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D-33-12-8-13

# **WORK PLAN**

## **SITE INSPECTION**

**DEPARTMENT OF THE NAVY  
INSTALLATION RESTORATION PROGRAM  
MARINE CORPS AUXILIARY  
LANDING FIELD (MCALF) BOGUE,  
NORTH CAROLINA  
SITE 29 - CRASH CREW BURN PIT**

**NUS PROJECT NUMBER 7095**

**DECEMBER 1988**





**WASTE MANAGEMENT SERVICES GROUP**

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**SUBMITTED FOR NUS BY:**

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## 1.0 INTRODUCTION

### 1.1 OBJECTIVE

NUS Corporation (NUS) is submitting this Work Plan for a site inspection to the Department of the Navy, Atlantic Division for the Marine Corps Auxiliary Landing Field (MCALF) Bogue, Site 29, in response to a request from the Department of the Navy, under Contract No. N62470-84-C-6886. The work request, is identified by the Navy authorization correspondence of November 21, 1988. The Site Inspection is part of the ongoing Installation Restoration Program (IRP) to identify and remediate sites of concern. The objective of this Site Inspection (SI) is to gain a better and more rounded understanding of the nature of the threat posed by one site identified by the Initial Assessment Study (IAS) (Water and Air Research, 1983) conducted on MCAS, Cherry Point. In the IAS, existing data was used to evaluate the potential for contamination from past hazardous materials operations at the Marine Corps Auxiliary Landing Field (MCALF) Bogue. The SI will build on the data collected in the IAS and determine whether the site is releasing hazardous substances, pollutants, or contaminants into the environment that may require a Remedial Investigation/Feasibility Study (RI/FS) or Removal Action. The work will include identification and quantification of pollutant concentrations and extent of contamination. NUS shall provide all personnel, material, and equipment necessary to complete the work.

This Work Plans presents the technical scope of work and schedule for performing the Site Inspection at Site 29. The Field Operations Plan (FOP), Laboratory Plan, and Health and Safety Plan are supplemental documents necessary to implement the work described in this document. Any reference to a Sample Plan can be interpreted as the combination of the FOP and Laboratory Plan documents.

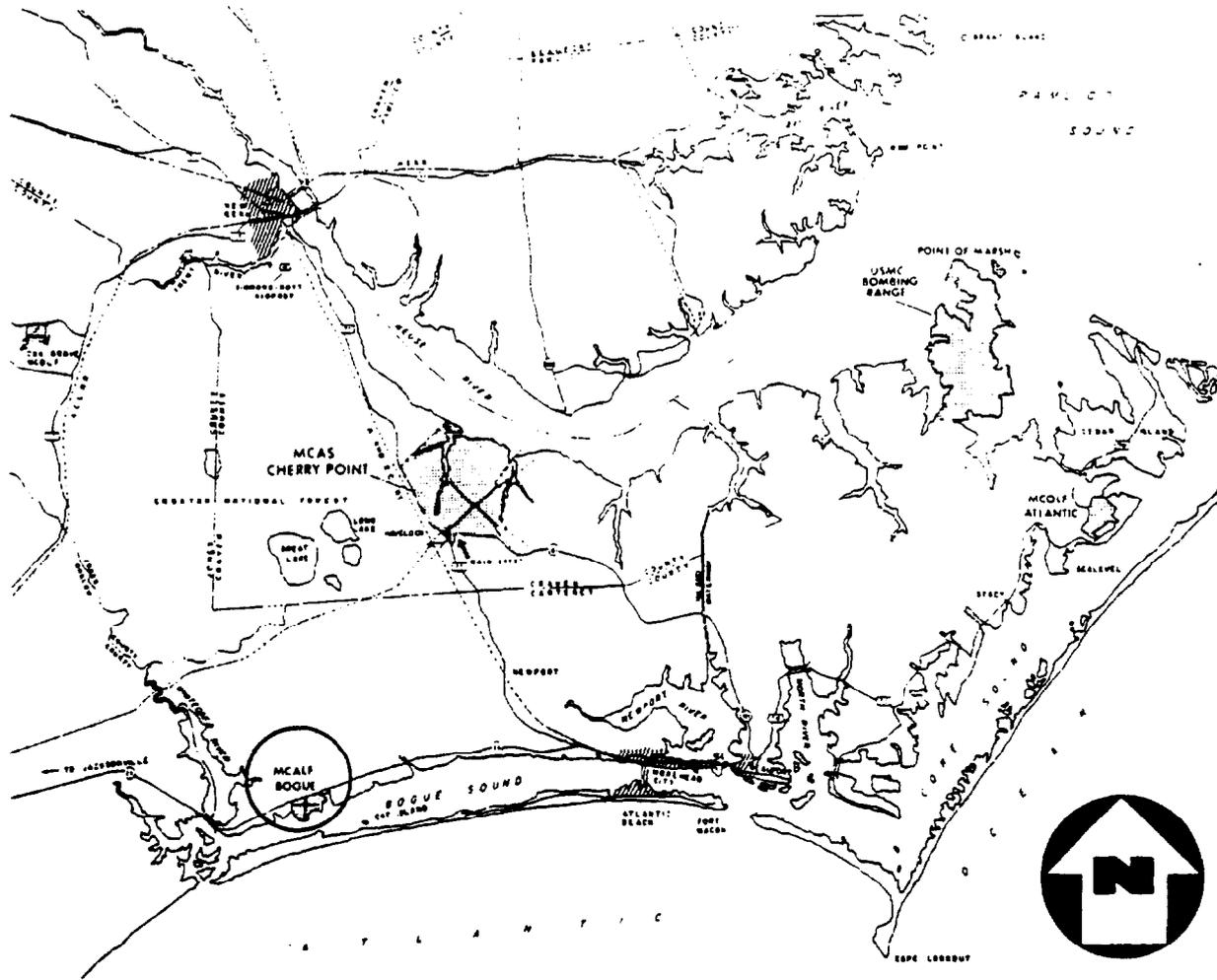
### 1.2 SITE DESCRIPTION AND HISTORY

The Superfund Amendments and Reauthorization Act of 1986 (SARA) required each federal facility listed on the Federal Agency Hazardous Waste Compliance Docket to perform a Preliminary Assessment (PA). The IAS Report (Water and Air Research, 1983) for MCAS, Cherry Point was completed in March 1983, and was essentially equivalent to the PA. Five sites at MCALF Bogue were identified and discussed in the IAS. However, the IAS concluded that none of the sites at Bogue presented significant environmental problems and recommended no further work be performed at

MCALF Bogue. However, EPA Region IV has requested a Site Inspection be performed on one site, the Crash Crew Burn Pit, Site 29.

As shown in Figure 1, the MCALF Bogue is an area outlying and south of the Marine Corps Air Station (MCAS) at Cherry Point, North Carolina. The MCALF is located in Carteret County, North Carolina, approximately 10 miles southwest of the City of Newport, and borders Bogue Sound. Figure 2 provides a map of the MCALF Bogue and identifies the location of Site 29 - Crash Crew Burn Pit, which is east of White Oak Road at Pine Lane. A nearby drainage ditch flows east to Goose Creek.

Site 29 is a crash crew training area. Typical operations consist of pouring solvents, waste oil, contaminated fuels, or any other burnables on a fuselage, igniting the fuselage, and then extinguishing the flames. There is a bermed pit in the area and an unbermed area where miscellaneous scrap metal waste has been dumped on the land. Suspected contaminants include volatile organics; PCBs (encountered in POL (petroleum, oil, and lubricant fuel)); lead; and oil and grease. Visual evidence indicates that POLs from the burn pit have overflowed. No records were kept detailing the quantity or type of waste disposed of at this site, or the dates this site was in use.



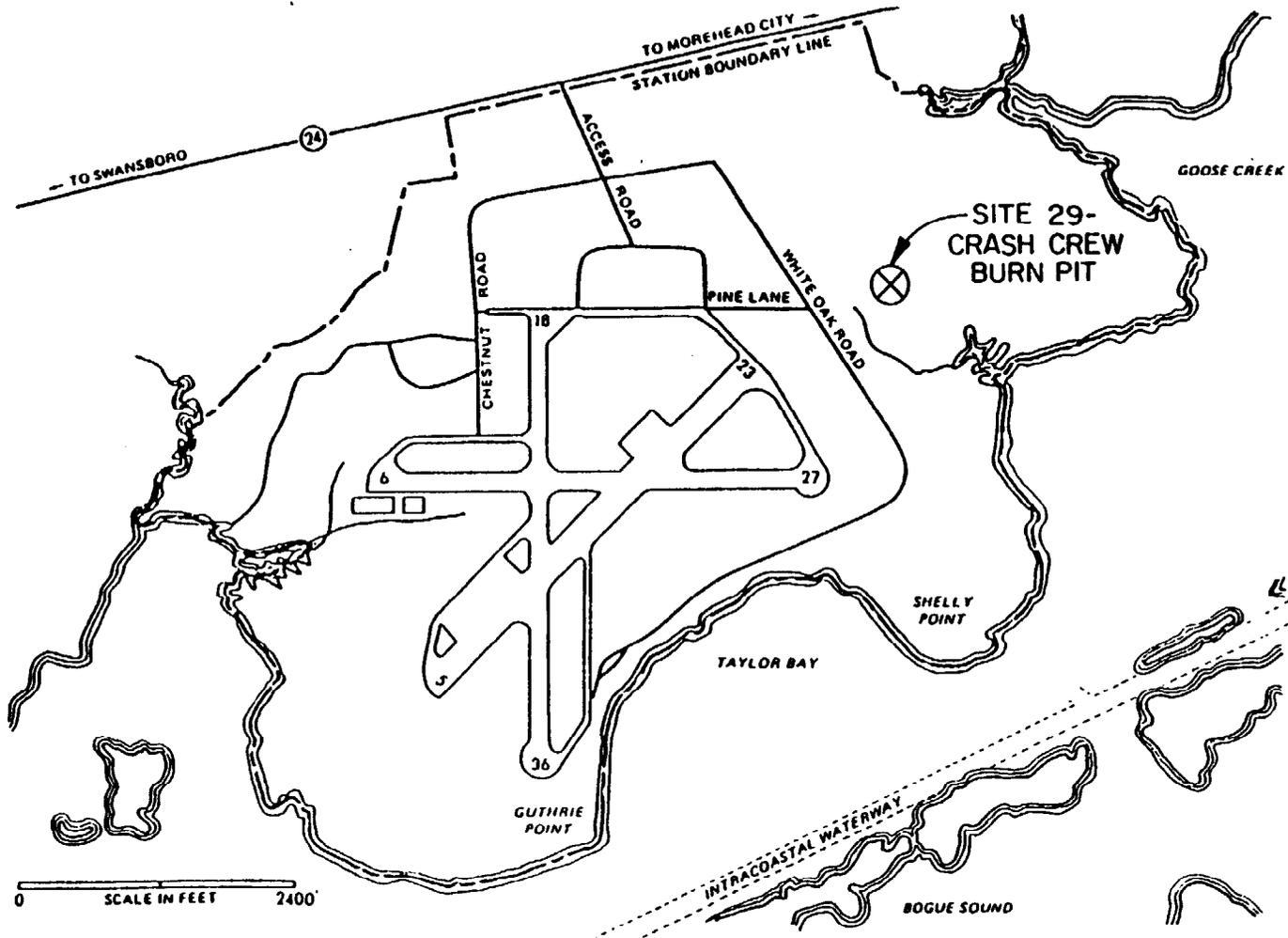
-  MILITARY INSTALLATION
-  TOWN
-  U.S. HIGHWAY
-  STATE HIGHWAY
-  RAILROAD
-  COUNTY LINE



FIGURE 1

VICINITY MAP  
MCALF BOGUE, CHERRY POINT, NC





**SITE LOCATION MAP**  
**MCALF BOGUE, CHERRY POINT, NC**

**FIGURE 2**



## 2.0 INVESTIGATION PROCEDURES

The following list of NUS Corporation Standard Operating Procedures (SOPs) (NUS, 1988) identifies procedures to be used specifically for the Site 29 Site Inspection:

Geology/Hydrogeology	NUS SOP
Soil and Rock Sampling	GH-1.3
Soil and Rock Drilling Methods	GH-1.4
Borehole and Sample Logging	GH-1.5
Decontamination of Drilling Rigs and Monitoring Wells Materials	GH-1.6
Groundwater Monitoring Point Installation	GH-1.7

### Sampling/Analysis

Groundwater Sample Acquisition	SA-1.1
Surface Water and Sediment Sampling	SA-1.2
Sample Identification and Chain-of-Custody*	SA-6.1
Sample Packaging and Shipping*	SA-6.2
Site Logbook	SA-6.3
Forms Used in RI Activities	SA-6.4
Field Reports	SA-6.5
Sample Preservation*	SF-1.2
Waste Handling	SF-2.2
Decontamination of Chemical Sampling and Field Analytical Equipment	SF-2.3

\* Department of the Navy requirements (Naval Energy and Environmental Support Activity, 1988) will supersede NUS SOPs, where applicable.

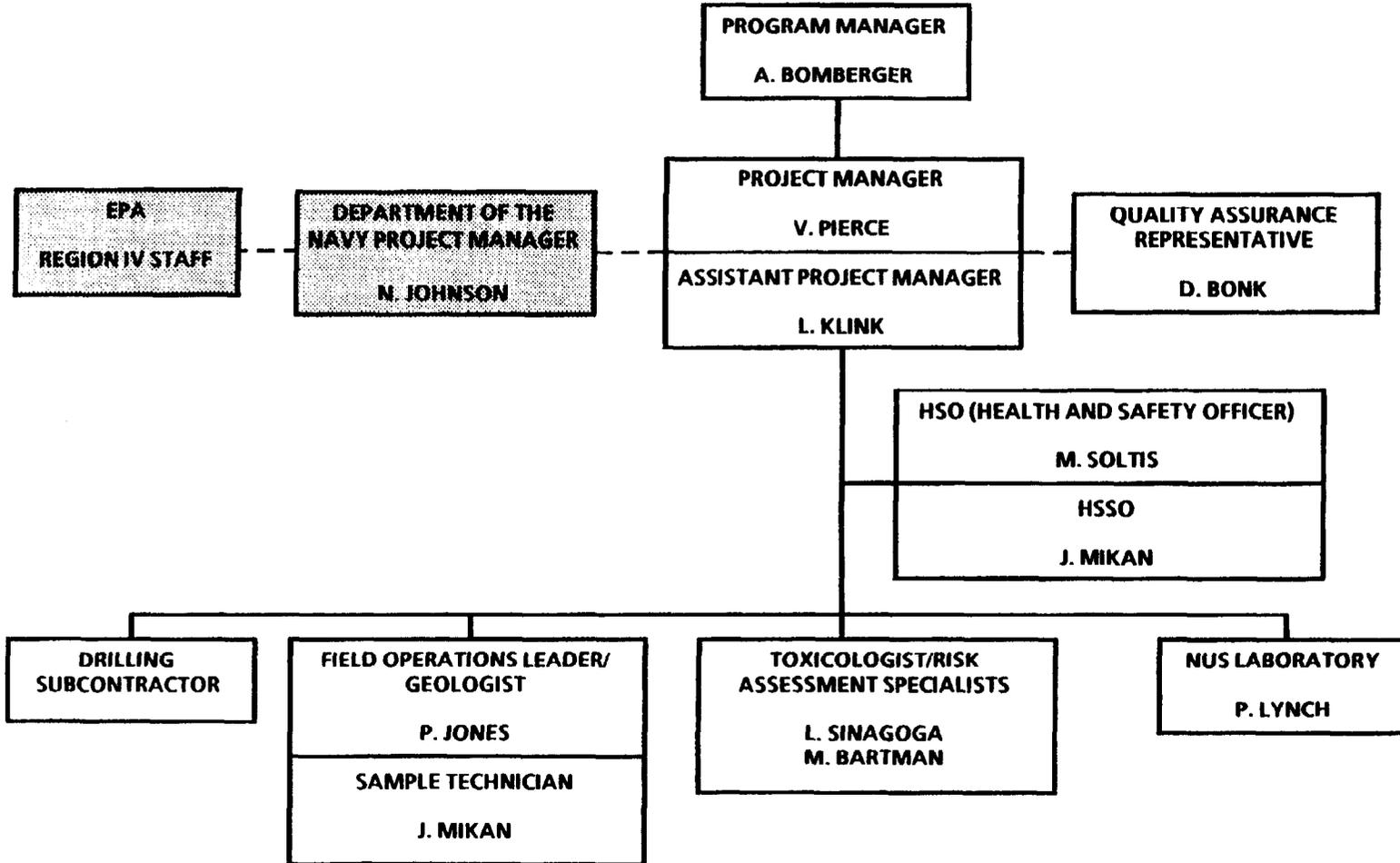
The SOPs listed above are discussed in greater detail in the Field Operations Plan (FOP), and included in the FOP Appendix. In addition, all NUS Corporation SOPs specific to health and safety requirements will be available in the field. Health and Safety SOPs are not included in the FOP Appendix.

### 3.0 PERSONNEL REQUIREMENTS

The proposed project organization for the Department of the Navy, Marine Corps Auxiliary Landing Field (MCALF) Bogue, Site 29 Site Inspection is shown in Figure 3. The Program Manager, Mr. Arthur R. Bomberger, is responsible for the quality of all work performed for the Department of the Navy. Ms. Vicki L. Pierce will serve as the Project Manager (PM). The PM has primary responsibility for implementing and executing the Site Inspection. Supporting the PM are the Field Operations Leader (FOL) and other technical support staff. The FOL is responsible for the onsite management of activities for the duration of the site inspection. Support staff includes personnel responsible for sampling, quality assurance, health and safety, lab services, data validation, assessment of analytical results, and report preparation.

It is anticipated that the field work will be completed with a total of five project personnel, including three subcontracted drill crew members (from ATEC Associates) and two NUS personnel. NUS personnel assigned to this project will include one geologist and one sample technician. The sample technician will also serve as the project Health and Safety Officer and will conduct the OSHA required site-specific health and safety training prior to commencement of work activities.

**FIGURE 3**  
**PROJECT ORGANIZATION**  
**SITE 29 - CRASH CREW BURN PIT**  
**MCALF BOGUE, NORTH CAROLINA**



 EPA or Department of the Navy

#### 4.0 EQUIPMENT REQUIREMENTS

Equipment required to complete the field work will include one drill rig capable of drilling with 6-inch inside diameter (ID) hollow-stem augers and performing split-spoon sampling procedures according to ASTM standards. Well construction materials will include 2-inch ID PVC well screens and casings, standpipes, locks, sandpack material, bentonite pellets, and cement grout. In addition, standard sampling equipment, sample jars and shipping cartons will be required.

In order to meet Department of the Navy QA/QC requirements, precleaned bottles will be used and preservatives will be added in the field. A certificate indicating that the bottles are analyte free must be provided.

Also, the following health and safety, decontamination, and sample shipping supplies and equipment are required: Surgeons' gloves, hard hats, safety glasses, first-aid kit, coolers, garbage bags, ziplock bags, HNU, HNU span gas, tyvec coveralls, decontamination kit andalconox detergent.

Additionally, four stainless steel bailers, 100 feet of rope, and an M-Scope (water level recorder) will be required for sampling and water level measurements. Stainless steel trowers will be used for surface water/sediment samples.

## 5.0 CONTRACTUAL SERVICES

One subcontract is planned at this time - a drilling subcontract necessary to accomplish drilling relative to monitoring well installation. Because only four wells are proposed, mobilization/demobilization costs will greatly exceed drilling costs. As a result, ATEC has been selected as the drilling subcontractor because of their proximity to the site, which minimizes mobilization/demobilization costs, and their reasonable bid, as evaluated based on NUS experience. The address is as follows:

ATEC Associates  
6814 Davis Circle  
Raleigh, North Carolina 27612

Analytical services will be conducted by the NUS laboratory because it has previously been approved by the Navy to be in accordance with the Navy Installation Restoration Program laboratory QA/QC requirements (Naval Energy and Environmental Support Activity, 1988). Recertification is, therefore, anticipated to be obtained promptly. PE samples (i.e., performance samples) are assumed to be unnecessary because of ongoing analytical services for a parallel contract monitored by Martin Marietta Energy Systems.

## REFERENCES

Naval Energy and Environmental Support Activity, June, 1988. Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program. Environmental Restoration Department (Code 112E), Port Hueneme, California.

NUS, July 1988. Standard Operating Procedures. Prepared for the EPA ARCs Program.

Water and Air Research, Inc., March 1983. Initial Assessment Study of Marine Corps Air Station Cherry Point North Carolina. Prepared under Contract No. 62474-82-C-8273 for the Naval Energy and Environmental Support Activity, Port Hueneme, California.