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FINAL TECHNICAL MEMORANDUM/WORK PLAN PRE-DESIGN SOIL SAMPLING FOR  
ORION STREET SKEET RANGE SOIL REMEDIATION NAS BRUNSWICK ME  
6/1/2013  
USA ENVIRONMENTAL INC

**FINAL**

**TECHNICAL MEMORANDUM/WORK PLAN**

**PRE-DESIGN SOIL SAMPLING  
For  
ORION STREET SKEET RANGE SOIL REMEDIATION  
FORMER NAVAL AIR STATION BRUNSWICK  
BRUNSWICK, MAINE**

**Submitted to:**



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**Submitted by:**

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**Navy Munitions Response Actions (MRA)  
Contract No. N62470-11-D-8007  
Task Order WE01**

**JUNE 2013**

A handwritten signature in blue ink, which appears to read "Robert Crownover".

**Reviewed by:  
Robert Crownover  
Director of Safety and Quality**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	PURPOSE.....	1
1.2	SCOPE.....	1
<b>2.0</b>	<b>TECHNICAL MANAGEMENT PLAN .....</b>	<b>2</b>
2.1	ORGANIZATION.....	2
2.2	FIELD PERSONNEL AND QUALIFICATIONS.....	3
2.3	RECORDS MANAGEMENT .....	4
	2.3.1 Project Records.....	4
	2.3.2 Field Records .....	4
2.4	SCHEDULE.....	5
<b>3.0</b>	<b>FIELD INVESTIGATION PLAN.....</b>	<b>5</b>
3.1	SAFETY .....	5
3.2	FACILITY POINT OF CONTACT .....	5
3.3	SITE PREPARATION .....	5
3.4	SITE SAMPLING METHODOLOGY AND QUALITY CONTROL.....	5
3.5	QC SAMPLES.....	8
3.6	SAMPLE MANAGEMENT.....	8
3.7	LABORATORY REQUIREMENT, DATA VALIDATION AND REPORTING.....	8
<b>4.0</b>	<b>QUALITY CONTROL PLAN (QCP) .....</b>	<b>8</b>
4.1	INTRODUCTION.....	8
4.2	QUALITY MANAGEMENT STRUCTURE.....	9
	4.2.1 Director of Safety and Quality.....	9
	4.2.2 USA Sampling Technician .....	9
	4.2.3 Quality Control Specialist.....	9
4.3	QUALIFICATIONS AND TRAINING .....	9
4.4	QUALITY CONTROL PROCESS .....	10
	4.4.1 Data Quality Objectives .....	10
	4.4.2 Data Quality Objectives (DQO) Process.....	10
	4.4.3 Specific Analytical or Statistical DQOs .....	10
	4.4.4 Logs and Records.....	11
<b>5.0</b>	<b>PRE-DESIGN SAMPLING REPORT.....</b>	<b>12</b>
<b>6.0</b>	<b>REFERENCES.....</b>	<b>13</b>

## APPENDICES

- APPENDIX A. Site Maps
- APPENDIX B. Standard Operating Procedures
- APPENDIX C. Contractor Forms
- APPENDIX D. Points of Contact

**LIST OF FIGURES**

Figure 2-1: Project Team Organization ..... 3

**LIST OF TABLES**

Table 2-1: Personnel Training ..... 4  
Table 3-1: OSSR, NASB - Proposed Phase I and II Sample Locations ..... 6  
Table 3-2: Sample Quantities ..... 8  
Table 4-1: Definable Features of Work ..... 11

## ACRONYMS AND ABBREVIATIONS

°C	Celsius
AAR	After Action Report
AHA	Activity Hazard Analysis
APP	Accident Prevention Plan
bgs	below ground surface
CD	Compact Disk
CFR	Code of Federal Regulations
CHSM	Corporate Health and Safety Manager
COC	Chain of Custody
CPR	Cardiopulmonary Resuscitation
DDESB	Department of Defense Explosives Safety Board
DQO	Data Quality Objectives
DSQ	Director of Safety and Quality
DU	Decision Unit
EB	Equipment Blank
GIS	Geographical Information System
GPS	Global Positioning System
HAZWOPER	Hazardous Waste Operations and Emergency Response
IAW	in accordance with
lf	linear feet
MEDEP	Maine Department of Environmental Protection
MEC	Munitions and Explosives of Concern
MS	Matrix Spikes
MSD	Matrix Spike Duplicate
NAS	Naval Air Station
NASB	Naval Air Station Brunswick
NAVFAC	Naval Facilities Engineering Command
OSHA	Occupational Safety and Health Administration
OSSR	Orion Street Skeet Range
PAHs	polycyclic aromatic hydrocarbons
PM	Project Manager
POC	Point of Contact
PPE	Personal Protective Equipment
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Plan
QCS	Quality Control Supervisor
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
SHSP	Site Health and Safety Plan
SI	Site Investigation
SOPs	Standard Operating Procedures

SOW	Statement of Work
TAT	turnaround time
TB	Temperature Blank
TP-18	Technical Paper 18
UCL	Upper Confidence Limit
USA	USA Environmental, Inc.
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
WP	Work Plan
XRF	X-ray fluorescence

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## 1.0 INTRODUCTION

Previous sampling events have been conducted at the Orion Street Skeet Range (OSSR, or the skeet range) by Tetra Tech, Inc., as part of the Site Investigation (SI) performed in June and December 2009 and the Remedial Investigation (RI) performed in December 2011. Soil samples collected in December 2009 in support of the SI and in December 2011 in support of the RI were submitted for laboratory analysis of polycyclic aromatic hydrocarbons (PAHs) and metals. Soil samples collected during the June 2009 SI were field analyzed, for lead only, using X-ray fluorescence (XRF). As part of Tetra Tech's sampling program, a total of 119 surface soil samples and 118 subsurface samples [ranging from 3 to 48 inches below ground surface (bgs)], both analytical and field XRF, were collected. The previous investigations identified lead as the contaminant of concern. This work was conducted in accordance with (IAW) the *Final Tier II Sampling and Analysis Plan (SAP) for Remedial Investigation of Soils at Munitions Response Program Site Skeet Range NAS Brunswick Maine* prepared in December 2011 by Tetra Tech.

The results of the previous sampling efforts indicated that there are small areas located within the two fans of the OSSR with elevated concentrations of lead in the surface soil. It does not appear that elevated concentrations of lead are present in the soil at depths greater than 3 inches bgs. A site plan of the OSSR is presented in Appendix A, Figure 1.

Sampling methodology and analysis will be conducted in conformance with the 2011 SAP developed by Tetra Tech and referenced herein (Tetra Tech, 2011).

### 1.1 PURPOSE

This technical memorandum/work plan (WP) describes pre-design sampling at the OSSR to be completed prior to the soil remediation action. The purpose of this pre-design sampling is to collect additional surface soil data to further define the boundaries of the areas requiring soil remediation due to lead impacts. In addition, samples will be collected to fill data gaps or to confirm previous lead results in surface soil. This work is being conducted by the Navy with support from the Maine Department of Environmental Protection (MEDEP) and the United States Environmental Protection Agency (USEPA).

The proposed pre-design samples will serve to delineate the limits of the lead-driven surface soil excavation. These samples will be used in the subsequent Remedial Action Work Plan (RAWP) to delineate the excavation areas, and will likely help form the boundaries of the excavation areas. The results of the pre-design sampling, including the excavation delineation, will be used to develop the remediation plan detailed in the subsequent soil remediation WP for the OSSR.

### 1.2 SCOPE

Prior to finalization of this WP, the project team will mobilize to the former NASB to conduct pre-design surface soil sampling. Three DUs are identified at the OSSR (Appendix A, Figure 1). The boundaries of the DUs were defined by a sketch provided by MEDEP via email on 13 February 2013. The DUs divide the site by focusing on the area surrounding the water impoundment, DU2; the area generally north of Neptune Drive, DU1; and the area south of the water impoundment, DU3. The proposed sample locations for each DU are presented in Appendix A, Figures 2A through 2C.

The proposed approach outlined in this plan is provided in advance of the RAWP for the OSSR in an effort to streamline the remediation process at the Site. The collection of pre-design data will allow for advanced discussion with the regulators to receive acceptance of the excavation approach. The results of the pre-design sampling will be used to calculate a 95<sup>th</sup> upper confidence limit (UCL) of the mean for lead for each DU. The new pre-design samples will be added to the data set and samples located in areas of elevated lead concentrations that are excavated will be removed from the dataset. The DU lead 95<sup>th</sup> UCL concentration for soils will be compared to the cleanup goal, which the Navy is currently proposing to be in the range of 130 to 155 mg/kg. Each DU will be assessed individually.

Mobilizing in July of 2013 to collect the pre-design sampling will also expedite the work schedule, with the target of completing the lead remediation of the OSSR by September 2013. Sample locations are

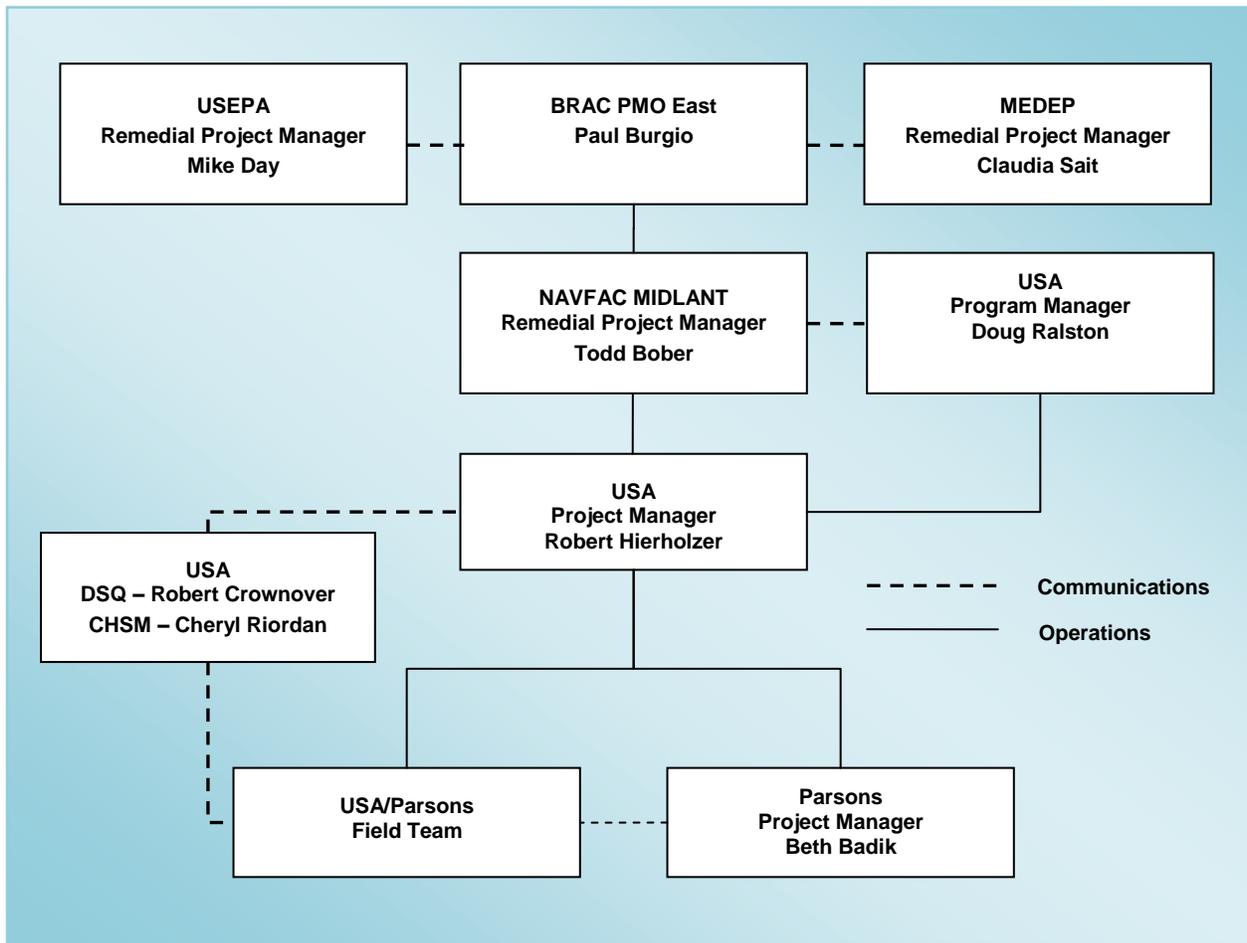
selected in order to gather more data so as to better define areas of elevated lead concentrations within each DU. The samples will be collected from 0 to 3 in. below ground surface (bgs) using the methodology described below and in the Standard Operating Procedures (SOPs) (refer to Appendix B). The proposed pre-design sampling locations are divided into two categories: Phase I and Phase II. All samples will be sent to Katahdin Laboratory, located in Scarborough, Maine. Katahdin will meet all QA/QC requirements, and their reporting limit for lead is 0.5 mg/kg.

In the lab, the Phase I samples will be analyzed for lead by USEPA method SW-846 6010C with a 14-day turnaround time (TAT). The Phase II samples will be held at the lab until the Phase I analytical results are available. At the discretion of the project team, and dependant on the results of the Phase I sample data, a subset of the Phase II samples may be analyzed for lead in order to collect more data to further define the excavations areas. The decision to analyze Phase II samples will be based on the Phase I results. Other contributing factors which may elect Phase II samples for further analysis include a statistical assessment of the existing data, the location of the sample, results from neighboring samples, input from stakeholders, etc. As an example, if there are elevated lead concentrations reported for a Phase I sample(s), then the Navy may elect to analyze the Phase II sample located close to the elevated Phase I sample so that the area may be better defined for future excavation.

## **2.0 TECHNICAL MANAGEMENT PLAN**

### **2.1 ORGANIZATION**

The field team will consist of a Parsons environmental field scientist, who will lead the sampling effort, and one to three sampling technicians, provided by USA Environmental, Inc. (USA). The field team will report directly to the USA Project Manager (PM), and will communicate directly with the Parsons PM for technical guidance. USA field personnel will also report to the USA Director of Safety and Quality (DSQ) and the Corporate Health and Safety Manager (CHSM). Figure 2-1 identifies the technical management team for this Task Order.



**Figure 2-1: Project Team Organization**

All communications between USA and the Navy will be through the USA PM, Technical Manager, or Contracting Officer. Communication directly between USA and other Government entities associated with this project, such as USEPA and MEDEP, will occur only when directed by the Navy.

## 2.2 FIELD PERSONNEL AND QUALIFICATIONS

Field personnel on this project will have completed the training requirements found in Table 2-1 as required for their specific responsibilities. Additional site-specific training IAW OSHA 29 Code of Federal Regulations (CFR) 1910.120 for Hazardous Waste Operations and Emergency Response (HAZWOPER), as well as Engineer Manual 385-1-1 (U.S. Army Corps of Engineers Safety and Health Requirements Manual), will be provided to all personnel prior to their mobilization. Additionally, all USA field personnel will participate in a Medical Surveillance Program, with the latest exam occurring within 12 months of field operations.

**Table 2-1: Personnel Training**

<b>Training Course</b>	<b>Personnel Attending</b>
40-Hour HAZWOPER Training	All personnel who have not previously received this training or who do not qualify for certification through documented experience or training equivalent to that in paragraphs (e)(1) through (e)(4) of 29 CFR 1910.120.
8-Hour Refresher Course	All site personnel, except those who have completed their initial 40-Hour HAZWOPER training within the past year.
First Aid and Cardiopulmonary Resuscitation (CPR) Training	At least two site personnel will have current first aid and CPR training.

## **2.3 RECORDS MANAGEMENT**

### **2.3.1 Project Records**

USA will maintain hard copies of primary project records at the USA Corporate Office in Oldsmar, Florida. Such records will include the Task Order Statement of Work (SOW) and any modifications, substantive correspondence, draft submittals, responses to comments and final submittals, and correspondence received from the Navy or other agencies. USA will retain electronic versions of working products within the USA Oldsmar network server. (Access to all servers is password controlled.) USA will retain historical records and documents, previous study reports, and related items in the USA PM's office. The Geographical Information System (GIS) Manager will retain GIS information on the Oldsmar GIS Server during the course of the project. Passwords limit access to only those individuals manipulating the data. USA will provide copies of this data to the Navy on compact disk (CD), as required by the SOW.

### **2.3.2 Field Records**

During field activities, USA will maintain records in the project field office, with copies sent weekly to the project files in Oldsmar, Florida. Following completion of the fieldwork, USA will deliver all files to the project files in Oldsmar, Florida. Such records will include daily summary sheets, and related field and daily logs.

USA will maintain a field logbook, to record site activities and field data in a neat and legible manner. Logbooks will be bound and pages consecutively numbered. USA personnel will make logbook entries in indelible ink. USA will enter the following information during the course of the safety support activities:

- Date and team location
- Personnel and work performed
- Equipment and instrument checks
- Injuries and/or illnesses
- Changes to work instructions
- Work stoppage
- Visitors
- Other relevant events.

USA personnel may supplement logbooks and records by using preprinted forms (e.g., safety inspection forms, tailgate safety briefings, etc). These forms help to ensure uniformity of activities being conducted, inspected, and reviewed. Copies of these Contractor forms are located in Appendix C of this WP. All handwritten records and logbook entries will be scanned into an acceptable digital form and submitted as part of the digital data package.

## **2.4 SCHEDULE**

It is anticipated that the preliminary soil sampling effort will be completed within two work weeks beginning in July 2013.

## **3.0 FIELD INVESTIGATION PLAN**

### **3.1 SAFETY**

The Abbreviated Accident Prevention Plan (AAPP) is provided under separate cover. The AAPP includes Activity Hazard Analyses (AHAs) for the work to be performed. The subsequent APP is more comprehensive for the full scope of work as it addresses not only pre-design soil sampling but also the contaminated soil remediation. A separate RAWP will be prepared to address that effort.

### **3.2 FACILITY POINT OF CONTACT**

The facility POC is Robert (Bob) LeClerc, P.E., Navy Caretaker Site Office, (207) 406-2290 O, (207) 263-6736 M.

The field team is to "check-in" with Mr. LeClerc, upon mobilization. When the sampling effort is complete, Mr. LeClerc is to be contacted to review what was done and what marking devices remain in the field.

For emergencies or other issues that may arise, Mr. LeClerc is to be contacted in addition to other necessary emergency response entities. He needs to remain informed of ongoing activities and any situations that may arise.

### **3.3 SITE PREPARATION**

A two-person field sampling team, consisting of a field scientist and a sampling technician, will mobilize to the site. Table 3-1 shows the proposed sample IDs and coordinates (northings and eastings) generated from the sample locations shown in Figures 2A through 2C. The field team will identify each proposed sample location using a handheld GPS and place a pin flag in the ground to mark the location. Any deviation from the proposed coordinates due to field conditions (e.g., a tree or other obstruction) will be included in the field notes and the coordinates of the adjusted location will be recorded with the GPS unit. Every effort will be made to identify every proposed sample location using the GPS. In the event that the GPS signal does not register due to overhead tree cover, the field team will use a tape measure to locate the proposed sample location based on the distance from the historic samples (the site visit reconnaissance noted that Tetra Tech's sample locations are still marked in the field with labeled pin flags).

### **3.4 SITE SAMPLING METHODOLOGY AND QUALITY CONTROL**

Surface soil samples will be collected from 0 to 3 in. bgs at the proposed location within a 1-ft by 1-ft grid. Within that grid, surface vegetation will be moved away prior to sampling, and the soil in the grid will be hand sifted for shotgun pellets (buckshot) and clay pigeon fragments. In the event that any pellets or fragments are observed, they will be counted and documented in the field notes. The surface soil will be collected from 0 to 3 in. below the vegetative layer using a disposable scoop and homogenized in a resealable bag (or similar). Any organic material or rocks will be removed from the sample, and any pellets or fragments will be removed so as not to bias lead results. Mixing will be performed until the sample material appears to be homogenous. One-time-use and disposable sampling equipment such as scoop and gloves will be used at each sampling location. Other equipment will be decontaminated as necessary.

**Table 3-1: OSSR, NASB - Proposed Phase I and II Sample Locations**

Phase	Location	Sample ID	Easting	Northing
PHASE I	PD1-SS200	NASB-SKT-PD1-SS200-0004	3016268.94	385535.26
PHASE I	PD1-SS201	NASB-SKT-PD1-SS201-0004	3016239.35	385504.83
PHASE I	PD1-SS202	NASB-SKT-PD1-SS202-0004	3016269.79	385475.25
PHASE I	PD1-SS203	NASB-SKT-PD1-SS203-0004	3016299.37	385505.68
PHASE I	PD1-SS204	NASB-SKT-PD1-SS204-0004	3016414.56	385761.41
PHASE I	PD1-SS205	NASB-SKT-PD1-SS205-0004	3016384.97	385730.98
PHASE I	PD1-SS206	NASB-SKT-PD1-SS206-0004	3016415.40	385701.39
PHASE I	PD1-SS207	NASB-SKT-PD1-SS207-0004	3016444.99	385731.82
PHASE I	PD1-SS208	NASB-SKT-PD1-SS208-0004	3016305.88	386040.91
PHASE I	PD1-SS209	NASB-SKT-PD1-SS209-0004	3016276.29	386010.48
PHASE I	PD1-SS210	NASB-SKT-PD1-SS210-0004	3016306.72	385980.89
PHASE I	PD1-SS211	NASB-SKT-PD1-SS211-0004	3016336.31	386011.32
PHASE I	PD1-SS212	NASB-SKT-PD1-SS212-0004	3016491.27	386084.96
PHASE I	PD1-SS213	NASB-SKT-PD1-SS213-0004	3016551.29	386085.80
PHASE I	PD1-SS214	NASB-SKT-PD1-SS214-0004	3016521.70	386055.37
PHASE I	PD1-SS215	NASB-SKT-PD1-SS215-0004	3016521.14	386095.38
PHASE I	PD1-SS216	NASB-SKT-PD1-SS216-0004	3016553.57	385763.18
PHASE I	PD1-SS217	NASB-SKT-PD1-SS217-0004	3016584.00	385733.59
PHASE I	PD1-SS218	NASB-SKT-PD1-SS218-0004	3016554.41	385703.16
PHASE I	PD1-SS219	NASB-SKT-PD1-SS219-0004	3016523.98	385732.75
PHASE I	PD1-SS220	NASB-SKT-PD1-SS220-0004	3015713.10	385614.22
PHASE I	PD1-SS221	NASB-SKT-PD1-SS221-0004	3015683.28	385600.20
PHASE I	PD1-SS222	NASB-SKT-PD1-SS222-0004	3015713.71	385570.61
PHASE I	PD1-SS223	NASB-SKT-PD1-SS223-0004	3015743.30	385601.04
PHASE I	PD1-SS224	NASB-SKT-PD1-SS224-0004	3016436.45	385412.59
PHASE I	PD1-SS225	NASB-SKT-PD1-SS225-0004	3016406.86	385382.16
PHASE I	PD1-SS226	NASB-SKT-PD1-SS226-0004	3016437.29	385352.57
PHASE I	PD1-SS227	NASB-SKT-PD1-SS227-0004	3016466.88	385383.00
PHASE I	PD1-SS228	NASB-SKT-PD1-SS228-0004	3016427.02	385267.53
PHASE I	PD1-SS229	NASB-SKT-PD1-SS229-0004	3016397.43	385237.10
PHASE I	PD1-SS230	NASB-SKT-PD1-SS230-0004	3016427.86	385207.51
PHASE I	PD1-SS231	NASB-SKT-PD1-SS231-0004	3016457.45	385237.94
PHASE I	PD1-SS232	NASB-SKT-PD1-SS232-0004	3016393.75	386005.65
PHASE I	PD1-SS233	NASB-SKT-PD1-SS233-0004	3016394.60	385945.64
PHASE I	PD1-SS234	NASB-SKT-PD1-SS234-0004	3016364.17	385975.22
PHASE I	PD1-SS235	NASB-SKT-PD1-SS235-0004	3016424.18	385976.07
PHASE I	PD1-SS236	NASB-SKT-PD1-SS236-0004	3016437.81	386031.63
PHASE I	PD1-SS237	NASB-SKT-PD1-SS237-0004	3016497.82	386032.47
PHASE I	PD1-SS238	NASB-SKT-PD1-SS238-0004	3016467.39	386062.06
PHASE I	PD1-SS239	NASB-SKT-PD1-SS239-0004	3016603.84	385991.74
PHASE I	PD1-SS240	NASB-SKT-PD1-SS240-0004	3016573.41	386021.32
PHASE I	PD1-SS241	NASB-SKT-PD1-SS241-0004	3016543.82	385990.89
PHASE I	PD1-SS242	NASB-SKT-PD1-SS242-0004	3016574.25	385961.31
PHASE I	PD1-SS243	NASB-SKT-PD1-SS243-0004	3016468.24	386002.04
PHASE I	PD1-SS244	NASB-SKT-PD1-SS244-0004	3016305.45	386070.91
PHASE I	PD1-SS245	NASB-SKT-PD1-SS245-0004	3016507.22	385819.62
PHASE I	PD1-SS246	NASB-SKT-PD1-SS246-0004	3016567.23	385820.47
PHASE I	PD1-SS247	NASB-SKT-PD1-SS247-0004	3016537.65	385790.04

**Table 3-1: OSSR, NASB - Proposed Phase I and II Sample Locations (Concluded)**

Phase	Location	Sample ID	Easting	Northing
PHASE I	PD1-SS248	NASB-SKT-PD1-SS248-0004	3016570.51	385311.89
PHASE I	PD1-SS249	NASB-SKT-PD1-SS249-0004	3016540.93	385281.46
PHASE I	PD1-SS250	NASB-SKT-PD1-SS250-0004	3016600.94	385282.30
PHASE I	PD1-SS251	NASB-SKT-PD1-SS251-0004	3016571.36	385251.87
PHASE I	PD1-SS252	NASB-SKT-PD1-SS252-0004	3016702.95	386090.00
PHASE I	PD1-SS253	NASB-SKT-PD1-SS253-0004	3016702.95	386030.00
PHASE I	PD1-SS254	NASB-SKT-PD1-SS254-0004	3016672.95	386060.00
PHASE I	PD1-SS255	NASB-SKT-PD1-SS255-0004	3016732.95	386060.00
PHASE I	PD1-SS256	NASB-SKT-PD1-SS256-0004	3016255.38	385589.47
PHASE I	PD1-SS257	NASB-SKT-PD1-SS257-0004	3016239.50	385596.12
PHASE I	PD1-SS258	NASB-SKT-PD1-SS258-0004	3016270.38	385604.47
PHASE I	PD1-SS259	NASB-SKT-PD1-SS259-0004	3016510.04	385317.33
PHASE I	PD1-SS260	NASB-SKT-PD1-SS260-0004	3016490.04	385347.33
PHASE I	PD1-SS261	NASB-SKT-PD1-SS261-0004	3016273.27	385824.94
PHASE I	PD1-SS262	NASB-SKT-PD1-SS262-0004	3015934.28	385653.81
PHASE I	PD1-SS263	NASB-SKT-PD1-SS263-0004	3015915.72	385641.93
PHASE I	PD1-SS264	NASB-SKT-PD1-SS264-0004	3015967.03	385642.80
PHASE II	PD2-SS300	NASB-SKT-PD2-SS300-0004	3016633.84	385992.16
PHASE II	PD2-SS301	NASB-SKT-PD2-SS301-0004	3016572.98	386051.33
PHASE II	PD2-SS302	NASB-SKT-PD2-SS302-0004	3016615.50	386074.91
PHASE II	PD2-SS303	NASB-SKT-PD2-SS303-0004	3016437.81	386062.06
PHASE II	PD2-SS304	NASB-SKT-PD2-SS304-0004	3016393.33	386035.66
PHASE II	PD2-SS305	NASB-SKT-PD2-SS305-0004	3016348.14	386053.93
PHASE II	PD2-SS306	NASB-SKT-PD2-SS306-0004	3016246.29	386010.05
PHASE II	PD2-SS307	NASB-SKT-PD2-SS307-0004	3016334.17	385974.80
PHASE II	PD2-SS308	NASB-SKT-PD2-SS308-0004	3016307.15	385950.89
PHASE II	PD2-SS309	NASB-SKT-PD2-SS309-0004	3016535.36	385955.62
PHASE II	PD2-SS310	NASB-SKT-PD2-SS310-0004	3015712.87	385630.63
PHASE II	PD2-SS311	NASB-SKT-PD2-SS311-0004	3015653.28	385599.77
PHASE II	PD2-SS312	NASB-SKT-PD2-SS312-0004	3015714.14	385540.61
PHASE II	PD2-SS313	NASB-SKT-PD2-SS313-0004	3015773.30	385601.47
PHASE II	PD2-SS314	NASB-SKT-PD2-SS314-0004	3016375.72	385775.53
PHASE II	PD2-SS315	NASB-SKT-PD2-SS315-0004	3016489.39	385789.97
PHASE II	PD2-SS316	NASB-SKT-PD2-SS316-0004	3016484.42	385732.33
PHASE II	PD2-SS317	NASB-SKT-PD2-SS317-0004	3016614.00	385734.02
PHASE II	PD2-SS318	NASB-SKT-PD2-SS318-0004	3016222.71	385552.48
PHASE II	PD2-SS319	NASB-SKT-PD2-SS319-0004	3016329.37	385506.10
PHASE II	PD2-SS320	NASB-SKT-PD2-SS320-0004	3016430.99	385457.67
PHASE II	PD2-SS321	NASB-SKT-PD2-SS321-0004	3016376.86	385381.73
PHASE II	PD2-SS322	NASB-SKT-PD2-SS322-0004	3016516.88	385383.43
PHASE II	PD2-SS323	NASB-SKT-PD2-SS323-0004	3016432.16	385310.05
PHASE II	PD2-SS324	NASB-SKT-PD2-SS324-0004	3016500.63	385261.07
PHASE II	PD2-SS325	NASB-SKT-PD2-SS325-0004	3016382.90	385177.94
PHASE II	PD2-SS326	NASB-SKT-PD2-SS326-0004	3016671.23	385255.61
PHASE II	PD2-SS327	NASB-SKT-PD2-SS327-0004	3016701.23	385285.61
PHASE II	PD2-SS328	NASB-SKT-PD2-SS328-0004	3016689.98	385323.10

**Notes:** Coordinate System = NAD 1983, Maine West State Plane, Feet

The analytical samples will be collected and placed directly into the appropriate sample containers, labeled, and placed in an ice-chest chilled to a maximum temperature of 4 degrees Celsius (°C). A Chain of Custody (COC) form will be filled out for the samples. A portion of the sample will be set aside and used to log a description of the soil characteristics on a soil sampling log form using the Unified Soil Classification System (USCS). An example of this soil sampling log form is provided in SOP 3 in Appendix B.

Reusable sampling equipment (if used) will be decontaminated before moving to the next sampling location.

Quality Assurance (QA) QA/Quality Control (QC) samples will be collected to assess the quality of the sampling effort and analytical data.

Additional details on sample collection procedures are in the attached SOPs (Appendix B).

### 3.5 QC SAMPLES

QC for analytical samples will be provided in the field through the use of the following QC samples, which are quantified in Table 3-2:

- Field duplicates (1 in 20)
- Matrix Spikes (MS)/Matrix Spike Duplicates (MSDs) (1 in 20)
- Temperature blank (TB) (1 per shipment)
- Equipment blanks (EB) (if equipment is reused).

**Table 3-2: Sample Quantities**

Analysis	Media	Field Samples	Field Duplicates	MS/MSD	EB*	TB	Total
Lead (6010C)	Soil	44 (Phase I)	3 (Phase I)	3 (Phase I)	3 (Phase I)	5	58
		44 (Phase II)	3 (Phase II)	3 (Phase II)	3 (Phase II)		53

**Note:** The equipment blanks will only be collected and submitted if reusable sampling equipment is used.

### 3.6 SAMPLE MANAGEMENT

Details on sample labeling, handling, and documentation are provided in the attached SOPs.

### 3.7 LABORATORY REQUIREMENT, DATA VALIDATION AND REPORTING

The laboratory, Katahdin, has completed work at the former NASB and is familiar with the requirements. All work will be conducted IAW the approved SAP (Tetra Tech, 2011). Katahdin will conduct internal QA/QC and will provide the results as part of the data deliverable package. The lab's reporting limit for lead by method 6010C is 0.5 mg/kg, which is below the site cleanup goal. The data will be validated IAW EPA protocol. The results will be provided to the regulators in a data summary report, which may be a letter report or incorporated into part of the Work Plan. Review of the data will further verify that the laboratory's procedures conform to Navy QA/QC procedures.

USA will provide the data to the point of contact designated by the Navy for uploading into NIRIS. In addition, EDDs of validated data will be provided to MEDEP in their preferred format.

## 4.0 QUALITY CONTROL PLAN (QCP)

### 4.1 INTRODUCTION

The USA QC process is based on commitment and involvement. It provides a framework for comprehensive performance oversight, contract compliance controls, and employee acceptance and

understanding of roles and missions. The process ensures the actions, procedures, and tools support every action required to do the job and are IAW project requirements.

This abbreviated QCP provides general quality control procedures and methods to be implemented for the field sampling. Sample collection and analysis is to be in conformance with the 2011 Tier II SAP, referenced herein. This plan addresses organization and responsibilities, equipment testing and calibration, QC inspections, and reporting procedures. The intent of the QCP is to continuously control and improve the processes stipulated in the WP and the SOW, eliminate special cause variation, and control common cause variation to within acceptable limits.

USA will incorporate the collected data into the RAWP, and all remaining data will be included in the Site Closure Report at the completion of the project. USA will include this data in a “lessons learned” program to capture and share experiences learned during the prosecution of this project. The lessons learned will be incorporated into the Closure Report.

## **4.2 QUALITY MANAGEMENT STRUCTURE**

The following paragraphs describe the organizational structure of the USA Quality Management Team during operations at the project site. Names and qualifications of site personnel will be provided prior to mobilization.

### **4.2.1 Director of Safety and Quality**

The USA DSQ has responsibility for USA’s QC program. The DSQ reports directly to the Vice President on matters of effectiveness, adequacy, and status of QC methods and procedures. He maintains an alternate line of communication to the Program Manager for program- and project-specific QC issues. The DSQ has the following responsibilities:

- Preparing the USA QC policies and procedures
- Monitoring the submission of contract deliverables for timeliness and accuracy
- Reviewing employee qualification records to ensure accuracy
- Conducting periodic field audits of sites, programs, and projects to ensure QC compliance.

### **4.2.2 USA Sampling Technician**

The USA Sampling Technician is responsible for the day-to-day field operations at the project site, and reports directly to the USA PM. This person has the following responsibilities:

- Managing and implementing the WP and QC policies and procedures
- Reporting to the USA PM on effectiveness, adequacy, and status of the project
- Ensuring the timely submission of contract deliverables
- Coordinating with project personnel for site tasking and schedules
- Reviewing any failures and/or non-conformance issues and implementing corrective actions
- Implementing additional guidelines used to assist in the development of site- and task-specific policies and procedures.

### **4.2.3 Quality Control Specialist**

(Field QC will be self-monitored by the two-person sampling team.)

## **4.3 QUALIFICATIONS AND TRAINING**

Qualifications of the USA employees are provided in Section 2.2 of this WP.

USA ensures that only qualified and properly trained personnel are assigned to positions on project sites. Prior to mobilization of personnel, USA ensures that training required by USA, OSHA 29 CFR 1910.120,

and the Navy has been completed for all personnel assigned to the project. In addition, prior to the start of operations, all personnel will have received the following, at a minimum:

- Familiarization with the WP and its policies and procedures
- APP orientation and Personal Protective Equipment (PPE) training
- Orientation on environmental considerations peculiar to the operations on the project site
- Instruction and training on equipment usage and safe work practices.

Visitors to the site will be provided with a site orientation and safety briefing prior to entering the work area.

Training will be conducted by USA, and records of attendance will be maintained on site.

#### **4.4 QUALITY CONTROL PROCESS**

##### 4.4.1 Data Quality Objectives

Data obtained during soil sampling operations must support the decision-making process. Consequently, data must be of a sufficient quantity and quality to make defensible decisions, to provide an acceptable level of certainty for the decision maker(s).

##### 4.4.2 Data Quality Objectives (DQO) Process

The DQO process, as defined in USEPA QA/G-4W, Data Quality Objectives Process for Hazardous Waste Site Investigations, is iterative and is normally applied to operations requiring the application of data gathered as a result of conducting analytic sampling. The output from one step may lead to the reconsideration of prior steps. This iteration leads to more efficient design of data collection operations. Data users, relevant technical experts, and members of the QC staff will participate in the DQO process planning to ensure their specific needs are included prior to the data collection.

DQOs provide the objective basis for quantitative definition of project requirements. DQOs are developed and used to ensure the amount, type, and quality of data obtained during a field sampling project are adequate to support project decisions with a known level of confidence.

The DQO process includes the following steps.

1. State the problem.
2. Identify the decision.
3. Identify inputs to the decision.
4. Define the study boundaries.
5. Develop a decision rule.
6. Specify limits of decision errors.
7. Optimize the design for obtaining data.

##### 4.4.3 Specific Analytical or Statistical DQOs

The following DQOs have been developed for the preliminary soil sampling.

- DQO #1 – Locate previous sample markers and confirm their coordinates with handheld Global Positioning System (GPS).
- DQO #2 – Locate and record each required sample location.
- DQO #3 – Proper collection and preparation of samples for delivery to the analytical lab.
- DQO #4 – Provide accurate and relevant analytical results.
- DQO #5 – Provide accurate tracking, archiving, and delivery of all data.

**Table 4-1: Definable Features of Work**

Definable Feature of Work	Audit Elements Breakdown	Frequency of Checks/Audits and Performed By
<b>1. Pre-mobilization</b>	<p>Ensure that the work to be performed is coordinated with Naval Facilities Engineering Command (NAVFAC) requirements and that a NTP has been obtained from NAVFAC prior to the beginning of field activities.</p> <p>Verify that personnel required for the work activities have been identified, are available, and meet the requirements/qualifications for the positions or waivers from the Navy have been obtained.</p> <p>Confirm that the appropriate Material Safety Data Sheets have been identified and properly submitted.</p> <p>Confirm that required equipment has been identified and is available, on-hand, functional, properly calibrated, and appropriate for the work activities.</p> <p>Verify that materials and supplies are on-hand and meet contract specifications.</p> <p>Verify that all submittals have been approved by the proper authorities.</p>	Initially – PM/Parsons
<b>2. Mobilization of Equipment, Supplies, and Personnel to NAS Brunswick</b>	<p>Ensure that personnel have proper, serviceable PPE.</p> <p>Provide sufficient spare containers and sampling supplies.</p> <p>Ensure that all personnel have signed the Employee Signoff Forms for the SHSP, and that all AHAs have been completed.</p> <p>Coordinate with local Points of Contact (POCs).</p>	Initially, during the mob-in phase – USA and Parsons field team
<b>3. Soil Sampling Operations</b>	<p>Inspect the certification and calibration procedures for all equipment.</p> <p>Ensure proper procedures to prevent sample contamination are followed.</p> <p>Ensure accurate and complete Data Management.</p>	Daily, Parsons
<b>4. Demobilization</b>	<p>Conduct walk through of the areas sampled with the site POC.</p> <p>Ensure no tools, materials or trash is left behind.</p>	At completion – USA
<b>5. Reporting at Project Closure</b>	<p>Ensure that the Signed Clearance Area Maps, Clearance Progress Maps, and the AAR are prepared, reviewed, and submitted in accordance with the SOW.</p>	Upon review of Draft AAR submittal

4.4.4 Logs and Records

Activity Logs will be documented daily; all entries will be in ink. Logbooks will be bound and pages consecutively numbered. Logbooks and records may be supplemented by the use of preprinted forms (e.g., safety inspection forms, tailgate safety briefings, etc.). These forms help to ensure uniformity of activities being conducted, inspected, and reviewed. Forms are located in Appendix B of this WP. The logbooks and records described in the following paragraphs will be maintained on-site.

#### 4.4.4.1 Daily Journal

USA will maintain a Daily Journal. This journal will provide a summary of all operations conducted on site, to include:

- Date and recorder of information
- Start and end time of work activities, including lunch, breaks, and down-time
- Work stoppage
- Visitors and escorts
- Weather conditions
- Changes to the WP, SHSP, policies, or procedures
- Injuries and /or illnesses
- Safety briefings
- Relevant events and training.

#### 4.4.4.2 Soil Sampling Activity Logbook

In accordance with SOP 3, Parsons will maintain the daily logbook detailing soil sampling activities. This logbook will be used to record all QC matters associated with the sampling, including:

- Sampling procedures
- Equipment decontamination procedures
- Identification of soil samples collected.

#### 4.4.4.3 Safety Training Records

USA will maintain training safety training records.

- Date and nature of training
- Personnel attending and instructor(s)
- Visitor training and briefings
- Signatures of instructor.

#### 4.4.4.4 Photographic Logbook

USA or Parsons will maintain the Photographic Logbook. This logbook will be used to record all photographs taken on the project site. These photographs will be used to document general soil sample collection procedures and site conditions that may be relevant to the upcoming soil remedial effort. Best professional judgment will be used to identify when other photos will be collected, such as to note an unusual field condition, adjustment of sample location due to obstruction, distribution of pellets on the ground, etc. We do not anticipate photographing every sample location. Photographs will include the following information:

- Date and time taken
- Unique identifying number(s) relating to the Photographic Logbook
- Location where photograph was taken
- Brief description of the subject matter.

## 5.0 PRE-DESIGN SAMPLING REPORT

The preliminary sampling field work and sample data and analysis will be organized and provided as an appendix in both the RAWP and the Closure Report. The RAWP will present the proposed boundaries of the areas requiring remediation for lead contamination, based on results of previous sampling and this

pre-design sampling effort. The boundaries presented in the RAWP will be finalized after Navy and stakeholder review of the recommendations provided by the USA/Parsons team.

## **6.0 REFERENCES**

- Final Tier II Sampling and Analysis Plan for Remedial Investigation of Soils at Munitions Response Program Site Skeet Range NAS Brunswick ME, Tetra Tech NUS, 12/1/2011.

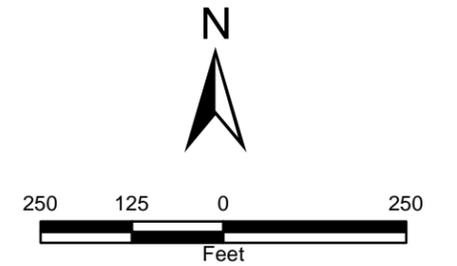
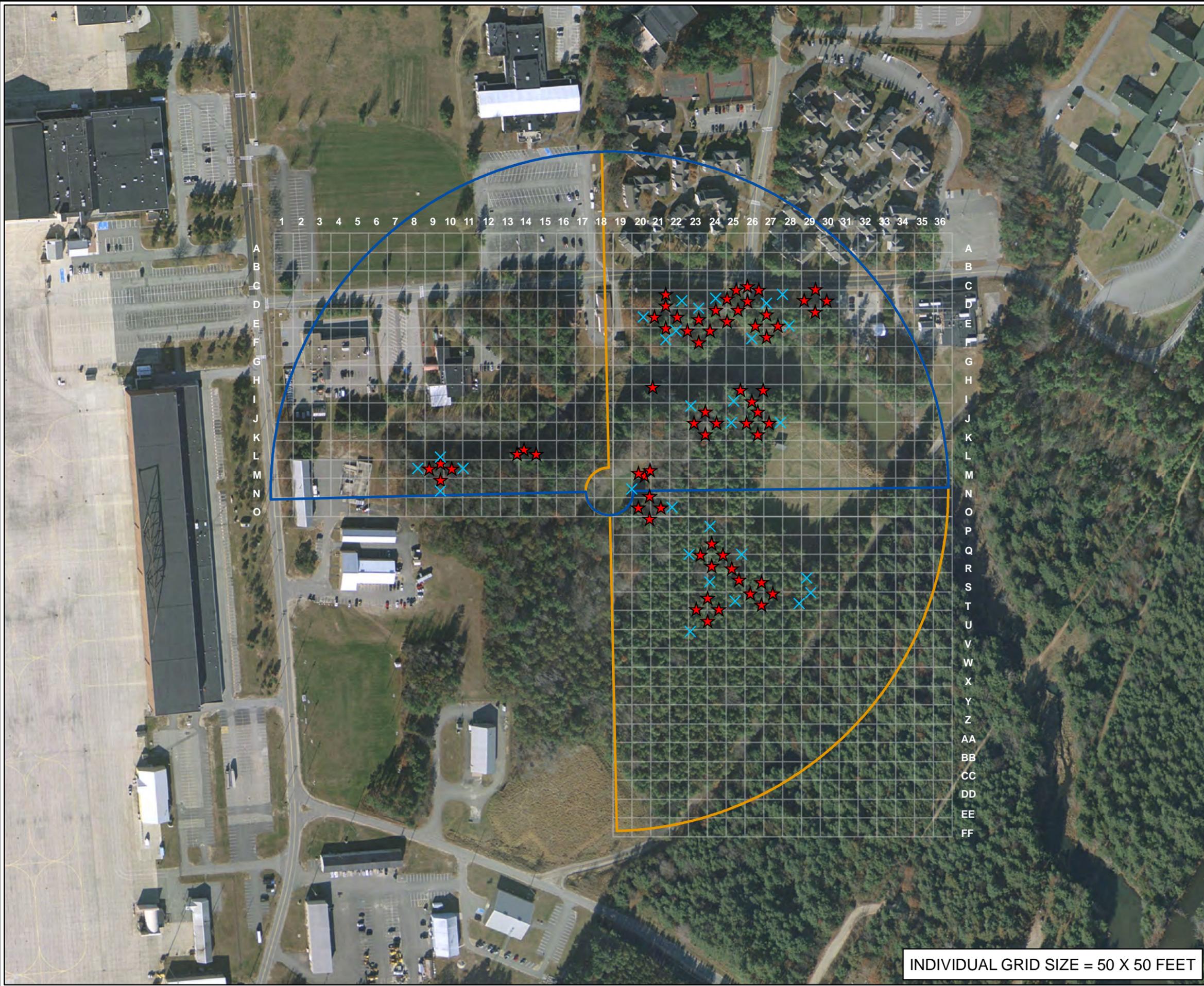
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## **APPENDIX A. SITE MAPS**

This appendix contains the following maps for use on this project:

- Figure 1: Orion Street Skeet Range - Pre-Design Sampling Plan
- Figure 2A: Orion Street Skeet Range, NASB Pre-Design Sampling Plan, Proposed Soil Sample Locations (Map 1 of 3)
- Figure 2B: Orion Street Skeet Range, NASB Pre-Design Sampling Plan, Proposed Soil Sample Locations (Map 2 of 3)
- Figure 2C: Orion Street Skeet Range, NASB Pre-Design Sampling Plan, Proposed Soil Sample Locations (Map 3 of 3)

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Data is projected to the State Plane Coordinate System:  
Maine West Zone; NAD83; Feet

Orion Street Skeet Range

## Figure 1

# Orion Street Skeet Range Range Pre-Design Sampling Plan

NAS Brunswick, Maine

### Legend

- ★ Proposed Phase I Surface Soil Samples
- × Proposed Phase II Surface Soil Samples
- ▭ Skeet Range - Brunswick
- ▭ Skeet Range - Pre-1950
- ▭ 50' x 50' Grids

USA  
*Environmental, Inc.*

**NAFAC**  
Naval Facilities Engineering Command

Drawn By: JAL	Scale: 1 inch = 250 feet	Rev: 3
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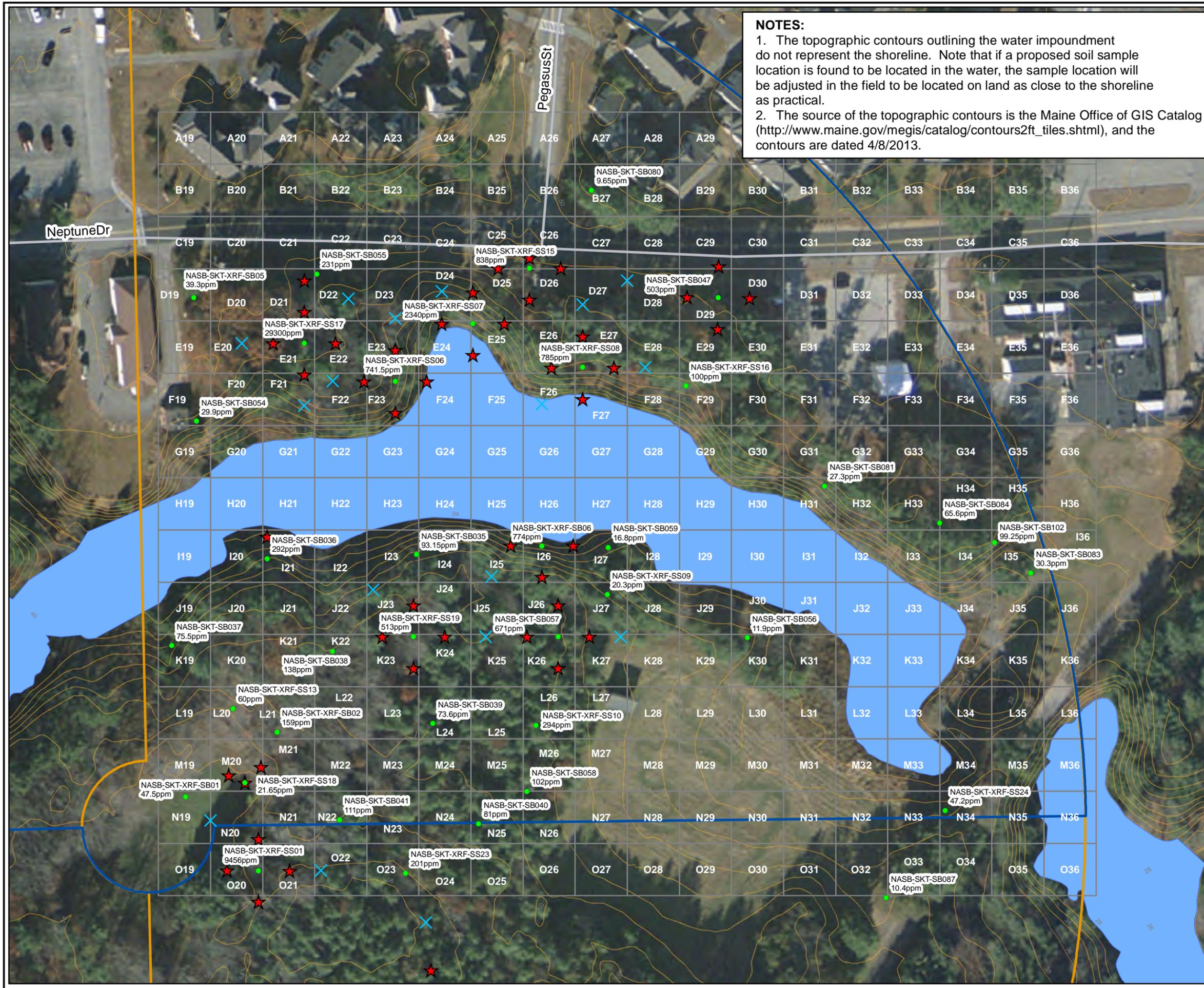
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Submitted By: RH	Revision Date: 6/25/2013
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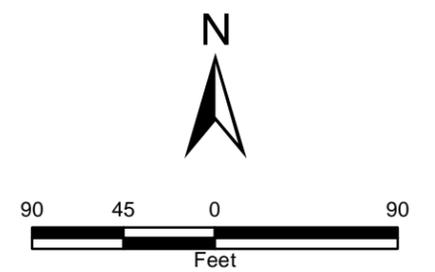
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Historic Data Provided By: Tetra Tech



**NOTES:**

1. The topographic contours outlining the water impoundment do not represent the shoreline. Note that if a proposed soil sample location is found to be located in the water, the sample location will be adjusted in the field to be located on land as close to the shoreline as practical.
2. The source of the topographic contours is the Maine Office of GIS Catalog ([http://www.maine.gov/megis/catalog/contours2ft\\_tiles.shtml](http://www.maine.gov/megis/catalog/contours2ft_tiles.shtml)), and the contours are dated 4/8/2013.



Data is projected to the State Plane Coordinate System:  
Maine West Zone; NAD83; Feet

Orion Street Skeet Range

**Figure 2A**

**Orion Street Skeet Range,  
NASB Pre-Design Sampling  
Plan Proposed Soil Sample  
Locations**

Map 1 of 3

NAS Brunswick, Maine

**Legend**

- Historic Surface Soil Sample
- ★ Proposed Phase I Surface Soil Samples
- ✕ Proposed Phase II Surface Soil Samples
- Roads
- Skeet Range - Brunswick
- Skeet Range - Pre-1950
- 50' x 50' Grids
- Water Impoundment
- Contours - 2 foot interval

<i>USA</i> <b>Environmental, Inc.</b>	
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Checked By:	Date Drawn: 4/19/2013	
Submitted By: RH	Revision Date: 6/24/2013	

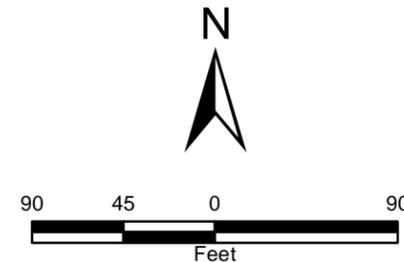
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**Historic Data Provided By: Tetra Tech**

**NOTES:**

1. The topographic contours outlining the water impoundment do not represent the shoreline. Note that if a proposed soil sample location is found to be located in the water, the sample location will be adjusted in the field to be located on land as close to the shoreline as practical.

2. The source of the topographic contours is the Maine Office of GIS Catalog ([http://www.maine.gov/megis/catalog/contours2ft\\_tiles.shtml](http://www.maine.gov/megis/catalog/contours2ft_tiles.shtml)), and the contours are dated 4/8/2013.



Data is projected to the State Plane Coordinate System: Maine West Zone; NAD83; Feet

Orion Street Skeet Range  
**Figure 2B**

**Orion Street Skeet Range, NASB Pre-Design Sampling Plan Proposed Soil Sample Locations**

Map 2 of 3

NAS Brunswick, Maine

**Legend**

- Historic Surface Soil Sample
- ★ Proposed Phase I Surface Soil Samples
- ✕ Proposed Phase II Surface Soil Samples
- Roads
- Contours - 2 foot interval
- Skeet Range - Brunswick
- Skeet Range - Pre-1950
- 50' x 50' Grids
- Water Impoundment

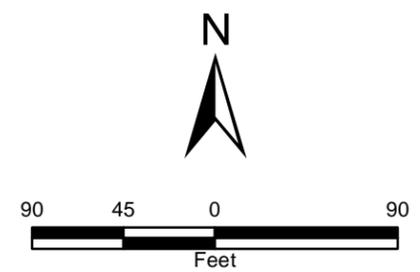
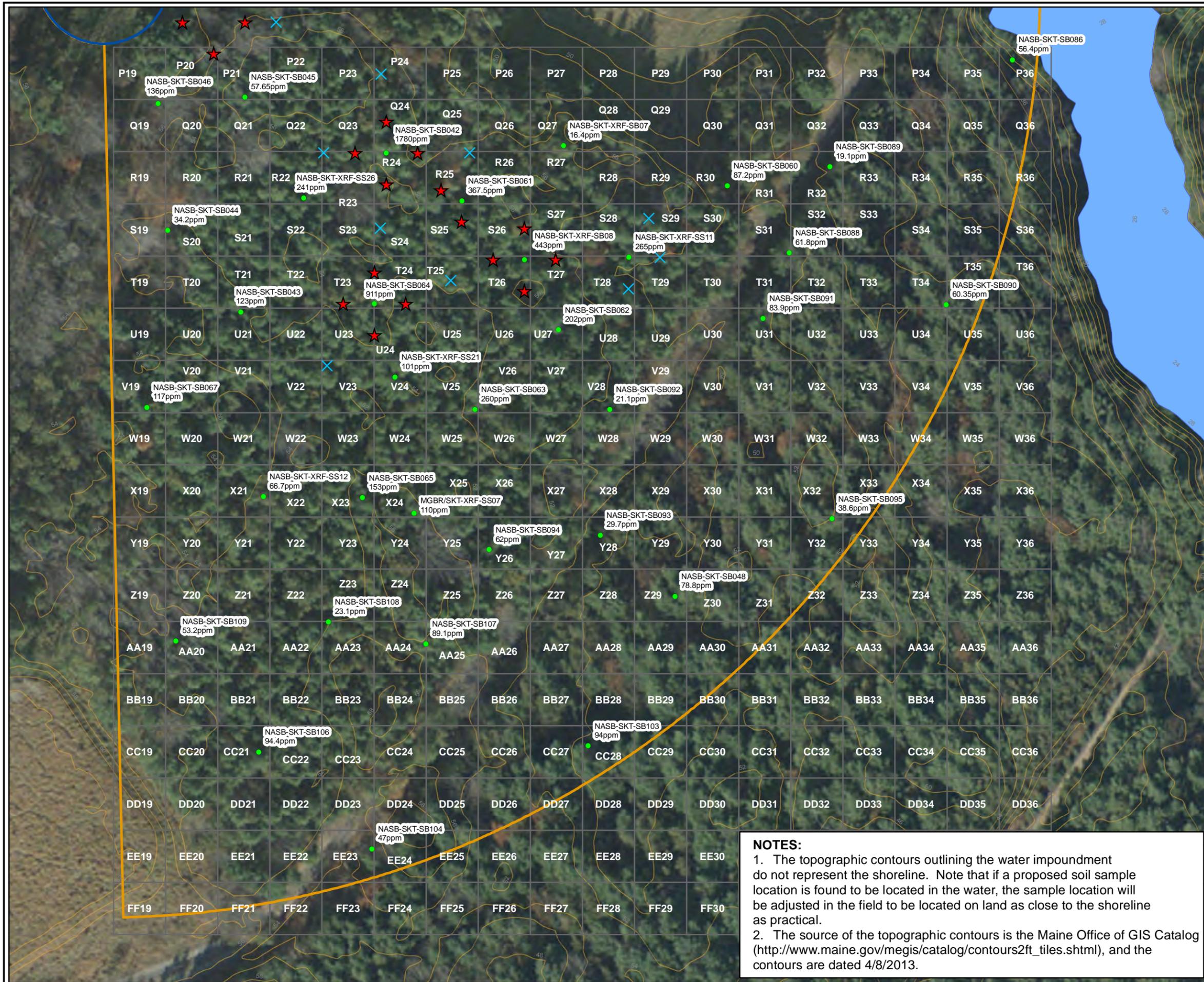


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Checked By:	Date Drawn: 4/16/2013	
Submitted By: RH	Revision Date: 6/24/2013	

Path: S:\Brunswick NAS\MXD\Work Plan\Skeet Range\Fig 2B Sample Map 2.mxd

Historic Data Provided By: Tetra Tech





Data is projected to the State Plane Coordinate System:  
Maine West Zone; NAD83; Feet

Orion Street Skeet Range  
**Figure 2C**

**Orion Street Skeet Range,  
NASB Pre-Design Sampling  
Plan Proposed Soil Sample  
Locations**

Map 3 of 3

NAS Brunswick, Maine

**Legend**

- Historic Surface Soil Sample
- ★ Proposed Phase I Surface Soil Samples
- × Proposed Phase II Surface Soil Samples
- Roads
- Skeet Range - Brunswick
- Skeet Range - Pre-1950
- 50' x 50' Grids
- Water Impoundment
- Contours - 2 foot interval

**NOTES:**  
 1. The topographic contours outlining the water impoundment do not represent the shoreline. Note that if a proposed soil sample location is found to be located in the water, the sample location will be adjusted in the field to be located on land as close to the shoreline as practical.  
 2. The source of the topographic contours is the Maine Office of GIS Catalog ([http://www.maine.gov/megis/catalog/contours2ft\\_tiles.shtml](http://www.maine.gov/megis/catalog/contours2ft_tiles.shtml)), and the contours are dated 4/8/2013.



Drawn By: JAL	Scale: 1 inch = 90 feet	Rev: 3
Checked By:	Date Drawn: 4/16/2013	
Submitted By: RH	Revision Date: 6/24/2013	

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**Historic Data Provided By: Tetra Tech**

## **APPENDIX B. STANDARD OPERATING PROCEDURES (SOPS)**

This appendix contains the following Standard Operating Procedures (SOPs) for use on this project:

- SOP 1 Field Sampling
- SOP 2 Sample Documentation
- SOP 3 Field Operations Documentation.

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**1. TITLE PAGE**

STANDARD OPERATING PROCEDURE (SOP)

FOR

**FIELD SAMPLING**

**SOP 1**

CONTAMINATED SOILS CLEAN-UP

SKEET RANGES

FORMER NAVAL AIR STATION BRUNSWICK  
BRUNSWICK, MAINE

USA ENVIRONMENTAL, INC.

May 2013

PROCEDURE No.: SOP 1  
DESCRIPTION: FIELD SAMPLING  
REVISION No.: 0  
DATE: MAY 2013  
PAGE: 2 OF 9

## 2. REFERENCES

- Orion Street Skeet Range Preliminary Soil Sampling Technical Memorandum\Work Plan (WP)
- Technical Memorandum/Work Plan Pre-Design Soil Sampling for Orion Street Skeet Range Soil Remediation
- Accident Prevention Plan (APP)
- 29 Code of Federal Regulations 1910, Occupational Safety and Health Standards

**3. ACRONYMS AND ABBREVIATIONS**

AHA	Activity Hazard Analysis
APP	Accident Prevention Plan
COC	Chain of Custody
EB	Equipment Blank
FD	Field Duplicate "sample"
MS/MSD	Matrix Spike & Matrix Spike Duplicate "sample"
NAS	Naval Air Station
PDA	Personal Digital Assistant
PPE	personal protective equipment
SOP	Standard Operating Procedure
SSHP	Site Safety and Health Plan
USA	USA Environmental, Inc.
USACE	United States Army Corps of Engineers
UXO	Unexploded Ordnance
WP	Work Plan

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**TABLE OF CONTENTS**

1. **TITLE PAGE** ..... 1

2. **REFERENCES**..... 2

3. **ACRONYMS AND ABBREVIATIONS** ..... 3

4. **SUPERVISOR’S STATEMENT** ..... 5

5. **WORKER’S STATEMENT** ..... 5

6. **PURPOSE**..... 6

7. **FIELD PROCEDURES** ..... 6

    7.1 **Sampling Methods for Soil – Discrete Sampling** ..... 6

    7.2 **Sample Containers and Preservation** ..... 6

    7.3 **Field QC Samples** ..... 7

        7.3.1 **Field Duplicates (FD)** ..... 7

        7.3.2 **Matrix Spikes / Matrix Spike Duplicates (MS/MSD)**..... 7

        7.3.3 **Equipment Blank (EB)**..... 7

        7.3.4 **Temperature Blank** ..... 7

    7.4 **Basic Decontamination Procedures** ..... 8

    7.5 **Sample Handling**..... 8

    7.6 **Sample Packaging** ..... 8

8. **EMERGENCY RESPONSE PROCEDURES** ..... 9

PROCEDURE No.: SOP 1  
DESCRIPTION: FIELD SAMPLING  
REVISION No.: 0  
DATE: MAY 2013  
PAGE: 5 OF 9

**4. SUPERVISOR'S STATEMENT**

I have read and understand this SOP. To the best of my knowledge, the activities described in this SOP can be done in a safe, healthful, and environmentally sound manner. I have made sure that all persons assigned to this process are qualified, have read and understand the requirements of this SOP, and have signed the worker's statement for this purpose. I will ensure the SOP contains current procedures. If a major change to the SOP is necessary, I will ensure that the process is stopped until the SOP is revised and approved. If unexpected safety, health, or environmental hazards are found, I will make sure the process is stopped until the hazards have been eliminated.

\_\_\_\_\_  
USA Environmental, Inc.

\_\_\_\_\_  
Date

**5. WORKER'S STATEMENT**

I have read this SOP and I have received adequate training to perform the procedures addressed in the SOP. If I identify a hazard not addressed in the SOP, or encounter an operation I cannot perform in accordance with the SOP, I will stop the process and notify my immediate supervisor.

Worker's Name	Date	Supervisor's Name	Date

## **6. PURPOSE**

The purpose of this Standard Operating Procedure (SOP) is to provide USA employees and subcontractors with the minimum procedures applicable to conduct soil sampling within the Orion Street Skeet Range (OSSR) Area on the former NAS Brunswick. This SOP is not a stand-alone document and should be used together with Work Plans, other USA Environmental, Inc. (USA) SOPs, the APP, applicable Federal, State, local regulations, and contract restrictions and guidance. Consult the documents listed in Section 2 of this SOP for additional compliance issues.

## **7. FIELD PROCEDURES**

The discrete grab sampling method described below will be the only sampling method used for soil.

### **7.1 SAMPLING METHODS FOR SOIL – DISCRETE SAMPLING**

Discrete soil samples may be collected to determine the extent of detected lead contamination. The process for collecting discrete soil samples is as follows:

1. A new pair of clean disposable latex or nitrile gloves will be donned by the sample team members at each sampling location.
2. Sample collection will depend on the required sample depth. For a sample that will be collected from the first 3 in. of topsoil, the sample will be collected by using a decontaminated stainless steel spoon or single-use plastic scoop.
3. If a hand auger is used to obtain soil samples from locations deeper than 6 in., the auger bucket will be advanced to the required depth, and then a new decontaminated bucket will be used for sample collection. If more than one sample is needed from different depths of the same hole, the bucket used for the previous sample may be retained to acquire the next proper sample depth, then a new decontaminated auger bucket will be needed for the next sample. A powered auger may also be used to achieve sample depth; however, once sample depth is achieved, the sample will need to be collected using a decontaminated auger bucket.
4. Specific to the OSSR, a 1-ft by 1-ft area around the sample location will be hand screened for lead pellets (buckshot) and clay pigeon fragments. If shotgun pellets or clay pigeon fragments are found, the number of items will be recorded in the field notebook. Vegetative cover will be removed and the sample will be collected from the top 3 in. of soil. To avoid biasing the collected sample, during homogenization, any pellets or clay pigeon fragments will be removed prior to filling the sample container.
5. After the sample containers are filled, the caps will be placed on the containers and they will be placed on ice as soon as possible.
6. Once the samples have been collected, the hole will be backfilled with the remainder of soil not used in the sample, and the site will be returned to its original condition to the best extent possible. QC samples will be collected as specified below.

### **7.2 SAMPLE CONTAINERS AND PRESERVATION**

Samples collected for the field activities will be collected using the containers, preservation techniques, and holding times presented in Table 7-1 Katahdin Analytical Services, Inc., will provide pre-cleaned and preserved (if applicable) sample bottles for use in collecting soil samples.

**Table 7-1: Sample Containers, Preservation, and Holding Times**

Parameter	Sample Container	Preservative	Holding Time
Discrete Soil Samples			
Lead	1 x 4oz jar	Cool to 4°C	6 months

### 7.3 FIELD QC SAMPLES

Field QC samples are used to assess the representativeness of the sampling activities. They are designed to determine what effects activities such as sample container cleaning, sample collection, field decontamination, bottling, and shipping have on sample integrity and to ensure that samples sent to the laboratory are representative of site conditions. The sample team(s) will ensure that sufficient sample volume to perform all necessary analyses is collected when field duplicate (FD) and matrix spike and matrix spike duplicate (MS/MSD) samples are required.

#### 7.3.1 Field Duplicates (FD)

Field duplicates will be collected at the frequency of one per every twenty field samples. FD samples are samples collected simultaneously from the same media source under identical conditions. All FDs will be analyzed by Katahdin. FDs sent to the laboratories will be labeled with different sample collection time and sample identification so analysts performing laboratory analyses cannot distinguish duplicates from other samples.

#### 7.3.2 Matrix Spikes / Matrix Spike Duplicates (MS/MSD)

For the laboratory analyses, MS/MSDs are used to assess interferences in analytical results caused by the sampled matrix. The analytical laboratory spikes the MS/MSDs with known concentrations of representative target compounds, and then analyzes the MS/MSDs. The percent recovery is calculated and used to evaluate interference effects. One set of MS/MSD will be collected per every twenty field samples per matrix. The MS/MSD samples will be labeled the same as the parent sample with the addition of "MS/MSD" noted on the sample label and on the chain-of-custody (COC) form.

#### 7.3.3 Equipment Blank (EB)

Rinseate (equipment) blanks (EB) are samples of analyte-free (deionized or distilled) water that are rinsed over decontaminated sampling equipment, collected, and submitted for analysis. These samples are used to assess cross-contamination from the sampling equipment, the sample container, and/or preservatives. Equipment blanks will be collected in sample containers, sealed and handled in the same manner as the associated field samples, and shipped to the laboratory for analysis. One equipment blank per day will be collected when non-disposal sample collection tools are used. These EB samples will only be prepared and submitted if non-disposable sampling equipment is used.

#### 7.3.4 Temperature Blank

A temperature blank is a container (e.g., 40 mL) of water packaged along with discrete field samples in the shipping cooler that will represent the temperature of the incoming cooler upon receipt at the laboratory. Use of these samples within a shipping container enables the receiving laboratory to assess the temperature of the shipment without disturbing any project field samples. All iced coolers will contain a minimum of one temperature blank.

#### 7.4 BASIC DECONTAMINATION PROCEDURES

In the event that non-disposable equipment is used, the sample collection equipment will be decontaminated using the following process.

1. Wash equipment with tap/potable water and laboratory-grade detergent (Alconox or Liquinox). A scrub brush will be used to remove dirt and surface film.
2. Rinse thoroughly with tap water.
3. Rinse thoroughly with distilled water.
4. Remove excess water and allow equipment to dry.
5. Wrap equipment in aluminum foil, shiny side out.

Equipment decontamination will be conducted in a clean area free of dust.

#### 7.5 SAMPLE HANDLING

Upon collection, all samples will be kept cool by being placed on ice ( $4 \pm 2$  °C) until the cooler is packaged and shipped to a laboratory facility. Once the samples are collected, the following guidelines will be used to initially prepare the sample bottles for shipment to the laboratory:

1. Place labeled containers in bubble pack/sleeves.
2. Place all glass containers in Ziploc-type bags and seal.
3. Line insulated shipping cooler with a large trash bag and place wrapped and bagged samples into the lined, insulated cooler, then cool (to  $4 \pm 2$  °C) using ice.
4. Place all samples in designated cooler. Make sure all samples in the cooler are listed on the COC record.

#### 7.6 SAMPLE PACKAGING

The following guidelines will be used to complete the sample packaging procedures for shipment to the laboratory:

1. Seal completed COC record in a Ziploc-type plastic bag and tape to the inside of the cooler lid.
2. Pour out water from melted ice and replace with double-bagged fresh ice.
3. Place sample bottles in upright position.
4. Close trash bag and seal with tape.
5. Fill empty spaces in cooler with packaging material, for example, bubble pack or cardboard.
6. Tape cooler drain plug shut.
7. Securely seal shipping container/cooler with packing tape and custody seals (provided by laboratory).

PROCEDURE No.: SOP 1  
DESCRIPTION: FIELD SAMPLING  
REVISION No.: 0  
DATE: MAY 2013  
PAGE: 9 OF 9

8. Prepare cooler for pickup by Katahdin. (If pickup is not possible, ship container/cooler to the appropriate laboratory via overnight express.)

## **8. EMERGENCY RESPONSE PROCEDURES**

In the case of an emergency, refer to the hospital map in the Abbreviated Accident Prevention Plan (AAPP), which is provided under separate cover.

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**1. TITLE PAGE**

STANDARD OPERATING PROCEDURE

FOR

**SAMPLE DOCUMENTATION**

**SOP 2**

CONTAMINATED SOILS CLEAN-UP

SKEET RANGES

FORMER NAVAL AIR STATION BRUNSWICK  
BRUNSWICK, MAINE

USA ENVIRONMENTAL, INC.

May 2013

PROCEDURE No.: SOP 2  
DESCRIPTION: SAMPLE DOCUMENTATION  
REVISION No.: 0  
DATE: MAY 2013  
PAGE: 2 OF 5

**TABLE OF CONTENTS**

1.	TITLE PAGE .....	1
2.	REFERENCES.....	3
3.	PURPOSE.....	3
4.	SAMPLE DOCUMENTATION .....	3

## 2. REFERENCES

- Orion Street Skeet Range Pre-Design Soil Sampling Technical Memorandum\Work Plan (WP)
- Skeet Range Contaminated Soil Removal WP

## 3. PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide USA employees and subcontractors with the minimum procedures applicable to conduct soil sampling within the Orion Street Skeet Range (OSSR) Area on the former NAS Brunswick. This SOP is not a stand-alone document and should be used together with Work Plans, other USA SOPs, the APP, applicable Federal, State, local regulations, and contract restrictions and guidance. Consult the documents listed in Section 2.0 of this SOP for additional compliance issues.

## 4. SAMPLE DOCUMENTATION

### 4.1 SAMPLE NUMBERING

A sample numbering system will be implemented to identify each sample collected during the pre-design sampling and any post-excavation sampling, and for all QC samples. This numbering system will ensure that each sample is uniquely labeled and will provide a tracking procedure to allow retrieval of information about each sample collected.

Every sample number and location will be recorded in the sample logbook, COC documentation, and in daily sampling reports. Every sample number will be preceded by a site name abbreviation ("NASB") to identify that the sample was collected from the former Naval Air Station Brunswick project site. All surface soil samples during the Pre-Design sampling event will employ the following labeling system: [NASB]-[SKT]-[PD]-[SS##]-[UULL]

NASB signifies former Naval Air Station Brunswick, the abbreviated Site name

SKT indicates the Skeet Range portion of the Site

SS designates a surface soil sample

PD indicates the Pre-Design sampling event

## is the sample number location starting with 200 for Phase I and 300 for Phase II, and increasing sequentially

UU is the depth of the top of the interval (for surface soil, it would be "00")

LL is the depth of the bottom of the interval (for surface soil it would be "03")

For example, the surface soil sample collected from 0 to 3 in. bgs at location SS200 would be labeled NASB-SKT-PDI-SS200-0003.

All MS/MSD samples collected will utilize the following sample label format:

[NASB]-[SKT]-[PD]-[SS##]-[UULL/MS/MSD] or NASB-SKT-PDI-SS200-0003MS/MSD

All QA/QC samples (equipment blanks collected) will utilize the following sample label format:

[NASB]-[SKT]-[PD/Type of QA Sample]-[ sequential # starting at 1]  
NASB-SKT-PD-EB01

Depths of each soil sample will be incorporated into the sample number, recorded in the sample logbook, and noted in daily sampling reports. The date and time of sample collection will also be recorded in the sample logbook, on chain-of-custody (COC) forms, and in daily sampling reports.

#### **4.2 SAMPLE LABELS**

Each bottle submitted to the laboratory for analysis will have a sample label provided by the laboratory containing the following information:

- Project Name, e.g., Orion Street Skeet Ranges (OSSR) PD
- Sample Location, e.g., Skeet Range 1
- Parsons job number, e.g., 748766
- Sample number designation, e.g., "NASB-SKT-PD-SS200--0003"
- Collection Date and Time
- Analysis required, e.g., lead
- Preservative added, e.g., none; and
- Sampler, e.g., Parsons.

Prior to sample collection, sample label information will be completed and the label will be placed on the appropriate bottle and the sample label will be covered with clear tape. Markers with indelible ink will be used to complete the sample labels.

#### **4.3 CHAIN-OF-CUSTODY RECORDS**

COC procedures provide documentation of the handling of each sample from the time it is collected until it is delivered to the lab. COC procedures will be implemented so a record of sample collection, transfer of samples between personnel, sample shipping, and receipt by the laboratory analyzing the sample, can be maintained. The COC record (see below) will serve as a legal record of possession of the sample. The COC record will be initiated with the acquisition of the sample. The COC record will remain with the sample at all times and will bear the name of the person assuming responsibility for the sample. A sample is considered to be under custody if one or more of the following criteria are met:

- The sample is in the sampler's possession.
- The sample is in the sampler's view after being in possession.
- The sample was in the sampler's possession and then was locked up to prevent tampering.
- The sample is in a designated secure area.
- All samples collected will be documented on a COC record. This COC record will be used in the field to document the transfer of samples from Parsons to Katahdin.
- All sample shipments will be accompanied by a COC record. To document the transfer of possession of the samples, the person relinquishing the samples, as well as the person receiving the samples, will sign and date the respective COC record.



**1. TITLE PAGE**

STANDARD OPERATING PROCEDURE

FOR

**FIELD OPERATIONS DOCUMENTATION**

**SOP 3**

CONTAMINATED SOILS CLEAN-UP

SKEET RANGES

FORMER NAVAL AIR STATION BRUNSWICK  
BRUNSWICK, MAINE

USA ENVIRONMENTAL, INC.

May 2013

PROCEDURE No.: SOP 3  
DESCRIPTION: FIELD OPS DOCUMENTATION  
REVISION No.: 0  
DATE: MAY 2013  
PAGE: 2 OF 4

**TABLE OF CONTENTS**

1. **TITLE PAGE** ..... 1  
2. **REFERENCES**..... 3  
3. **PURPOSE**..... 3  
4. **FIELD OPERATIONS DOCUMENTATION**..... 3

**2. REFERENCES**

- Orion Street Skeet Range Preliminary Soil Sampling Technical Memorandum Work Plan (WP)
- Skeet Range Contaminated Soil Removal WP

**3. PURPOSE**

The purpose of this Standard Operating Procedure (SOP) is to provide USA employees and subcontractors with the minimum procedures applicable to conduct soil sampling within the Orion Street Skeet Range (OSSR) Area on the former NAS Brunswick. This SOP is not a stand-alone document and should be used together with Work Plans, other USA SOPs, the APP, applicable Federal, State, local regulations, and contract restrictions and guidance. Consult the documents listed in Section 2 of this SOP for additional compliance issues.

**4. FIELD OPERATIONS DOCUMENTATION**

Field operations documentation will, when practical, be generated by field personnel using electronic forms on personal digital assistants (PDAs) specifically programmed for this task. In other cases, paper forms will be utilized.

**4.1 SOIL SAMPLING RECORD**

The Soil Sampling Record will be completed with the sample ID, depth, and description of every sample collected. As appropriate, the form may include a sketch of the sample location.

PAGE OF

<b>SAMPLING RECORD - SURFACE SOIL</b>												
<b>PARSONS</b>			CLIENT:			INSPECTOR :		DATE:				
PROJECT: Site: _____						SOIL TYPE SURFACE SOIL                      SEDIMENT						
COMMENTS:						MONITORING						
						INSTRUMENT			DETECTOR		READING	
SAMPLE INFORMATION				SOIL INFORMATION								
LOCATION	SAMPLE NUMBER	SAMPLE DEPTH (in)		TIME (military)	GRAB or COMPOSITE SAMPLE	SAMPLE DESCRIPTION (USCS)	USCS Classification	VOC Screen (PPM)	QC Split (yes or no)	Other Notes		
		TOP	BOTTOM									

**4.2 FIELD LOGBOOK**

A logbook will be maintained by the sample team leader during each sampling event to provide documentation of activities that have occurred in the field on any given day, including samples collected and shipped (or picked up), and conditions or activities that affected the fieldwork. The field logbook will

be bound with numbered pages. All pertinent information regarding site activities will be documented as near to real-time as possible. Entries in the logbook will be signed and dated. The following is a partial list of the types of information that may be recorded in the logbook:

- Name and title of author; date and time of entry; and physical/environmental (weather included) conditions during the daily field activities;
- Sampling activity purpose and plan;
- Types of sampled media (e.g., surface soil, sediment);
- Sample collection methods (e.g., discrete);
- Numbers, types, and volumes of samples taken;
- Sample ID numbers;
- Analyses, numbers of containers, and preservation required;
- Locations of sampling points;
- Dates and times samples were collected; and
- Descriptions of sample collection activities and samples.

All entries will be made in permanent, waterproof ink. Any corrections made in the logbook will be marked through with a single line and then dated and initialed.

### **APPENDIX C. CONTRACTOR FORMS**

This appendix contains copies of the following forms for use on this project:

- Daily Site Report
- Tailgate Safety Briefing
- NAVFAC – Contractor Safety Self-Evaluation Checklist

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**DAILY SITE REPORT**

SECTION 1 GENERAL INFORMATION					
Project Name:		Customer(s) Name:		Report No.:	
Contract No.:		TO No.:	Completion Date:	Location:	Date of Report:
SUXOS Name:		Telephone No.:		Email Address:	
Site Manager's Name:		Telephone No.:		Email Address:	
Customer POC Name:		Telephone No.:		Email Address:	
Project Web Portal Address:					
SECTION 2 WEATHER					
Temp: High / Low		Precipitation / Humidity		Wind:	Work Impact / Remarks:
SECTION 3 USA ASSIGNED PERSONNEL					
Position:	No. Assigned:	No. Present:	Position:	No. Assigned:	No. Present:
Site Manager			UXOT II		
SUXOS			UXOT I		
UXOQCS					
UXOSO					
UXOT III					
SECTION 4 SUBCONTRACTOR ASSIGNED PERSONNEL					
Position:	No. Assigned:	No. Present:	Position:	No. Assigned:	No. Present:
SECTION 5 SUBCONTRACTOR / RENTAL HEAVY EQUIPMENT ONSITE					
Description:	Quantity:	Operational:	Owner:	Remarks:	
SECTION 6 TASK(S) PERFORMED					
Task Performed:	Acres/Grids:	Transects:	Re-Acquire:	Digs:	Other:
Surface					
Subsurface					
DGM / GIS					
Devegetation					
Demolition					
Survey					
Support					

SECTION 7 WORK DETAILS					
Acres/Grids:	Transects:	Re-Acquire:	Digs:	Remarks:	
SECTION 8 SAFETY DATA					
1) Were safety inspections held?	<input type="checkbox"/> Y <input type="checkbox"/> N	2) Was HW found or recovered today?	<input type="checkbox"/> Y <input type="checkbox"/> N		
General <input type="checkbox"/> Tailgate <input type="checkbox"/> Task Specific <input type="checkbox"/>		Type:			
3) Were there any accidents?	<input type="checkbox"/> Y <input type="checkbox"/> N	4) Was a "Competent Person" required?	<input type="checkbox"/> Y <input type="checkbox"/> N		
1 <sup>st</sup> Aid <input type="checkbox"/> Clinic <input type="checkbox"/> Hospital <input type="checkbox"/>		Type:			
5) Were there any near misses?	<input type="checkbox"/> Y <input type="checkbox"/> N	6) Was PPE up or down graded today?	<input type="checkbox"/> Y <input type="checkbox"/> N		
Brief Description:		Changed to:			
SECTION 9 QUALITY CONTROL DATA					
1) Were QC inspections held?	<input type="checkbox"/> Y <input type="checkbox"/> N	2) Was a QA submittal made today?	<input type="checkbox"/> Y <input type="checkbox"/> N		
Site <input type="checkbox"/> MEC <input type="checkbox"/> DGM <input type="checkbox"/> Other <input type="checkbox"/>		Submitted by:			
3) Were there any failures?	<input type="checkbox"/> Y <input type="checkbox"/> N	4) Was a Stop Work or CAR issued?	<input type="checkbox"/> Y <input type="checkbox"/> N		
Minor <input type="checkbox"/> Major <input type="checkbox"/> Critical <input type="checkbox"/>		Issued by:			
5) Were there any corrections?	<input type="checkbox"/> Y <input type="checkbox"/> N	6) Was a Form 948 issued?	<input type="checkbox"/> Y <input type="checkbox"/> N		
Brief Description:		Issued for:			
SECTION 10 MPPEH / MDAS					
No. of MPPEH items found.		Lbs. of MDAS recovered.			
No. of MPPEH items consolidated.		Lbs. of MDAS placed in a "sealed" container.			
SECTION 11 MEC / UXO SUMMARY					
Type:	Quantity:	Live:	Practice:	Unknown:	Location:
Projectiles					
Grenades					
Rockets					
Bombs					
Mines					
Missiles					
Pyrotechnics					
ICM / Submunitions					
SECTION 12 DEMOLITION OPERATIONS					
Location:	No. of Items Destroyed:	Remarks:			

SECTION 13		DAILY COMMENTS	
<b>CUSTOMER/REGULATORY INSTRUCTIONS ISSUED:</b>			
SECTION 14		SIGNATURE BLOCKS	
Type or Print SUXOS Name:	Signature:	Date:	
Type or Print Site Manager's Name:	Signature	Date:	
<b>CC to:</b>			
Government Representative <input type="checkbox"/>	Project Manager <input type="checkbox"/>	Customer Representative <input type="checkbox"/>	
<b>Other – Specify:</b>			

**Note:** Sections 2 through 13 above may have additional information found in inspection forms, preprinted forms, information sheets, or tabulated data sets (i. e., Sign-In / Sign-out Log, MEC Summary Log, Demolitions Records, QC Inspection Form, Safety Inspection Form). Attach additional information or continuation sheets to this report as needed.

**TAILGATE SAFETY BRIEFING**

Date:

Location:

Time:

AM  PM

Team #:

<b>1. Reason for Briefing:</b>		
<input type="checkbox"/> Daily Safety Briefing	<input type="checkbox"/> New Site Procedure	
<input type="checkbox"/> Initial Safety Briefing	<input type="checkbox"/> New Site Information	
<input type="checkbox"/> New Task Briefing	<input type="checkbox"/> Review of Site Information	
<input type="checkbox"/> Periodic Safety Meeting	<input type="checkbox"/> Other (Specify):	
<b>2. Personnel Attending:</b>		
Name	Signature	Position
<b>3. Briefing Given By:</b>		
Name	Signature	Position
<b>4. Topics: ( Check All That Apply )</b>		
<input type="checkbox"/> Site Safety Personnel	<input type="checkbox"/> Decontamination Procedures	
<input type="checkbox"/> Site/Work Area Description	<input type="checkbox"/> Emergency Response/Equipment	
<input type="checkbox"/> Physical Hazards	<input type="checkbox"/> On-Site Injuries/Illnesses	
<input type="checkbox"/> Chemical/Biological Hazards	<input type="checkbox"/> Reporting Procedures	
<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Directions to Medical Facility	
<input type="checkbox"/> Work/Support Zones	<input type="checkbox"/> Drug and Alcohol Policies	
<input type="checkbox"/> PPE	<input type="checkbox"/> Medical Monitoring	
<input type="checkbox"/> Safe Work Practices	<input type="checkbox"/> Evacuation/Egress Procedures	
<input type="checkbox"/> Air Monitoring	<input type="checkbox"/> Communications	
<input type="checkbox"/> Task Training	<input type="checkbox"/> Confined Spaces	
<input type="checkbox"/> MEC Precautions	<input type="checkbox"/> Other:	
<b>5. Remarks:</b>		

**CONTRACTOR SAFETY SELF- EVALUATION CHECKLIST**



PWD/ROICC/OICC/FSC OFFICE:

DATE:

FINAL OVERALL SCORE:

CONTRACTOR:

CONTRACT% COMPLETE:

TOTAL MONTHLY MAN-HOURS:

CONTRACT TITLE:

QC MANAGER:

TOTAL CUMULATIVE MAN-HOURS:

SUPERINTENDENT:

PERSON COMPLETING INSPECTION:

SITE SAFETY HEALTH OFFICER (SSHO):

SSHO LEVEL: (CIRCLE REQUIRED LEVEL) (1), (2), (3), (4), (5), (6)

QUESTIONS ANSWERED "NO" ARE BE ENTERED INTO THE SITE SAFETY AND OCCUPATIONAL HEALTH DEFICIENCY TRACKING SYSTEM FOR CORRECTION (REFER TO EM 385-1-1 01.A.12.d)

**PREPARATORY PHASE/ ORM PLANNING**

1	(Yes) (No) (N/A)	ACCEPTED ACCIDENT PREVENTION PLAN (APP) OR ABBREVIATED (APP) ON-SITE and UPDATED TO REFLECT CURRENT MANAGEMENT?
2	(Yes) (No) (N/A)	APPLICABLE UFGS 013526 AVAILABLE IN SITE ?
3	(Yes) (No) (N/A)	COMPETENT PERSON EMPLOYED FULL TIME AS SITE SAFETY AND HEALTH OFFICER (SSHO) UNLESS SPECIFIED DIFFERENTLY IN THE CONTRACT ?
4	(Yes) (No) (N/A)	SSHO ON - SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED ?
5	(Yes) (No) (N/A)	SAFETY INSPECTIONS/AUDITS CONDUCTED BY COMPETENT PERSON, OF THE WORK SITE, MATERIAL, AND EQUIPMENT DOCUMENTED IN WRITING AND AVAILABLE ON REQUEST?
6	(Yes) (No) (N/A)	SAFETY AND HEALTH BULLETIN BOARD ERECTED IN AREA COMMONLY ACCESSED AND IN CLEAR VIEW OF THE ON-SITE WORKERS?
7	(Yes) (No) (N/A)	SAFETY AND OCCUPATIONAL HEALTH DEFICIENCY TRACKING SYSTEM ESTABLISHED and UPDATED DAILY (REFER TO EM 385-1-1 01.A.12.d)?
8	(Yes) (No) (N/A)	QUALIFIED PERSON CONDUCTING/DOCUMENTING ALL TRAINING, MEETINGS AND INDOCTRINATION FOR NEW EMPLOYEES?
9	(Yes) (No) (N/A)	ACTIVITY HAZARD ANALYSIS (AHA) with COMPETENT PERSON IDENTIFIED and PROOF OF QUALIFICATIONS ATTACHED and ACCEPTED BY GOVERNMENT DESIGNATED AUTHORITY FOR EACH WORK ACTIVITY ON SITE?
10	(Yes) (No) (N/A)	WORK NOT STARTED UNTIL ACTIVITY HAZARD ANALYSIS REVIEWED BY CONTRACTOR, SUBCONTRACTOR(S) AND GOVERNMENT ON-SITE REPRESENTATIVES DURING PREPARATION and INITIAL PHASE MEETING?
11	(Yes) (No) (N/A)	ARE REQUIRED WEEKLY SAFETY MEETINGS FOR ALL WORKERS TO REVIEW PAST ACTIVITES, PLAN FOR NEW OR CHANGED OPERATIONS, REVIEW ahA'S BY TRADE, ESTABLISH SAFE WORKING PROCUDRES FOR UPCOMING HAZARDS, PROVIDE SAFETY AND HEALTH TRAINING BEING HELD AND DOCUMENTED?
12	(Yes) (No) (N/A)	ARE REQUIRED MONTHLY SAFETY MEETINGS FOR ALL SUPERVISORS ON THE PROJECT LOCATION TO REVIEW PAST ACTIVITES, PLAN FOR NEW OR CHANGED OPERATIONS, REVIEW ahA'S BY TRADE, ESTABLISH SAFE WORKING PROCUDRES FOR UPCOMING HAZARDS, PROVIDE SAFETY AND HEALTH TRAINING BEING HELD AND DOCUMENTED?
13	(Yes) (No) (N/A)	WRITTEN HAZARD COMMUNICATION PROGRAM SUBMITTED and IMPLEMENTED IAW EM 385 SECTION 06.B.01 ?
14	(Yes) (No) (N/A)	MSDS FOR EACH HAZARDOUS SUBSTANCE MAINTAINED WITH SITE MAP ATTACHED?
15	(Yes) (No) (N/A)	PRIME CONTRACTOR ASSURING SUBCONTRACTOR COMPLIANCE WITH REQUIREMENTS OF EM-385-1-1?
		Other? Extra Credit?

**OFFICE TRAILER/SIGNAGE/GENERAL**

16	(Yes) (No) (N/A)	OFFICE AND STORAGE TRAILERS ANCHORED?
17	(Yes) (No) (N/A)	EMERGENCY PHONE NUMBERS POSTED?
18	(Yes) (No) (N/A)	TEMPORARY PROJECT FENCING WHICH EXTENDS FROM GRADE LEVEL TO A MINIMUM OF 48IN. ABOVE GRADE? (UNLESS GDA DETERMINES OTHERWISE BASED ON RISK ANALYSIS)
19	(Yes) (No) (N/A)	SIGNS WARNING OF THE PRESENCE OF CONSTRUCTION HAZARDS AND REQUIRING UNAUTHORIZED PERSONS TO KEEP OUT POSTED ON THE FENCING EVERY 150 FEET?
20	(Yes) (No) (N/A)	CONTRACTOR AWARE OF IMMEDIATE NOTIFICATION FOR ALL INJURIES REQUIRED BY PWD/ROICC/OICC/FSC OFFICE?
21	(Yes) (No) (N/A)	EMERGENCY PLANS IN CASE OF FIRE OR OTHER EMERGENCY PREPARED IN WRITING AND REVIEWED?
22	(Yes) (No) (N/A)	DRINKING WATER WITH DISPOSABLE CUPS AND A WASTE RECEPTACLE AVAILABLE?
23	(Yes) (No) (N/A)	TOILET FACILITIES WITH WASHING FACILITIES AVAILABLE?
24	(Yes) (No) (N/A)	HIGHLY VISIBLE MAP DELINEATING BEST ROUTE TO NEAREST MEDICAL FACILITY POSTED ON SAFETY BULLETIN BOARD?
25	(Yes) (No) (N/A)	FIRST-AID KIT, TYPE III, 16 UNIT, and ONE POCKET MOUTH PIECE OR CPR BARRIER PROVIDED AND MAINTAINED WITH INVENTORY LOG AVAILABLE?
26	(Yes) (No) (N/A)	ALL EMPLOYEES ON SITE WEARING AS A MINIMUM SHORT SLEEVE SHIRT, LONG PANTS, LEATHER OR OTHER PROTECTIVE WORK SHOES OR BOOTS
27	(Yes) (No) (N/A)	EVERY FLOOR, WORKING PLACE AND PASSAGEWAY KEPT FREE FROM PROTRUDING NAILS, SPLINTERS, LOOSE BOARDS, CLUTTER AND UNNECESSARY HOLES AND OPENING?
28	(Yes) (No) (N/A)	WORK AREAS INSPECTED DAILY FOR ADEQUATE HOUSEKEEPING AND RECORDED ON DAILY SAFETY INSPECTION REPORT?
29	(Yes) (No) (N/A)	TRAFFIC CONTROL AROUND SITE ADEQUATE?
		Other? Extra Credit?

**FIRE PREVENTION**

30	(Yes) (No) (N/A)	WRITTEN FIRE PREVENTION PLAN ON SITE AND USED TO BRIEF EMPLOYEES?
31	(Yes) (No) (N/A)	FIRE EXTINGUISHERS AVAILABLE, FULLY CHARGED, EASILY VISIBLE WITHIN 75 FEET FOR LOW HAZARD AREAS?
32	(Yes) (No) (N/A)	FIRE EXTINGUISHERS INSPECTED MONTHLY, RECORDED ON TAGS, AND INITIALED?
33	(Yes) (No) (N/A)	FUEL STORED IN SAFETY CANS LABELED/LISTED and PAINTED RED WITH YELLOW BAND AND CONTENTS INDICATED?
34	(Yes) (No) (N/A)	ARE HOT WORK PERMITS BEING OBTAINED FOR WELDING, CUTTING OR OPERATING OTHER FLAME-PRODUCING/SPARK PRODUCING DEVICES FROM THE FIRE DEPARTMENT?
35	(Yes) (No) (N/A)	ARE FIRE WATCHES PROVIDED?
		Other? Extra Credit?

**PPE**

36	(Yes) (No) (N/A)	WORKERS WEARING SAFETY-TOED LEATHER SHOES OR BOOTS MEETING ASTM F 2412 - 05 AND F 2413 - 05 ?
37	(Yes) (No) (N/A)	HARD HATS BEING WORN PROPERLY AND MEETING ANSI Z89.1?
38	(Yes) (No) (N/A)	ARE WORKERS INVOLVED IN ACTIVITIES THAT SUBJECT HANDS TO INJURY USING HAND PROTECTION APPROPRIATE FOR THE HAZARD?
39	(Yes) (No) (N/A)	SAFETY GLASSES USED WHERE APPROPRIATE?
40	(Yes) (No) (N/A)	HEARING PROTECTION WHERE APPROPRIATE? (IF YOU NEED TO YELL TO CONVERSE HEARING PROTECTION IS REQUIRED)
41	(Yes) (No) (N/A)	WORKERS WEARING RESPIRATORS WHERE APPROPRIATE?
42	(Yes) (No) (N/A)	IMPALEMENT PROTECTION PROVIDED WHERE PERSONNEL COULD WORK ABOVE VERTICAL IMPALEMENT HAZARD (Rebar etc.)?
43	(Yes) (No) (N/A)	ARE PROTECTIVE LEG CHAPS WORN BY WORKERS WHO OPERATE CHAIN SAWS?
44	(Yes) (No) (N/A)	HIGH VISIBILITY APPAREL BEING WORN WHEN WORKERS ON SITE ARE EXPOSED TO VEHICULAR OR EQUIPMENT TRAFFIC AT UP TO 45 MPH, THERE IS LIMITED OR REDUCED VISIBILITY FOR WORKERS AROUND MOBILE/HEAVY EQUIPMENT OR WORKERS ARE WORKING CLOSE TO VEHICULAR TRAFFIC WITH NO PROTECTIVE BARRIERS?
		OTHER? EXTRA CREDIT?

SCAFFOLD SAFETY			
45	(Yes) (No) (N/A)	HAS A SITE-SPECIFIC FALL PROTECTION AND PREVENTION PLAN and AHA BEEN ACCEPTED BY THE GDA PRIOR TO COMMENCING WORK IN ELEVATED AREAS?	
46	(Yes) (No) (N/A)	ALL ERECTION, MOVING, DISMANTLING, OR ALTERING OF SCAFFOLD SYSTEMS UNDER THE SUPERVISION OF A COMPETENT PERSON?	
47	(Yes) (No) (N/A)	COMPETENT PERSON USING A COLOR-CODED TAGGING SYSTEM? ( GREEN = INSPECTED & SAFE TO USE) ( RED = SCAFFOLD IS UNSAFE TO USE)	
48	(Yes) (No) (N/A)	PLANKS OVERLAPPED NOT LESS THAN 6" OR MORE THAN 12" OVER END SUPPORTS WITH TOE BOARDS IN PLACE?	
49	(Yes) (No) (N/A)	SCAFFOLD PINNED PROPERLY AND ALL CROSS BRACING IN PLACE?	
50	(Yes) (No) (N/A)	SCAFFOLD HEIGHT 4 TIMES SMALLEST BASE DIMENSION AND SYSTEM IS SECURED TO STRUCTURE?	
51	(Yes) (No) (N/A)	ALL GUARDRAILS ARE IN PLACE?	
52	(Yes) (No) (N/A)	FULL WORK PLATFORM OR DECKS AT EACH WORKING LEVEL WITH NO CRACKS/SPLITS?	
53	(Yes) (No) (N/A)	WORK PLATFORM OR DECK SECURELY FASTENED TO THE SCAFFOLD?	
54	(Yes) (No) (N/A)	SAFE ACCESS PROVIDED TO EACH WORKING LEVEL?	
55	(Yes) (No) (N/A)	IS SCAFFOLD SYSTEM PLUMB AND LEVEL?	
56	(Yes) (No) (N/A)	SUSPENDED SCAFFOLD SYSTEMS USING INDEPENDENT PERSONAL FALL ARREST SYSTEM?	
57	(Yes) (No) (N/A)	PERSONNEL PROHIBITED FROM RIDING ON MANUALLY PROPELLED SCAFFOLDS?	
		Other? Extra Credit?	
FALL PROTECTION			
58	(Yes) (No) (N/A)	HAS SITE-SPECIFIC FALL PROTECTION AND PREVENTION PLAN BEEN ACCEPTED?	
59	(Yes) (No) (N/A)	WORKERS USING FALL PROTECTION EQUIPMENT USING "BUDDY SYSTEM" TO BEGIN RESCUE OF FALLEN WORKER IF REQUIRED	
60	(Yes) (No) (N/A)	ALL WORKERS ABOVE 6 FOOT FALL PROTECTION THRESHOLD PROTECTED FROM FALLING TO LOWER LEVEL?	
61	(Yes) (No) (N/A)	ARE EMPLOYEES TRAINED FOR FALL PROTECTION SYSTEMS IN USE?	
62	(Yes) (No) (N/A)	HAS THE CONTRACTOR DESIGNATED A COMPETENT PERSON FOR FALL PROTECTION?	
63	(Yes) (No) (N/A)	IS A WRITTEN RESCUE PLAN (IAW ANSI Z359.2) BEEN PREPARED AND MAINTAINED WHEN WORKERS ARE WORKING AT HEIGHTS ?	
64	(Yes) (No) (N/A)	IS A FULL BODY HARNESS USED?	
65	(Yes) (No) (N/A)	ALL WORKERS ALOFT TIED OFF AT ALL TIMES (100%) TO STRUCTURAL ELEMENT CAPABLE OF SUPPORTING 5,000 LBS?	
66	(Yes) (No) (N/A)	HAVE STANDARD GUARDRAILS BEEN PROVIDED WHERE NEEDED?	
67	(Yes) (No) (N/A)	ACCESS TO WORK AREAS GREATER THAN 20 FEET HIGH PROVIDED WITH A STAIR SYSTEM?	
68	(Yes) (No) (N/A)	HAVE HORIZONTAL LIFE LINES IF USED BEEN DESIGNED AND INSTALLED UNDER SUPERVISION OF A QUALIFIED PERSON?	
		OTHER? EXTRA CREDIT?	
LADDER SAFETY			
69	(Yes) (No) (N/A)	LADDERS EXTEND 3' ABOVE LANDING PLATFORM AND TIED TO STRUCTURE?	
70	(Yes) (No) (N/A)	ARE LADDERS USED WITH HAND TOOLS ONLY?	
71	(Yes) (No) (N/A)	ARE LADDER BASE DISTANCES FROM STRUCTURE 1/4 HEIGHT?	
72	(Yes) (No) (N/A)	ALL FLOOR OPENINGS EITHER COVERED OR SURROUNDED BY A GUARDRAIL?	
73	(Yes) (No) (N/A)	ELECTRICIANS NOT USING CONDUCTIVE LADDERS?	
74	(Yes) (No) (N/A)	STAIRWAYS PROVIDED ON ALL STRUCTURES OVER 20' DURING CONSTRUCTION/WITH GUARDRAIL?	
75	(Yes) (No) (N/A)	ALL FLIGHTS OF STAIRS WITH 4 OR MORE RISERS HAVE STANDARD STAIR RAILINGS OR HANDRAILS	
76	(Yes) (No) (N/A)	PORTABLE STEP LADDERS OVER 20' NOT USED ON THE SITE?	
77	(Yes) (No) (N/A)	ARE LADDERS PROPERLY USED?	
		OTHER? EXTRA CREDIT?	
EXCAVATIONS			
78	(Yes) (No) (N/A)	HAS EXCAVATION/TRENCHING PLAN IN ACCORDANCE WITH (SECTION 25.A.01 a - n) BEEN SUBMITTED AND ACCEPTED BY THE GDA PRIOR TO BEGINNING OPERATIONS?	
79	(Yes) (No) (N/A)	COMPETENT PERSON ABLE TO DEMONSTRATE TRAINING, EXPERIENCE AND KNOWLEDGE OF SOIL ANALYSIS: PROTECTIVE SYSTEMS AND REQUIREMENTS OF 29 CFR 1926 SUBPART P AND HAS AUTHORITY TO STOP WORK WHEN REQUIRED?	
80	(Yes) (No) (N/A)	COMPETENT PERSON INSPECTED AND DOCUMENTED EXCAVATION DAILY?	
81	(Yes) (No) (N/A)	HIGH VISIBILITY APPAREL WORN BY ALL WORKERS EXPOSED TO VEHICLE TRAFFIC OR WORKING AROUND EQUIPMENT	
82	(Yes) (No) (N/A)	HYDRAULIC EXCAVATORS, WHEEL/TRUCK/BACKHOE LOADERS USED TO TRANSPORT OR HOIST LOADS WITH RIGGING COMPLY WITH EM 385 SECTION 16 "S" AND HAVE AHA SPECIFIC TO THESE OPERATIONS?	
83	(Yes) (No) (N/A)	WRITTEN PROOF OF QUALIFICATION OF EQUIPMENT OPERATORS, RIGGERS INVOLVED IN HOISTING, TRANSPORTING OPERATIONS?	
84	(Yes) (No) (N/A)	OPERATIONAL TEST PERFORMED AS DESCRIBED IN 16.F?	
85	(Yes) (No) (N/A)	MANUFACTURERS OPERATING MANUAL WITH EQUIPMENT?	
86	(Yes) (No) (N/A)	PROPER USE OF RIGGING, INCLUDING POSITIVE LATCHING DEVICES?	
87	(Yes) (No) (N/A)	INSPECTION OF RIGGING	
88	(Yes) (No) (N/A)	BARRICADE SWING RADIUS OF EQUIPMENT AND LOAD?	
89	(Yes) (No) (N/A)	OVER 4' DEEP MUST HAVE A LADDER WITHIN 25' AND TWO MEANS OF EGRESS?	
90	(Yes) (No) (N/A)	HAS PROPER SLOPE OR TRENCH BOX/SHORING BEEN PROVIDED?	
91	(Yes) (No) (N/A)	IS WATER CONTROLLED/REMOVED?	
92	(Yes) (No) (N/A)	IS EXCAVATED MATERIAL AT LEAST 2' BACK FROM TRENCH EDGE?	
93	(Yes) (No) (N/A)	HAS SAFE ACCESS/PROTECTION BEEN PROVIDED TO PREVENT PERSONNEL, VEHICLES, AND EQUIPMENT FROM FALLING INTO EXCAVATIONS?	
94	(Yes) (No) (N/A)	PERIMETER PROTECTION THAT MEETS CLASS I or CLASS II or CLASS III REQUIREMENTS PROVIDED?	
		OTHER? EXTRA CREDIT?	

ELECTRICAL			
95	(Yes) (No) (N/A)	HAS A SKETCH OF TEMPORARY POWER DISTRIBUTION SYSTEMS BEEN SUBMITTED /ACCEPTED BY GDA?	
96	(Yes) (No) (N/A)	ELECTRICAL WORK PERFORMED BY QUALIFIED PERSONNEL WITH VERIFIABLE CREDENTIALS?	
97	(Yes) (No) (N/A)	ENERGIZED WORK PERMIT SUBMITTED TO GDA PRIOR TO ANY WORK ON ENERGIZED LINES ON EQUIPMENT AND IAW NFPA70E AND EM 385 I.E.. 02 C(1) - (8)	
98	(Yes) (No) (N/A)	ARE ARC FLASH REQUIREMENTS KNOWN AND ADHERED TO?	
99	(Yes) (No) (N/A)	ARE TEMPORARY POWER PANEL AND RECEPTACLES PROTECTED FROM WEATHER?	
100	(Yes) (No) (N/A)	GFCI'S IN USE FOR SITE TOOLS - APPLIES TO EXISTING OUTLETS IN RENOVATION PROJECTS AS WELL?	
101	(Yes) (No) (N/A)	TEMPORARY LIGHTS INSULATED FROM SUPPORTS PROPERLY WITH ALL LAMPS WORKING AND GUARDED?	
102	(Yes) (No) (N/A)	OVERHEAD POWER LINES IN AREA, OPERATIONS PROHIBITED UNLESS MAINTAINING PROPER CLEARANCE DISTANCES?	
103	(Yes) (No) (N/A)	HAS HAZARDOUS ENERGY CONTROL PROGRAM BEEN SUBMITTED AND ACCEPTED BY GDA? (OLD LOCK OUT/TAG OUT )	
104	(Yes) (No) (N/A)	VERTICAL CLEARANCE OF TEMPORARY WIRING OF AT LEAST 10 FEET MAINTAINED ?	
105	(Yes) (No) (N/A)	ALL FLEXIBLE CORDS INSPECTED AT LEAST DAILY? DOCUMENTED?	
106	(Yes) (No) (N/A)	FLEXIBLE CORDS NOT SPLICED EXCEPT HARD SERVICE CORDS # 12 OR LARGER WITH MOLDED OR VULCANIZED SPLICES BY QUALIFIED ELECTRICIAN?	
		OTHER? EXTRA CREDIT?	
CRANES			
107	(Yes) (No) (N/A)	BEFORE CRANE/HOISTING EQUIPMENT IS PLACED IN SERVICE HAS IT BEEN INSPECTED, TESTED, AND CERTIFIED IN WRITING BY A COMPETENT PERSON TO BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION AND THE REQUIREMENTS OF EM 385?	
108	(Yes) (No) (N/A)	CRANE OPERATOR DESIGNATED QUALIFIED AND PROOF OF QUALIFICATION IN WRITING PROVIDED TO THE GDA?	
109	(Yes) (No) (N/A)	PROJECT HAS ADEQUATE MEANS FOR MONITORING LOCAL WEATHER CONDITIONS, INCLUDING A WIND-INDICATING DEVICE?	
110	(Yes) (No) (N/A)	ARE EM 385-1-1 16.D.08 (AT THE BEGINNING OF EACH SHIFT) START UP INSPECTIONS PERFORMED BY OPERATOR AND SUBMITTED WITH DRI?	
111	(Yes) (No) (N/A)	HAS THE PERIODIC INSPECTION BEEN PERFORMED PRIOR TO USE ON SITE IAW EM 385-1-1, TABLE 16-1 AND 16.D.10?	
112	(Yes) (No) (N/A)	IS CRANE EQUIPPED WITH ANTI TWO-BLOCK DEVICE IF REQUIRED?	
113	(Yes) (No) (N/A)	IS THE CRANE LEVEL AND ON FIRM GROUND AND OUTRIGGERS IN USE WITH APPROPRIATE CRIBBING?	
114	(Yes) (No) (N/A)	IAW 16.G.09 WHEN CRANE IS OPERATED WITHIN 20 FOOT OF POWER LINES (OPERATING WORK ZONE IS AREA 360 DEGREES AROUND CRANE) HAS A DETERMINATION BEEN MADE THAT ALL POWER LINES ARE ENERGIZED?	
115	(Yes) (No) (N/A)	IAW TABLE 16-3 CRANE NOT ALLOWED TO WORK CLOSER THAN 10 FOOT OF ENERGIZED POWER LINES (DEPENDING ON ACTUAL VOLTAGE OF LINES	
116	(Yes) (No) (N/A)	IS CRANE SIDE LOADING PROHIBITED?	
117	(Yes) (No) (N/A)	ARE RIGGING CABLES AND SLINGS INSPECTED BY A COMPETENT PERSON BEFORE EACH SHIFT?	
118	(Yes) (No) (N/A)	ARE WORKERS PROTECTED FROM THE CRANE SWING RADIUS AND PREVENTED FROM PASSING UNDER THE LOAD?	
		OTHER? EXTRA CREDIT?	
CONFINED SPACE			
119	(Yes) (No) (N/A)	ALL CONFINED SPACE WORK IAW EM 385 SECTION 34.A.06?	
120	(Yes) (No) (N/A)	IS CONFINED SPACE COMPETENT PERSON (CSCP), IN WRITING, IDENTIFIED?	
121	(Yes) (No) (N/A)	IS ATMOSPHERE BEING MONITORED?	
122	(Yes) (No) (N/A)	IS SPACE BEING VENTILATED?	
123	(Yes) (No) (N/A)	ARE ENTRANTS, ATTENDANTS AND ENTRY SUPERVISOR PROPERLY TRAINED?	
124	(Yes) (No) (N/A)	IS RESCUE/RETRIEVAL SYSTEM IN PLACE FOR PERMIT REQUIRED CONFINED PLACES?	
125	(Yes) (No) (N/A)	ARE ENTRY PERMITS POSTED AT POINT OF ENTRY AND SIGNED BY ENTRY SUPERVISOR?	
126	(Yes) (No) (N/A)	IS THE POINT OF ENTRY POSTED "DANGER CONFINED SPACE"?	
127	(Yes) (No) (N/A)	HAS BLANKING OR LOCKING OUT OF SYSTEMS TAKEN PLACE?	
		OTHER? EXTRA CREDIT?	
ROOFING			
128	(Yes) (No) (N/A)	HAS STRUCTURAL ANALYSIS OF THE ROOF BEEN CONDUCTED BY A QUALIFIED PERSON ?	
129	(Yes) (No) (N/A)	HAS COMPETENT PERSON COMPLETED A DAILY INSPECTION?	
130	(Yes) (No) (N/A)	HAS COMPETENT PERSON DEVELOPED A FALL PROTECTION PLAN, SUBMITTED/ACCEPTED BY GDA?	
131	(Yes) (No) (N/A)	ARE KETTLES AT LEAST 25 FEET AWAY FROM BUILDINGS?	
132	(Yes) (No) (N/A)	IS KETTLE ATTENDANT WEARING PROPER PPE AT ALL TIMES?	
133	(Yes) (No) (N/A)	ARE TWO FIRE EXTINGUISHERS AT THE KETTLE?	
134	(Yes) (No) (N/A)	ARE SKYLIGHTS AND ROOF PENETRATIONS COVERED OR BARRICADED APPROPRIATELY?	
135	(Yes) (No) (N/A)	HAS THE ROOF BEEN EVALUATED FOR ITS ABILITY TO SUPPORT THE INTENDED CONSTRUCTION LOADS?	
136	(Yes) (No) (N/A)	IF WARNING LINES ON LOW SLOPED ROOFS ARE USED, ARE THEY PROPERLY INSTALLED/MAINTAINED?	
137	(Yes) (No) (N/A)	ARE FUEL CYLINDERS A MINIMUM OF 10' FROM OPEN FLAME?	
		OTHER? EXTRA CREDIT?	
EQUIPMENT			
138	(Yes) (No) (N/A)	ALL MACHINERY OR EQUIPMENT INSPECTED DAILY, WHEN IN USE, BY COMPETENT PERSONS?	
139	(Yes) (No) (N/A)	ARE OPERATORS TRAINED AND AUTHORIZED TO OPERATE POWERED INDUSTRIAL TRUCKS, LIFT TRUCKS, AND SIMILAR EQUIPMENT?	
140	(Yes) (No) (N/A)	MOBILE EQUIPMENT EQUIPPED WITH BACKUP ALARMS? ROLLOVER CAGES/ MOVING PARTS ADEQUATELY GUARDED?	
141	(Yes) (No) (N/A)	ARE EQUIPMENT OPERATIONS MAINTAINING SAFE CLEARANCE FROM ELECTRICAL POWER LINES?	
142	(Yes) (No) (N/A)	MODIFICATIONS MEET MANUFACTURER INSTRUCTIONS (I.E., LIFTING PERSONNEL WITH FORKLIFT - (NOT ALLOWED BY MANY MANUFACTURERS)?	
143	(Yes) (No) (N/A)	ARE SAFETY LASHINGS PROVIDED FOR HIGH PRESSURE HOSE CONNECTIONS, I.E., AIR COMPRESSORS?	
144	(Yes) (No) (N/A)	ARE WORKERS CLEAR OF BLIND SPOTS ASSOCIATED WITH MOBILE CONSTRUCTION EQUIPMENT?	
145	(Yes) (No) (N/A)	ARE DAILY WALK AROUND INSPECTIONS OF AERIAL LIFTS PERFORMED AND DOCUMENTED BY QUALIFIED OPERATORS?	
146	(Yes) (No) (N/A)	DO AERIAL LIFTS HAVE BASKET/PLATFORM WITH GUARDRAIL?	
147	(Yes) (No) (N/A)	WORKERS NOT EXTENDING OVER GUARDRAIL OF AERIAL LIFTS?	
148	(Yes) (No) (N/A)	ARE ARTICULATING BOOM PLATFORMS (JLG TYPE) USED WITH FULL BODY HARNESS ATTACHED TO PROPER ATTACHMENT POINTS ON BOOM OR BASKET?	
149	(Yes) (No) (N/A)	ARE DUMP TRUCK CHECKLISTS BEING USED AND COPIES KEPT ON SITE?	
150	(Yes) (No) (N/A)	INSPECTION, MAINTENANCE, AND REPAIRS TO CONVEYORS PERFORMED IAW MANUFACTURER'S RECOMMENDATIONS BY QUALIFIED PERSONNEL?	
151	(Yes) (No) (N/A)	EXPOSED MOVING MACHINERY PARTS MECHANICALLY OR ELECTRICALLY GUARDED?	
152	(Yes) (No) (N/A)	WHEN TWO OR MORE CONVEYING SYSTEMS ARE INTERFACED ARE ADEQUATE GUARDING AND SAFETY DEVICES IN PLACE?	
		OTHER? EXTRA CREDIT?	

TREE MAINTENANCE AND REMOVAL		
153	(Yes) (No) (N/A)	ALL TREE MAINTENANCE OR REMOVAL PERFORMED UNDER THE DIRECTION OF A QUALIFIED TREE WORKER?
154	(Yes) (No) (N/A)	ONLY QUALIFIED LINE-CLEARANCE TREE TRIMMER OR LINE-CLEARANCE TRAINEE ASSIGNED TO WORK IN CLOSE PROXIMITY TO ELECTRICAL HAZARDS?
155	(Yes) (No) (N/A)	TREE WORKERS IN A BUCKET OR WORK PLATFORM USING FALL PROTECTION
156	(Yes) (No) (N/A)	ALL TREE WORK OPERATIONS ABOVE 12 FOOT HAVE A 2ND WORKER IN THE AREA
157	(Yes) (No) (N/A)	PRIOR TO FELLING OPERATIONS HAS WORK AREA BEEN CLEARED AND ESCAPE ROUTE PLANNED?
158	(Yes) (No) (N/A)	ALL EMPLOYEES WORKING FROM THE UPHILL SIDE WHENEVER POSSIBLE?
DEMOLITION		
159	(Yes) (No) (N/A)	HAS DEMOLITION PLAN, BASED ON ENGINEERING, LEAD, AND ASBESTOS SURVEY BY A REGISTERED PROFESSIONAL ENGINEER BEEN ACCEPTED?
160	(Yes) (No) (N/A)	WASTE NOT BEING DROPPED > 6' UNLESS IN AN ENCLOSED CHUTE AND AREA SECURED FROM TRAFFIC?
161	(Yes) (No) (N/A)	FOR BUILDING DEMOLITION, HAS NOTIFICATION BEEN MADE TO STATE HAVING JURISDICTION?
162	(Yes) (No) (N/A)	ARE NAILS REMOVED FROM SCRAP LUMBER/MATERIALS?
163	(Yes) (No) (N/A)	FRAGMENTATION OF GLASS CONTROLLED?
164	(Yes) (No) (N/A)	MATERIAL CHUTES AT AN ANGLE GREATER THAN 45° FROM THE HORIZONTAL ENCLOSED?
		OTHER? EXTRA CREDIT?
ABATEMENT		
165	(Yes) (No) (N/A)	HAS ABATEMENT PLAN BEEN SUBMITTED AND ACCEPTED?
166	(Yes) (No) (N/A)	IS INDEPENDENT AIR MONITORING BEING PERFORMED AS REQUIRED INSIDE AND OUTSIDE BARRIERS?
167	(Yes) (No) (N/A)	IS CONTAINMENT IN PLACE WITHOUT INTEGRITY COMPROMISE?
168	(Yes) (No) (N/A)	ARE EMPLOYEES UTILIZING APPROPRIATE PPE?
169	(Yes) (No) (N/A)	IF NEGATIVE AIR IS USED, ARE FANS USED CONTINUOUSLY AND MONITORED FOR PRESSURE DIFFERENTIAL?
170	(Yes) (No) (N/A)	HAS BASELINE BEEN PERFORMED AND NECESSARY FINAL CLEARANCE READINGS TAKEN?
171	(Yes) (No) (N/A)	ARE INSPECTIONS BY INDEPENDENT PQP PERFORMED PRIOR TO BARRIER REMOVAL?
172	(Yes) (No) (N/A)	IS WASTE MATERIAL PROPERLY CONTAINERIZED AND STORED?
173	(Yes) (No) (N/A)	ARE AIR MONITORING RESULTS PROVIDED TO GDA?
174	(Yes) (No) (N/A)	ARE WASTE SHIPMENT RECORDS PROVIDED TO GDA?
		OTHER? EXTRA CREDIT?
WATERFRONT ACTIVITIES		
175	(Yes) (No) (N/A)	WORK OVER OR NEAR WATER AND THE DISTANCE TO WATER SURFACE IS LESS THAN 25 FEET OR MORE AND THE WATER DEPTH IS LESS THAN 10 FEET ARE FALL PROTECTION REQUIREMENTS FOLLOWED? (PFDs NOT REQUIRED)
176	(Yes) (No) (N/A)	WORK OVER OR NEAR WATER AND THE DISTANCE TO WATER SURFACE IS 25 FEET OR MORE ARE FALL PROTECTION REQUIREMENTS FOLLOWED?
177	(Yes) (No) (N/A)	MARINE FALL PROTECTION RAILING TYPE A or TYPE B PROVIDED FOR VESSEL DECKS 6 FT OR MORE ABOVE ADJACENT DECKS, DOCKS, OR OTHER HARD SURFACES?
178	(Yes) (No) (N/A)	PFD's WORN BY PERSONNEL IN AREAS WHERE DECK PERIMETER IS NOT PRESENT
179	(Yes) (No) (N/A)	IS A RESCUE SKIFF AVAILABLE?
180	(Yes) (No) (N/A)	ARE EMERGENCY LIFE RINGS AVAILABLE?
181	(Yes) (No) (N/A)	IF DIVING OPERATIONS ARE TAKING PLACE, HAS A DIVE PLAN BEEN SUBMITTED AND ACCEPTED BY THE DDC?
182	(Yes) (No) (N/A)	IF DIVING, IS FIRST-AID KIT, OXYGEN RESUSCITATION SYSTEM, (30 MINUTE SUPPLY), AND A STOKES LITTER OR BACKBOARD WITH FLOATATION CAPABILITY ON SITE?
183	(Yes) (No) (N/A)	DOES DIVE TEAM CONSIST OF PROPER NUMBER AND QUALIFICATIONS FOR EMPLOYEES?
184	(Yes) (No) (N/A)	HAND RAILS USED FOR FALL PROTECTION ON ALL MARINE VESSELS FOR CONTRACTS AWARDED SINCE MARCH 2007
185	(Yes) (No) (N/A)	MARINE (VESSEL) DECKS 6 FEET OR MORE ABOVE OTHER SURFACES HAVE TYPE A OR TYPE B FALL PROTECTION PROVIDED?
		OTHER? EXTRA CREDIT?
SCORING: Total applicable for each category = X (where X includes responses for category of "Yes" and "No" but does not include N/A)		
Total with "Yes" responses for each category = Y * SCORE EQUATION = Y/X *		
SCORE FOR EACH CATEGORY:		
	1. PREPARATORY PHASE: _____	7. LADDER SAFETY: _____ 13.EQUIPMENT: _____
	2. OFFICE TRAILER: _____	8. EXCAVATIONS: _____ 14. TREE MAINTENANCE : _____
	3. FIRE PREVENTION: _____	9. ELECTRICAL: _____ 15. DEMOLITION: _____
	4. PPE : _____	10. CRANES: _____ 16: ABATEMENT: _____
	5. SCAFFOLD SAFETY: _____	11. CONFINED SPACES: _____ 17: WATERFRONT: _____
	6. FALL PROTECTION: _____	12. ROOFING: _____
OVERALL RATING OF CHECKLIST EQUALS LOWEST RATING FOR ANY ONE CATEGORY: _____		
QUESTIONS ANSWERED "NO" ARE BE ENTERED INTO THE SITE SAFETY & OCCUPATIONAL HEALTH DEFICIENCY TRACKING SYSTEM (REFER TO EM 385-1-1 01.A.12.d)		
ALTERATION OR CHANGING OF THIS FORM IS NOT AUTHORIZED		
COMMENTS:		

#### **APPENDIX D. POINTS OF CONTACT**

This appendix contains the Points of Contact applicable to the project:

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**EMERGENCY REFERENCE  
 LOCAL POINTS OF CONTACT  
 ORION STREET SKEET RANGE SOIL REMEDIATION**

<b>CONTACT</b>	<b>PHONE NUMBER</b>
Emergency Number for Fire, Police, and Ambulance	9-1-1
Fire Department (non-emergency): Central Station 21 Town Hall Place Brunswick, Maine 04011-2003	(207) 725-5541
Police Department (non-emergency): 28 Federal Street Brunswick, Maine 04011	(207) 725-5521
Mid Coast Hospital	(207) 373-3635
Former NAS Brunswick Point of Contact (POC): Robert Leclerc, P.E. Navy Caretaker Site Office 119 Purinton Road Brunswick, Maine 04011	(207) 406-2290 (207) 263-6736
USA Site Point of Contact – Randy Jenkins	(941) 286-6186
NAVFAC MIDLANT Remedial Project Manager (RPM): Todd Bober	(215) 897-4911
BRAC PMO NE Environmental Coordinator: Paul Burgio	(215) 897-4903
National Response Center	(800) 424-8802
NORTHERN NEW ENGLAND POISON CENTER	(800) 222-1222
WorkCare	(800) 455-6155 ext. 109

**SITE SPECIFIC CONTACT INFORMATION**

<b>Name</b>	<b>Title/Role</b>	<b>Organization</b>	<b>Telephone Number (Optional)</b>	<b>E-Mail Address or Mailing Address</b>
Todd Bober	Remedial Project Manager (RPM)	Navy BRAC PMO NE 4911 South Broad Street Philadelphia, PA 19112	215-897-4911	todd.bober@navy.mil
Paul Burgio	BRAC Environmental Coordinator	Navy BRAC PMO NE 4911 South Broad Street Philadelphia, PA 19112	(215) 897-4903	paul.burgio@navy.mil
Steve Levesque	Executive Director Midcoast Regional Redevelopment Authority (207) 798-6512 (207) 841-9955 Cell	MRRA Hangar 6 2 Pegasus St., Suite 1, Unit 200 Brunswick, ME 04011	Phone: 207-798-6512	www.mrra.us
Michael Green	MRP Senior Technical Advisor	NAVFAC Atlantic Attn: Code EV32 6506 Hampton Blvd., LRA Bldg. A Norfolk, VA 23508	757-322-8108	mike.green@navy.mil
Robert LeClerc	Former NAS Brunswick Point of Contact (POC)	Navy Caretaker Site Office Bldg 53, 119 Purinton Rd Brunswick, ME 04011	207-263-6736	Robert.leclerc@navy.mil
Carolyn LePage	Technical Advisor to BASCE	LePage Environmental Services 731 Hotel Road Auburn, ME 04210	207-777-1049	calepage@adelphia.net
Jennifer Wright	Environmental Technical Support	NAVFAC Atlantic Attn: Code EV32 6506 Hampton Blvd Norfolk, VA 23508-1278 Jen (Code EV32JW)	757-322-8428	Jennifer.H.Wright@navy.mil

Name	Title/Role	Organization	Telephone Number (Optional)	E-Mail Address or Mailing Address
Joe Gallant	Safety & Construction Oversight Manager	NAVFAC PWD Maine Portsmouth Naval Shipyard Building 65, Floor 2 Portsmouth, NH 03804-5000		
David Barclift	Navy BRAC PMO NE Technical Support	Navy BRAC PMO NE 4911 South Broad Street Philadelphia, PA 19112	215-897-4913	david.barclift@navy.mil
Michael Daly	Remedial Project Manager	US Environmental Protection Agency - Region I OSSR07-3 5 Post Office Square, Suite 100 Boston, MA 02109-3912	617-918-1386	Daly.Mike@epamail.epa.gov
Claudia Sait	Remedial Project Manager	Maine Department of Environmental Protection Bureau of Remediation & Waste Management State House, Station 17 Augusta, ME 04333-0017	207-287-7713	claudia.b.sait@maine.gov
Chris Evans	Project Hydrogeologist	Maine Department of Environmental Protection Bureau of Remediation & Waste Management State House, Station 17 Augusta, ME 04333-0017	207-441-5181	Gordon.C.Evans@maine.gov
Robert Hierholzer	Remedial Contractor PM	USA Environmental	Desk (813) 343-6339 Cell (813) 505-5220	rhierholzer@usatampa.com