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NAS CECIL FIELD, FL
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WORK PLAN REVISION FOR EXCAVATION OF LEAD AND/OR POLYCYCLIC AROMATIC
HYDROCARBON CONTAMINATED SOIL AT OPERABLE UNIT 5 (OU 5) SITE 49 FORMER
SKEET RANGE NAS CECIL FIELD FL
1/5/2006
CH2MHILL CONSTRUCTORS INC



WORK PLAN REVISION

REVISION NO: 02

CONTRACT NO: N62467-01-D-0331

PROJECT NAME: Former Naval Air Station (NAS) Cecil Field,
Jacksonville, Florida

CONTRACT TASK
ORDER (CTO) NO: RAC III 0005 / RAC IV 0038

SITE/TASK: Former Tank G842B Residual Petroleum-
contaminated Soil Removal

WORK PLAN DATE: May 2002

WORK PLAN NAME: Excavation of Lead and/or PAH Contaminated Soil
from Operable Unit 5 Site 49, Former Skeet Range,
Former NAS Cecil Field, Jacksonville, Florida

DATE OF REVISION: January 5, 2006

REVISION
PREPARED BY: Jeffery Marks

Modifications/Revisions:

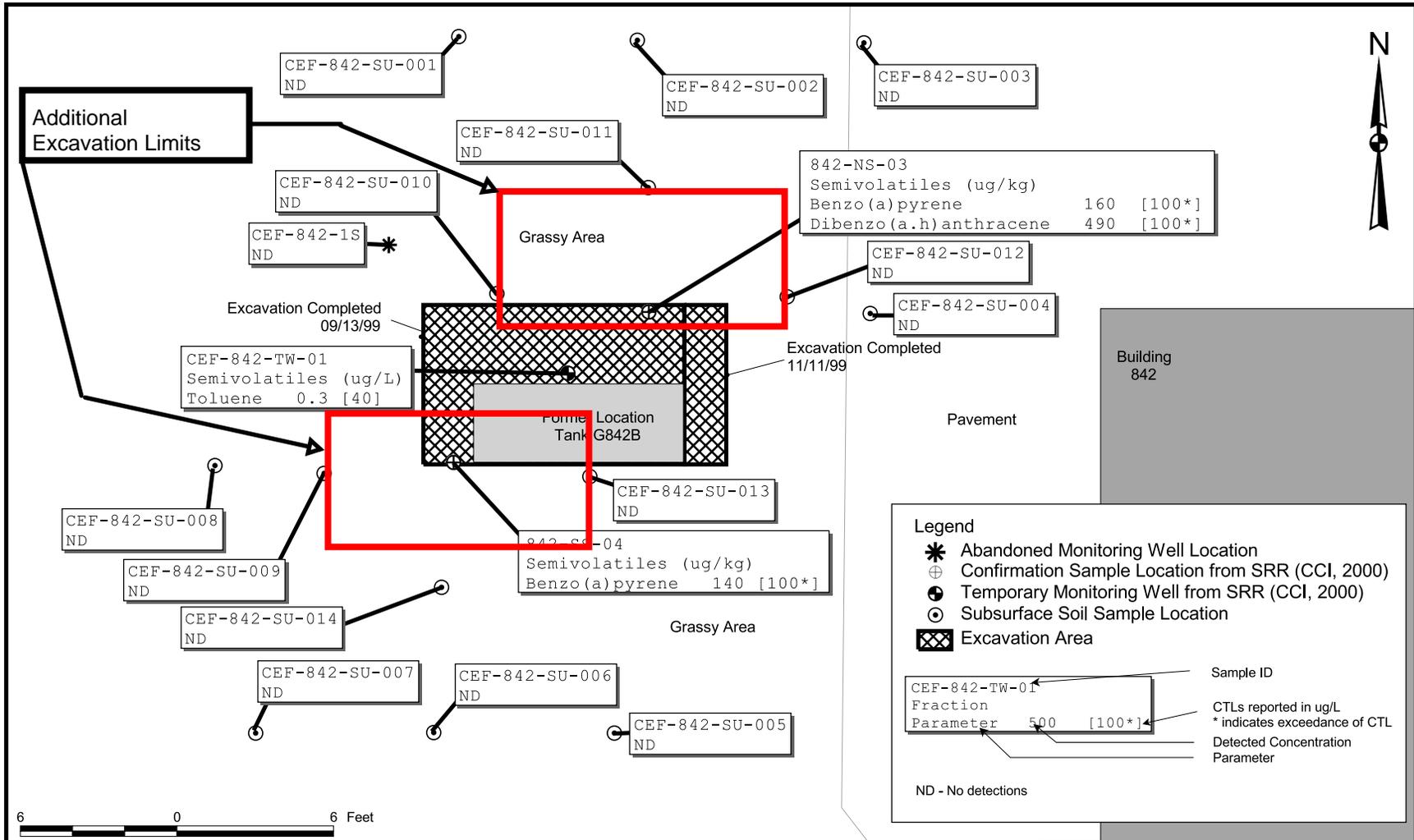
Item No.	Description of Modifications/Revisions
Purpose	<p>The purpose of this Work Plan Revision is to incorporate residual petroleum-contaminated soil removal at the former Tank G842B site, former NAS Cecil Field, Jacksonville, Florida into RAC IV CTO No. 0038.</p> <p>Building 842 was the radar building and housed ground electronics used for aircraft navigation. Building 842 was located in the central portion of NAS Cecil Field at the intersection of the north-south and east-west runways. Underground Storage Tank (UST) G842B was located to the west of Building 842 in a grassy area. The building was removed by the Jacksonville Airport Authority (JAA), and the area immediately surrounding the former location of Building 842 is paved, with a driveway extending from the northern side of Building 842 to the runway north of the building. The remainder of the area is grass covered. The area of the former Building 842 is surrounded to the north, south, east, and west by paved areas of the runways and flightline with maintained grass areas in between. The JAA continues to use these runways and taxiways.</p> <p>Prior to UST removal, a confirmation sampling investigation was conducted in January 1997 and April 1998 to evaluate site groundwater and soil for petroleum impacts. The investigation detected no contaminants in the groundwater and no excessively contaminated soil. The Confirmatory Sampling Report recommended that no further action be taken at the site until the tank was removed.</p> <p>A tank excavation and soil removal were conducted in September and November 1999. Approximately 13 cubic yards of soil were removed for offsite disposal in September, and an additional 2.3 cubic yards were removed in November. The Source Removal Report recommended that no further action was required at the site because the groundwater analytical results from an installed temporary well were below Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels and the soil analytical results from collected confirmation samples were less than the FDEP Soil Cleanup Target Levels (SCTLs) for Leachability based on Groundwater Criteria.</p> <p>In April 2001, the FDEP issued a letter requesting additional site investigation because analytical results from two of the soil samples collected during the tank and soil removal had dibenzo(a,h)anthracene and/or benzo(a)pyrene concentrations above the FDEP SCTLs for Direct Exposure - Residential Criteria. A Limited Scope Site Assessment (LSSA) was conducted in 2003 and 2004 to delineate the extent of petroleum impact beyond the hot spots detected during the tank and soil removal. The LSSA Report (LSSAR) recommended that additional soil be excavated from two hot spots, and removal of the soil with polynuclear aromatic hydrocarbon (PAH) exceedances may allow future unrestricted reuse of the site and approval of no further action.</p>

Purpose (Cont'd)	<p>The technical approach specified in the RAC III CTO No. 0005 and RAC IV CTO No. 0038 Work Plan Addendum No. 15, Revisions 00 and 01 for the Excavation of Lead and/or PAH Contaminated Soil from Operable Unit 5 Site 49, Former Skeet Range will be adhered to during the residual petroleum-contaminated soil removal at the former Tank G842B site. This revision provides the supplemental details necessary to complete the residual petroleum-contaminated soil removal, to include the excavation plan and details; the site-specific sampling and analytical requirements; the project regulatory framework; the project staff role assignments; and the site-specific Activity Hazard Analysis (AHA) forms.</p> <p>Following are the specific modifications/revisions:</p>
001	<p>Residual Petroleum-contaminated Soil Removal Plan and Details</p> <p>Prior to the commencement of work at the site, Tetra Tech NUS, Inc. (TtNUS) will locate and mark the horizontal excavation limits. CH2M HILL will coordinate with the JAA and Sunshine State One Call of Florida to complete a site utility survey. In addition, JAA vehicle ramp training for non-movement and movement areas will be completed by all personnel that will operate vehicles or machinery at the site. All JAA protocols for conducting activities adjacent to or on active taxiways or runways will be followed to include; the constant communication between each vehicle and the JAA Operations Tower, safety lights placed on each vehicle, airport safety flags placed on each piece of machinery, and high visibility safety vests worn at all times by site personnel.</p> <p>Residual petroleum-contaminated soil will be excavated from two distinct hot spot areas to a vertical depth of 1-foot below the water table. The horizontal extents of soil excavation determined by TtNUS are shown on the attached Excavation Plan. Approximately 30 tons of residual petroleum-contaminated soil will be excavated from the site.</p> <p>Excavated material will be direct loaded into tandem trailer truck or loaded into 20 cubic yard roll off containers for transportation and disposal. Excavated soil will be managed, transported, and disposed of in accordance with RAC III CTO No. 0005 Work Plan Addendum No. 15, Revision 00 and RAC IV CTO No. 0038 Work Plan Addendum No. 15, Revisions 01 and 02.</p> <p>The excavated areas will be backfilled to original grade in an even distribution with certified "clean" granular fill material from an offsite source. Fill material must meet FDEP SCTLs for Direct Exposure - Residential or Leachability based on Groundwater Criteria, whichever is lower, as specified in Chapter 62-777 Florida Administrative Code (FAC) to be certified "clean." Fill material will be placed in maximum of 1-foot lifts and machine compacted. Top soil is not required; however, the offsite material used for backfill will be capable of supporting vegetation.</p> <p>Disturbed areas caused by excavation operations will be restored to match pre-excavation conditions. This will include grading to provide drainage and applying grass sod to match the existing grass type.</p>
002	<p>Table 3-2, Sampling and Analysis Summary Table</p> <p>Revised to include the site-specific sample locations, sample collection frequency, and the required laboratory analyses for samples collected during waste characterization and backfill certification associated with residual petroleum-contaminated soil removal.</p> <p>The site-specific sampling events, sampling and analytical requirements, and required level of quality and data packages are provided on the attached Table 3-2, Revision No. 02 (R2).</p>
003	<p>Section 5.1; Applicable Regulations</p> <p>Remedial activities at the former Tank G842B site are regulated under the State of Florida's Petroleum Program. All solid/hazardous waste and media will be characterized and managed according to the requirements of FAC Chapter 62-730, Hazardous Waste regulations. Management of petroleum-contaminated wastes and remedial activities will comply with the provisions of FAC Chapter 62-770, Petroleum Contamination Site Cleanup Criteria, as appropriate.</p>
004	<p>Section 6.1; Project Quality Control (QC) Manager</p> <p>The primary Project QC Manager will be Mr. Greg Ramey. Mr. Ramey will also serve as the Site Superintendent and Site Health and Safety Specialist. The Alternate Project QC Manager will be Mr. Jeffery Marks. The Project QC Manager appointment letters for Mr. Ramey and Mr. Marks were previously provided with RAC IV CTO No. 0038 Work Plan Addendum No. 15, Revision 01.</p>

005	<p>Activity Hazard Analysis</p> <p>The Activity Hazard Analysis forms for the site-specific tasks associated with residual petroleum-contaminated soil removal are attached.</p>
Reasons for the Modifications/Revisions:	
Item No.	Reasons for the Modifications/Revisions
All	This revision is being prepared to complete the scope of work included in NAVFAC EFD SOUTH's Technical Direction, dated November 7, 2005, based on the recommendations provided in the LSSAR for Building 842, Tank G842B, dated December 2004, prepared by TtNUS. The scope of work includes the removal, transportation, and disposal of approximately 30 tons of residual PAH-contaminated soil from, and the backfill and site restoration of, two "hot spot" excavation areas at the former Tank G842B site to achieve unrestricted reuse of the site and approval of no further action.

<hr/> Michael Halil CTO Project Manager	 <hr/> Signature	<hr/> 01/10/2006 Date
<hr/> Scott Smith Program Manager	 <hr/> Signature	<hr/> 01/10/2006 Date
<hr/> U.S. Navy Responsible Authority	<hr/> Signature	<hr/> Date

Document Control Distribution		
Mark Davidson, NAVFAC EFD SOUTH	Larry Blackburn, EFA Southeast	Project File No. 333944
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SCALE AS NOTED	



SITE ASSESSMENT RESULTS
BUILDING 842, TANK G842B
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

CONTRACT NUMBER 4248	
APPROVED BY	DATE
_____	_____
APPROVED BY	DATE
_____	_____
DRAWING NO. FIGURE 3-1	REV 0

**TABLE 3-2 R2
SAMPLING AND ANALYTICAL SUMMARY**

Sample Task	Sample Point	Matrix	Sampling Frequency	Approx Sample No	Sampling Method	Sampling Equipment	TAT	Data Package Reqmnt	Required Analysis	Analytical Method	Holding Time	Sample Preservtn	Containers
Soil/Solids Characterization Sampling													
Soil Characterization Sampling	6 Random Grabs	Soil/Solids	Once	1 (one per 300 tons)	Composite 6 random grabs into 1 sample (3 random grabs per excavation area)	SS spoon, SS bowl	14 day	CCI Level B	TCLP Volatiles	1311/8260B	14 day TCLP extr; 14 day analysis	Cool to 4°C	(1) 4 oz amber glass
									TCLP Semi-Volatiles	1311/8270C	14 day TCLP extr; 7 day extr; 40 day analysis		(1) 4 oz amber glass
									TCLP Metals	1311/6010A/7470	6 month TCLP extr; 6 month analysis Hg; 28 day TCLP extr; 28 day analysis		(1) 4 oz amber glass
									TCLP Pesticides	1311/8081A	14 day TCLP extr; 7 day extr; 40 day analysis		(1) 4 oz amber glass
									TCLP Herbicides	1311/8151A	14 day TCLP extr; 7 day extr; 40 day analysis		(1) 4 oz amber glass
									PCBs	8082	14 day extr; 40 day analysis		(1) 4 oz amber glass
									Corrosivity	9045a	ASAP		(1) 250 mL amber glass
								Ignitability	1010/1020	ASAP			
Liquid Characterization Sampling													
Liquid Characterization Sampling	Drums	Water	Once	1	Grab	Drum thief or dip jar	14 days	CCI Level B	TCL Volatiles	8260B	14 days	HCl pH< 2; Cool to 4°C	(2) 40 ml vial
									TCL Semi-volatiles	8270C	14 days ext; 40 days analysis	Cool to 4°C	(3) 1L amber glass
									TCL Pesticides	8081A	14 days ext; 40 days analysis		
									TCL Herbicides	8151A	7 day extr; 40 day analysis		
									PCBs	8082	14 day extr; 40 day analysis	(1) L amber glass	
									TAL Metals	6010B/7470A	180 days; Hg = 28 days	HNO3 pH< 2; Cool to 4°C	(1) 500ml HDPE
									Ignitability	1010	ASAP	Cool to 4°C	(1) 250 mL amber glass
Corrosivity	9040B	ASAP	(1) L amber glass										

Notes:
1. Calendar days

**TABLE 3-2 R2
SAMPLING AND ANALYTICAL SUMMARY**

Sample Task	Sample Point	Matrix	Sampling Frequency	Approx Sample No	Sampling Method	Sampling Equipment	TAT	Data Package Reqmnt	Required Analysis	Analytical Method	Holding Time	Sample Preservtn	Containers
Backfill Characterization Sampling													
Characterization of Backfill Material	Once per Off-Site Source	Soil	1 composite sample out of 5 grabs	1	Composite 5 random grabs into 1 sample (Do not composite VOCs)	SS spoon, SS bowl, Disposable syringes, (3) Prepared 40 ml vials (4 or 8 oz jar for stone)	7 days	CCI Level C	TCL Volatiles	5035/8260B	14 day	Methanol; Sodium Bisulfite; H2O; Cool to 4°C	Disposable syringes, (3) Prepared 40 ml vials and 4 or 8 oz jar for stone
									TCL Semi-Volatiles	8270C	14 day extr; 40 day analysis	Cool to 4°C	(4) 8 oz glass
									PAHs (including 1- and 2-Methylnaphthalene)	8310	14 day extr; 40 day analysis		
									TCL Pesticides	8081A	14 day extr; 40 day analysis		
									TCL Herbicides	8151A	7 day extr; 40 day analysis		
									PCBs	8082	14 day extr; 40 day analysis		
									TRPH	FL-PRO	7 day extr; 40 day analysis		
									TAL Metals	6010B/7471	6 month; Hg 28 days		
	Trip Blank	Water	1 Per cooler containing volatile samples	1	Prepared by Lab	(2) 40 mL vials	7 days	CCI Level C	TCL Volatiles	8260B	14 day	HCl pH< 2; Cool to 4°C	(2) 40 mL vials

Notes:
1. Calendar days

Activity Hazard Analysis

Activity: Airport Safety	Date: 1/03/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
General Airport Safety	General Hazards	<ul style="list-style-type: none"> • Always assume that the airfield is active. An active airfield means there is the possibility, even if an area is "closed", that aircraft or other vehicles will need access on or through a work area. There is always the potential for an incursion. • If in an area of the airfield where radio contact with the control tower is required, the potential for miscommunication exists. Any mistake in communication has the potential to cause a problem with Air Operations. • When maneuvering on the airfield, there are fuel trucks, helicopter rotors, jet blast, etc., all of which are potential hazards for workers. Pilots of aircraft do not expect workers to be on the airfield. If equipment is not properly marked, it may go unnoticed by pilots and present the potential for an incursion. • An aircraft <u>always</u> has the right of way. • When working in a confined area that is "closed" to traffic, outline the work area with traffic cones or barricades that will provide a warning to other airfield traffic. This will also serve to keep vehicles from running through wet paint. • Have one person designated as the point of contact who will be responsible for monitoring the radio and communicating with the control tower. That person shall be properly trained in the use of the radio, and check in daily with Air Operations to confirm work areas. • Properly train workers to be aware of airfield operations going on around them, to give way to all moving aircraft, to allow great distances from aircraft, parked or running, when maneuvering on airfield. • It is inherent upon the contractor to be visible to everyone operating on the airfield. Orange and white checkered flags, flashing amber beacons, cones and/or barricades should be in good condition and clearly visible. • Speed limits on airfield area are enforced. Speed limits on an airfield are very low relative to speeds on the roads. Speeding on the airfield can lead to a possible incursion.

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	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
General Airport Safety (continued)	General Hazards (continued)	<ul style="list-style-type: none"> • Restricted areas, particularly on a military installation, must be strictly enforced. They are usually outlined with a red line and often have certain "Entry Control Points" painted along the red line where entry into the area is permitted. Entry into the restricted area without permission may subject the workers to arrest. • There are safety areas around runways on the airfield. All equipment and materials must be stored behind these areas. If a crew working on the runway is instructed to clear the runway, all workers and equipment must be moved beyond the safety area until given clearance by the control tower to return to the runway.

Activity Hazard Analysis

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	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Equipment to be used	Inspection Requirements	Training Requirements
	Prior to commencement of work a site walk through shall be performed	Site Safety and Health Specialist
	Monitor site conditions periodically	Site Safety and Health Specialist
Hand/electrical tools	Prior to each use	Proper tool handling and usage
	Daily Pre-Task Safety Plan Review	Site Safety and Health Specialist

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Supervisor Name: _____

Date/Time: _____

Safety Specialist Name: _____

Date/Time: _____

Employee Name(s): _____

Date/Time: _____

Activity Hazard Analysis

Activity: Daily Tasking	Date: 1/03/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
Daily Tasking	General Hazards	<ul style="list-style-type: none"> • Documented Daily Pre-Task Safety Plan review • Ensure all workers know their work assignments. • Preplan work layout • Daily site inspections prior to commencement of work. • Minimum PPE - Hardhats, Safety Glasses with side shields, Safety Toed boots, Long Pants and shirts with a minimum of 3" sleeves. This may be modified to include; work gloves, splash suit, and face shield. • All visitors shall be given a Safety/Hazard brief. • Minimum illumination must be able to read a newspaper without difficulty. • Hearing protection shall be required if shouting is needed to hear a someone 3 feet away. • Job site shall be kept clean and orderly, debris shall be stored properly and collection containers shall be emptied at regular intervals or as needed. • Wash/rinse facilities/water shall be available. • Only qualified operators shall operate equipment. • Equipment/vehicles shall be inspected by a qualified operator prior to the first use of the day. • Establish common paths of travel; keep areas free from accumulation of materials and debris. • Tools, equipment, materials, and supplies will be stored in an orderly manner. • Spills, oil and grease will be cleaned up immediately from all walking and working surfaces.
	Slips, trips and falls	<ul style="list-style-type: none"> • Extra care should be taken while walking around the area, this is a wooded area and the ground will not be level and trip hazard free. • Use three point climbing while climbing in or out of equipment.

Activity Hazard Analysis

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	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
Daily Tasking (continued)	General Hazards (continued)	<ul style="list-style-type: none"> • At spills and silt shall be prevented from entering storm drainage systems. • Proper lifting techniques, utilize mechanical methods to move heavy objects, no one shall lift more than 60 pounds without assistance. • There shall be at least two persons qualified to perform First Aid and CPR. • At least one First Aid kit for the job site. • All employees must have access to emergency telephone numbers and location of nearest medical facility. • Each vehicle shall have a fire extinguisher. • All employees shall be briefed about the hazards of Heat Stress and proper prevention. • Drinking water shall be on site, and a rest area designated.
	Site Security, Sanitation	<ul style="list-style-type: none"> • Security provided by Jacksonville Airport Authority; locked access gates • Sanitation services supplied by port-a-john
	Temperature extremes	<ul style="list-style-type: none"> • Employees shall be trained in the recognition of heat stress and the appropriate action to take. • As temperature rises, it may be necessary to take more frequent and longer rest periods. • Drink plenty of clear (non-caffeine) liquids, it is recommended that you alternate between fluids such as water and gator aid. • If possible, schedule more strenuous work for early in the day.
	Portable Electric tools	<ul style="list-style-type: none"> • Tools shall be inspected prior to each use; damaged tools shall be taken out of service immediately. • Ground Fault Circuit Interrupter (GFCI) device shall protect portable electric tools and all cord/plug connected equipment. • Unless double insulated, all electrical tools shall be three prong and grounded. • All cords and extension cords shall be free of nicks, abrasions, and splices/repairs. • Electrical tools and cords must have a UL rating. • Face shields and safety glasses with side shields shall be used when grinding or using a wire wheel.

Activity Hazard Analysis

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Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
Daily Tasking (continued)	Hand tools	<ul style="list-style-type: none"> • All hand tools shall be free of defects, cracks, splinters, and mushroomed ends. • All defective tools shall be removed from service.
	Biological hazards	<ul style="list-style-type: none"> • Potential hazards exist for bee stings, spider, and snakebites. • Known hazards in this area are: Brown recluse and Black Widow spiders, Coral, Rattle, Cottonmouth, and Black snakes. • Some rodents have been known to be infected with rabies. • Mosquito-borne infection can cause encephalitis (West Nile Virus), the use of commercial products such as "OFF" should be considered.
	Physical toxins	<ul style="list-style-type: none"> • No direct contact with contaminated soil is not anticipated, if required then proper PPE shall be worn at all times when contact with contaminate is suspected. • Proper decontamination procedures must be followed. • Avoid contact with poison ivy, sumac, and oak. If contact is made clean area properly and disinfect.

Activity Hazard Analysis

Activity: Daily Tasking	Date: 1/03/2006
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	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Equipment to be used	Inspection Requirements	Training Requirements
	Prior to commencement of work a site walk through shall be performed	Site Safety and Health Specialist
	Monitor site conditions periodically	Site Safety and Health Specialist
Hand/electrical tools	Prior to each use	Proper tool handling and usage
	Daily Pre-Task Safety Plan Review	Site Safety and Health Specialist

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Supervisor Name: _____

Date/Time: _____

Safety Specialist Name: _____

Date/Time: _____

Employee Name(s): _____

Date/Time: _____

Activity Hazard Analysis

Activity: Excavation	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: Removal of Contaminated Soil at Site 842, former NAS Cecil Field, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
Exavate	Hazards associated with heavy equipment	<ul style="list-style-type: none"> Inspect equipment prior to use Only qualified operators shall operate equipment Equipment shall only be operated in a safe manner Only use the equipment as the manufacturer intended Seat belts, hard hats and safety glasses shall be worn during equipment operation Equipment shall remain at a safe distance from leading edges. Operator must maintain awareness to his / her surroundings
	Underground/overhead utilities	<ul style="list-style-type: none"> Check utilities location prior to excavating Ensure proper distance is maintained from overhead utilities (10' Minimum) Spotters shall be used during excavation Probes may be used to assist in location utilities Hand dig around utilities
	Exposure to hazardous materials	<ul style="list-style-type: none"> If conditions indicate an oxygen deficiency or a hazardous substance is present air monitoring shall be conducted. For specific PPE use refer to H & S Plan
	Fire/Explosion	<ul style="list-style-type: none"> Monitor for LEL's Have fire extinguishers and or a charged fire hose on site
	Cave-in	<ul style="list-style-type: none"> Use proper cave-in protection based on soil classification (sloping, benching, shoring or a Trench box) Excavations shall be inspected at least daily and more if conditions change Spoils shall be kept a minimum of 2' from the edge of the excavation OSHA shall be notified when excavations are to be entered and are 5' or more in depth Ladders or stepping shall be used as a means of egress in excavations 4' or greater. Ladders shall be placed no more than 25' of lateral travel. No one shall enter any excavation until the competent person on site has deemed it safe to enter

Activity Hazard Analysis

Activity: Excavation	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: Removal of Contaminated Soil at Site 842, former NAS Cecil Field, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

WORK TASK SEQUENCE	IDENTIFY & ANALYZE THE HAZARD	HAZARD CONTROLS
Excavate (continued)	Open excavation Hazards	<ul style="list-style-type: none"> • Excavations shall be barricaded, coned or fenced to warn against potential fall hazards. • Trench plates shall be used for areas requiring vehicle traffic
	Struck-by	<ul style="list-style-type: none"> • Maintain Site control. Only authorized personnel and equipment shall be allowed in the operating area. • Unauthorized Personnel shall remain out of the swing radius of the equipment. • No load shall be carried over ground personnel • Stay away from pinch points • Field personnel shall wear safety vests
	Traffic	<ul style="list-style-type: none"> • Utilize Flaggers or other means of Traffic Control ie Road closures or detours.
	Noise	<ul style="list-style-type: none"> • When the noise level may exceed 90 decibels hearing protection is required. As a general rule if one has to raise their voice t be heard from 2" away hearing protection is probably needed
	Dust	<ul style="list-style-type: none"> • Dust control is essential. Watering may be done by way of a water truck, Water buffalo or a fire hydrant.

Activity Hazard Analysis

Activity: Excavation	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: Removal of Contaminated Soil at Site 842, former NAS Cecil Field, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Equipment to be used	Inspection Requirements	Training Requirements
Hand/electrical tools	Prior to commencement of work a site walk through shall be performed	Site Safety and Health Specialist
	Monitor site conditions periodically	Site Safety and Health Specialist
	Prior to each use	Proper tool handling and usage
	Daily Pre-Task Safety Plan Review	Site Safety and Health Specialist

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Supervisor Name: _____

Date/Time: _____

Safety Specialist Name: _____

Date/Time: _____

Employee Name(s): _____

Date/Time: _____

Activity Hazard Analysis

Activity: Mobilization	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Task Breakdown	Identify & Analyze the Hazard	Identify Hazard Control
Mobilization/Site Setup and Support Functions	Security	<ul style="list-style-type: none"> • Every effort shall be made to minimize unauthorized entry into the site. • Temporary fencing, Do Not Enter or Caution tape barriers must be considered if adequate security/protection is rendered. • Signage warning of the hazards (i.e., Construction Site Do Not Enter, Hardhats, Safety Glasses, Hearing Protection Required, etc.) shall be posted in highly visible areas, minimum spacing every 300 feet. • All visitors must sign in and be briefed about the potential site hazards. • All approved visitors entering the site must be escorted by the Site Supervisor, Site Safety Officer (SSO), or appointed representative. • At end of workday, site shall be as secure as possible (locking the gate).
	First Aid Facilities	<ul style="list-style-type: none"> • The SSO and at least one other person shall be trained in First Aid and CPR. • At least one first aid kit and bloodborne pathogen kit shall be available on site. • All site employees shall know the location of the nearest medical treatment facility and how to contact emergency facilities (telephone dial 911).
	Sanitation	<ul style="list-style-type: none"> • Cool drinking water shall be provided. Only approved potable water systems shall be used for distribution of drinking water. • Potable drinking water dispensers shall be designed, constructed, and serviced to ensure sanitary conditions, shall be capable of being closed, and shall have a tap. Containers shall be clearly marked as to their contents and shall not be used for other purposes. Water shall not be dipped from or dispensed directly into the mouth. • Use of a common cup is <i>prohibited</i> without the cup being sanitized between uses. • Employees shall pour the water from the portable container/cooler into their drinking cups; the cup shall not come in contact with the container/cooler. • Washing facilities shall be provided as needed to maintain healthful and sanitary conditions. Washing facilities shall be at or near the work site and shall be adequate for removal of the harmful substances.

Activity Hazard Analysis

Activity: Mobilization	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Task Breakdown	Identify & Analyze the Hazard	Identify Hazard Control
Mobilization/Site Setup and Support Functions	Sanitation (continued)	<ul style="list-style-type: none"> • Nonpotable water outlets dispensing water will be conspicuously posted “CAUTION – WATER UNFIT FOR DRINKING, WASHING, OR COOKING.” • Toilets – When sanitary toilet facilities are not available, chemical toilets; combustion toilets or other toilet system shall be provided. • Each toilet facility shall be equipped with toilet seat and toilet seat cover and lockable door. • Where 20 or less employees and toilet rooms may be occupied by no more than one person at a time, can be locked from the inside, and contain at least one toilet seat, separate toilet rooms for each sex need not be provided. • No more than one person at a time shall utilize the toilet facility at the same time. • If working during non-daylight hours is required than the toilet facility must have independent lighting. • Toilet facilities shall be inspected to ensure they are well stocked and clean.
	Rest area	<ul style="list-style-type: none"> • Indoor and air-conditioned/heated if possible, otherwise a shaded rest area shall be established. This area shall be shaded and away form the work area (exclusion zone). • If eating and drinking is permitted at this site, trash receptacles and/or plastic bags shall be available and emptied at least daily, and maintained in a sanitary condition. This area shall be kept clean at all times. • Vermin control – all employees shall be instructed not to feed any animals or leave open food unattended.
	Visibility	<ul style="list-style-type: none"> • Work and operating areas shall be properly illuminated. Must be able to read a newspaper without any difficulty.
	Communications	<ul style="list-style-type: none"> • Reliable communication (radio’s, cell phones or telephones) shall be established. • Warning/Alert signals such as air horn should be considered. • An employee working alone in a remote location or away from other workers shall be provided a means of emergency communications.

Activity Hazard Analysis

Activity: Mobilization	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Task Breakdown	Identify & Analyze the Hazard	Identify Hazard Control
Mobilization/Site Setup and Support Functions	Erosion/Sediment Control	<ul style="list-style-type: none"> Silt fencing and/or hay bails shall be placed in areas where site run-off may enter storm drainage systems or any other waterways such as a stream. Proper lifting techniques and tool usage shall be followed.
Equipment to be used	Inspection Requirements	Training Requirements
	A competent person shall conduct a site walk through inspection prior to and at the end of each workday.	Site Supervisor, Site Safety Officer and or the Site Quality Control Inspector Prior to any work being performed, a site walk through shall be conducted so each employee knows what will be performed and a good understanding of the site lay out.

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SIGNATURE

Supervisor Name: _____		Date/Time: _____
Safety Officer Name: _____		Date/Time: _____
Employee Name(s): _____		Date/Time: _____
_____		Date/Time: _____
_____		Date/Time: _____
_____		Date/Time: _____
_____		Date/Time: _____

Activity Hazard Analysis

Activity: Sampling	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Task Breakdown	Identify & Analyze the Hazard	Identify Hazard Control
Sampling Event	General Hazards	<ul style="list-style-type: none"> • The "buddy system shall be used when work is being performed. • Ensure all workers know their assignments. • Sampling shall be performed or directly supervised by a trained person. • Minimum PPE - safety glasses with side shields, safety toed boots, long pants and shirts with a minimum 3" sleeve. Additional PPE to include but not limited to : face shield, splash suit, rubber/latex gloves, etc. the level of PPE is directly related to the scope of work being performed. • All visitors shall be given a Safety/ Hazard brief. • Area shall be restricted to prevent unauthorized entry. • Minimum illumination must be able to read a newspaper without difficulty. • Hearing protection shall be required if shouting is needed to hear someone 3 feet away. • Job site shall be kept clean and orderly, debris shall be stored properly and collection containers shall be emptied at regular intervals or as needed. • Wash/rinse water shall be available. • Tools, equipment, materials and supplies will be kept stored in an orderly manner. • Proper lifting techniques will be utilized and the two person method will be used for objects more than 60 pounds • There shall be at least two persons qualified to perform First Aid and CPR. • At least one First Aid kit for the job site, the vehicle First Aid kit will be adequate for small jobs. • All employees will have access to emergency telephone numbers and location of nearest medical facility. • Each vehicle will have a fire extinguisher. • All employees shall be briefed about the hazards of heat stress and proper prevention. • Drinking water shall be available, and a rest area designated.

Activity Hazard Analysis

Activity: Sampling	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

	Biological Hazards	<ul style="list-style-type: none"> Potential hazards exist for bee stings, spiders, and snakebites. Known hazards in the area are Brown Recluse and Black Widow Spiders; Coral, Rattle, Cottonmouth, and Black Snakes. Some rodents have been known to be infected with rabies. Mosquito-borne infection can cause encephalitis, the use of commercial product such as "OFF" should be considered.
	Physical Toxins	<ul style="list-style-type: none"> Proper PPE shall be worn at all times when contact with contaminate is suspected. Proper decontamination procedures must be followed. Avoid contact with poison ivy, sumac, and oak. If contact is made clean area properly and disinfect.

Activity Hazard Analysis

Activity: Sampling	Date: 1/04/2006
Description of Work: Remove, transport, and dispose of contaminated soil at Site 842	Project: CTO-0057, Site 842 located on former NAS Cecil Field, now known as the Cecil Field Commerce Center, Jacksonville, Florida
	Site Supervisor: Greg Ramey
	Site Safety Specialist: Greg Ramey
	Date Reviewed:

Equipment to be used	Inspection Requirements	Training Requirements
Hand Auger	Visual	Annual HAZWOPER training and Medical monitoring required
Stainless Steel Sampling Equipment	Visual	HAZCOM training as required

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SIGNATURE

Supervisor Name: _____

Date/Time: _____

Safety Officer Name: _____

Date/Time: _____

Employee Name(s): _____

Date/Time: _____

Date/Time: _____

Date/Time: _____

Date/Time: _____

Date/Time: _____