subcontractor approximately two weeks in advance to confirm the start date. The Subcontractor will mobilize adequate personnel, materials and equipment to satisfactorily complete the level tasks detailed in this RFQ.

4.0 LIQUIDATED DAMAGES

The Subcontractor will be liable for payment of liquidated damages in the event of gross inadequacies in performance that result in time delays. These inadequacies include, but are not limited to: 1) inexperienced, uncooperative, and/or incompetent personnel; 2) inadequately outfitted or poorly

functioning equipment; 3) noncompliance with the final Statement of Work (SOW) and the Health and Safety Plan; and 4) failure to arrive on site at specified times with the necessary equipment to perform work. Time delays beyond reasonable control of the Subcontractor (i.e., weather) are not subject to this liquidated damages clause. The rate of liquidated damages will be \$1,500.00 per business day and will serve as compensation to SAIC for SAIC's cost of extending the date for completion of the work.

5.0 MINIMUM QUALIFICATIONS CRITERIA

The Subcontractor must meet the following minimum criteria and must maintain these minimum criteria throughout the field investigation program:

1. Provide personnel that meet the qualification criteria established by the U.S. Army for dealing with UXO. Attachment I details the requirements that must be met. All personnel will be capable and knowledgeable of the methods and procedures for screening sample areas for UXO.
2. All required Subcontractor-supplied materials and spare parts must be on site in adequate quantities at the commencement and throughout the duration of field activities in order to ensure uninterrupted field operations.
3. All personnel will have previous experience excavating and sampling at suspected hazardous waste sites.
4. Subcontractor will have full understanding of the details of the OSHA personnel protection levels to be used and the project Health and Safety Plan (to be provided by SAIC on contract award). All persons on-site will have 40-hour OSHA 1910.120 certification and be current in their OSHA 8-hour refresher and medical monitoring requirements. A copy of current training certificates (i.e., OSHA training and medical monitoring) for all of the field crew will be kept on site by the Subcontractor throughout the duration of the field work. A copy will also be provided to the SAIC Field Manager.
5. Documentation of all required training, education, experience, certifications and any other applicable or necessary training related to UXO will be kept on site by the Subcontractor throughout the duration of the field work. A copy of this documentation will also be provided to the SAIC Field Manager.

6.0 GENERAL PROVISIONS

The Subcontractor will comply with the following provisions throughout the project:

All equipment must be fully operational upon commencement of activities at the site and throughout the test pit/UXO program.

1. All field personnel must be knowledgeable of the requirements necessary to meet the specifications in the entire SOW for which the Subcontractor will be responsible. Field personnel must be able to carry out the requirements of the specifications independent of other activities at the site.

2. The Subcontractor will provide all labor, equipment, and materials necessary to complete the work described herein, including containers for any slag material excavated at SWMU 37. Subcontractor-supplied materials and spare parts must be on site or readily accessible in adequate quantities at commencement of operations to ensure uninterrupted activities. Interruptions to progress caused by insufficient availability of materials on site may result in the enforcement of the liquidated damages clause (see Section 3.0).
3. The Subcontractor will be responsible for securing (including payment of fees) and complying with any and all permits that may be required by the State of Utah, Tooele County and/or any local authorities for digging of test pits. SAIC will be responsible for acquiring Depot permits and clearing Depot utilities. It will be the Subcontractor's responsibility to determine and comply with any and all State and local regulations regarding submission of Intent to Drill forms and drilling logs for the state of Utah as they apply to test pit excavations.
4. Any inconsistencies between these specifications and government or responsible agency requirements will be reported to the SAIC before the commencement or continuation of field activities. If the inconsistencies are not reported and/or are not resolved before field activities all work performed will be the responsibility of the Subcontractor.
5. Technical direction will be provided in the field by SAIC Field Manager or Supervisory Geologist. Technical direction is defined as providing clarification of the SOW, but does not constitute authority to modify the SOW, delivery schedule, or any other actions that may affect the subcontract prices.
6. SAIC will be responsible for the sampling of the soils excavated from the test pits.
7. Notwithstanding any provisions contained elsewhere in this subcontract, SAIC's Contractual Representative is the only person authorized to approve changes to any of the requirements herein. In the event the Subcontractor effects any change at the direction of any person other than SAIC's Contractual Representative, the change will be considered to have been without authority.
8. It is recognized that SAIC has knowledge of the location of the work, the access routes to the location of the work, limited information regarding surface and subsurface conditions, and that SAIC is obligated to advise the Subcontractor of any known conditions that may affect performance of this contract. Additionally, before the commencement of field activities at the locations named herein, SAIC will have made provisions for utility clearance, and will mark all locations in the field with a survey stake. SAIC shall procure all entry permits and hold the Subcontractor harmless for claims of trespass or damage to property required in carrying out the work contemplated by SAIC hereunder, except where the Subcontractor is negligent or has violated SAIC's specified instructions.

7.0 TEST PIT EXCAVATION AND UXO SCREENING

7.1 Test Pit Excavation Activities/Test Pit Screening

The purpose of the test pit excavation is to collect environmental soil samples at various depths within the pit to determine the presence of contamination from previous activities. The Subcontractor will be required to provide all personnel, materials and equipment such that they are capable of excavating soil to a maximum depth of 10 feet BLS, at marked locations. In addition, the Subcontractor must be able to provide equipment and personnel to screen for UXO during soil removal and sampling during test pit activities. All sample location points and sampling depths will be

determined by the SAIC Field Manager or Supervisory Geologist.

Eight test pits will be excavated at SWMU 33 to a maximum depth of 10 feet BLS. Two test pits will be excavated at SWMU 37 to a maximum depth of 8 foot BLS. Prior to test pit excavation the Subcontractor will be responsible for screening all locations for UXO using a magnetometer and identifying an acceptable location for excavation. During excavation of the test pits the Subcontractor will be responsible for providing the appropriately trained personnel and equipment to effectively screen for UXO and "clear" the pit area prior to excavation and any sampling activities. It will not be necessary for the Subcontractor to handle or move any identified UXO. If UXO is identified during test pit activities the Subcontractor will be required to contact the appropriate TEAD-S representatives for removal. If sufficient UXO is identified in the work area such that alternative sample locations cannot be identified and it prohibits completing test pit operations at the SWMU, the subcontract will be modified to account for effective removal of the UXO.

The width and depth of the test pits should be such that the Subcontractor will be able to affectively and efficiently excavate soil for sampling and screen for UXO. Soil samples will be collected from the excavation machinery bucket by SAIC field personnel. The specific sampling depths will determined in the field by the SAIC Field Manager or Supervisory Geologist. All work is anticipated to be conducted in EPA Personal Protection Level D. All site personnel will be required to follow the project-specific health and safety plan (to be provided upon contract award).

Each test pit will be backfilled with the material removed during the excavation. It is important to note that all the excavated material must be returned to the pit. During the excavation activities the removed soil will be placed on plastic sheeting adjacent to the pit. Following completion of the test pit the Subcontractor will be required to return all excavated material to the test pit, and return the site to its approximate original condition and contour. All slag material recovered during excavation activities will be containerized by the Subcontractor in 55-gallon, DOT-approved drums without bungs. The Subcontractor will be responsible for transporting the drums to a location on TEAD-S.

7.2 Surficial UXO Screening

Ten borings are planned to be hand augered by SAIC at SWMU 37 to a depth of 18 inches BLS. The Subcontractor will use a hand-held magnetometer or other appropriate devices that will be able to screen the proposed sample locations for UXO or any surficial anomalies. The equipment must be capable of determining anomalies to a depth of at least 24 inches BLS. This activity will be conducted prior to SAIC drilling the hand augers. If anomalies are detected, the sample location will be moved to an area that is termed "clear" by the Subcontractor. It will not be necessary to identify or remove any detected anomalies.

8.0 DECONTAMINATION

Decontamination of field equipment will be conducted as detailed below:

1. Before the commencement of test pit operations, between test pit locations, and before departure from each site, all test pit equipment and tools, will be steam cleaned and rinsed with water from the approved source identified by SAIC. The washing will take place at a designated decontamination point established in the area of SWMU 33. The Subcontractor is responsible for securing the necessary equipment to accomplish decontamination of this equipment. The Subcontractor is responsible for cleaning the decontamination area after each use which will include removal and containerization of water and sediment.
2. All sampling equipment will be cleaned by SAIC personnel.
3. Decontamination water and sediment will be removed from the pad and containerized. Sediment will be containerized in a DOT-approved 55-gallon drums without bungs. Decontamination water will be containerized in a tank that will be present at the decontamination area. The Subcontractor will be responsible for supplying all necessary drums.

9.0 INVESTIGATION DERIVED WASTE

The following section summarizes the procedures that are planned to be used to control the investigation derived wastes (IDW) that are generated during test pit operations.

- *Test Pit Cuttings* - Cuttings will be placed back into the test pit. The excavated material will be staged on plastic sheeting while the test pit is open prior to placing back into the borehole.
- *Decontamination Water/Sediment* - Decontamination water will be containerized by the Subcontractor in a water tank that will be located adjacent to the decontamination pad. Sediment generated in the decontamination area will be containerized in new DOT-approved 55-gallon drums without bungs and transported to a designated storage area on TEAD-S.

All drums used during the investigation WILL NOT HAVE BUNGS and will be DOT-approved.

10.0 SITE ACCESS

SAIC will coordinate Depot passes for the Subcontractor and will arrange access to restricted

sites. All areas will be accessible to excavation equipment.

11.0 HEALTH AND SAFETY

This section summarizes the health and safety measures to be used during the excavation activities and sampling program at TEAD-S. The Subcontractor will be provided with a copy of the project-specific Health and Safety Plan a minimum of 3 weeks prior to initiation of the field work. The maintenance of good health and the provision for the safety of onsite personnel will be of major concern during activities at the Depot. SAIC has identified both medical surveillance and safety programs that will afford onsite personnel more than adequate protection. Additionally, all site personnel must be in compliance with OSHA training requirements. The main points of this plan include medical examination and safety equipment use and procedures. Each of these points is described in greater detail in the following sections.

Subcontractors shall comply with all health and safety requirements as designated by the SAIC Field Manager or Health and Safety Officer. SAIC reserves the right to cease operations if the onsite Health and Safety Officer, Field Manager or Supervisory Geologist determines that health and safety requirements are not being followed. Any cessation of excavation operations (i.e., downtime) caused by breached health and safety requirements by the Subcontractor shall be at the expense of the Subcontractor and may be subject to the liquidated damages clause (see Section 3.0). Each person will be responsible for complying with the project Health and Safety Plan and with the direction of the Health and Safety Officer, Field Manager or the Supervisory Geologist.

11.1 Medical Screening and Health Examinations

All Subcontractor personnel must be participants in a corporate health and safety (H&S) program under OSHA regulations. As participants in an H&S program, field personnel should undergo health monitoring while participating in the waste site investigations so that their health may be protected through early detection of symptoms of exposure to toxic substances and screening for their physical ability to perform the job. A record of health monitoring for Subcontractor personnel must be preestablished by the Subcontractor prior to initiating work in the field. All Subcontractor personnel must be participating in a medical surveillance plan. At a minimum, this should include an annual physical examination, which includes tests of the sensory system, lungs, liver, kidney, and cardiovascular system.

11.2 Personnel Safety

In order to provide the greatest degree of safety to onsite personnel at TEAD-S, field personnel will be required to wear personal protective equipment. SAIC also has developed decontamination procedures that will be followed either routinely at the end of the day or for the treatment of accidental exposure to potentially hazardous chemicals.

Safe work procedures must be followed and personal protective equipment must be used for preventing worker exposure to toxic materials. The success of work procedures and protective equipment in protecting worker health is greatly dependent on worker cooperation.

It is understood that the more encumbered with protective equipment the worker becomes, the more difficult it is for him to perform the job expeditiously. However, the following Standard Operating Procedures (SOPs) in this section are a practical balance of worker protection and freedom of movement that should allow the work to be conducted without compromising worker health and safety.

11.2.1 Safety Equipment

Numerous items of safety equipment will be required in performing the field work at TEAD-S. Level D protection has been selected for the excavation efforts based on previous sampling results and historical data on the site. The Subcontractor must mobilize to the site with the capability of upgrading to Level C protection. This consists of the following personal protective equipment, which the Subcontractor is responsible for supplying:

- Full-face air-purifying respirator with organic vapor cartridges
- Safety glasses
- One-piece, chemical-resistant, Tyvek disposable coveralls
- Inner and Outer Gloves - chemical protective (i.e. nitrile)
- Boots - chemical protective, steel shank, and steel-toed
- Hard hat.

It will be the responsibility of the Subcontractor to maintain an adequate supply of expendable personal protective equipment (i.e., Tyvek coveralls and respirator cartridges) for Subcontractor personnel for the duration of the field investigation program. The Subcontractor will be responsible for supplying any and all safety equipment related to UXO operations and activities. TEAD-S will provide a respirator specific to the requirements of the facility (see section 11.5).

11.2.2 Safety Equipment Supplied By SAIC

The Subcontractor is responsible for replacing or repairing its own safety equipment in a timely manner. SAIC will keep spare safety equipment at the site for emergency use and so that damaged or malfunctioning equipment of the Subcontractor can be replaced immediately. Non-expendable SAIC-supplied spare safety equipment must be decontaminated and returned at the end of each day. SAIC will assume no liability associated with Subcontractor use of equipment supplied by SAIC.

In addition to the personal safety equipment, the following equipment also will be supplied by SAIC and kept at the site:

- Eye wash kit
- First aid kit
- Paper towels
- HNu air monitoring equipment.
- LEL combustible gas monitoring equipment

11.3 Excavation Site Health and Safety Procedures

Procedures to be employed to ensure personnel health and safety are outlined in the following section. The Field Manager and Supervisory Geologist will have the authority to enforce these procedures.

1. Designated safety equipment will be worn at all times.
2. Wearing of contact lenses will be avoided when possible.
3. Eating, drinking, smoking, chewing gum, chewing tobacco, or open flames will not be permitted in the immediate vicinity of the test pit sites. Gloves will be removed, hands and forearms will be washed, and personnel will leave the sampling area before eating, drinking, or smoking.
4. Proper decontamination procedures will be followed before leaving the site area.
5. Soil, rock, and groundwater samples will not be handled without protective gloves.
6. The use and results of site monitoring equipment (i.e., LEL, HNu) will determine if additional safety equipment, including respirators and goggles or face shields, as appropriate, will be required. This determination will be made by the SAIC Field manager or Supervisory Geologist. Specific requirements regarding upgrading personal protection will be detailed in the project-specific health and safety plan to be provided to the contractor at the time of contract award.
7. The use and maintenance of all respirators will be in accordance with the manufacturer's instructions. Only NIOSH/MSHA-approved respirators will be used.
8. No one will use a respirator without prior training. All personnel will have undergone a qualitative respirator fit test by an industry accepted method and records of this testing will be provided to SAIC at the start of the field investigation.

9. Beards will not be permitted. Respirator facepieces must contact the skin directly.
10. Vaseline or other materials will not be used to provide a proper seal.

11.4 Emergency Procedures

A site-related emergency is defined as an accident, illness, or personal exposure to hazardous substances. The response to an emergency situation is two-fold, obtaining assistance and treating the problem. All SAIC personnel will have a list of emergency telephone numbers, including police, fire department, hospital, and poison control center.

11.5 TEAD-S Specific Procedures

TEAD-S is a chemical agent storage Depot requiring specific health and safety protocols be followed. Because no excavation activities will occur within the chemical storage area (Area 10), a baseline cholinesterase test will not be required by the Subcontractor. In addition to the previously listed health and safety requirements the following is a summary of those procedures that will need to be followed are listed below:

- A site-specific health and safety training seminar will be conducted by TEAD-S personnel for all persons who will be conducting work at TEAD-S. This training will detail the necessary procedures and precautions that will be required to be followed while working a TEAD-S.
- Each worker will be fit tested by TEAD for an M9, M17 or M40 military chemical agent mask. This mask will be required to be worn and/or be directly accessible when conducting any work at TEAD-S.

12.0 PLANNING DOCUMENTS

The Subcontractor will be required to submit a brief Work Plan providing specific details as to how the activities in the task will be performed. Also to be included in the plan are the necessary health and safety requirements for the prevention of accidents. This document shall be prepared in accordance with the U.S. Army regulations and guidance pertaining to UXO. Also to be included in this plan is a brief discussion of how the task will be managed.

13.0 REPORTING

A reporting document will be prepared by the Subcontractor that shall document the methods, procedures and techniques utilized in conducting the UXO screening and excavation activities, the findings of the screening activities and accurate site maps indicating the location of any subsurface anomalies.

The Subcontractor shall submit all reporting documents and data collected to SAIC in an electronic format in either WordPerfect 5.1 or comma delimited ASCII files. This data shall be submitted to SAIC within 21 days of completion of the field investigation activities.

14.0 PERIOD OF PERFORMANCE/SCHEDULE

The period of performance for this task shall be 3 months. The reporting document associated with the findings of the surveys will be delivered to SAIC within 21 days of completion of the site survey. The test pit excavation will be conducted during the time when other field activities are being conducted. It is anticipated that the field work will commence on 3 October 1994.

113.
T 10/2/99

WEATHER: OVERCAST & COLD,
TEMP. IN MID 40S,
WIND 10MPH FROM NE.

SAC PERSONNEL: JOHN PENDLETON
JOE SKIBNICKI
MARIL MCGUIRE
PAUSE DILLON

AEL PERSONNEL: HARRY WOODS (AEL)

UKB: KEITH (LEWIS) SCHUCKER (UKB)
DAN WOLF (UKB)

OTDO ARRIVE ON-SITE (CALIBRATE
EQUIPMENT MAKE
PHONE CALLS, UKB SKEN
HEALTH & SAFETY - HAVE READ PLAN
OTDO TRAVEL TO DELON. PAD, HAVE THEM
COLLECTED FROM WELL # 2.

John D. Ralston 10/2/99

112

T 10/4/99

- 0730 UXB TO PERFORM MAGNETOMETRIC SCREENING AT SHALLOW SAMPLE LOCATIONS THROUGHOUT SITE AT SWMU-37
- 0745 SPEAK WITH H. WOODS CONCERNING PROGRESS, WELLS IN, UXO SURVEY, TRUCK OPERATIONS ETC.
- 0800 JS TO SWMU 37 TO SET-UP SAMPLING, H. WOODS OBTAINS LOGS FOR MONITOR WELLS,
- 0820 JP TRAVELS TO 6108 TO SPEAK WITH T. JOHNSON. ABOUT WASTE. NOT AT LOCATION
- 0840 RETURN TO TRAILER, TOOL BOX RETURN TO COME TO TRUCKS TO CHANGE FLAT TIRE
- 0900 DAKI & M. McGUIRE CAN MOVE DRUMS AT DECON. PND DUE TO FLAT TIRE ON PICK-UP.

J. P. [Signature] 10/4/99

T 10/4/99

- 0910 UXB HAS SCREENED ALL SURFACE SAMPLE LOCATIONS. ALL CLEAR. USING MK 26 AND SCHEIDT MAGNETOMETERS. SAMPLE^{SP} LOCATIONS READY TO SAMPLE.
- 0928 SAMPLE SB-37-002B
- 0950 " SB-37-003B
- 1015 " SB-37-004B
- 1035 " SB-37-005B
- 1040 " SB-37-006B
- 1125 " SB-37-007B
- 1148 " SB-37-008B
- 1155 " SB-37-009B
- 1210 " SB-37-010B

SAMPLE LOCATIONS SHOWN ON 9/92

USE UXB BACKAGE TO CLEAR AREA.

- 1230 H. WOODS SPEAKS WITH MARY ELLEN MINE REGARDING SLAG TRUCKING, ALL SLAG TO BE REMOVED FROM SITE. UXB HAS ONLY FIVE BARRELS; NUMERALS TO BE DUMPED AT HAN 1250 DAIGE & JS TRAVEL TO SWMU 37 TO COLLECT REMOVED BANC

- 1305 UXB COMPLETE DECON. OF SAMPLING EQUIPMENT

J. P. [Signature] 10-4-99

184

T 10/9/94

1300 UKB AT SWMU 37, PREP
FOR TRENCH ACTIVITIES
IN SLAB MATERIAL.

1340 SAIL PREP. FOR WORK
ON SLAB, COLLECTING EQUIPMENT
RINSE

1410 SP AT SWMU 37 TO COLLECT
SAMPLES FROM SLAB PILE.
FIRST SAMPLE COLLECTED
FROM 0.5' BGS - IN SLAB PILE
ON NW SIDE (18" THICK)

1437 ^{PM}
10/9/94 296° FROM TELEPHONE POLE
C25 TO CENTER OF EXCAVATION
PIT #1

260° FROM TELEPHONE POLE
C25 TO CENTER OF EXCAVATION
PIT #2

1435 COLLECT SECOND SAMPLE FROM TRENCH
THROUGH SLAB PILE

10/9/94 John D. Pullett

T 10/9/94

1450 MODIFICATIONS TO WORK PLAN
WILL REQUIRE EXTRA HOURS
FROM SAIL & UKB AND ALSO
REQUIRE ADDITIONAL EXPENSES
DRUMS, HEAVY EQUIPMENT,
STEAM CLEANERS, EXTRA PER DIEM

1510 BEGIN EXCAVATION, UKB TO
CONSOLIDATE MATERIAL IN LARGE
PILE & THEN USE PILE TO
FILL DRUMS. SAMPLES WILL BE COLLECTED
FROM DRUMS

1535 MOST OF MATERIAL IN SINGLE
PILE

1550 COLLECT MATERIAL FROM FROM
ABOVE 5' BELOW VIBROW BARRIER
(TP-37-002A & 002B)

1555 COLLECT TEST PIT MATERIAL
TP-37-002C, TP-37-002D.

1620 TRAVEL TO TRAILER FOR
PREP. SAMPLES.

John D. Pullett 10/9/94

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W 10/5/94

WEATHER: RAINING & WET, LIGHTNING
IN AREA. TEMP. IN
LOW 50'S, WIND FROM
NE AT 10-15 mph

SAIC PERSONNEL: JOHN PENDLETON
JOE SKIBINSKI
MIKE MILES
MARK M'GUIRE
PAIGE DILLON CHRIS MANIKAS

AEL: HARRY WOODS UXB KATH SCHUCKER
VIVIAN GHAM DAN WOLF
LAYNE - DAN PLOTS

0715 ARRIVE ON-SITE, DAN PLOTS
ON-SITE. GOING TO PURGE WELL
S-3, UXB ON-SITE

0730 MARK M'GUIRE CALIBRATION OF
TURBIDITY METER HNU'S, PH/COND.
METERS AND ^{ADJUST} COLLECTION
OF EQUIPMENT

10/5/94 John D. P...
John D. P...

167
W 10/5/94

0745 UXB, PLOTS & SAIC HAVE
SHORT HEALTH & SAFETY
MEETING. ABOUT TYPES OF
HAZARDS ASSOCIATED WITH
BACKHOE, WEATHER, DRUMS
& STEAM CLEANERS.

0800 DAN PLOTS AND MARK
M'GUIRE TRAVEL SOUTH TO
AREA 10 TO PURGE S-3. DAN
TELLS ME THAT LAYNE IS
NOT GOING TO BE ON-SITE
TODAY. HAD PROMISED TO BE
ON-SITE TO HELP SET-UP.

0810 LIGHTNING HAS CLEARED THE
AREA. INSTRUCT UXB TO
TRAVEL TO SUMU-33 TO COMPLETE
TRENCHES (BEHIND BLDG 536)
TRAVEL TO 510B TO OBTAIN LABERS

0820 PAIGE & CHRIS TRAVELING TO
BLDG 536.

John D. P... 10/5/94

88

10/5/94

0845 ARRIVE AT BLDG 536 UNION
GARAGE TO ARRIVE ON SITE
LATER.

0850 TRAVEL TO SWMU-37, UXO TO LOAD
DRUMS WITH SLAB. WILL BEGIN
MOVEMENT OF SOME DRUMS FILLED
YESTERDAY FIRST. THEN WILL TRAVEL
TO BLDG 536 TO DIG TRENCH

0910 UXO PERSONNEL AT DECON PAD,
STEAM CLEANER PRODUCING SOAP -
UXO PERSONNEL ADJUSTED SOAP
DISPENSING APPARATUS AT
STEAM CLEANER CREAMING SOAP
TO ENTER AND TANK. NEED
TO EMPTY TANK - WASH OUT
AND REFILL WITH CLEAN H₂O
FROM WELL #2.

0925 CHRIS MANIKAS AND PAIGE DILLON
TRAVEL TO WELL S-3 TO
TO CHECK ON PURING ACTIVITIES.

John D. Pugh 10/5/94

89
10/5/94

0925 UXO begins to attach backhoe
to steam cleaner in an effort
to move steam cleaner to
well #2 for cleaning and
refilling. UXO has no truck
to move steam cleaner

0930 Advise UXO that they cant use
backhoe to move steam cleaner
and that they need to obtain
truck from well S-3 to move
steam cleaner.

0940 Ask Mike Miles to travel to
Well S-3 to ask C. Manikas
and Paige Dillon to return
to Decon Pad to help with
work that is going to be
conducted at SWMU-33, 37.
Also to obtain truck to move
steam cleaner - if possible.

John D. Pugh 10/5/94

**PHASE IIA
UXO STATEMENT OF WORK**

**PHASE IIA STATEMENT OF WORK
FOR TEST PIT EXCAVATION AND
UXO SURVEYS AT DESERET CHEMICAL DEPOT, TOOELE, UTAH**

1.0 SUMMARY OF SERVICES TO BE PROVIDED:

The basic task to be completed by the Subcontractor includes conducting a surficial screening for unexploded ordnance (UXO) and excavating test pits and screening for UXO during excavation operations. All activities will be conducted at DCD in the area of SWMU 37 (see attached figure). No UXO has been identified during previous surveys conducted within the SWMU area, however because of the potential for the presence of UXO, to ensure the safety of site personnel, and to fulfill the requirements of the DCD RCRA Part B Permit that governs the installation, UXO screening activities will be required. The task will be conducted in accordance with the requirements outlined in this RFQ.

The services required are summarized below:

- Excavate 11 test pits to 5 feet BLS. (The Backhoe will be rented by SAIC.) Screen for UXO from the surface to total depth. SAIC will collect samples from 1 and 1 feet BLS at each of these locations.
- Preparation of a brief work plan detailing the methods and procedures that will be employed during the screening and excavation activities, the uncertainties and level of confidence associated with all activities, and a discussion of the health and safety activities related to the site evaluation activities. All health and safety procedures must adhere to applicable U.S. Army standards as they relate to UXO
- Preparation of a brief report summarizing the results of the surveys. At a minimum this report will include site maps indicating the location of any subsurface anomalies, a discussion of the survey methods, procedures and techniques, and the level of confidence associated with all activities and findings. Site maps will be provided to the Subcontractor by SAIC.

2.0 BACKGROUND

The UXO/excavation activities will be conducted at SWMU SWMU 37 - Slag Piles and Bomb Fragments. Below are the summaries of the history of each SWMU.

- *SWMU 37 - Slag Piles and Bomb Fragments* - SWMU 37 is an approximately 20 to 30 feet deep former gravel pit that has been used as a dumping area for slag and ash. The pit has sloping sides and entry into the pit is easily accessible to machinery (e.g., excavator) and high-clearance vehicles (i.e., pick-up trucks, 4x4s). The test pits will be excavated in an area of stressed vegetation with the potential for buried ordnance. Scattered on the surface are rusted bomb fragments (bomblets) of unknown origin. UXO screening is being requested for this area based on the visual observations of bomb fragments.

3.0 SCHEDULE AND TERM

The completion period for field investigation activities will be agreed upon in writing by SAIC and the Subcontractor before field activities commence. Extension of the specified performance time frames of the term of this agreement will also be mutually agreed upon, in writing. Test pit excavation field activities are expected to begin in January 1999 and continue uninterrupted until all work is completed. It is anticipated that it will require 2-3 working days to complete the UXO screening and test pits excavation. Work days will average 10 hours in length, dependent on available daylight and on weather conditions. The Subcontractor will schedule manpower, equipment, and materials required to begin work. SAIC will notify the Subcontractor approximately two weeks in advance to confirm the start date. The Subcontractor will mobilize adequate personnel, materials and equipment to satisfactorily complete the level tasks detailed in this RFQ.

4.0 LIQUIDATED DAMAGES

The Subcontractor will be liable for payment of liquidated damages in the event of gross inadequacies in performance that result in time delays. These inadequacies include, but are not limited to: 1) inexperienced, uncooperative, and/or incompetent personnel; 2) inadequately outfitted or poorly functioning equipment; 3) noncompliance with the final Statement of Work (SOW) and the Health and Safety Plan; and 4) failure to arrive on site at specified times with the necessary equipment to perform work. Time delays beyond reasonable control of the Subcontractor (i.e., weather) are not subject to this liquidated damages clause. The rate of liquidated damages will be \$1,500.00 per business day and will serve as compensation to SAIC for SAIC's cost of extending the date for completion of the work.

5.0 MINIMUM QUALIFICATIONS CRITERIA

The Subcontractor must meet the following minimum criteria and must maintain these minimum criteria throughout the field investigation program:

1. Provide personnel that meet the qualification criteria established by the U.S. Army for dealing with UXO. Attachment I details the requirements that must be met. All personnel will be capable and knowledgeable of the methods and procedures for screening sample areas for UXO.
2. All required Subcontractor-supplied materials and spare parts must be on site in adequate quantities at the commencement and throughout the duration of field activities in order to ensure uninterrupted field operations.
3. All personnel will have previous experience excavating and sampling at suspected hazardous

waste sites.

4. Subcontractor will have full understanding of the details of the OSHA personnel protection levels to be used and the project Health and Safety Plan (to be provided by SAIC on contract award). All persons on-site will have 40-hour OSHA 1910.120 certification and be current in their OSHA 8-hour refresher and medical monitoring requirements. A copy of current training certificates (i.e., OSHA training and medical monitoring) for all of the field crew will be kept on site by the Subcontractor throughout the duration of the field work. A copy will also be provided to the SAIC Field Manager.
5. Documentation of all required training, education, experience, certifications and any other applicable or necessary training related to UXO will be kept on site by the Subcontractor throughout the duration of the field work. A copy of this documentation will also be provided to the SAIC Field Manager.

6.0 GENERAL PROVISIONS

The Subcontractor will comply with the following provisions throughout the project:

All equipment must be fully operational upon commencement of activities at the site and throughout the test pit/UXO program.

1. All field personnel must be knowledgeable of the requirements necessary to meet the specifications in the entire SOW for which the Subcontractor will be responsible. Field personnel must be able to carry out the requirements of the specifications independent of other activities at the site.
2. The Subcontractor will provide all labor, equipment, and materials necessary to complete the work described herein. Subcontractor-supplied materials and spare parts must be on site or readily accessible in adequate quantities at commencement of operations to ensure uninterrupted activities. Interruptions to progress caused by insufficient availability of materials on site may result in the enforcement of the liquidated damages clause (see Section 3.0).
3. The Subcontractor will be responsible for securing (including payment of fees) and complying with any and all permits that may be required by the State of Utah, Tooele County and/or any local authorities for digging of test pits. SAIC will be responsible for acquiring Depot permits and clearing Depot utilities. It will be the Subcontractor's responsibility to determine and comply with any and all State and local regulations regarding submission of Intent to Drill forms and drilling logs for the state of Utah as they apply to test pit excavations.
4. Any inconsistencies between these specifications and government or responsible agency requirements will be reported to the SAIC before the commencement or continuation of field activities. If the inconsistencies are not reported and/or are not resolved before field activities all work performed will be the responsibility of the Subcontractor.
5. Technical direction will be provided in the field by SAIC Field Manager or Supervisory Geologist. Technical direction is defined as providing clarification of the SOW, but does not constitute authority to modify the SOW, delivery schedule, or any other actions that may affect the subcontract prices.
6. SAIC will be responsible for the sampling of the soils excavated from the test pits.
7. Notwithstanding any provisions contained elsewhere in this subcontract, SAIC's Contractual

Representative is the only person authorized to approve changes to any of the requirements herein. In the event the Subcontractor effects any change at the direction of any person other than SAIC's Contractual Representative, the change will be considered to have been without authority.

8. It is recognized that SAIC has knowledge of the location of the work, the access routes to the location of the work, limited information regarding surface and subsurface conditions, and that SAIC is obligated to advise the Subcontractor of any known conditions that may affect performance of this contract. Additionally, before the commencement of field activities at the locations named herein, SAIC will have made provisions for utility clearance, and will mark all locations in the field with a survey stake. SAIC shall procure all entry permits and hold the Subcontractor harmless for claims of trespass or damage to property required in carrying out the work contemplated by SAIC hereunder, except where the Subcontractor is negligent or has violated SAIC's specified instructions.

7.0 TEST PIT EXCAVATION AND UXO SCREENING

7.1 Test Pit Excavation Activities/Test Pit Screening

The purpose of the test pit excavation is to collect environmental soil samples at various depths within the pit to determine the presence of contamination from previous activities. The Subcontractor will be required to provide all personnel, materials and equipment such that they are capable of excavating soil to a maximum depth of 5 feet BLS, at marked locations. In addition, the Subcontractor must be able to provide equipment and personnel to screen for UXO during soil removal and sampling during test pit activities. All sample location points and sampling depths will be determined by the SAIC Field Manager or Supervisory Geologist.

Eleven test pits will be excavated at SWMU 37 to a maximum depth of 5 feet BLS. Prior to test pit excavation the Subcontractor will be responsible for screening all locations for UXO using a magnetometer and identifying an acceptable location for excavation. During excavation of the test pits the Subcontractor will be responsible for providing the appropriately trained personnel and equipment to effectively screen for UXO and "clear" the pit area prior to excavation and any sampling activities. It will not be necessary for the Subcontractor to handle or move any identified UXO. If UXO is identified during test pit activities the Subcontractor will be required to contact the appropriate DCD representatives for removal. If sufficient UXO is identified in the work area such that alternative sample locations cannot be identified and it prohibits completing test pit operations at the SWMU, the subcontract will be modified to account for effective removal of the UXO.

The width and depth of the test pits should be such that the Subcontractor will be able to affectively and efficiently excavate soil for sampling and screen for UXO. Soil samples will be

collected from the bottom of the excavation by SAIC field personnel. The specific sampling depths will be determined in the field by the SAIC Field Manager or Supervisory Geologist. All work is anticipated to be conducted in EPA Personal Protection Level D. All site personnel will be required to follow the project-specific health and safety plan (to be provided upon contract award).

Each test pit will be backfilled with the material removed during the excavation. It is important to note that all the excavated material must be returned to the pit. During the excavation activities the removed soil will be placed on plastic sheeting adjacent to the pit. Following completion of the test pit the Subcontractor will be required to return all excavated material to the test pit, and return the site to its approximate original condition and contour.

7.2 Surficial UXO Screening

The Subcontractor will use a hand-held magnetometer or other appropriate devices that will be able to screen the proposed sample locations for UXO or any surficial anomalies. The equipment must be capable of determining anomalies to a depth of at least 24 inches BLS. This activity will be conducted prior to SAIC drilling the hand augers. If anomalies are detected, the sample location will be moved to an area that is termed "clear" by the Subcontractor. It will not be necessary to identify or remove any detected anomalies.

8.0 DECONTAMINATION

Decontamination of field equipment will be conducted as detailed below:

1. Before the commencement of test pit operations, between test pit locations, and before departure from each site, all test pit equipment and tools, will be steam cleaned and rinsed with water from the approved source identified by SAIC. The washing will take place at a designated decontamination point established in the area of SWMU 37. The Subcontractor is responsible for securing the necessary equipment to accomplish decontamination of this equipment. The Subcontractor is responsible for cleaning the decontamination area after each use which will include removal and containerization of water and sediment.
2. All sampling equipment will be cleaned by SAIC personnel.
3. Decontamination water and sediment will be removed from the pad and containerized. Sediment will be containerized in a DOT-approved 55-gallon drums without bungs. Decontamination water will be containerized in a tank that will be present at the decontamination area. The Subcontractor will be responsible for supplying all necessary drums.

9.0 INVESTIGATION DERIVED WASTE

The following section summarizes the procedures that are planned to be used to control the investigation derived wastes (IDW) that are generated during test pit operations.

- *Test Pit Cuttings* - Cuttings will be placed back into the test pit. The excavated material will be staged on plastic sheeting while the test pit is open prior to placing back into the borehole.
- *Decontamination Water/Sediment* - Decontamination water will be containerized by the Subcontractor in a water tank that will be located adjacent to the decontamination pad. Sediment generated in the decontamination area will be containerized in new DOT-approved 55-gallon drums without bungs and transported to a designated storage area on DCD.

All drums used during the investigation WILL NOT HAVE BUNGS and will be DOT-approved.

10.0 SITE ACCESS

SAIC will coordinate Depot passes for the Subcontractor and will arrange access to restricted sites. All areas will be accessible to excavation equipment.

11.0 HEALTH AND SAFETY

This section summarizes the health and safety measures to be used during the excavation activities and sampling program at DCD. The Subcontractor will be provided with a copy of the project-specific Health and Safety Plan a minimum of 3 weeks prior to initiation of the field work. The maintenance of good health and the provision for the safety of onsite personnel will be of major concern during activities at the Depot. SAIC has identified both medical surveillance and safety programs that will afford onsite personnel more than adequate protection. Additionally, all site personnel must be in compliance with OSHA training requirements. The main points of this plan include medical examination and safety equipment use and procedures. Each of these points is described in greater detail in the following sections.

Subcontractors shall comply with all health and safety requirements as designated by the SAIC Field Manager or Health and Safety Officer. SAIC reserves the right to cease operations if the onsite Health and Safety Officer, Field Manager or Supervisory Geologist determines that health and safety requirements are not being followed. Any cessation of excavation operations (i.e., downtime) caused by breached health and safety requirements by the Subcontractor shall be at the expense of the Subcontractor and may be subject to the liquidated damages clause (see Section 3.0). Each person will be responsible for complying with the project Health and Safety Plan and with the direction of the

Health and Safety Officer, Field Manager or the Supervisory Geologist.

11.1 Medical Screening and Health Examinations

All Subcontractor personnel must be participants in a corporate health and safety (H&S) program under OSHA regulations. As participants in an H&S program, field personnel should undergo health monitoring while participating in the waste site investigations so that their health may be protected through early detection of symptoms of exposure to toxic substances and screening for their physical ability to perform the job. A record of health monitoring for Subcontractor personnel must be preestablished by the Subcontractor prior to initiating work in the field. All Subcontractor personnel must be participating in a medical surveillance plan. At a minimum, this should include an annual physical examination, which includes tests of the sensory system, lungs, liver, kidney, and cardiovascular system.

11.2 Personnel Safety

In order to provide the greatest degree of safety to onsite personnel at DCD, field personnel will be required to wear personal protective equipment. SAIC also has developed decontamination procedures that will be followed either routinely at the end of the day or for the treatment of accidental exposure to potentially hazardous chemicals.

Safe work procedures must be followed and personal protective equipment must be used for preventing worker exposure to toxic materials. The success of work procedures and protective equipment in protecting worker health is greatly dependent on worker cooperation.

It is understood that the more encumbered with protective equipment the worker becomes, the more difficult it is for him to perform the job expeditiously. However, the following Standard Operating Procedures (SOPs) in this section are a practical balance of worker protection and freedom of movement that should allow the work to be conducted without compromising worker health and safety.

11.2.1 Safety Equipment

Numerous items of safety equipment will be required in performing the field work at DCD. Level D protection has been selected for the excavation efforts based on previous sampling results and historical data on the site. The Subcontractor must mobilize to the site with the capability of upgrading

to Level C protection. This consists of the following personal protective equipment, which the Subcontractor is responsible for supplying:

- Full-face air-purifying respirator with organic vapor cartridges
- Safety glasses
- One-piece, chemical-resistant, Tyvek disposable coveralls
- Inner and Outer Gloves - chemical protective (i.e. nitrile)
- Boots - chemical protective, steel shank, and steel-toed
- Hard hat.

It will be the responsibility of the Subcontractor to maintain an adequate supply of expendable personal protective equipment (i.e., Tyvek coveralls and respirator cartridges) for Subcontractor personnel for the duration of the field investigation program. The Subcontractor will be responsible for supplying any and all safety equipment related to UXO operations and activities. DCD will provide a respirator specific to the requirements of the facility (see section 11.5).

11.2.2 Safety Equipment Supplied By SAIC

The Subcontractor is responsible for replacing or repairing its own safety equipment in a timely manner. SAIC will keep spare safety equipment at the site for emergency use and so that damaged or malfunctioning equipment of the Subcontractor can be replaced immediately. Non-expendable SAIC-supplied spare safety equipment must be decontaminated and returned at the end of each day. SAIC will assume no liability associated with Subcontractor use of equipment supplied by SAIC.

In addition to the personal safety equipment, the following equipment also will be supplied by SAIC and kept at the site:

- Eye wash kit
- First aid kit
- Paper towels
- HNu air monitoring equipment.
- LEL combustible gas monitoring equipment

11.3 Excavation Site Health and Safety Procedures

Procedures to be employed to ensure personnel health and safety are outlined in the following section. The Field Manager and Supervisory Geologist will have the authority to enforce these procedures.

1. Designated safety equipment will be worn at all times.
2. Wearing of contact lenses will be avoided when possible.
3. Eating, drinking, smoking, chewing gum, chewing tobacco, or open flames will not be permitted in the immediate vicinity of the test pit sites. Gloves will be removed, hands and forearms will be washed, and personnel will leave the sampling area before eating, drinking, or smoking.
4. Proper decontamination procedures will be followed before leaving the site area.
5. Soil, rock, and groundwater samples will not be handled without protective gloves.
6. The use and results of site monitoring equipment (i.e., LEL, HNu) will determine if additional safety equipment, including respirators and goggles or face shields, as appropriate, will be required. This determination will be made by the SAIC Field manager or Supervisory Geologist. Specific requirements regarding upgrading personal protection will be detailed in the project-specific health and safety plan to be provided to the contractor at the time of contract award.
7. The use and maintenance of all respirators will be in accordance with the manufacturer's instructions. Only NIOSH/MSHA-approved respirators will be used.
8. No one will use a respirator without prior training. All personnel will have undergone a qualitative respirator fit test by an industry accepted method and records of this testing will be provided to SAIC at the start of the field investigation.
9. Beards will not be permitted. Respirator facepieces must contact the skin directly.
10. Vaseline or other materials will not be used to provide a proper seal.

11.4 Emergency Procedures

A site-related emergency is defined as an accident, illness, or personal exposure to hazardous substances. The response to an emergency situation is two-fold, obtaining assistance and treating the problem. All SAIC personnel will have a list of emergency telephone numbers, including police, fire department, hospital, and poison control center.

11.5 DCD Specific Procedures

DCD is a chemical agent storage Depot requiring specific health and safety protocols be followed. Because no excavation activities will occur within the chemical storage area (Area 10), a baseline cholinesterase test will not be required by the Subcontractor. In addition to the previously listed health and safety requirements the following is a summary of those procedures that will need to be followed are listed below:

- A site-specific health and safety training seminar will be conducted by DCD personnel for all persons who will be conducting work at DCD. This training will detail the necessary procedures and precautions that will be required to be followed while working at DCD.
- Each worker will be fit tested by TEAD for an M9, M17 or M40 military chemical agent mask. This mask will be required to be worn and/or be directly accessible when conducting any work at DCD.

12.0 PLANNING DOCUMENTS

The Subcontractor will be required to submit a brief Work Plan providing specific details as to how the activities in the task will be performed. Also to be included in the plan are the necessary health and safety requirements for the prevention of accidents. This document shall be prepared in accordance with the U.S. Army regulations and guidance pertaining to UXO. Also to be included in this plan is a brief discussion of how the task will be managed.

13.0 REPORTING

A reporting document will be prepared by the Subcontractor that shall document the methods, procedures and techniques utilized in conducting the UXO screening and excavation activities, the findings of the screening activities and accurate site maps indicating the location of any subsurface anomalies.

The Subcontractor shall submit all reporting documents and data collected to SAIC in an electronic format in either WordPerfect 5.1 or comma delimited ASCII files. This data shall be submitted to SAIC within 21 days of completion of the field investigation activities.

14.0 PERIOD OF PERFORMANCE/SCHEDULE

The period of performance for this task shall be 3 months. The reporting document associated with the findings of the surveys will be delivered to SAIC within 21 days of completion of the site survey. The test pit excavation will be conducted during the time when other field activities are being conducted. It is anticipated that the field work will commence in January 1999.

UXO Daily Log
Deseret Chemical Depot, Tooele, Utah

Date	2.23.99		
Company	ATI/OES		
Personnel Onsite	Cecil Taylor		
	Darrell Walden		
Working Time	Site Number	Activity	Additional Notes
0730-1700	37	Excavate and clear 10 sample locations to 5 feet BLS using backhoe	11 SAMPLES COLLECTED (10x5' BGS & 1x1' BGS) ON 2/23/99
			NO UXO IDENTIFIED

SAIC Representative:

Patrick Soderberg (PATRICK SODERBERG)

Subcontractor Representative:

Cecil Taylor

UXO Daily Log
Deseret Chemical Depot, Tooele, Utah

Date	2.22.99		
Company	ATI/OES		
Personnel Onsite	Cecil Taylor		
	Darrell Walden		
Working Time	Site Number	Activity	Additional Notes
0700 - 1700	37	Clear 10 sample locations; excavate and clear 10 sample locations to 1 foot BLS;	Necessary to rent backhoe to complete test pits; backhoe rented @ SAIC's expense
		Excavate and clear 1 sample location to 5 feet BLS using backhoe	11 SAMPLES COLLECTED ON 2/22/99 (10 x 1' BAGS & 1 x 5' BAGS)

NO UXO IDENTIFIED

SAIC Representative: *Patrick Soderberg* (Patrick Soderberg)
 Subcontractor Representative: *Cecil Taylor*

2/22/99

SODENTERRA

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SITE 37 - Sunny ~ 40°F wind SW ~ 5-10 mph

0730 - ARRIVE @ SITE - GET GLEN HART (SAIC)

20260 is FIBER PULA CHEMICAL MARK.

0815 - PRIME SAMPLE EQUIPMENT : CALIBRATE
2x P.I.D. & LEL. (SEE CALIBRATION LOGS)

0900 - HEALTH & SAFETY BRIEFING w/ SAIC
& UXO PERSONNEL.

UXO = CECIL TAYLOR & DARREN WALDEN
w/ AMERICAN TECHNOLOGIES INC.

-0930 ARRIVE @ SITE 37 - BEGIN UXO

CLEARANCE FROM COLLECTING SUBSURFACE
SOIL SAMPLES FROM 1' BAGS & 5' BAGS.

- BEGIN @ SB-37-011 - 1030 - UXO cleared to 1' BAG
COLLECT SB-37-011 (SAIC 02) @ 1035 FROM 1' BAG

1610 UXO cleared to 6' BAGS - (INSTRUMENT CLEAR 2' BELOW HOLE)

COLLECT SB-37-011 (SAIC 03) @ 1615 @ 5' BAGS (COLLECTED WITH HAND ARM)

- UXO clearance is performed w/ A "MG 230"
AND A POWER AUGER TO GET DOWN TO DESIRED DEPTH.

SAMPLES FROM 1' BAGS ARE COLLECTED w/ STRAINLESS STEEL
SPoons & BOWL - 5' BAGS SAMPLES COLLECTED w/ A

S. STEEL HAND AUGER, SPOON & BOWL.

* 1140 - STOP WORK - BREAK FOR LUNCH

- ASK JOHN CARTER TO SEE IF RENTAL COMPANY
HAS narrower auger flights because 4" diameter
is hitting too many rocks (SLOW).

* JOHN & UXO TEAM DECIDE TO RENT A BACK HOE

(PS)

2/22/99

SODENTERRA

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TO DIG DOWN TO 6' BAGS @ SITE 37.

→ 1320 - BEGIN SAMPLING THE 1' INTERVALS.

SB-37-012 (SAIC 02) @ 1325 FROM 1' BAGS

SB-37-013 (SAIC 02) @ 1335 FROM 1' BAGS

SB-37-014 (SAIC 02) @ 1340 FROM 1' BAGS (P.I.D. 0.9)

SB-37-016 (SAIC 02) @ 1350 FROM 1' BAGS

SB-37-015 (SAIC 02) @ 1345 FROM 1' BAGS (P.I.D. 0.4)

SB-37-017 (SAIC 02) @ 1420 FROM 1' BAGS

SB-37-018 (SAIC 02) @ 1445 FROM 1' BAGS

SB-37-019 (SAIC 02) @ 1455 FROM 1' BAGS

SB-37-020 (SAIC 02) @ 1501 FROM 1' BAGS

* ALL P.I.D. readings = 0.0 ppm unless otherwise
STATED.

DESCRIPTIONS OF SAMPLE LOCATIONS (@ 1' BAGS)

SB-37-020 = A lot of slag metal debris & pebbles
mixed in w/ sandy soil - large pieces of rusty
metal & missile debris in area.

SB-37-019 = small slag particles (< 0.5" diameter)
intermixed w/ gray/white dust, pebbles & sandy soil

SB-37-018 = "natural" material - pebbly sandy soil
w/ small rocks.

SB-37-017 = large pieces of rusty metal & slag
mixed in w/ soils. - Some gray/white powder
intermixed w/ pebbly soils.

(PS)

2/22/99
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SODERBERG

SITE 37

SB-37-φ16 = rocky, pebbly, sandy clay.

SB-37-φ14 = rocky, pebbly, sandy clay

SB-37-φ13 = rocky, pebbly, sandy clay

SB-37-φ15 = collected ~~under~~ ^{around} among a pile of rusted missile bodies buried down to > 1' bas.

- white powder in & around missile bodies.

SB-37-φ12 = lots of silt & rusted metal & missile bodies mixed into rocky soil.

SB-37-φ11 = large rocks & rusted metal in the 1st foot of soil (rocky & pebbly).

Subsurface soil samples - SITE 37 - 1st 5'

OF 5' ACHIEVED. w/ BACKHOE - SAMPLE COLLECTED USING A STAINLESS STEEL HAND AUGER, FROM BELOW BOTTOM OF PIT. SAMPLE COLLECTED FROM BOTTOM OF AUGER BUCKET.

SB-37-φ11 (SAIC φ3) @ 1615 - 1st 3' contained metal debris & discolored soil (white, gray & dark brown) - above light brown sandy gravel soil. - Sample from 5' bas.

1620 JOHN C. TAKES PICTURE OF TRENCH PIT PRIOR TO BACK FILLING.

1640 - HUB IS BACKLINED - BACKHOE LOCATED & LEFT ON SITE - GO TO TRAILER DROP OFF MASKS

1700 CECIL & DRESEL DEPART BASE - SODERBERG HELPS PREP SAMPLES FOR LAB. DELIVERY.

1715 - DEPART TO DATA CHEN.

(P5)

(P6)

2/23/99

SODERBERG

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PARTLY CLOUDY, ~35°F, WIND SOUTH - 5 MPH

SITE 37 - SUBSURFACE SOIL SAMPLES

→ 0730 - ARRIVE @ BASE - CALIBRATE P.I.D.'s @ C.E.L. (SEE CALIBRATION LOGBOOK)

→ HEALTH & SAFETY MEETING (SEE SIGN OFF SHEET).

0800 - HEAD OUT TO SITE 37

0810 - BEGIN SB-37-φ12 - PICTURES TAKEN OF EXCAVATION @ 2' BAS DEPTH - SHOWING RUSTED MISSILE BODIES & DARKENED DISCOLORED SOIL. 2nd PICTURE OF SB-37-φ12 @ 5' DEPTH. 3rd PICTURE OF 5' DEPTH ALSO SHOWING EXCAVATED MATERIAL.

SB-37-φ12 (SAIC φ3) @ 0840 - SAMPLE CONTAINS A LOT OF WHITE POWDER

- SB-37-φ16 - PICTURE OF PIT @ 5' DEPTH SHOWING MOSTLY "NATURAL" ~~MAN @~~ SOILS w/ RUSTED METAL DEBRIS.

SB-37-φ16 (SAIC φ3) @ 0900 - pebbly soil w/ RUSTED METAL.

- PICTURES OF SB-37-φ17 (2 PICTURES) - SHOWING MISSILE BODIES STACKED ORIENTED (SAME ORIENTATION) ON SIDE OF PIT. 1st PICTURE = OVERVIEW, 2nd = CLOSE-UP.

SB-φ17 (SAIC φ5) @ 0910 - SAMPLE CONTAINS SOIL DISCOLORED w/ WHITE POWDER (TAKE CONSISTENCY) w/ silt & debris.

0920 - GO TO TRAILER TO DROP OFF AUGER FLIGHTS.

0935 - HEAD BACK TO SITE.

0945 - BEGIN DIGGING @ SB-37-φ18

1005 - PIT EXCAVATED DOWN TO 5' BAS - HALO

(P5)

2/23/99

SODERBERG/WEDGEMASTER

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Sunny ~ 45°F Wind SW ~ 5-10 MPH

Scrap metal in hole - RR RAIL ROAD TRACK & 1" DIAMETER STEEL PIPES & OTHER SCRAP METAL.

Sample collected from Eastern PIT bottom due to sloping in this pit. SB-37-018 (SAIC #3) @ 1010 1020 - BEGIN SB-37-019

@ 1030 John C. (SAIC P.M.) ARRIVES @ SITE WITH FACILITY PERSONNEL - STOP WORK UNTIL PERSONNEL IS OUT OF WORK AREA.

1045 - OBSERVATION OF AREA IS COMPLETED PERSONNEL DEPART SITE. 1055 - BEGIN EXCAVATION.

1100 FACILITY PERSONNEL RETURN TO TAKE PICTURES - STOP WORK - EXCAVATION OF SB-37-019 IS COMPLETE

1120 collect SB-37-019 (SAIC #3) - pictures taken of pit. (RETAKE SAME PICTURE - WITH STAKE VISIBLE). Sample collected from west side of pit (less slough) - soil is very moist reddish brown clay with few pebbles. METAL DEBRIS IN HOLE ENDS @ 4' DEEP.

1125. BEGIN SB-37-020 - 1140 END SB-37-020

1150 collect SB-37-020 from Eastern side of hole.

METAL DEBRIS ENDS @ ~ 3.5' DEEP WITH A reddish brown bank of soil about 1' THICK directly below metal (3.5'-4.5' DEEP). PICTURES (2) TAKEN OF PIT - 1st IS VERTICAL 2nd HORIZONTAL OF HOLE & EXCAVATED MATERIAL.

1200 START SB-37-015 - METAL DEBRIS ENCOUNTERED

(PB)

2/23/99

SODERBERG

107

DOWN TO 6' DEEP - SAMPLES COLLECTED @ 6.5' DEEP. SB-37-021 (SAIC #3) @ 1220 ~~MAINTENANCE~~ COLLECTED (TRIPLE NUMBER) DUPLICATE SAMPLE COLLECTED.

- PICTURES TAKEN OF EXCAVATED MATERIAL IN PIT. SB-37-013 (SAIC #3) @ 1240 - picture of pit - NO DEBRIS. * Add SAMPLE LOCATION SB-37-021 (SAIC #2) @ 1250

collected from 1' DEEP - SANDY clay w/ pebbles - rusty metal in 1st FOOT -

SB-37-014 (SAIC #3) @ 1305 FROM 5' DEEP - NO METAL ENCOUNTERED. - SANDY, pebbly, clay.

SB-37-021 (SAIC #1) @ 1315 FROM GROUND SURFACE. SB-37-021 (SAIC #3) @ 1325 FROM 5' DEEP - cobbly

SANDY SOIL - NO METAL DEBRIS IN HOLE OR STAKE DEPTH. 1335 - CBBIL STARTS BACKFILLING SAMPLE PITS.

1440 - AREA IS RESTORED - ALL PITS ARE BACKFILLED - GO TO BLD 536 TO PRESSURE WASH BACKHOE RIG.

1520 - BACKHOE LEFT @ FRONT GATE FOR "TOOL BOX RENTAL Co."

1530 - SIGN OFF ON SUBCONTRACTOR'S DAILY ACTIVITY LOGS - 2 DAYS - 1st DAY 10 PITS CLEARED TO 1' DEEP (SAMPLED) + 2 PITS CLEARED TO 5' DEEP (SAMPLED) 2nd DAY: 10 PITS CLEARED TO 5' DEEP (SAMPLED) for a total of 11 pits and 22 samples (11 from 1' DEEP & 11 from 5' DEEP).

(PS)

2/23/99 SODARBERG/STONER
10%

4/0

109

1610 - MEASURE SAMPLE PIT LOCATIONS @ SUMM[#]37

— 1st MEASUREMENT POINT IS FROM TELEPHONE POLE (UNMARKED)
LOCATED EAST OF THE SITE AND IS THE MOST NORTHERN
POLE LOCATED SOUTH OF ROAD AND WEST
OF R.R. - ALL MEASUREMENTS w/ 300' TAPE (RIGHT)

	POLE #229 SB-37-015	POLE #225 SB-37-021
SB-37-012	183'	203'
SB-37-013	201'	181'
SB-37-014	212.5'	169'
SB-37-021	240'	194'
SB-37-016	244'	222.5'
SB-37-011	210'	230'
SB-37-015	256'	256'
SB-37-017	273'	238'
SB-37-018	302'	258'
SB-37-019		294.5'
SB-37-020	211'	228'

1645 - HEAD BACK TO TRAILER TO GET SAMPLES

READY FOR LAB SHIPMENT.

1710 - DEPART TO DATA CENTER.

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1/64/00

(P)

**PHASE IIB
UXO STATEMENT OF WORK**

Deseret Chemical Depot
Additional UXO/Clearance Activities

The requirements stipulated in the existing subcontract will be in force for all additional tasks conducted.

SWMU 20 (Building 520/Structure 521)

Locate the leach field associated with the former septic tank and collect samples below the effluent pipe. Activities associated with this action include those listed below:

- Screen the surface and subsurface for UXO
- Unearth the effluent pipe using a backhoe; segregate the soil collected from above the pipe and place in 55-gallon drums (supplied by another contractor). The effluent pipe is anticipated to be 160 feet long and approximately 2 feet BLS.
- Unearth and segregate all identified effluent pipe and place pipe in 55-gallon drums (supplied by another contractor).

SWMU 37

Conduct excavation activities according to the following plan:

- Excavate 6 test pits to 15 feet BLS. (The Backhoe will be rented by SAIC.) Screen for UXO from the surface to total depth. SAIC will collect samples from 10 and 15 feet BLS at each of these locations.
- Excavate 12 exploratory test pits to 5 feet BLS to delineate the extent of the existing thermate bomb disposal trench. Screen all locations for UXO.

**Attachment A – Bid Schedule
For Surface and Subsurface UXO Screening
Deseret Chemical Depot, Tooele, Utah**

Description	Unit	Estimated Quantity	Unit Cost	Total
1. Mobilization/Demobilization (a)	Lump	1		
2. Surface, Subsurface Clearance/Test Pit Excavation (15 feet BLS) (b)	Each	6		
3. Subsurface Clearance/Test Pit Excavation (5 feet BLS) (b)	Each	12		
4. Surface Clearance, Excavation of Effluent Pipe (c)				
Total				

Estimate number of days on site: _____

- (a) Includes mobilization to and from site, all personnel per diem, and providing UXO standard operating procedures for incorporation into the SAIC Workplan.
- (b) Includes all labor necessary to conduct test pit excavations and conduct UXO clearance to the depth specified by the onsite SAIC representative. It is anticipated that this will not be greater than 15 feet BLS. This Description is related to SWMU 37.
- (c) This Description is related to SWMU 20.



To: Jim Adams/ATI/OES		Fax: 760.386.7149
From: John Carter		Phone: 703.318.4622
Date: 9/13/99	Time: 1600	Charge No:
Total Pages: 3	Urgent	Normal
Reference: Additional UXO, Excavation Support – Deseret Chemical Depot		

Jim,

Attached is a breakdown of the additional work that we will be conducting at Deseret Chemical Depot. We are asking that you please provide the unit costs and a total cost for the effort to conduct the specified UXO and excavation support. The original subcontract will be in force for all additional work identified on the table. I have attached a copy of your original unit prices. Please contact me at 703.318.4622 if you have any questions. We are requesting that the bid be completed and faxed to SAIC (703.709.1042) no later than 12pm EST on Wednesday 15 September.

Please direct your response to MS. PEGGY BRUN, SAIC SUBCONTRACTS.

Thank you for you timely response.



An Employee-Owned Company

UXO/BACKHOE DAILY LOG, DESERET CHEMICAL DEPOT

Date	27 JAN 00		
Company	ATI/OES		
Personnel Onsite	MICHAEL BLEVINS LARRY HART		
Working Time	Site	Activity	Additional Notes
0730-1300	37	DUG 16 TRENCHES TO IDENTIFY THE PARAMETERS OF BURIAL SITE INVESTIGATED 3 ANOMOLIES	
1300-1715	37 20	MAPPED BURIAL SITE 37 DUG 15' HOLES (3) AT SITE 20 FOR SOIL SAMPLING	
Total Hours Onsite:			No UXO identified
10.5 EA			

SAIC Representative: PATRICK J. SOVERBERG (Print/Sign)

Subcontractor Representative: MICHAEL K BLEVINS (Print/Sign)



An Employee-Owned Company

UXO/BACKHOE DAILY LOG, DESERET CHEMICAL DEPOT

Date 26 JAN 00			
Company AT/OES		AT/OES	
Personnel Onsite MICHAEL BLEVINS LARRY HART			
Working Time	Site	Activity	Additional Notes
0730 - 1200	37	EXCAVATION SB-37-18 TO 10' & 15' SB-37-19 TO 10'	SB-37-19 COULD NOT BE DUG TO 15' (SECOND ATTEMPT)
1230 - 1545	37	EXCAVATED SB-37-12 TO 10' & 15' SB-37-17 TO 10' & 15'	
1545 - 1715	37	EXCAVATION 5 POINT TO ESTABLISH BURIAL AREA PERMITS	
Total Hours Onsite: <u>10.5 EA</u>			
			No UXO IDENTIFIED

SAIC Representative: MICHAEL K BLEVINS (Print/Sign)

Subcontractor Representative: PATRICK J. SORENSEN (Print/Sign)



An Employee-Owned Company

UXO/BACKHOE DAILY LOG, DESERET CHEMICAL DEPOT

Date	27 JAN 00		
Company	ATI/OES		
Personnel Onsite	MICHAEL BLEVINS LARRY HART		
Working Time	Site	Activity	Additional Notes
0730-1300	37	DUG 16 TRENCHES TO IDENTIFY THE PARAMETERS OF BURIAL SITE INVESTIGATED 3 ANOMOLIES	
1300-1915	37 20	MARKED BURIAL SITE 37 DUG 15' HOLES (3) AT SITE 20 FOR SOIL SAMPLING	
Total Hours Onsite:			
10.5 EA			No UXO Identified

SAIC Representative: PATRICK J. SODERBERG (Print/Sign)

Subcontractor Representative: MICHAEL K BLEVINS (Print/Sign)



An Employee-Owned Company

UXO/BACKHOE DAILY LOG, DESERET CHEMICAL DEPOT

Date 26 JAN 00			
Company ATC/OES		ATI/OES	
Personnel Onsite MICHAEL BLEVINS LARRY HART			
Working Time	Site	Activity	Additional Notes
0730 - 1200	37	EXCAVATION SB-37-18 TO 10' + 15' SB-37-19 TO 10'	SB-37-19 COULD NOT BE LOCATED (SECOND ATTEMPT)
1230 - 1545	37	EXCAVATION SB-37-12 TO 10' + 15' SB-37-17 TO 10' + 15'	
1545 - 1715	37	EXCAVATION 5 POINT TO ESTABLISH BURIAL AREA AERIMETER	
Total Hours Onsite: 10.5 EA			
			No UXO identified

SAIC Representative: MICHAEL K BLEVINS (Print/Sign)


Subcontractor Representative: ~~Patrick J. Seaman~~ (Print/Sign)



An Employee-Owned Company

UXO/BACKHOE DAILY LOG, DESERET CHEMICAL DEPOT

Date <u>25 JAN 00</u>			
Company <u>ATI/OES</u>		ATI/OES	
Personnel Onsite <u>MICHAEL BLEVINS</u> <u>LARRY HART</u>			
Working Time	Site	Activity	Additional Notes
<u>0745 - 0915</u>	<u>20</u>	<u>FINISHED DIGGING UP SEWATIC PIPE</u>	
<u>0930 - 1230</u>	<u>37</u>	<u>DUG SB-37-15 TO 10' + 15'</u>	
<u>1300 - 1715</u>	<u>37</u>	<u>DUG SB-37-16 TO 10' + 15'</u> <u>DUG SB-37-19 TO 10'</u>	
<u>Total Hours Onsite:</u> <u>10.5 EA</u>			<u>NO UXO Identified</u>

SAIC Representative: MICHAEL K BLEVINS  (Print/Sign)

Subcontractor Representative: PATRICK J. SOBERBERG  (Print/Sign)

