

4/18/97 - 00934



**OHM Remediation  
Services Corp.**

A Subsidiary of OHM Corporation

April 18, 1997

Mr. Scott Park, Code 18223  
Atlantic Division NAVFACENGCOM  
1510 Gilbert Street  
Norfolk, VA 23511-2699

RE: Contract No N62470-93-D3032, D.O. 142, Naval Amphibious Base - Little Creek, Virginia  
Beach, Virginia, Site No. 7 Old Landfill Area, Debris Pile Survey Results.

Dear Mr. Park,

OHM Remediation Services Corp. (OHM) is pleased to submit the results of the debris pile survey performed April 8-14, 1997. The survey was performed at the Old Landfill Area (Site No. 7) at the Naval Amphibious Base - Little Creek, Virginia Beach, Virginia. The purpose of this survey was to locate, identify, and quantify the debris along the north face of the landfill. OHM also determined the level of effort required to remove the debris from the landfill.

OHM established a grid system overlain on a detailed site plan (see Sheet 1) which was used to systematically survey the landfill. Each 100 ft. x 100 ft. grid cell is keyed to letter designations A through Q, running west to east, and numerals 1 through 5 running south to north. When a wastestream was encountered in the particular cell, the field personnel completed the Debris Pile Survey Sheet (see attached table), staked the location (using 4 foot survey stakes painted orange) and located the debris on the site map. These waste streams are also indicated on an OHM Master List which summarizes the field information and identifies the search area and grid cell designation for each item that was discovered. Significant debris was photographed and presented in the photo log (See Sheet 2 for photograph locations).

To assess the level of effort to remove the debris, the site was subdivided into four sections: Wetlands (A1-H4, I3, I4-P5); "Canal" Bank (Q1-Q5); North Side Slope (J1-P1 & M2-O2); and the Vegetated Area (I1, I2-P2, J3-P3). The type and quantity of debris found in each area are summarized below.

Wetlands

During the site survey, approximately 485 cubic yards of debris was encountered in the wetlands. Approximately 54 percent of the debris is wood, 14 percent metal, 13 percent concrete, and 23 percent general debris. Thirty three (33) telephone poles were also encountered, ranging from 20-30 feet in length. Most of the debris can be removed; however, the procedure will be labor intensive due to the limited use of equipment to minimize disturbances of the wetlands.

"Canal" Bank

There is approximately 158 cubic yards of debris located along the banks of the canal. Approximately 54 percent is wood, 38 percent concrete, 6 percent metal, and 3 percent general debris. There is a 12 foot metal beam and 4 wood poles that are protruding from the "Canal" bank. The beam and poles will have to be cut before removal. There are also many sinkholes in the area that have visible debris below the ground surface. OHM recommends that the sinkholes be filled in with soil to avoid injury to personnel.

The concrete that is in Grid Q3-Q4 appears to be placed along the bank for erosion control. If this concrete is removed, another means of erosion control will have to be constructed.

North Side Slope

Along the north side slope of the landfill there is approximately 33 cubic yards of concrete protruding from the side slopes. The concrete debris can be easily removed but caution will have to be taken in order to avoid exposing additional debris from the landfill. The slope will then have to be stabilized after the debris is removed.

Vegetated Area

There is approximately 69 cubic yards of debris throughout the vegetated area that can be easily removed. Of the 69 cubic yards, 44 percent is metal, 42 percent is concrete, and 14 percent is wood. Some of the debris will have to be cut in place so the subsurface will not be disturbed .

There is approximately 337 cubic yards of wood, 183 cy of concrete, 108 cy of metal, and 117 cy of general debris at the Old Landfill Area. OHM will be able to completely remove all of the debris with minor disturbance to the surrounding area.

If you should have any questions, please contact me at 609-588-6349.

Sincerely,



Steven Kawchak  
Project Manager

cc: Kelly Greaser Base CE  
Jerry Haste, COTR  
Mark Airaghi, ROICC  
Dave Leadenham, OHM  
File 19625

Debris Pile Survey  
 Old Landfill Area (Site No. 7)  
 Naval Amphibious Base - Little Creek  
 OHM Project 19625

GRID	TERRAIN	REF. #	WASTESTREAM	QUANTITY	Effort to Remove	COMMENTS
A1	Wetlands			1-3 CY		Clean Area - Concrete is visible along the bank of the canal.
A2	Wetlands			1-3 CY		Clean Area - Concrete is visible along the bank of the canal.
A3	Wetlands			1-3 CY		Clean Area - Concrete is visible along the bank of the canal.
A4	Wetlands			1-3 CY		Clean Area - Concrete is visible along the bank of the canal.
B1	Wetlands					Clean Area
B2	Wetlands					Clean Area
B3	Wetlands	B3A	Telephone Poles Rubber Buoy General Debris	2 @ 20' 4'x 3' x 3' 0-5 CY	Easily Removed Easily Removed Easily Removed	
B4	Wetlands					Clean Area
C1	Wetlands					Clean Area
C2	Wetlands					Clean Area
C3	Wetlands	C3A	1'x1' x 0.5' Timber  Telephone Poles Wood	1 @ 20' 2 @ 5' 1 @ 15' 1-5 CY	Easily Removed  Easily Removed Easily Removed	See Picture No. 002
C4	Wetlands/Shore					Clean Area
D1	Wetlands					Clean Area
D2	Wetlands					Clean Area
D3	Wetlands	D3A	1/2 Metal Tank 1'x1' x 0.5' Timber Rubber Plugs General Debris	8' x 5' x 3' 5 @ 15' 2' Diameter 15-20 CY	Questionable Easily Removed Easily Removed Easily Removed	See Picture No. 003 See Picture No. 004
D4	Wetlands/Shore					Clean Area
E1	Wetlands					Clean Area
E2	Wetlands					Clean Area
E3	Wetlands	E3A	1'x1' x 0.5' Timber 1'x1' x 0.5' Timber Telephone Poles Rubber Wood- Floating Dock	1 @ 15' 4-@ 4'-8' 5 @ 20' 1 - Tire 5'x25'x0.5'	Easily Removed Easily Removed Easily Removed Easily Removed Easily Removed	Will have to be cut

Debris Pile Survey  
 Old Landfill Area (Site No. 7)  
 Naval Amphibious Base - Little Creek  
 OHM Project 19625

GRID	TERRAIN	REF. #	WASTESTREAM	QUANTITY	Effort to Remove	COMMENTS
E3		E3A	General Debris	10-15 CY	Easily Removed	
E4	Wetlands/Shore					Clean Area
F1	Vegetated Area	F1A F1B	Metal - Misc. Motor Parts Metal - 55 Gallon Drums Telephone Poles	2-3 CY 2 2 @ 15'	Easily Removed Easily Removed Easily Removed	10' x 12' Area
F2		F2A	Telephone Poles	1 @ 15'	Easily Removed	
F3	Wetlands		Telephone Poles General Debris	1 @ 15' 15-20 CY	Easily Removed Easily Removed	Along Canal
F4	Wetlands/Shore		General Debris	1-5 CY		
G1	Wetlands/Lake		1'x1' x 0.5' Timber 1'x1' x 0.5' Timber Metal Wood- Floating Dock	6 @ 15' 30 @ 5' 10-15 CY 25'x5'x0.5	Easily Removed Easily Removed Easily Removed Easily Removed	See Picture No. 005
G3	Wetlands/Shore	G3A	Metal - Anchor	1000-2000 lbs	Questionable	See Picture No. 006
G4	Wetlands/Shore					Clean Area
	Cap	H1	Metal - Sheet Metal	20 SF	Easily Removed	
	Cap	H2	Metal - Sheet Metal 3/4" Metal Cable	15 SF 10'	Easily Removed Easily Removed	Cable will have to be cut
H1		H1A	Metal - Tank	3'x4'x0.3'	Easily Removed	On Surface
H1	Vegetated Area	H1B	Telephone Poles  1'x1' x 0.5' Timber Wood Metal General Debris	2 @ 20' 2 @ 40' 25 @ 5' 30-40 CY 5-10 CY 15-20 CY	Easily Removed Easily Removed Easily Removed Easily Removed Easily Removed Easily Removed	See Picture No. 007  Metal is visible along the side slope
H1	Vegetated Area	H1C	Metal General Debris	2 - 5 Gal. Pail 0-1 CY	Easily Removed Easily Removed	
H1	Vegetated Area	H1D	Concrete  Metal	2 @ 5'x5'x5' 1 @ 5'x5'x0.5' 1 @ 5'x5'x5'	Easily Removed  Easily Removed	See Picture No. 009  Unknown Contents Inside
H2						Clean Area

Debris Pile Survey  
 Old Landfill Area (Site No. 7)  
 Naval Amphibious Base - Little Creek  
 OHM Project 19625

GRID	TERRAIN	REF. #	WASTESTREAM	QUANTITY	Effort to Remove	COMMENTS
H3	Wetlands/Shore		General Debris	10-15 CY	Easily Removed	
H4						Clean Area
I	Cap	IA	Concrete	0-1 CY	Easily Removed	Along Side Slope
I1	Vegetated Area	I1A	Concrete	1-2 CY	Easily Removed	Pile of Concrete on Surface
I1	Vegetated Area	I2B	Metal - UST Metal	400-600 Gal. 2-3 CY	Easily Removed Easily Removed	UST is 1/2 buried, See Picture No. 008 Scattered Debris
I1	Vegetated Area	I1C	Metal	5'x5'x5'	Easily Removed	
I3	Wetlands	I3A	Wood	40-60 CY	Easily Removed	See Picture No. 010
J1						Clean Area
J2						Clean Area
J3	Wetlands		General Debris	5-10 CY	Easily Removed	Scattered Debris
J4	Wetlands/Shore		General Debris	1-3 CY	Easily Removed	Scattered Debris
K1	Cap		Concrete	1-3 CY	Easily Removed	Along Side Slope
K2						Clean Area
K3	Wetlands		General Debris	1-5 CY	Easily Removed	Scattered Debris
K4	Wetlands		General Debris	0-1 CY	Easily Removed	Scattered Debris
L1	Cap	L1A	Concrete	0-2 CY	Easily Removed	Along Side Slope
L2						Clean Area
L3	Vegetated Area	L3A	Concrete Metal - 40 Gal. Container	0-2 CY 1	Easily Removed Easily Removed	Along Side Slope Container is 1/2 buried
L4A	Veg./Wetlands		Wood - Telephone Pole Wood - 1'x1' x 0.5' Timber	1 @ 15' 1 @ 4'	Easily Removed Easily Removed	
L4	Wetlands		General Debris	5-10 CY	Easily Removed	
L5	Wetlands/Shore		General Debris	5-10 CY	Easily Removed	
M1	Cap	M1A	Concrete	5-10 CY	Easily Removed	Along Side Slope
M2	Vegetated Area	M2A	Metal - 3" Pipe	15'	Easily Removed	
M2	Vegetated Area	M2B	Concrete	5-10 CY	Easily Removed	
M3	Vegetated Area	M3C	Concrete	0-2 CY	Easily Removed	Along Side Slope
M4	Wetlands		Wood/General Debris	5-10 CY	Easily Removed	
M5	Wetlands/Shore		Wood/General Debris	0-5 CY	Easily Removed	
N1						Clean Area

Debris Pile Survey  
 Old Landfill Area (Site No. 7)  
 Naval Amphibious Base - Little Creek  
 OHM Project 19625

GRID	TERRAIN	REF. #	WASTESTREAM	QUANTITY	Effort to Remove	COMMENTS
N2	Cap Side Slope	N2A	Concrete	0-5 CY	Easily Removed	Side Slope is Eroding
N3	Vegetated Area	N3A	Metal/Debris	0-5 CY	Easily Removed	Debris is 1/2 Buried
N4	Wetlands	N4A	Metal/Concrete/General Debris	10-15 CY	Easily Removed	
N5	Wetlands/Shore		General Debris	1-5 CY	Easily Removed	Scattered Debris
O1	Cap		Concrete	1-5 CY	Easily Removed	Along Side Slope
O2	Vegetated Area	O2A	Concrete	1-5 CY	Easily Removed	Along Side Slope
O3	Vegetated Area	O3A	Metal - Back End of a Truck Rubber - Tires	5-10 CY 4	Easily Removed Easily Removed	
O4	Wetlands		General Debris	10-15 CY	Easily Removed	Scattered Debris
O5	Wetlands/Shore		General Debris	0-5 CY	Easily Removed	Scattered Debris
P1	Cap		Concrete	0-5 CY	Easily Removed	Along Side Slope
P2	Vegetated Area	P2A	Metal - 3" Cable	10'	Easily Removed	Cable will have to be cut
P3						Clean Area
P4	Wetlands		Wood/Concrete/General Debris	60-80 CY	Easily Removed	90% Wood, See Picture No. 011, 012, & 013
P5	Wetlands/Shore		General Debris	5-10 CY	Easily Removed	
Q1						Clean Area
Q2	"Canal" Bank	Q2A	Concrete Metal Telephone Poles	30 CY 2-4 CY 4 @ 15'	Easily Removed Easily Removed Easily Removed	Concrete will have to be broken up  Poles will have to be cut, See Picture No. 016
Q3	"Canal" Bank	Q3A	Concrete Metal Wood	30 CY 5 CY 5 CY	Questionable Easily Removed Questionable	See Picture No. 014 & 015 12' Metal beam will have to be cut
Q4	"Canal" Bank		Wood	60-80 CY	Easily Removed	See Picture No. 011,012, & 013
Q5A	"Canal" Bank		General Debris	2-3 CY	Easily Removed	Scattered Debris

<b>Wastestream Totals</b>	
Wood	337 CY
Concrete	183 CY
Metal	108 CY
General Debris	117 CY
<b>Total</b>	<b>745 CY</b>

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 001 Date: April 10, 1997  
Title: Concrete debris along the bank of the "Canal"

Grid: A1-A5



No.: 002 Date: April 10, 1997  
Title: Miscellaneous debris along the shore line.

Grid: C3

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 003 Date: April 10, 1997  
Title: Metal tank in the wetland area

Grid: D3



No.: 004 Date: April 10, 1997  
Title: Miscellaneous debris in the wetland area

Grid: D3

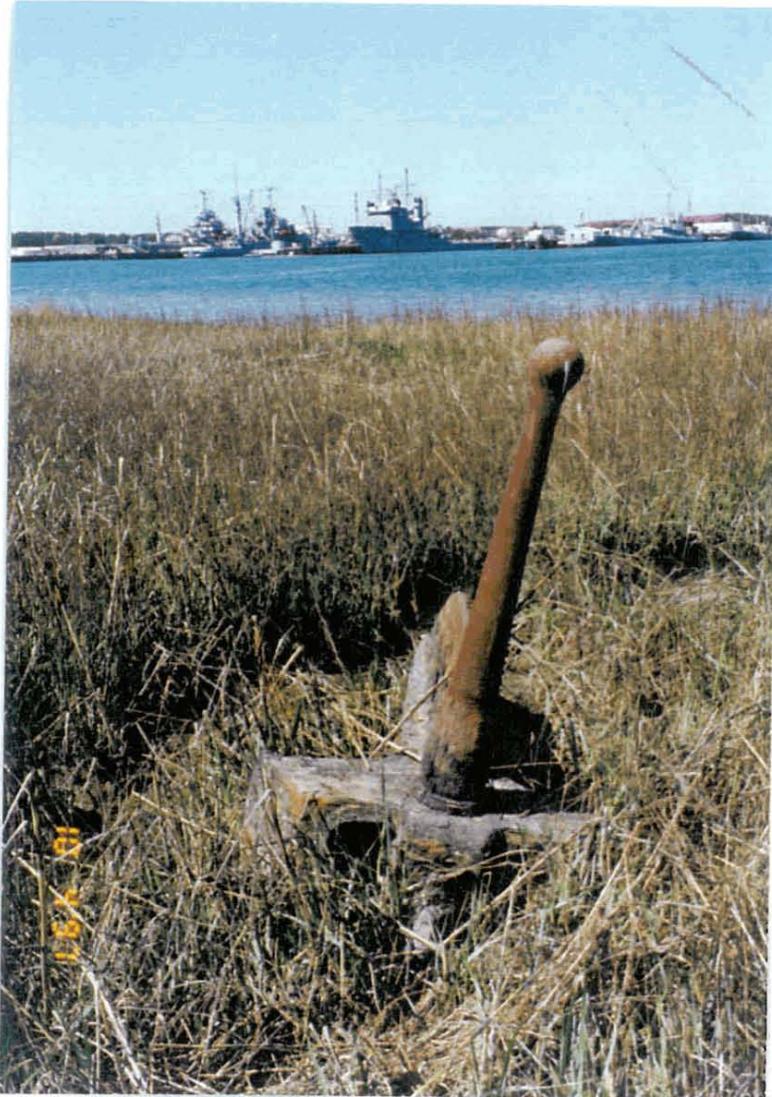
Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 005                      Date: April 10, 1997  
Title: Wood debris along the edge of the "Lake"

Grid: G1

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 006 Date: April 10, 1997  
Title: 1000-2000 lb anchor in the wetland area

Grid: G3

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 007 Date: April 10, 1997  
Title: Wood debris along the edge of the "Lake"

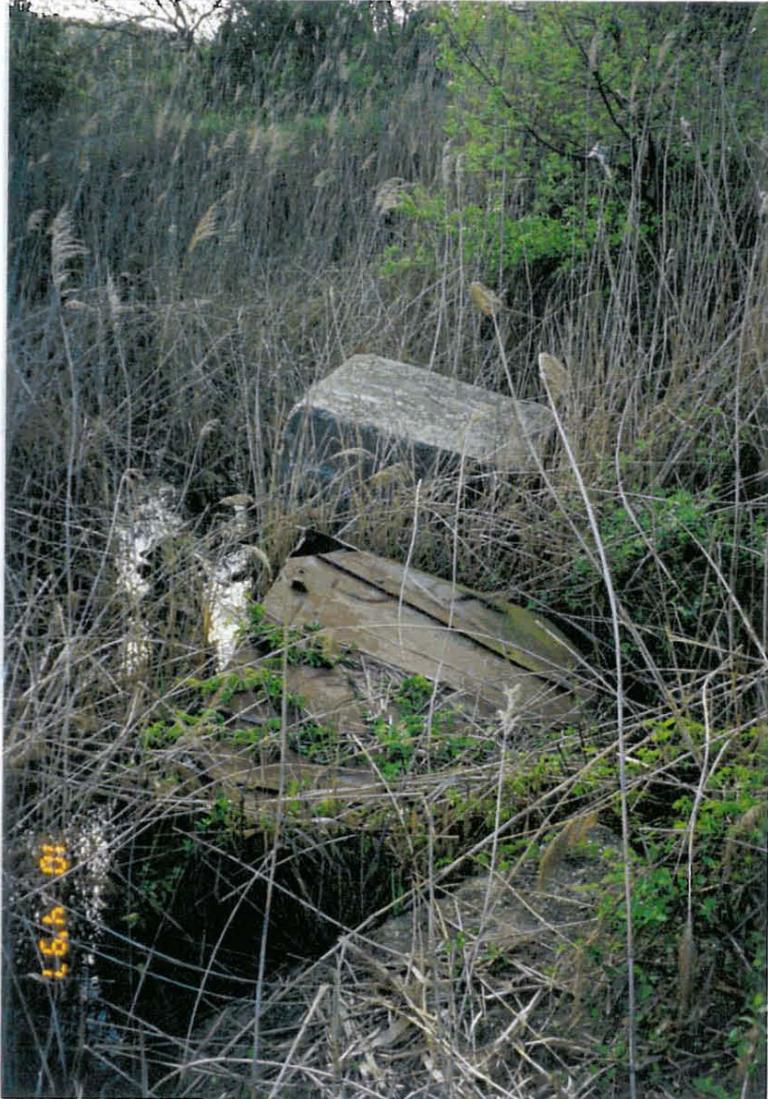
Grid H1



No.: 008 Date: April 10, 1997  
Title: Half buried UST

Grid: I1

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 009 Date: April 10, 1997  
Title: Concrete and metal debris

Grid: 11

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 010 Date: April 10, 1997  
Title: Wood debris in the wetland area

Grid: I3



No.: 011 Date: April 09, 1997  
Title: Miscellaneous debris in the wetland area

Grid: P4 & Q4

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 012 Date: April 09, 1997  
Title: Wood debris in the wetland area

Grid: P4 & Q4



No.: 013 Date: April 09, 1997  
Title: Debris in the wetland area

Grid: P4 & Q4

Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 014 Date: April 09, 1997  
Title: Concrete along the bank of the "Canal"

Grid: Q3



No.: 015 Date: April 09, 1997  
Title: Metal debris along the bank of the "Canal"

Grid: Q3

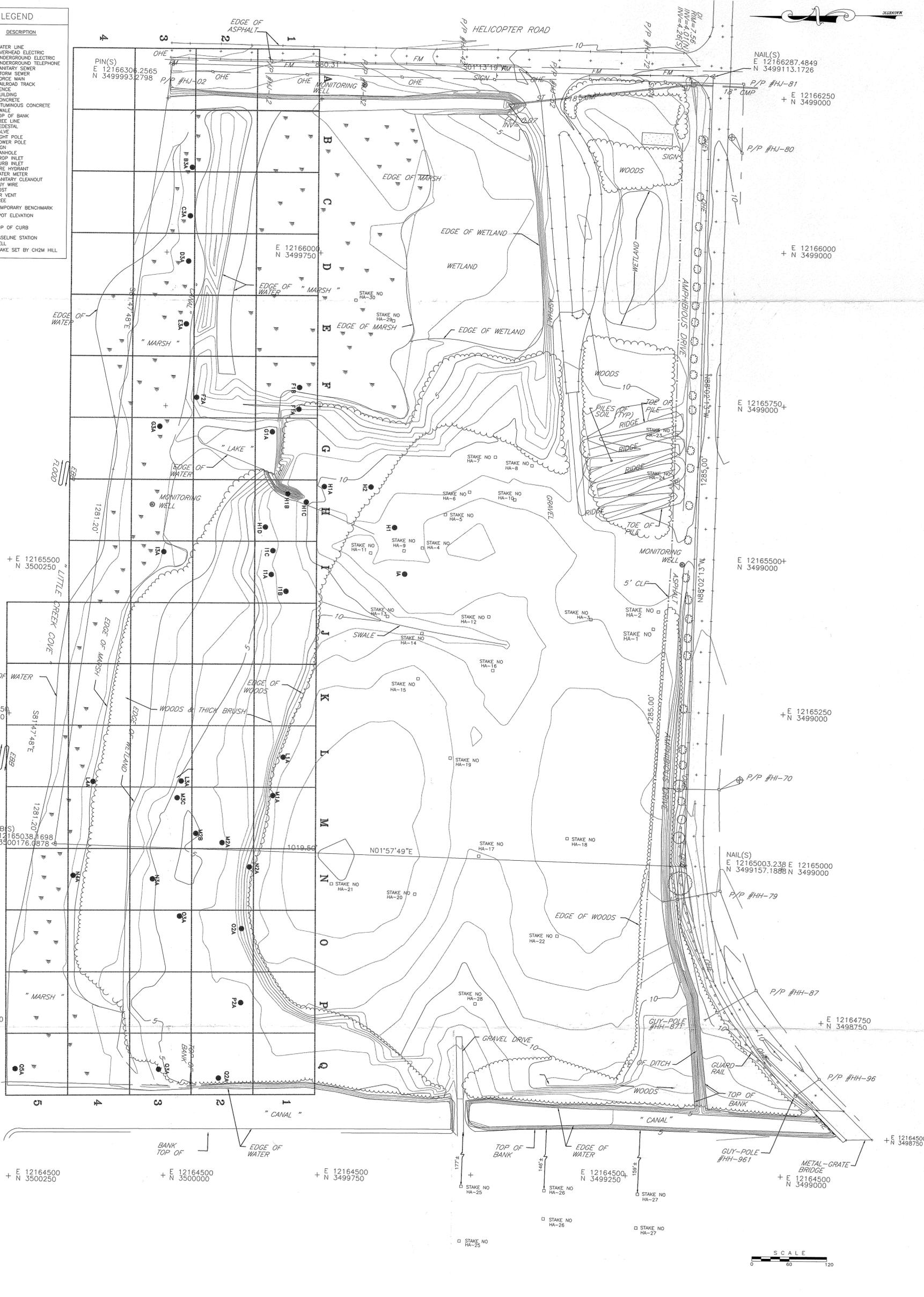
Site No. 7 - Old Landfill Area  
Contract No. N62470-93-D-3032 D.O. No. 142  
OHM Project No. 19625



No.: 016                      Date: April 09, 1997  
Title: Telephone poles protruding from the bank of the "Canal"

Grid: Q3

EXISTING	DESCRIPTION
---	WATER LINE
---	OVERHEAD ELECTRIC
---	UNDERGROUND ELECTRIC
---	UNDERGROUND TELEPHONE
---	SANITARY SEWER
---	STORM SEWER
---	FORCE MAIN
---	RAILROAD TRACK
---	FENCE
---	BUILDING
---	CONCRETE
---	BITUMINOUS CONCRETE
---	SWALE
---	TOP OF BANK
---	TREE LINE
---	PEDESTAL
---	VALVE
---	LIGHT POLE
---	POWER POLE
---	SIGN
---	MANHOLE
---	DROP INLET
---	CURB INLET
---	FIRE HYDRANT
---	WATER METER
---	SANITARY CLEANOUT
---	GUY WIRE
---	POST
---	AIR VENT
---	TREE
---	TEMPORARY BENCHMARK
---	SPOT ELEVATION
---	TOP OF CURB
---	BASELINE STATION
---	WELL
---	STAKE SET BY CH2M HILL



SHEET I.D. 1	DEPARTMENT OF THE NAVY NAVAL STATION NAVAL AMPHIBIOUS BASE - LITTLE CREEK	NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VIRGINIA VIRGINIA BEACH, VIRGINIA	OHM Remediation Services Corp. OHM PROJECT NO. 19625 DRAWN BY: D. Leach CHECKED BY: M. Keatley APPROVED BY: S. Kawchok DATE: 4/7/97	DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____ REVIEWED BY: _____ PROJECT MANAGER: _____ FILE PRODUCTION: _____ QUALITY CONTROL: _____ BENCH MARKS: _____ DESIGN DIRECTOR: _____	NO. 1 ADDED GRID AREA AND VALUES 4/16/97 M.K.
	SITE NO. 7 OLD LANDFILL AREA DEBRIS PILE SURVEY			FOR EFD FOR COMMANDER NAVFAC	REVISIONS

CIVIL LEGEND	
EXISTING	DESCRIPTION
—W—	WATER LINE
—E—	OVERHEAD ELECTRIC
—U—	UNDERGROUND ELECTRIC
—T—	UNDERGROUND TELEPHONE
—SS—	SANITARY SEWER
—S—	STORM SEWER
—FM—	FORCE MAIN
—R—	RAILROAD TRACK
—B—	BUILDING
—C—	CONCRETE
—BC—	BITUMINOUS CONCRETE
—S—	SWALE
—T—	TOP OF BANK
—TL—	TREE LINE
—P—	PEDESTAL
—V—	VALVE
—LP—	LIGHT POLE
—PP—	POWER POLE
—S—	SIGN
—M—	MANHOLE
—DI—	DROP INLET
—CI—	CURB INLET
—FH—	FIRE HYDRANT
—WM—	WATER METER
—SC—	SANITARY CLEANOUT
—GW—	GUY WIRE
—P—	POST
—AV—	AIR VENT
—T—	TREE
—TB—	TEMPORARY BENCHMARK
—SE—	SPOT ELEVATION
—T—	TOP OF CURB
—BS—	BASILINE STATION
—W—	WELL
—S—	STAKE SET BY CH2M HILL



SHEET 101 2	DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND
	ATLANTIC DIVISION	NORFOLK, VIRGINIA
	NAVAL STATION	VIRGINIA BEACH, VIRGINIA
	NAVAL AMPHIBIOUS BASE - LITTLE CREEK	
SCALE: AS SHOWN	SITE NO. 7 OLD LANDFILL AREA PHOTO LOCATION MAP	

OHM Remediation Services Corp.		DATE: 4/7/97
OHM PROJECT NO. 19625	APPROVED BY: S. Kowchak	DATE: 4/7/97
DRAWN BY: D. Leach	CHECKED BY: M. Kestley	DESIGN OFFICER:
PROJECT MANAGER:	QUALITY CONTROL:	DESIGN DIRECTOR:

NO.	DESCRIPTION	DATE	APPROVED BY
1	ADDED GRID AREA AND VALUES	4/16/97	M.K.