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NSWC INDIAN HEAD
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LETTER FROM U S NAVY REGARDING TOXICITY CHARACTERISTIC LEACHING PROCEDURE LEAD CONTAMINATION RESULTS AT SITE 8 NSWC INDIAN HEAD MD
12/13/1994
NSWC INDIAN HEAD

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DEPARTMENT OF THE NAVY
INDIAN HEAD DIVISION
NAVAL SURFACE WARFARE CENTER
101 STRAUSS AVE
INDIAN HEAD MD 20640-5035

5090
Ser 0952/750
13 Jan 94

From: Commander, Indian Head Division, Naval Surface Warfare Center
To: Commander, Chesapeake Activity, Naval Facilities Engineering Command, Code 181, Washington Navy Yard, 901 M Street, Washington, DC 20374-2121

Subj: TCLP LEAD CONTAMINATION AT IR SITE 8

Ref: (a) IHDIVNAVSURFWARCEN ltr 5090 Ser 0952/643 of 30 Nov 93
(b) Navy/Marine Corps Installation Restoration Manual of Feb 1992, Page 3-4, Section 3.1.2

Encl: (1) Summary of Sample Results
(2) Map of Sample Locations

1. We have received the lead Toxicity Characteristic Leaching Procedure (TCLP) test results from samples taken at Installation Restoration (IR) Site 8, as discussed in reference (a). Because the soil was found to be TCLP toxic, we request that you perform an Emergency Removal of the lead contamination at this site, as described in reference (b).

2. Since the soil was found to be TCLP toxic, hazardous waste may be leaching into the environment, namely the Mattawoman Creek. The Mattawoman Creek is a popular fishing spot and is frequently used for bass fishing tournaments. In addition, numerous bird species, including the bald eagle and great blue heron, feed in this area.

3. The analytical results are summarized in enclosure (1) and a map showing the sample locations is provided as enclosure (2). Additional samples were also taken to better characterize the problem and these results are also summarized in enclosure (1).

4. Three of the samples that were taken were analyzed to determine if the lead in the soil/sand at our National Pollutant Outfall IW87 is leaching into the tidal pond, which drains into the Mattawoman Creek. Samples TCLP-A, TCLP-B, and TCLP-C are composite samples taken from three sample points (1, 2, and 3), which are staked at the site.

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5. Sample point 1 is located at the actual IW87 sample location, which is approximately 35 feet from the Building 790 discharge pipe. Sample point 2 is located at the midpoint between the IW87 sample location and the end of the discharge pipe. Sample point 3 is located at the end of the discharge pipe. These sample points are shown in enclosure (2).

6. Samples TCLP-A, TCLP-B, and TCLP-C were obtained by compositing soil/sand from sample points 1, 2, and 3. Sample TCLP-A contains soil/sand from a depth of four to six inches, sample TCLP-B contains soil/sand from a depth of six to ten inches, and sample TCLP-C contains soil/sand from a depth of 10 to 15 inches. The results for these samples are 7.04 milligrams per liter (mg/L), 13.2 mg/L, and 30.3 mg/L, respectively. These concentrations are all above the TCLP regulatory limit of 5 mg/L for lead.

7. Per the request of Mr. Shawn Phillips of your staff, we also took samples at various locations along the storm water drainage ditch to IW87. These results, which are negative for lead, are also provided in enclosure (1). The storm water drainage ditch lies above the IW87 underground drainage system. These sample locations, A through F, have also been staked by our sampling personnel and are shown in enclosure (2).

8. In order to prove that the high lead content was not a result of any of our current operations, water samples were also taken. These samples were sent to Chesapeake Analytical Laboratory in Waldorf, Maryland, where the samples were filtered using a 0.45 micron filter. The resulting filtrate was analyzed for total lead. The analytical results, which are also summarized in enclosure (1), show that the discharges from our operations to this outfall do not contain lead.

9. If you have any questions concerning this matter, please contact Shawn Jorgensen on (301) 743-6745 or DSN 354-6745.

Susan P. Adams

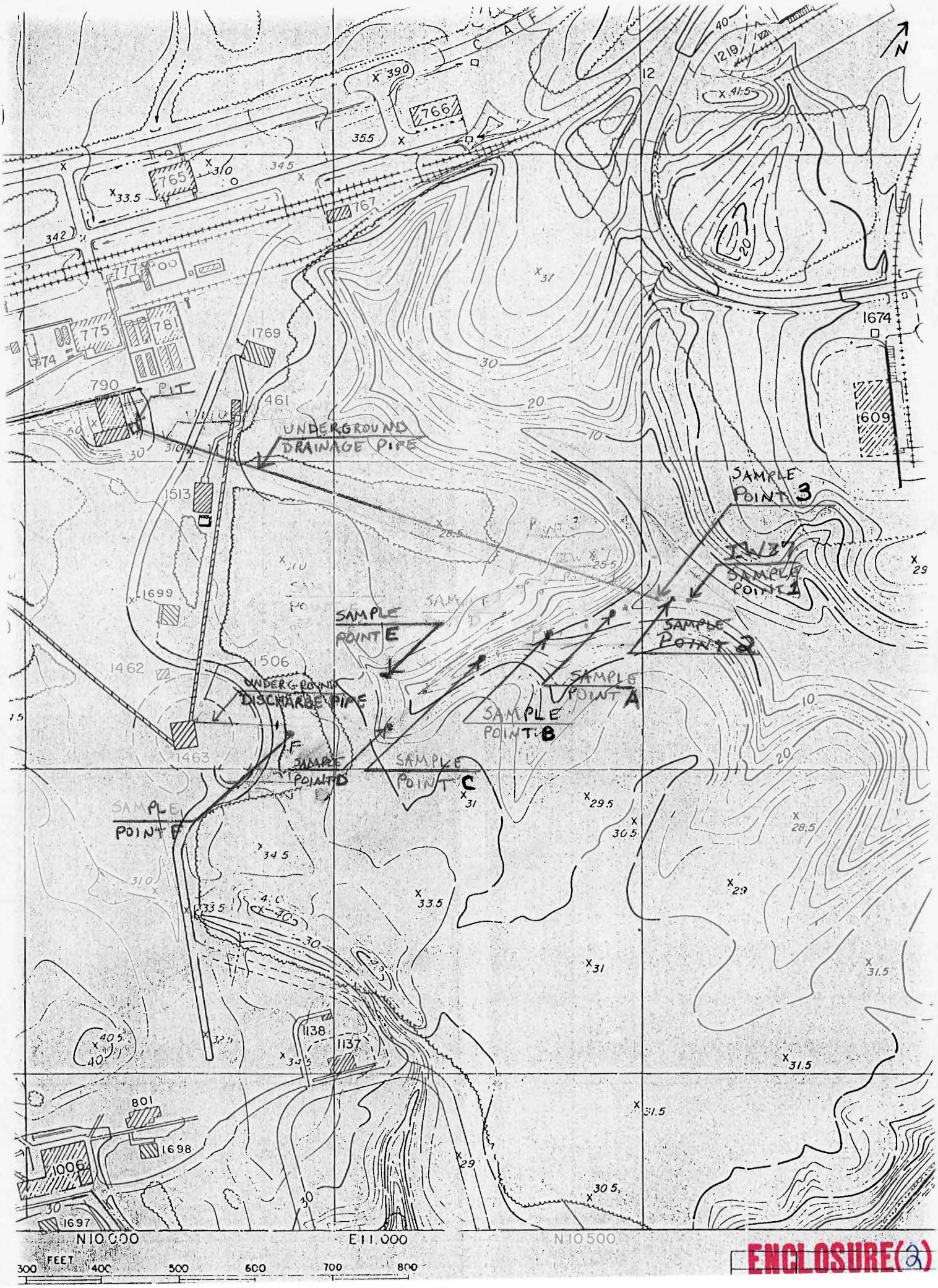
SUSAN P. ADAMS
By direction

Copy to:
MDE (K. Lemaster)
MDE (J. Beazley)

SUMMARY OF SAMPLE RESULTS

DATE	SAMPLE	SAMPLING POINT	TYPE	OPERATIONS	RESULT OF ANALYSIS
10/29/93	TCLP-A	Points 1, 2, and 3 (4 to 6 inch depth)	Composite (Soil)	N/A	7.04 mg/L
10/29/93	TCLP-B	Points 1, 2, and 3 (6 to 10 inch depth)	Composite (Soil)	N/A	13.2 mg/L
10/29/93	TCLP-C	Points 1, 2, and 3 (10 to 15 inch depth)	Composite (Soil)	N/A	30.3 mg/L
10/29/93	A	Point A	Soil	N/A	<17.8 mg/kg
10/29/93	B	Point B	Soil	N/A	<17.8 mg/kg
10/29/93	C	Point C	Soil	N/A	<17.3 mg/kg
10/29/93	D	Point D	Soil	N/A	<15.1 mg/kg
10/29/93	E	Point E	Soil	N/A	<17.0 mg/kg
10/29/93	F	Point F	Soil	N/A	<15.2 mg/kg
10/06/93		IW87	Grab (Water)	None	<0.020 mg/L
10/19/93		IW87	Composite (Water)	None	<0.020 mg/L
10/20/93		IW87	Composite (Water)	Otto Fuel	0.0308 mg/L
10/27/93		IW87	Grab (Water, Acidified)	None	0.0797 mg/L
10/27/93		IW87	Grab (Water, 0.45 Filter/Acidified)	None	<0.020 mg/L
10/29/93		IW87	Grab (Water, Acidified)	None	0.878 mg/L
10/29/93		IW87	Grab (Water, 0.45 Filter/Acidified)	None	0.0316 mg/L
11/03/93		IW87	Composite (Water, Acidified)	None	0.360 mg/L
11/03/93		IW87	Composite (Water, 0.45 Filter/Acidified)	None	0.0259 mg/L
11/04/93		IW87	Composite (Water, Acidified)	None	0.180 mg/L
11/04/93		IW87	Composite (Water, 0.45 Filter/Acidified)	None	<0.020 mg/L
11/17/93		IW87	Composite (Water)	Otto Fuel	0.194 mg/L
11/18/93		IW87	Composite (Water, Acidified)	Otto Fuel	0.168 mg/L

ENCLOSURE(1)


N
SAMPLE POINT 3
SAMPLE POINT 1
SAMPLE POINT 2
SAMPLE POINT E
SAMPLE POINT A
SAMPLE POINT B
SAMPLE POINT D
SAMPLE POINT C
SAMPLE POINT F
UNDERGROUND DRAINAGE PIPE
UNDERGROUND DISCHARGE PIPE
PIT
N10000
E11000
N10500
300 FEET 400 500 600 700 800

ENCLOSURE(2)