

OPTIONAL FORM 89 (7-90)

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To	ROSS TURNER	From	JOHN KOLICIOS
Dept./Agency	B&R	Phone #	595-0567 x157
Fax #	610 971-9715	Fax #	595-0555
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**INTERIM REMEDIAL ACTION REPORT**

**FOR**

**"SITE 20"**

**NAVAL WEAPONS STATION EARLE**

**COLTS NECK, NEW JERSEY**

**Prepared by:**

**Gregory J. Goepfert, P. E.  
Environmental Engineer  
Naval Weapons Station Earle  
February 28, 1995**

## INTERIM REMEDIAL ACTION REPORT

### SITE 20

#### 1. BACKGROUND

(a) Public Notice

#### 2. ACTION TAKEN

(a) Site worker health and safety considerations

(b) Remedial action

(c) Sampling and analysis / results

#### 3. PLANNED ACTION

(a) Excavated soil disposal

(b) Further sampling

(c) Site Restoration

#### 4. CONCLUSION

#### APPENDICES:

- A. Public Notice and Comments
- B. MSDS for "Black Beauty" Grit Blast Media
- C. Site Map / Sampling Locations
- D. Analysis Results
- E. Disposal Manifests
- F. Personnel List

## 1. BACKGROUND

(a) Naval Weapons Station Earle, Installation Restoration Site #20, was used for ordnance refurbishment. Site 20 encompasses property to the rear of Bldg. MAB-544. Blasting grit and contaminants associated with the paint removed by the grit were deposited on site # 20. The contaminants of concern are primarily metals and semi-volatiles. Since there is a septic tank and leaching field located on this site, testing for volatile compounds will be accomplished under further investigations planned for April 1995.

Grit blast media emanating from the old grit blast booth, and trailing along a drainage swale toward wetlands was removed. Excavation of grit piles, impacted soils and sediments from the adjacent drainage ditch was accomplished; approximately 300 cubic yards of tainted soil was stockpiled on 10 mil thick plastic on site. The excavated soil / sediment will be exported to a New Jersey licensed recycling facility.

The required public notice for this action was printed in the Asbury Park Press on October 10, 1994. Public comment was limited to those received from the Department of Environmental Protection and Energy (NJDEP). All of the comments were addressed (see Appendix A); this report is filed in accordance with N.J.A.C. 7:26E-6.6.

## 2. ACTION TAKEN

(a) A Health and Safety Plan was prepared for all personnel associated with this removal action; all personnel were briefed on the contents of the plan. The Naval Weapons Station Earle Industrial Hygienist (Mr. Ralph Clauser) was present on site and performed air sampling during the course of the work. Air monitoring for lead, cadmium and chromium was performed for those personnel performing the removal action. Sampling results were well below the Occupational Safety and Health Administration's (OSHA's) permissible exposure limits (P.E.L.s). The air sampling results are available for inspection at the Safety Department office, Naval Weapons Station Earle, Bldg. C-33. Additionally, Hnu readings were taken during excavation activity to identify the presence of volatile compounds; no excursions were noted above background levels. A Material Safety Data Sheet (MSDS) is included as Appendix B for the grit blast media that had been previously used for paint removal and disposed of on Site # 20.

It should be noted that the clean up of Site # 20 was performed under the direction of a contracted Industrial Hygienist, Dr. Marco Pedone from Testwell Craig Laboratories. The remedial action actually fulfilled the 3-day site worker training exercise required by OSHA for all personnel on Site # 20. All personnel directly involved with the remedial effort had previously completed the OSHA 1910.120 course.

(b) Site excavation work was completed over the period November 30, 1994 through December 9, 1994. The excavated area was primarily in the southwest corner of the site, and then the excavation followed an easterly direction along the drainage swale where the black grit sediment deposits were apparent. Approximately 300 cubic yards of excavated soil was stockpiled on 10 mil thick plastic at Site # 20.

(c) On January 10, 1995, Environmental Management Associates' Hydrogeologist Mr. Nathan Thompson took surface soil samples to be analyzed for metals (i.e. the target compound list) and semi-volatile organics. The following summarizes the analysis results for those samples:

SAMPLES TAKEN: 12 + 2 duplicates for TCL metals  
12 + 3 duplicates for semi-volatile compounds

The results were examined and compared to the latest (2/3/94) NJDEP soil cleanup standards. Semi-volatiles were generally not detected above method detection limits, however, the action limit values for metals in soils were slightly above NJDEP residential surface soil cleanup standards.

Analysis results are summarized as follows:

SAMPLE LOCATION	METAL DETECTED(mg/kg)	NJDEP STANDARD (mg/kg)	
		RESIDENTIAL	NON-RESIDENTIAL
2	Beryllium at 3.62	2	2
6	Beryllium at 15.5	2	2
6	Copper at 1070.	600	600
6	Lead at 1030.	400	600
6	Nickel at 752.	250	2400
6	Zinc at 4490.	1500	1500
8	Beryllium at 2.19	2	2

It is anticipated that a total of 3 cubic yards more soil must be excavated from the locations above to claim the site is "clean" by NJDEP residential standards. Further excavation will take place during the week of March 6, 1995, as well as post excavation sampling.

Mr. Thompson from Environmental Management Associates also sampled the excavated soil, which was analyzed for ignitability, corrosivity, reactivity, the full TCLP scan, TCLP nickel, total petroleum hydrocarbons, and PCBs. The soil analysis results supported a "non-hazardous" designation for disposal purposes.

The "decon" water from site activity - i.e., clean up of the front end loader and other wash water - was tested for oil and grease, pH and TCLP metals. The "decon" water will be disposed of at the Naval Weapons Station Earle sanitary treatment plant since contaminant levels are within the treatment ability of the plant.

Excavated soils will be taken to the Walter R. Earle Corporation's asphalt facility in Jackson Township, New Jersey. The soils will be charged to a rotary kiln dryer and subsequently recycled into an asphalt mix.

Site maps which delineate sampling points are included in this report as Appendix C. All analysis results are presented in Appendix D. Disposal manifests will be included as Appendix E.

**3. PLANNED ACTION - SITE 20****APPROXIMATE DATE**

Additional excavation at sampling locations 2, 6, and 8

6 - 9 Mar 95

Post excavation re-sampling - locations 2, 6, and 8

16 Mar 95

Replanting / Site restoration

1 May 95

(in consultation with the Station's Natural Resource Manager)

The work planned for April 1995 as part of the ensuing Remedial investigation for this site is as follows:

- \* Three subsurface soil samples (SB-1,2,3) collected from leaching field area; 3 -5 ft. depths
- \* Two surface water and sediment samples (SW/SED-1 and -2) at nearest surface water and sediment to leaching field and former grit pile locations.

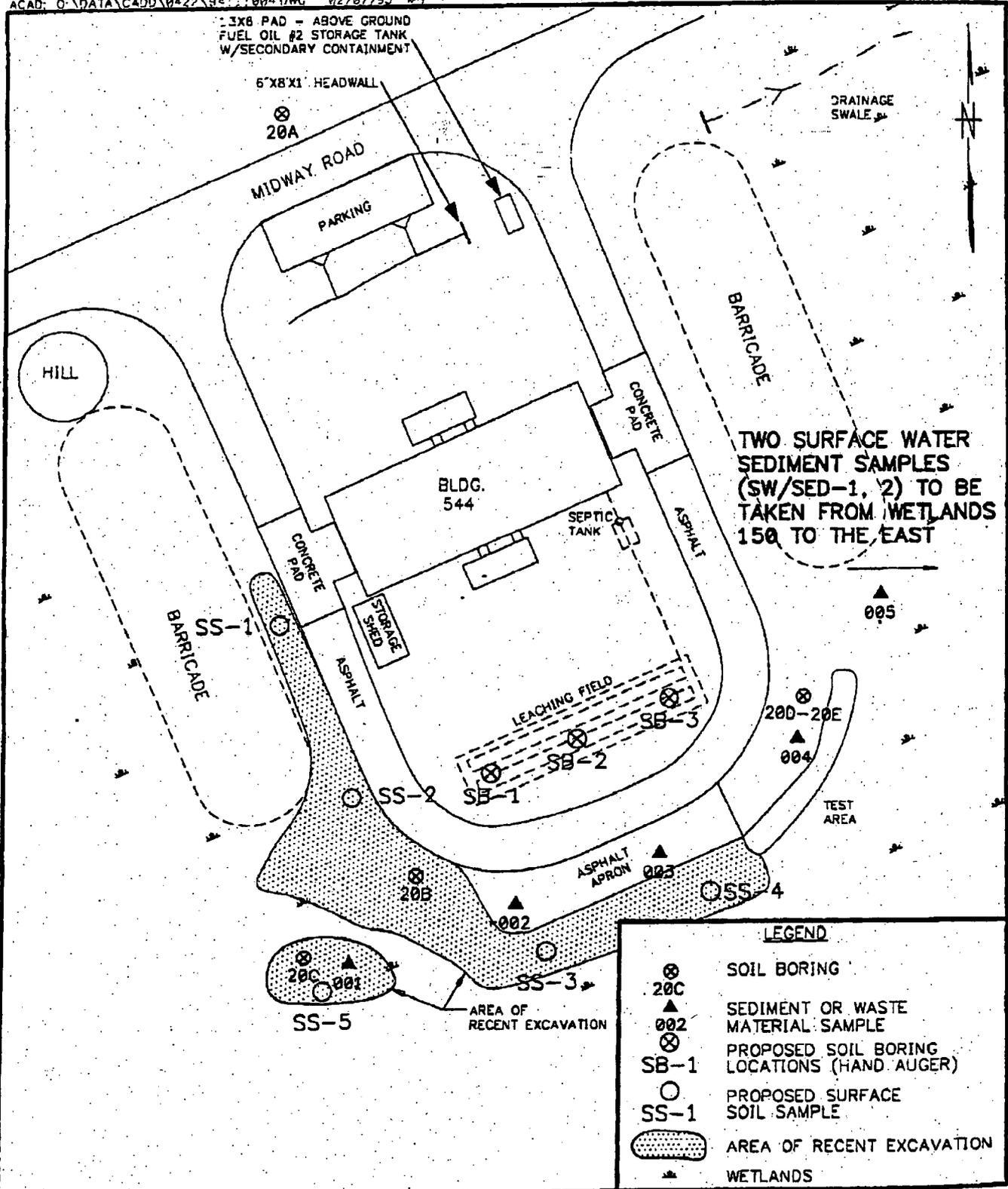
The work will be performed by the Halliburton NUS Corporation.

**4. CONCLUSION**

A listing of all Naval Weapons Station Earle personnel involved with this effort is included as Appendix F.

Upon completion of planned actions, i.e., further excavation, sampling, analysis and discussion with the Technical Review Committee, a Record of Decision for Site # 20 will be proposed by the Navy. All information germane to this decision will be available by May 1995.

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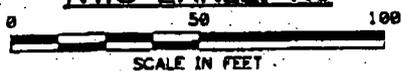
SOURCE: WESTON 1993 RI/FS-RI REPORT

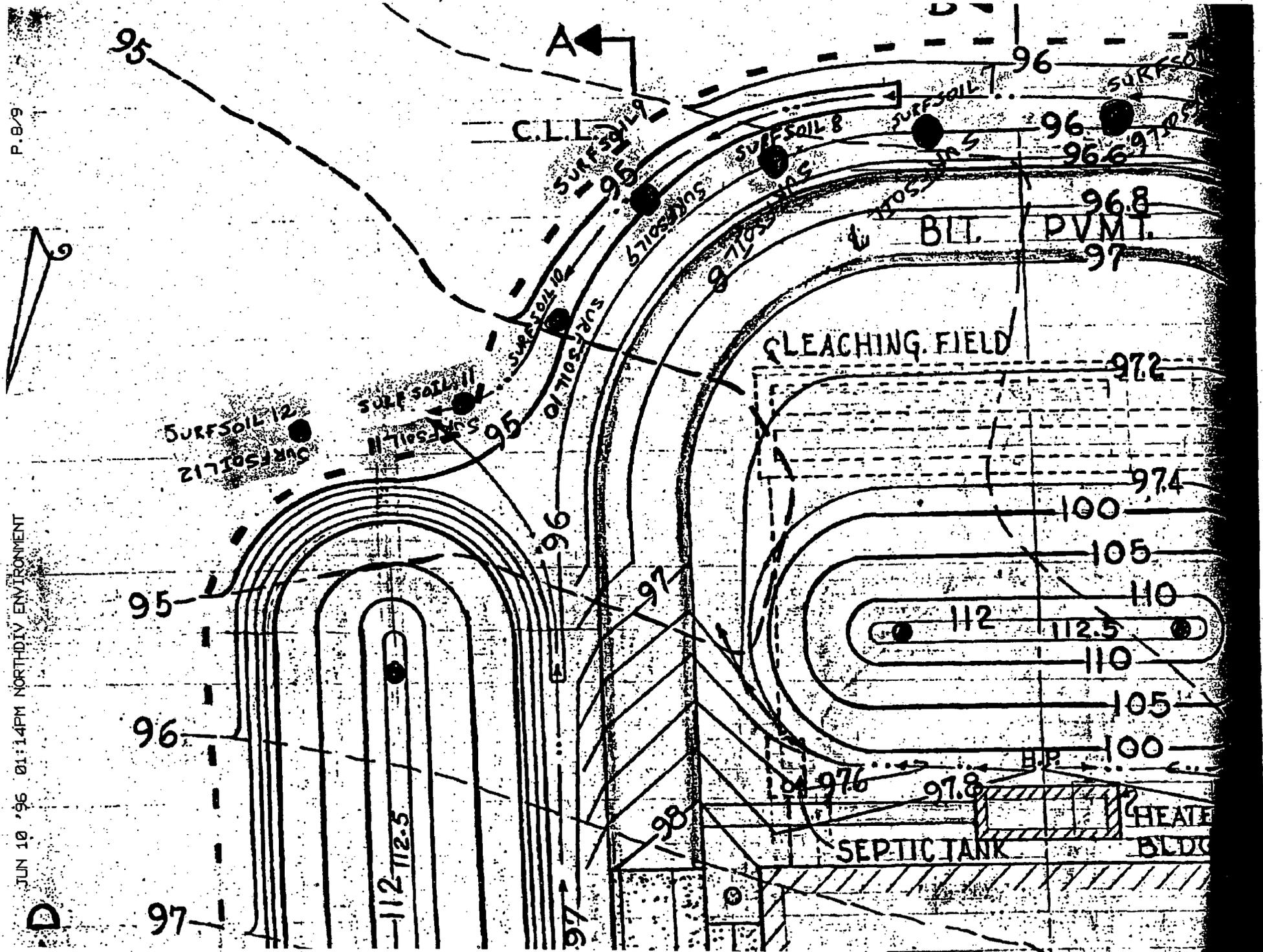
SITE 20 - GRIT BLASTING AREA AT BLDG 544

FIGURE 21-1

SAMPLING LOCATIONS

NWS EARLE, NJ





01:15PM NORTH DIV. ENVIRONMENT

