Rec'd 7/27/92

09.01-07/23/92-00750

M-E-M-O-R-A-N-D-U-M

To: Jim Szyckman, LANTDIV
From: Noel Simmons, Versar
Date: July 23, 1992
Subject: July 15, 1992, Technical Review Committee (TRC) meeting
Naval Station Roosevelt Roads, PR (Versar job no. 1049)

It was a pleasure to meet with you and the activity last week to present Versar's work at the TRC meeting. My speaking notes and a copy of the handout/overheads used in the presentation are attached. The presentation of each site was essentially a synopsis of the reports under review. During the Pre-TRC meeting, the only significant technical comment raised was whether the PCB-bearing soils could be landfilled at the U.S. Ecology landfill in Beatty, Nevada and whether there was a landban against such waste. I spoke with the landfill and they assured me that the facility was still accepting PCB-contaminated soils. There is a ban on landfilling PCB-bearing debris mixed with soils. The only impact this restriction will place on the remediation is that, when the coral underlying the soil at Sites 15 and 16 is removed, it will need to be ground to a soil-like consistency.

Needs to be incorporated into the design

During the TRC meeting on Wednesday, Versar received two questions. In the first, Commander Welstead questioned whether the proposed building decontamination activities would occur at the same time as the soil removal. I responded that this was somewhat up to the discretion of the remedial contractor, but that it was more than likely that the two activities would be conducted concurrently. Typically, the wash water from power washing is treated by pumping it through GAC cannisters, and the cannisters are then disposed along with the PCB-bearing soil.

The second question was from Felix Lopez of the U.S. Fish and Wildlife Service. Sr. Lopez questioned whether sediment samples would be collected at the mouths of the cooling water tunnel in Ensenada Honda and Puerca Bay during the Phase II Remedial Investigation (RI). I responded that my contract would soon be at an end and another Navy contractor would be preparing a workplan for the Phase II RI. However, based on the surface water data collected by Versar from the tunnel, I would certainly reccommend sediment sampling, and I believed that the Navy agrees on that point. I also informed him that it had been our intention to collect a sediment sample from the tunnel manways during our RI, but no sediments are present in the tunnel immediately below the area of soil contamination.

Based on the positive reponse from the TRC members present, I believe the Navy will have little difficulty in proceeding with the proposed interim remedial measure for the soil operable unit at Sites 15 and 16. I will move forward with the proposed plan and record of decision documents.

(ESE 1986) Follow-up

Site 3. • West Central Viegues in Valle de Resolucion - Topographic Divide/Well

• (1975) - 645 gallons of fuel disposed (fuel from 25 target drones)

• Drones are unmanned aircraft for target practice

• MAF-4 classified - similar to hydrazine (comp. is classified)

- reacts explosively when mixed under pressure w/ IRFNA

- Reaction products are free N^2 and H_2O

• Act of Disposal was a risky business

• Anectdotal evidence of cattle

• Analysis performed on Cattle Cooperative well for VOAs, BNAs, pest/PCBs, metals

• No hits, Vegetation healthy, nature of fuel, anectdotal evidence indicates no credible threat to human health and the environment

* Versen concurs with ESE recommendations ~~that no further action unwarranted~~

~~Navy recommends the site be removed from further consideration by~~

* The Navy recommends no further action.

Site 8 - ESE (1986?) Follow-up

• ~~For~~ Just south of airstrip, North of Ensenada Honda

• 1960-1970s 2,500-5,000 gallons of JP-4 and JP-5 spilled from washing of ~~two~~ drones

• Discuss Drainages

• Sampled in 1986, 1987 for VOAs, Oil & grease, & lead

→ Very few VOA hits ~~(Benzene 11 @ 5~~ as expected

• Surface Water

*only VOA hits @ #1 upgradient

- oil & grease

		Lead
#1	~~4740~~ 5 - ND ppb	ND - ND all (1.9) ppb
#2	102 - ND	
#3	98 - ND	

• Seds *→ No VOAs

O&G		Lead
#1	4740 - 247 ppm	28.8 - 14.0
#2	787 - 69	ND - 14.6
#3	1670 - 306	43.4 - 26.1

* Uniformly lower in Round 2

• Lead not a component of JP-4 or JP-5 - related to ball bearings & activities @ Hanger area

• Up gradient indicates Hanger as source, O/w separator in place ~~corrective~~ - Ditch lush vegetation, Inv. of Hanger planned

• Based on presence of alt. cont. source upgradient, eng. controls established, and lack of env. damage → Navy says no action

* Speakers notes: N. Simmons 7/15/92 TRC meeting, NAVSTA RR

XAX

Site 15 — CMDR Wetland

1964 – present

1986 – 1988 ESE p. 6 0.58 – 1186

~ 3,000

1991 may Versar Study p. 11 Arochlor 1260

RI — Interim Remedial Action

10 ppm Soil Samples p. 21 ND (0.55) – 110X

Seds p. 25 0.22 – 22 < 33 ppm SQC for Sutt H

Coral @ 1 foot ~~so~~ grabs w/ SS scoops and Al pans

~~ARAR~~ 1,000 ug/m² wipe & chip p. 29 wipe ND – 6.5 ug/m²

chip 121 ppm

EA — Exposure Pathways (Direct Ingestion, Dermal Abs) above target of 10^{-6}

Carc children ~~4~~ ~~10^{-2}~~ 10^{-4} 10^{-2} (dermal)

HI → dermal >> 1 ~~ingestion~~ 10^{-4} (ingestion)

20 copies

workers

HI → ≥ 1 dermal 10^{-3} dermal

10^{-5} ingestion

FS p. 31

Excavate 1-2 feet $ 426,621 235 yds³

Landfill U.S. Ecology site → Beatty, Nevada

Site 16

1986 – 1988 ESE p. 6 1.2 – 40,000 1956 – 64

~ 1600

1991 Versar p. 14 Askarel

RI

Soil Samples p. 24 <1 → 120 Arochlor

Seds p. 29 2.1 → 1,000 1260

1,000 ug/m² wipes & chips p. 32

wipes ND (.5) ug/m² → 1300

SW 13-54 ppb > CWA .03 > MCL <1 → 1,000

EA — Exposure Pathways p. 45

Direct Ing. Dermal Abs SW Fish Ing.

Children Carc soil sed ingest 10^{-4} → 2.85 fish ingestion

HI >> 1 ~~dermal~~ 8.66×10^{2} → 3.2

Workers Carc ingest 10^{-5} → 3.06 fish

HI ≥ 1

FS p. 39 $ 1,785,219 986 yds³

* Speaker's notes: N. Simmons 7/15/92 TRC meeting, NAVSTA RR

Roosevelt Roads TBC July 15, 1992

- Marida Intro.
  - Lantdivs role
  - Purpose of TBC; CERCLA - BCRA, SOSWMU originally.

Versar IRFNA/MAF-4 Area

Sites 3, 8, 15, 16

Site 3.

1986 ESE Study

- NW of topographic divide
- cattle coop well on other side of divide / TCL/TAL ~ ESE sample - no detects.
- ESE Study performed 11/12 yrs. after disposal activity.

$$\underset{\text{(nitric acid)}}{IRFNA} + MAF\text{-}4 \rightarrow N_2 + H_2O$$

- Navy recommends the site be dropped from further consideration

Site 8 Drone Washdown Area

JP4 & JP5 used in drones - lead not a constituent.

2,500 - 5,000 gals spilled (est.)

samples taken in 86 & 87 by ESE

Oil & Grease / Lead / VOCs

- decrease [ ] from 86/87

Problems related to a hanger north of the site not site 8.

Navy recommends that site 8, as a distinct site be removed from further investigation

Site 15

Substation 30"x60"

ESE goal - find hot spots, decide if further investigation is warranted.

1964 - present area used to change out transfers.

VERSAR - goal - fringe ESE data to determine clean edge relative to TSCA - ARAR.

S-1 only data pt. above ARAR, for determining extent.

Hit of 22 ppm @ drainage swale, below sediment quality criteria of ~33 ppm, no risk to Ensenada Honda.

Chip samples valid for concrete surface, as opposed to wipe samples

Recommendation

- sand blast, power washing for stained (contaminated) solid surfaces.

- Coral relatively shallow.

- Strip soil and some coral w/ field verification samples

Endangerment Assessment

- Children/Workers scenario.

[HI for Children >> 1
Carcinogen, 10^{-2}-10^{-4}]

[Workers slightly > 1
Carcinogen 10^{-3}-10^{-5}]

Interim Remedial Action to be initiated by the Navy.

Navy to issue contract w/in 15 months.

Cleanup in 93.

Site 16, building 38, old power plant.

cooling water tunnel leads from plant to outfall @ Puerca Bay., Intake @ Ensenada Honda.

Bridge 1260 pardonment cmpd.

The goal is the same as site 15.

same IRM proposed for this site as site 15.

Second phase II, will be conducted by navy thru the use of verification sampling.

Sed. data in NW corner above sediment quality criteria. Recommend → found out where storm drain has outfall.

Surface Water hits above ARAR of MCL of Clean water Acts

90% completeness achieved w/ soil sampling wrt ARARs.

Endangerment Assessment

Children Exposure 10^{-4} (2.85 ~ fish ingestion)

Workers HI 21, CI 10^{-5} - 3.06 ~ fish ingestion

Follow-up RI @ storm drain, cooling H_2O tunnels, and outfalls at Puerca Bay

Est. Remedial Cost 1.7 million.

U.S. Fish & Wildlife.

- question "will do some sampling in cooling tunnel"?

UST problem → now CERCLA due to PCBs.

will you be doing marine sediment samples

Noel - "logical"

Marietta - "no marine study performed"

Laurie - "another work plan will be prepared for a phase II, and sent to TRC members for review"

Baker Presentation.

Don - site manager
Melissa - C.R. - q' Environ. Scientist.

Site 7 Active/Inactive.
"Degradable rubish under daily cover"
- no leachate found thru reconnaissance of the landfill.
- Trash found was metal.
- [redacted]
- Have Baker interviewed the land fill operators and workers

Site 10
Sampling Station bars toward operations in the area.

Site 21
No IAS, some data available from closure operations.

Site 18
Destroyed by Hugo.
* - no surface [illegible] will be taken?

Post-It™ brand fax transmittal memo 7671 | # of pages ▸ 1

To Sindulfo	From Maritza
Co. NS Roosy Rds	Co. Lantdiv
pt. 18E-6	Phone #
Fax # 18091865 0422	Fax #

****

:ON REPORT

TTI NO.	809 865 0422
DATE AND TIME	07. 10. 92 03:53 PM
DURATION	00:46
MODE	
PAGE	01
RESULT	GOOD

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Site 13. A

Still Active

Site 13B

Inactive.

- drainage divide

Site 13C

Semi Active

Site 14.

- Divided into North & South area, separated by Coast Guard Station.
- Suspected that oil washed into mangrove
- Global Position System GPS will be used to mark sampling stations, ±5m accuracy.

Why not use the Coast Guard pier to survey in stations.

- No receptors found by Boles during site survey

Site 6.

Not sure of disposal area.

Site 5

Not sure of disposal area.

- Sampling locations may be disturbed

Vieques Island

Site 1

Site 2
- repository at local fisherman coop on Vieques Island recommended by Felix USFW.

Maritza.
- Expecting written comments by date on letter sent out

USFW.
Site 7, 13, 14.
- "what about biological sampling" particular seagrass for heavy metals
Johan probable endangerment survey, indicated no surveys.

Site 14 "Mangrove has received various spills and oils move inward. booms placed by sea bees."

P.R. DNR - dept nat resources - did work on JP-4/5 - spill in mangrove - marine enviro.

Site 2 "would be nice to test land crabs." (fiddler crabs)
Site 13 "extent sampling into mangroves"
USGS - "concern @ site 10 ground water"

CMDR. - Greg Welstead - X.O. Barry Bonds

EPA - concern about sampling strategy.

Need to start by Mid September, 19 Sept.
- long delays there Sept - Nov. due to holidays.

-

TECHNICAL REVIEW COMMITTEE MEETING
NAVAL STATION ROOSEVELT ROADS, PUERTO RICO
15 JULY 1992

LANTDIV EIC'S OPENING STATEMENT

1. Introduction of LANTDIVs Role in the IR program
   * Manage overall technical aspects of project
   * Assist the base in the IR program
   * Coordinate between base and regulators
   * Oversee and control contractors

2. Introduction to the Navy IR Program
   * Pre CERCLA; NACIP program
   * Conversion to EPA terminology and structure; Navy IR program

3. Brief history of IR program at NS Roosevelt Roads
   * Last TRC held in 1989; Finalize efforts at Sites 1, 2, 5-7, 10, 12-14, and 18; Prepare Summary of no action at site 3, 8, 9; Begin and finalize RI/FS efforts at Sites 15 and 16; Site 12 transfer to UST program
   * Because of change over, Sites 1,2, 5-7, 10, 12-14, and 18 warranted further study; RI/FS efforts started; Workplan presented for review
   * New site discovered; Began PA/SI efforts; PA/SI efforts will be part of closure efforts
   * No action sites 3, 8, and 9; would be waste of $ to investigate
   * RI/FS efforts at Sites 15 and 16 are almost complete; Site 15 will require additional study; Interim remedial action will be performed at Site 15 next year.

4. The role of the TRC members
   * Provide technical guidance and advice, this is not a community meeting
   * TRC very important to the successful completion of the IR program; provides different perpective and additional experience
   * TRC member's time is valuable; TRC meetings only held at crucial points in the program
   * Indicate extra time given to TRC members to submit comments after TRC meeting

5. Introduction of RCRA
   * 51 RFA sites identified
   * In the process of determining future actions
   * IR sites will continue along same path but will convert to methodologies and terms of RCRA
   * SWMUs will begin the RFI process

6. Introduction of each Contractor
   * Versar handles Sites 3, 8, 9, 15 and 16
   * Baker handles Sites 1,2, 5-7, 10, 13-14, 18, and 21

1st TRC

Versar INC.

SITE SUMMARY FOR IRFNA/MAF-4 DISPOSAL SITE, VIEQUES ISLAND (SITE NO. 3)

Prepared for:

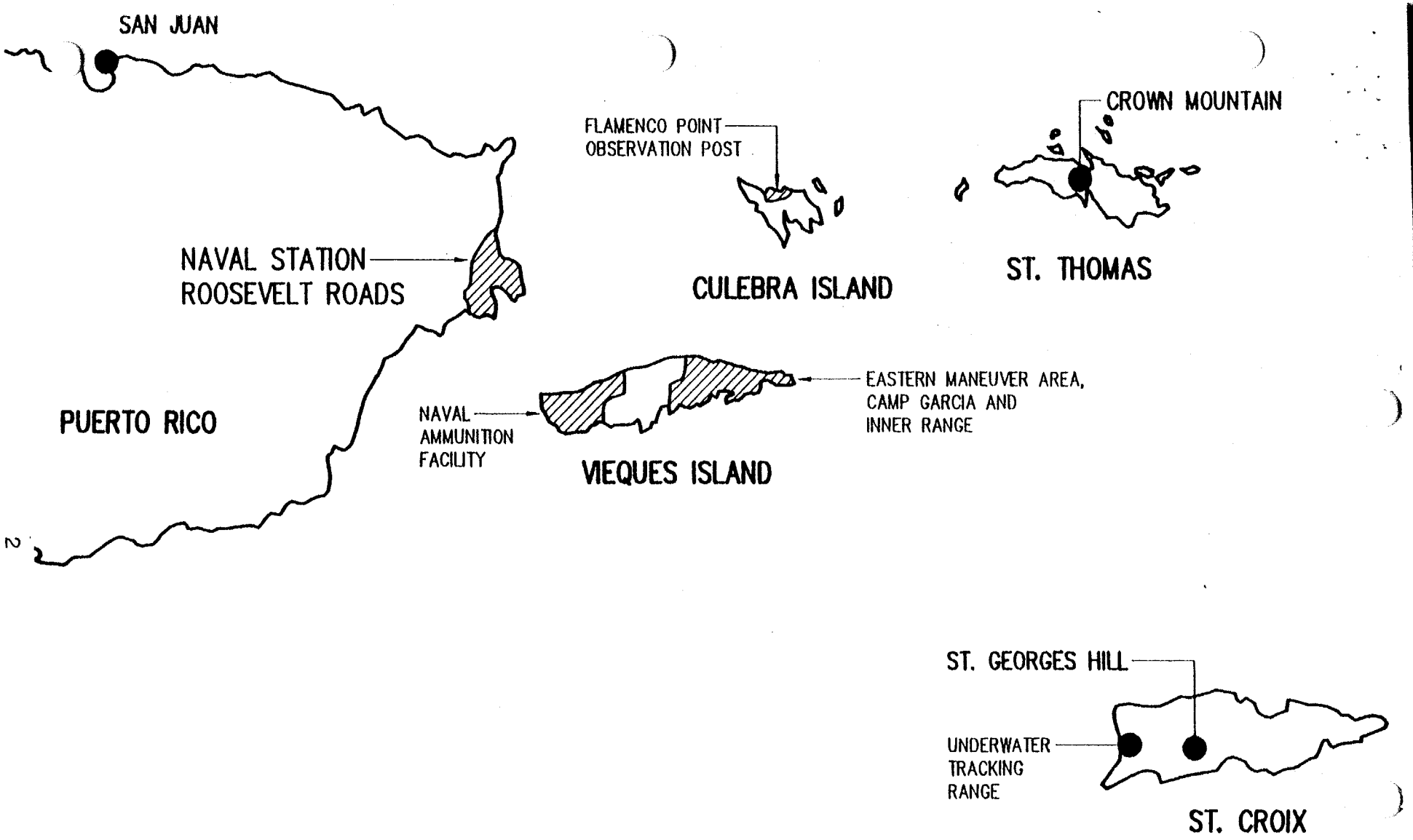
Atlantic Division
Naval Facilities Engineering Comman
Norfolk, Virginia 23511

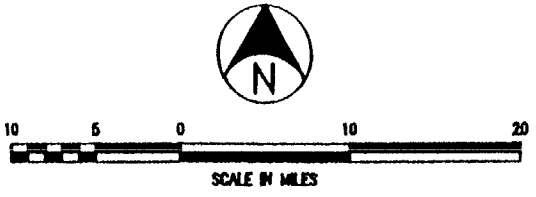
Prepared by:

Versar, Inc.
6800 Versar Center
Springfield, Virginia 22151

Versar Job No. 5295.3

July ~~25~~ 15, 1991





LEGEND

- CITIES
- U.S. NAVAL FACILITIES

NAVAL STATION ROOSEVELT ROADS		
DESIGNED FLOWERS	DATE 12/13/90	FIGURE 1 LOCATION OF ROOSEVELT ROADS NAVAL STATION
DRAWN CAROLINO	12/14/90	
CHECKED		
Versar INC. 6850 VERSAR CENTER SPRINGFIELD, VIRGINIA 22151 (703) 750-3000		APPROVAL / DATE
		PROJECT NO. 5295.001.01 / SCALE: AS NOTED
		DRAWING NO. FIG1.DWG / FIGURE 1

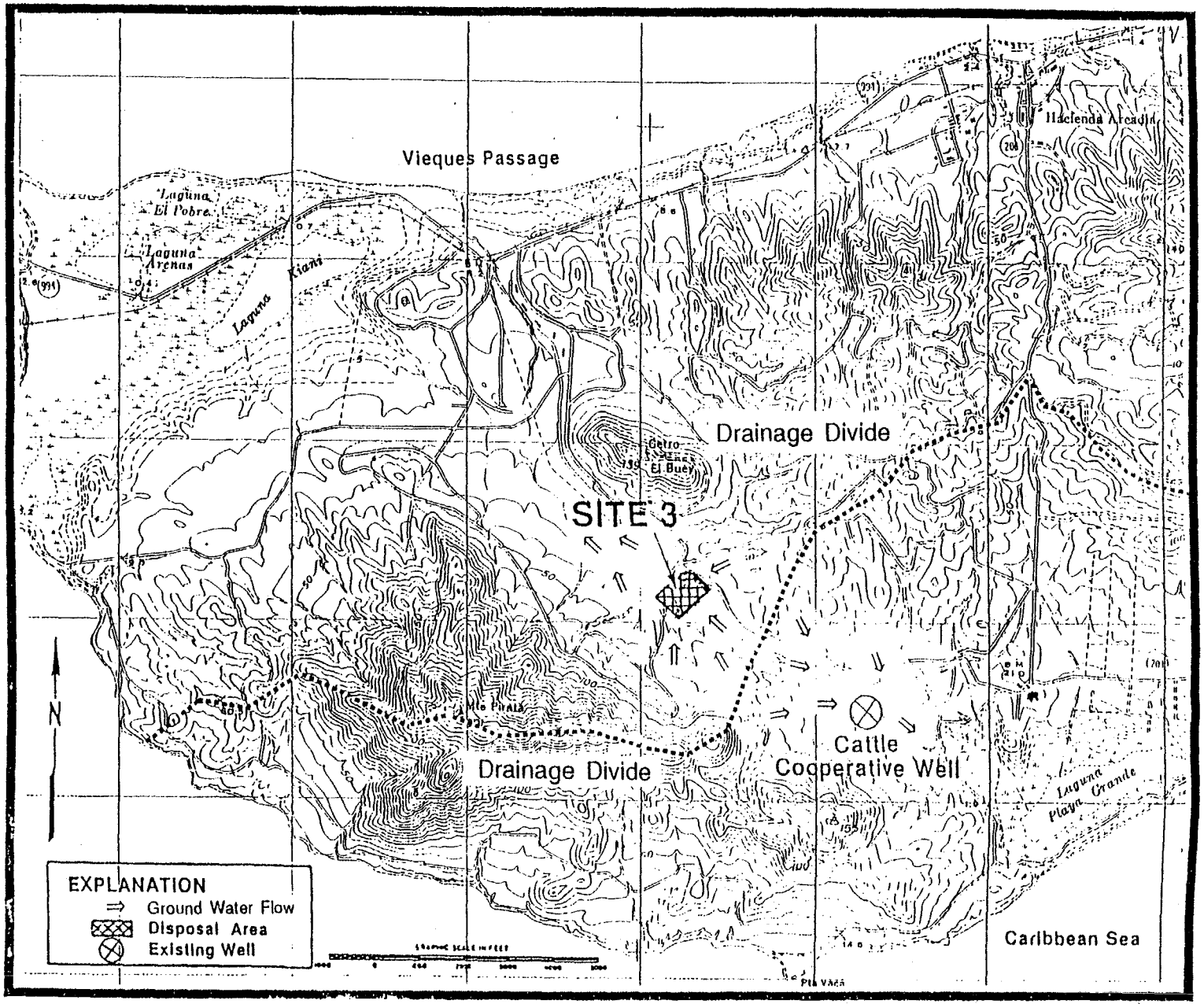


FIGURE 2
LOCATION OF SITE 3, THE IRFNA/MAF-4
DISPOSAL SITE, VIEQUES ISLAND

Versar INC

SITE SUMMARY FOR DRONE WASHDOWN AREA, ROOSEVELT ROADS (SITE NO. 8)

Prepared for:

Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511

Prepared by:

Versar, Inc.
6850 Versar Center
Springfield, Virginia 22151

Versar Job No. 5295.4

April 29, 1991

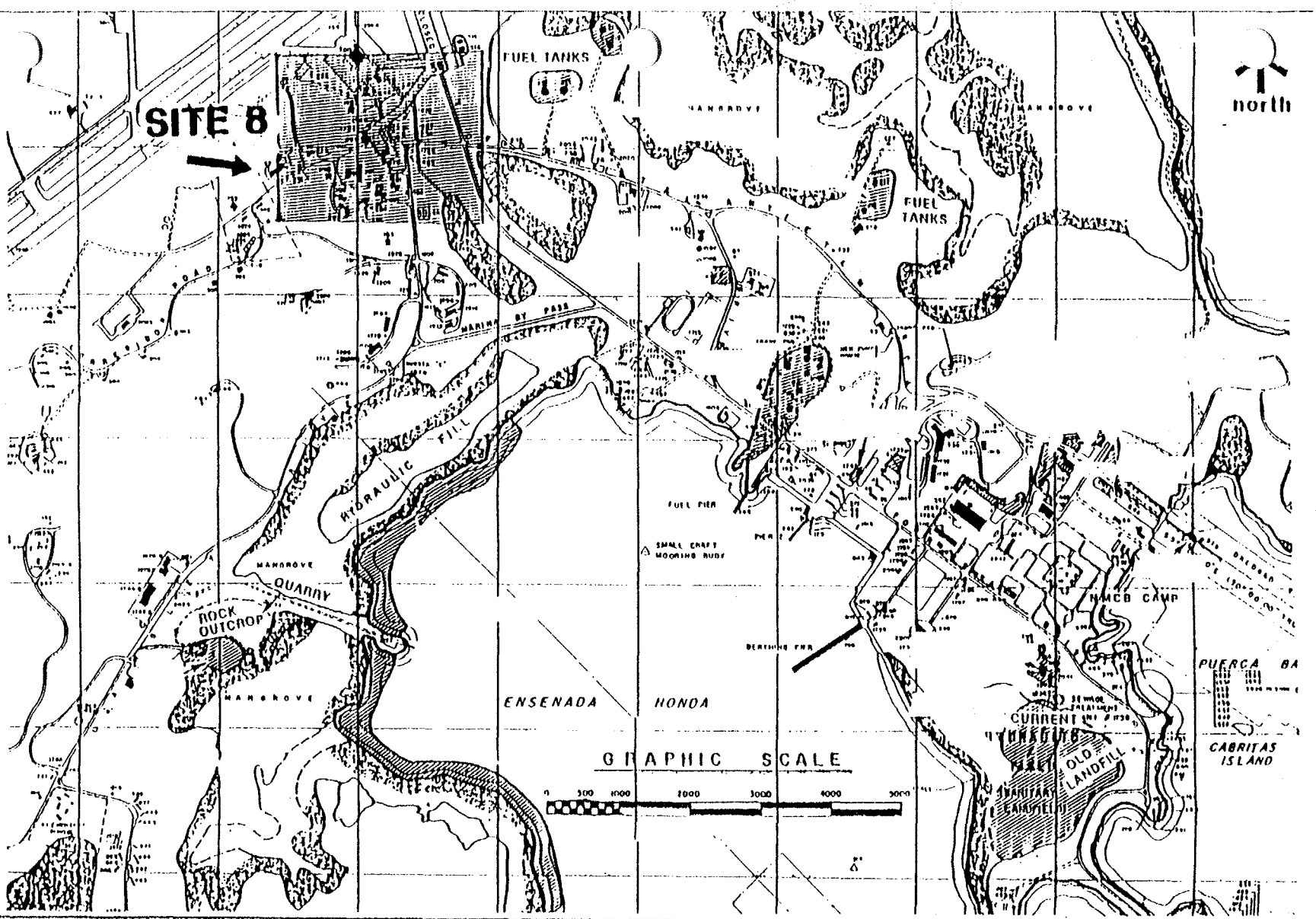
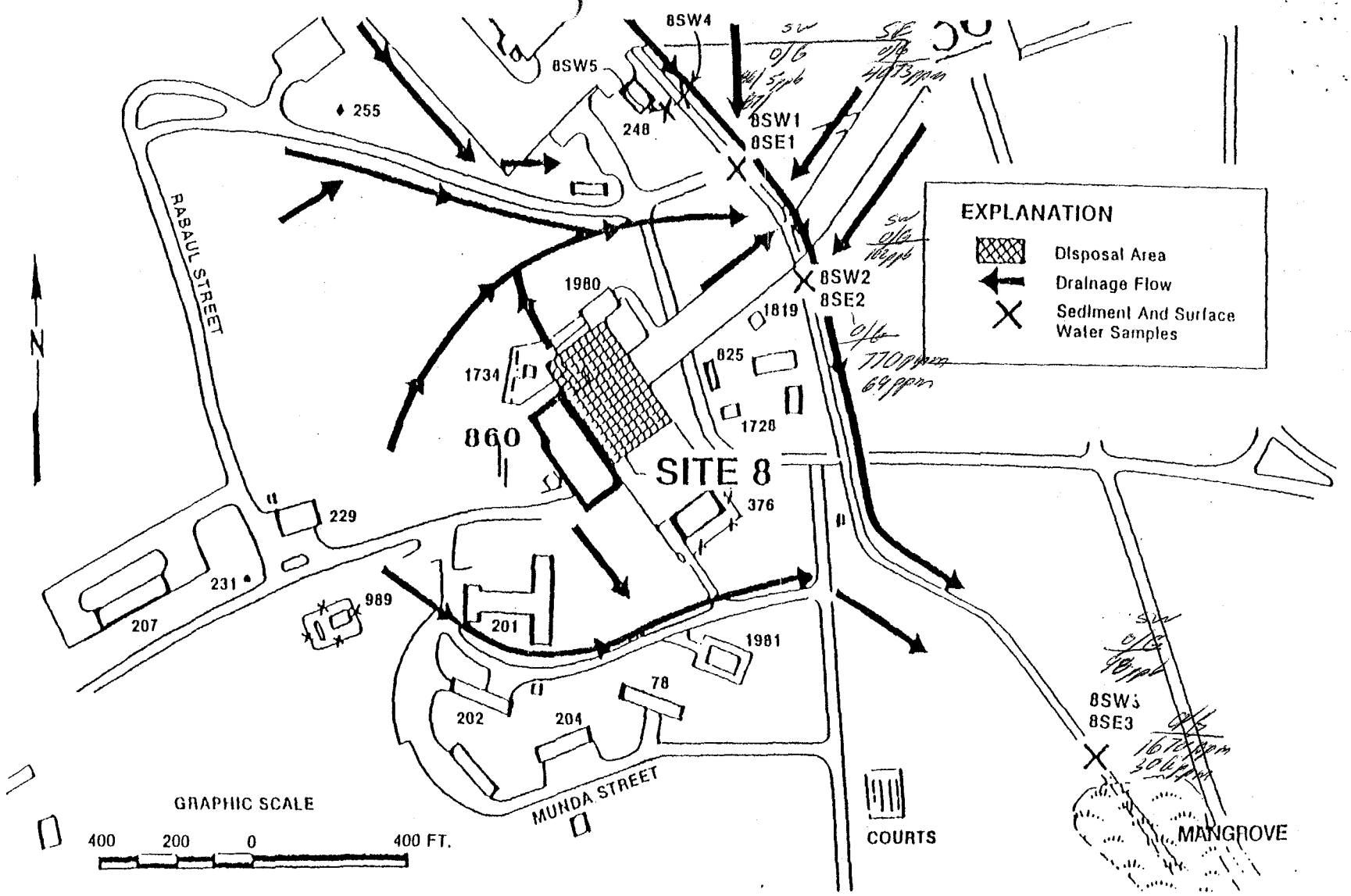


FIGURE 1
LOCATION OF SITE 8, DRONE WASHDOWN AREA

U.S. NAVAL COMPLEX
PUERTO RICO



SOURCES: NEESA, 1984b; ESE, 1985.

FIGURE 2
ROUNDS 1 AND 2 SAMPLING LOCATIONS AT SITE 8, DRONE WASHDOWN

CONFIRMATION STUDY
U.S. NAVAL COMPLEX
PUERTO RICO

TABLE 1

NAVSTA ROOSEVELT ROADS CONFIRMATION STUDY, ROUNDS 1 AND 2 SEDIMENT SOIL, AND SURFACE WATER SAMPLING RESULTS, SITE 8, DRONE WASHDOWN

	Round 1			Round 2			Chemical Toxicity Parameter: Toxicity Data	AIC mg/kg/day	Designated levels in a solid (ug/g)	Threshhold Limit Concentrations (ug/g)	Element Concentration Ranges in Soils (ug/g)
SEDIMENT											
Sample Number:	8SE1	8SE2	8SE3	8SE01	8SE02	8SE03					
Lead (ug/g, dry)	28.8	--	43.4	14.0	14.6	26.1	Oral TDLo (wmn) = 450 mg/kg/6y	0.001400	500	1000	<10 - 700
Oil & Grease (mg/kg)	4740	787	1670	247	69	306	NR	NR	NR	NR	NR
SOIL											
Sample Number:	8S1A										
Lead (ug/g, dry)	6.70						Oral TDLo (wmn) = 450 mg/kg/6y	0.001400	500	1000	<10 - 700
Oil & Grease (mg/kg)	8.21						NR	NR	NR	NR	NR

-- = Not Detected.
N/A = Not Analyzed
NR = Not Reported
TDLo = Toxic Dose Low
wmn = Woman
AIC = Chronic Acceptable Intake values for noncarcinogenic effects.
Designated Levels in a Solid = Designated levels in a solid to protect ground water at an average site in California.
Threshold Limit Concentrations = Hazardous Waste Total Threshold Limit Concentrations. Disposal of wastes exceeding these values is restricted in California.

Constituent	Round 1 Concentrations			Round 2 Concentrations					Chemical Toxicity Parameters: Toxicity Data	AIC mg/kg/day	RCRA MCL (ug/L)	MCL (ug/L)	AWQC (ug/L)	PRDOH MCL (ug/L)
SURFACE WATER														
Sample Number:	8SW1	8SW2	8SW3	8SW01	8SW02	8SW03	8SW04	8SW05						
Oil & Grease (ug/L)	5	102	98	--	--	--	--	--	NR	NR	NR	NR	NR	NR
Benzene (ug/L)	--	--	--	1.1	--	--	--	--	Oral LD50 (rat) = 2800 ug/kg	NR	NR	NR	0.66	5.0
Trichloroethene (ug/L)	--	--	--	1.1	--	--	--	--	Oral LD50 (mus) = 2402 mg/kg	NR	NR	NR	NR	NR
Trichlorofluoromethane (ug/L)	--	--	--	3.6	--	--	--	--	INH. TC50 (hmn) = 50000 ppm/30M	NR	NR	NR	NR	NR

-- = Not Detected.
NR = Not Reported.
LD50 = Lethal Dose Fifty
TC50 = Toxic Concentration Fifty
hmn = Human
mus = Mouse
INH = Inhalation
AIC = Chronic Acceptable Intake values for noncarcinogenic effects.
RCRA MCL = RCRA Maximum Concentration Limits.
MCL = Maximum Contaminant Levels of National Primary Drinking Water Standards; (s) = National Secondary Drinking Water Standards.
AWQC = Ambient Water Quality Criteria is associated with 10-6 cancer risks; (FCC) Fresh Chronic Criteria; (+) Hardness Dependent - 100 mg/L used.
PRDOH MCL = Puerto Rico Department of Health Maximum Contaminant Levels for drinking water.

Source: ESE, 1988

Remedial Investigation/ Feasibility Study for Site 15 Naval Station Roosevelt Roads Puerto Rico

Prepared for

Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia

Prepared by

Versar INC.

MAY 15, 1992

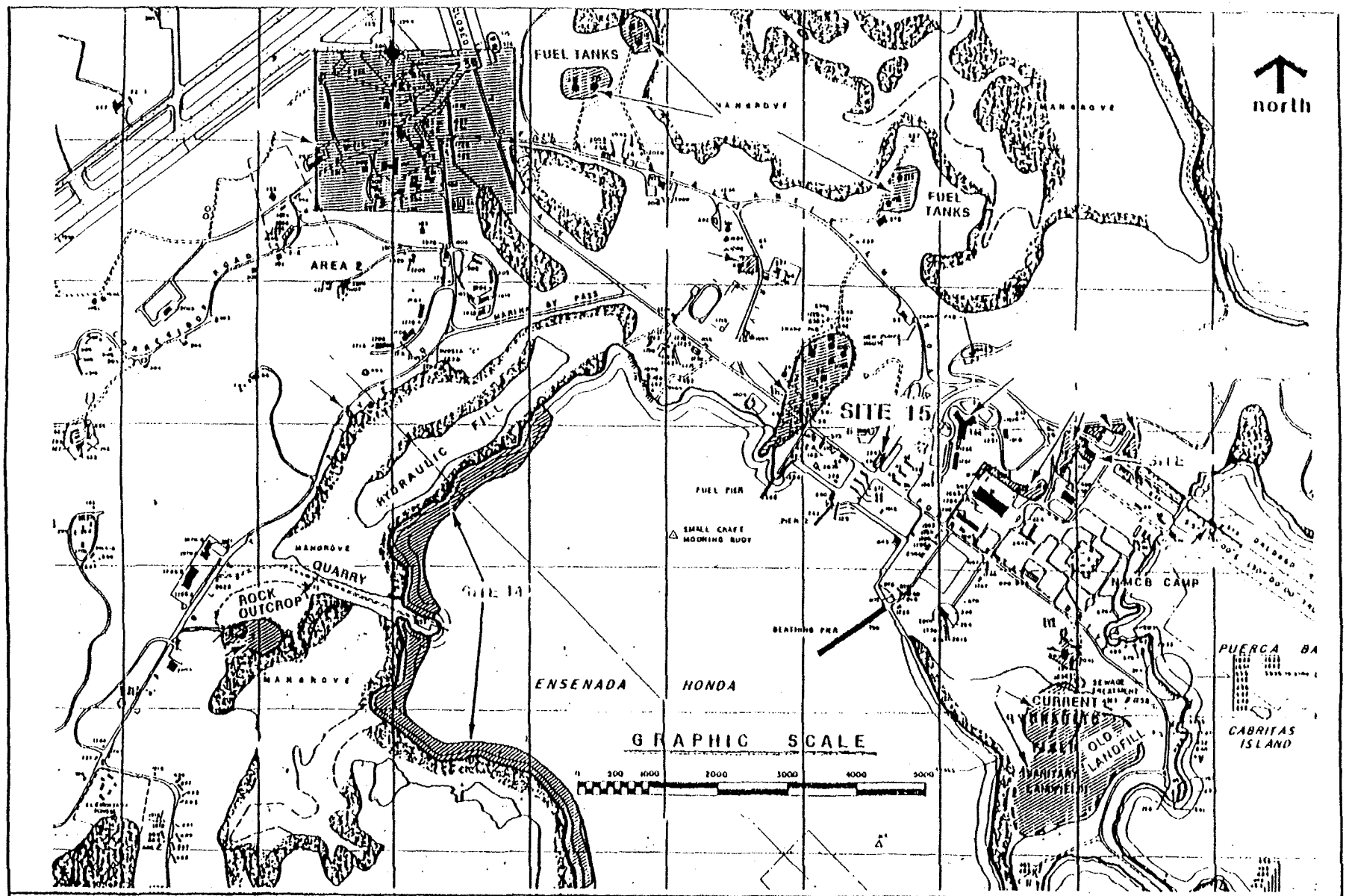
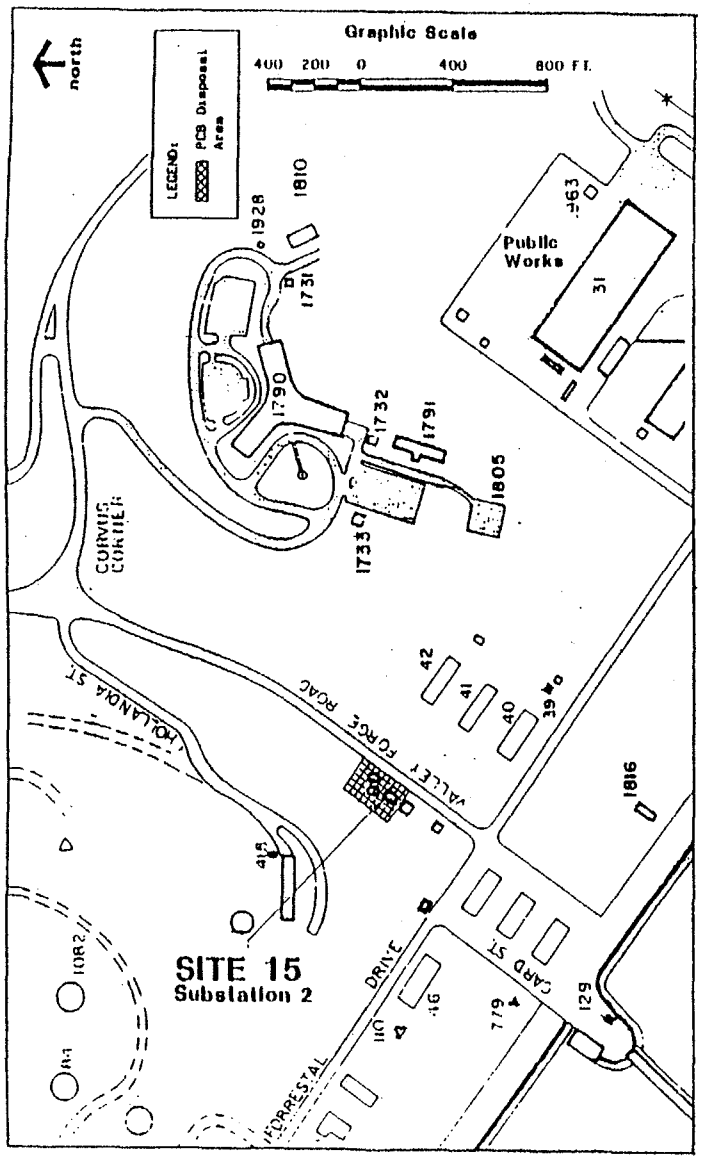


FIGURE 2 LOCATION OF SITE 15
NAVSTA ROOSEVELT ROADS

U.S. NAVAL COMPLEX
PUERTO RICO



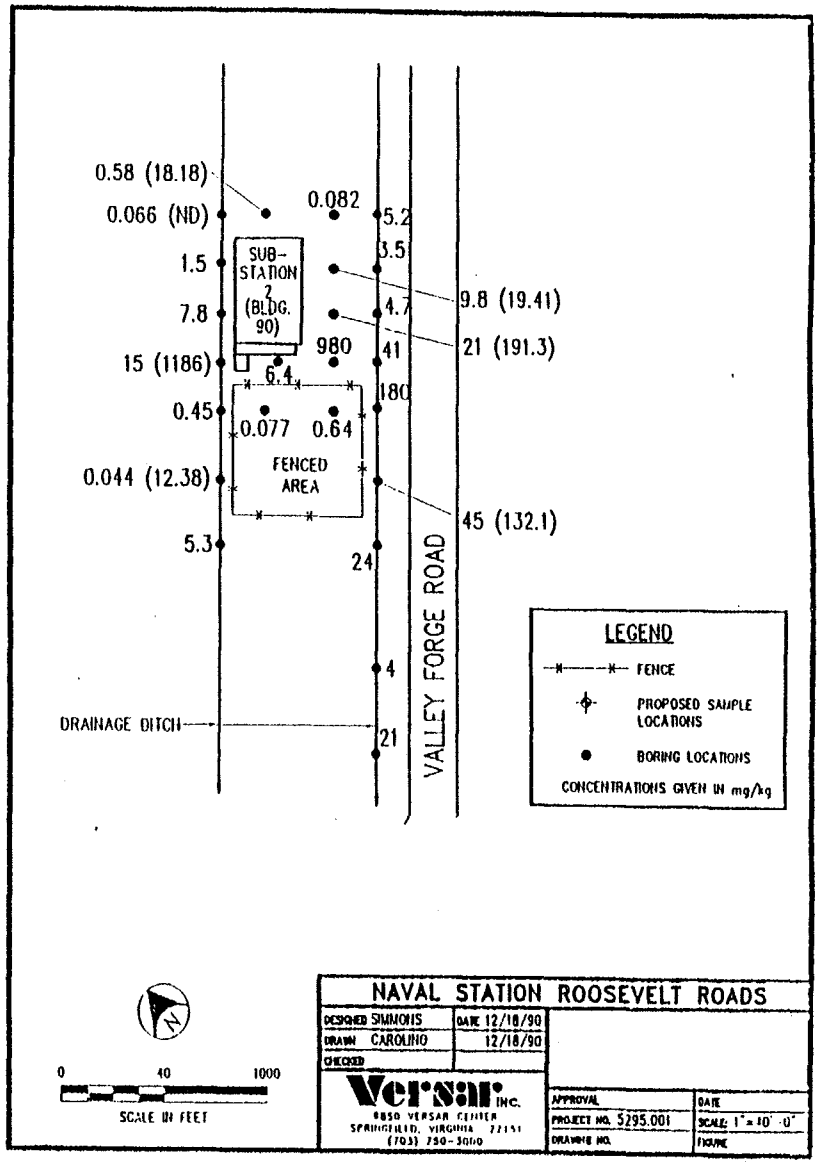


FIGURE 3
LOCATION AND CONFIRMATION STUDY SAMPLING LOCATIONS FOR
SITE 15: SUBSTATION NO. 2, BUILDING 90,
NAVSTA ROOSEVELT ROADS, PUERTO RICO

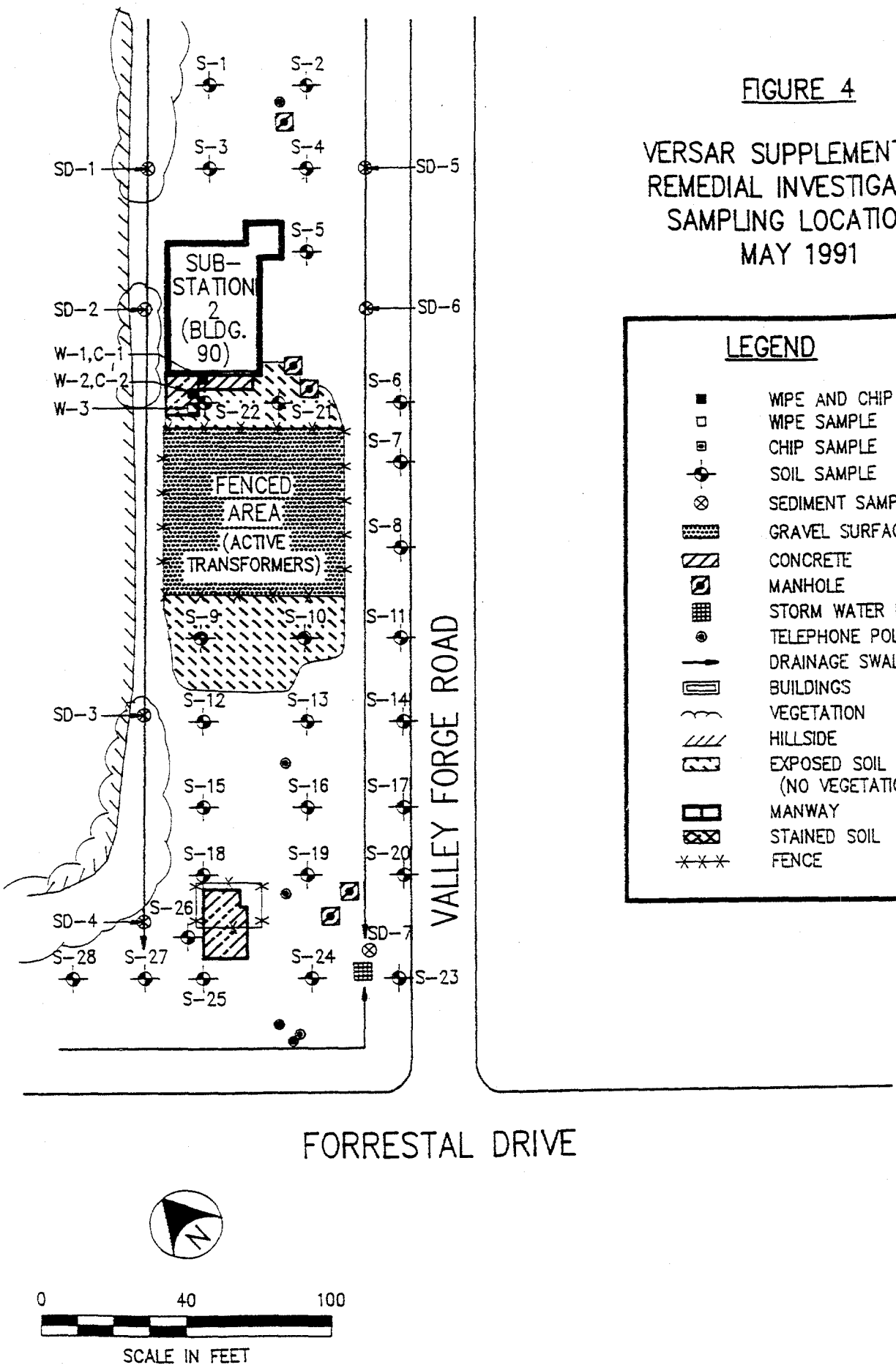


FIGURE 4

VERSAR SUPPLEMENTARY REMEDIAL INVESTIGATION SAMPLING LOCATIONS MAY 1991

LEGEND

- WIPE AND CHIP SAMPLE
- WIPE SAMPLE
- CHIP SAMPLE
- SOIL SAMPLE
- SEDIMENT SAMPLE
- GRAVEL SURFACE
- CONCRETE
- MANHOLE
- STORM WATER DRAIN
- TELEPHONE POLE
- DRAINAGE SWALE
- BUILDINGS
- VEGETATION
- HILLSIDE
- EXPOSED SOIL (NO VEGETATION)
- MANWAY
- STAINED SOIL
- FENCE

D:\5285\004\FIG23A-X.DWG

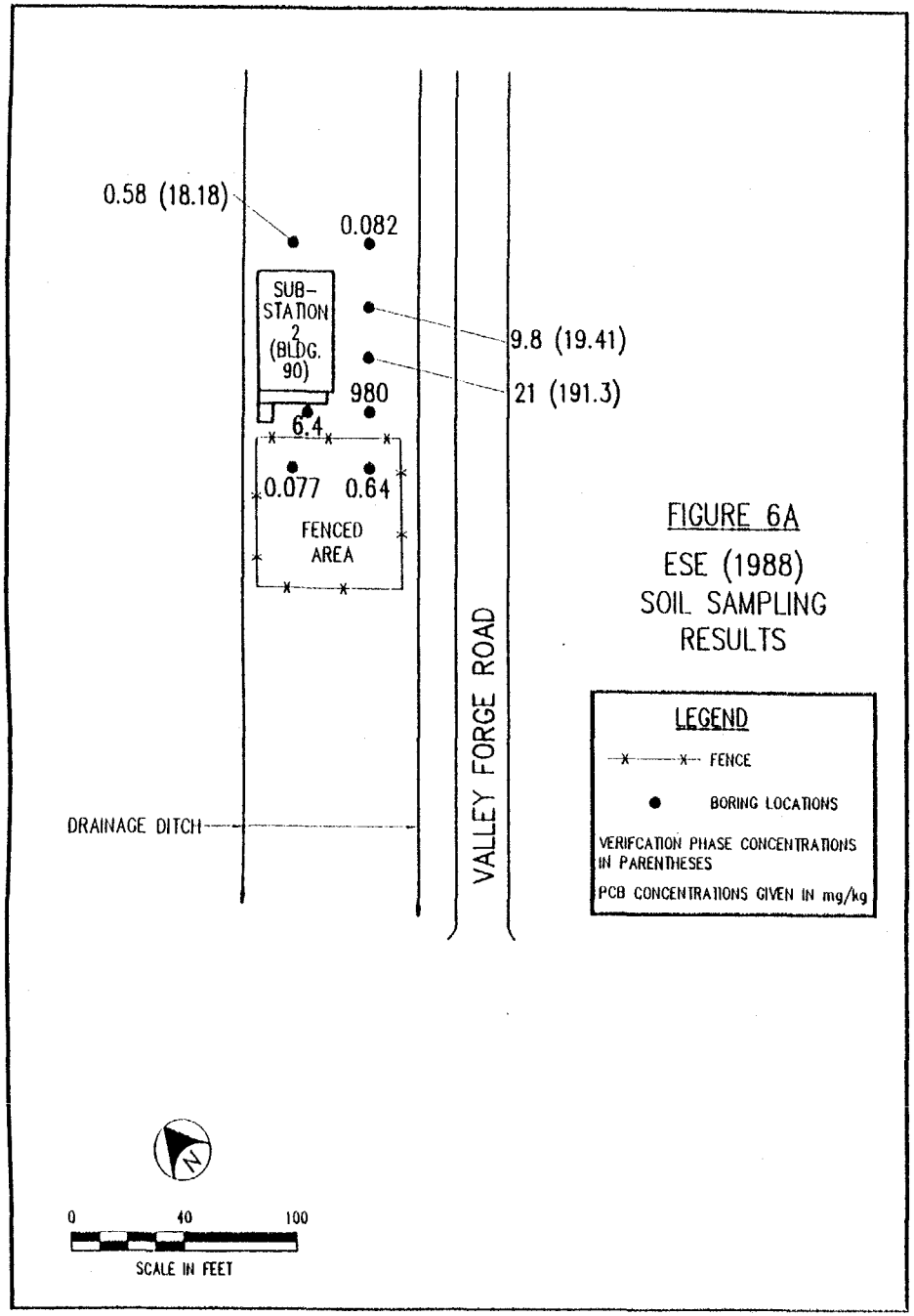


FIGURE 6A

ESE (1988)
SOIL SAMPLING
RESULTS

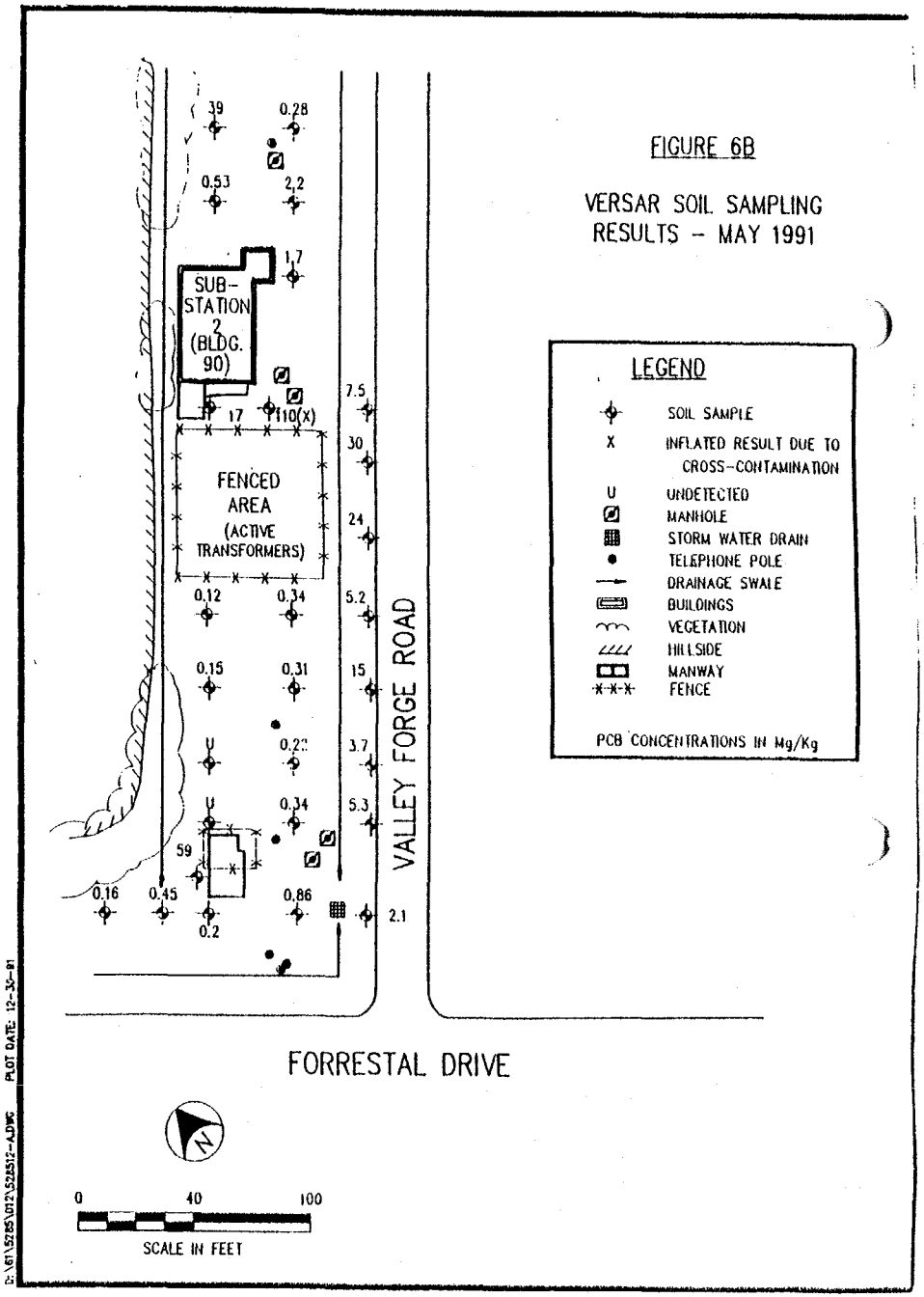


FIGURE 6B

VERSAR SOIL SAMPLING
RESULTS - MAY 1991

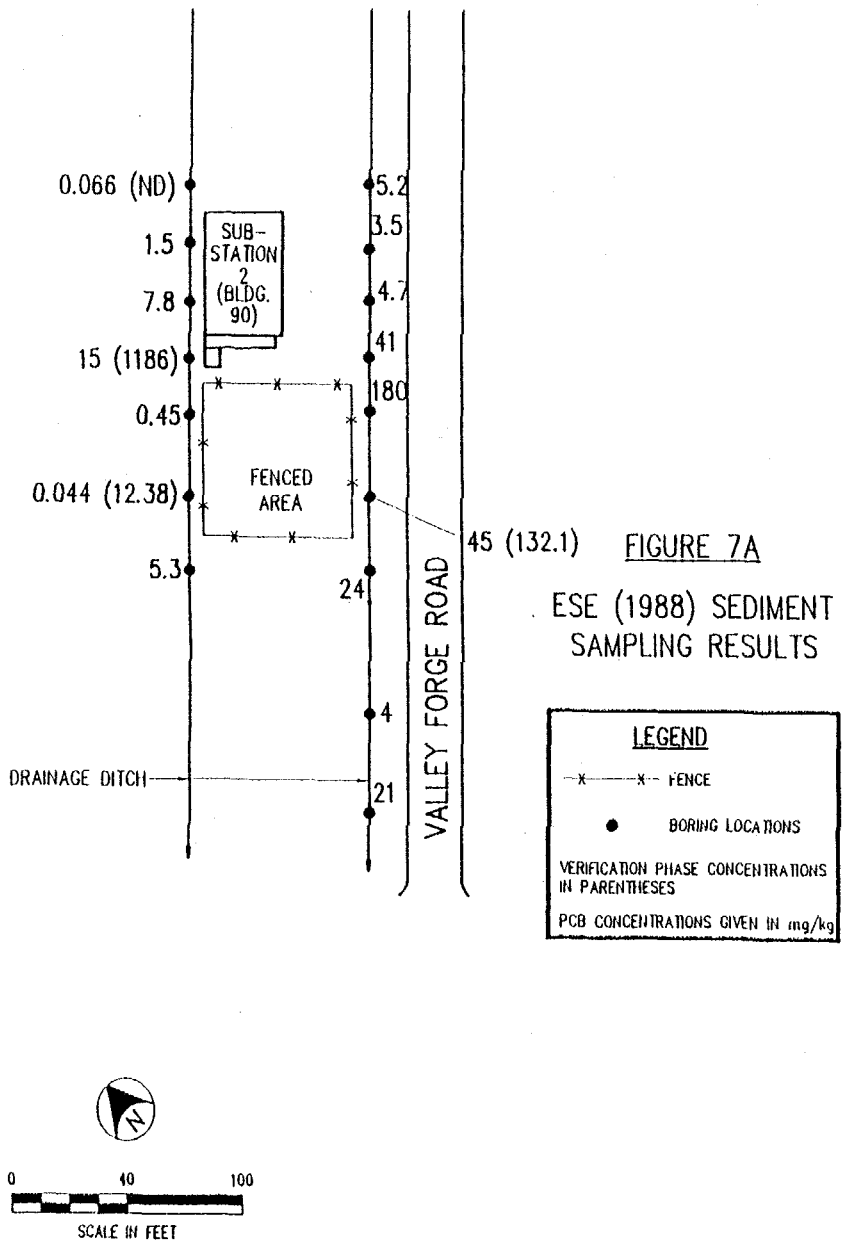


FIGURE 7A

ESE (1988) SEDIMENT SAMPLING RESULTS

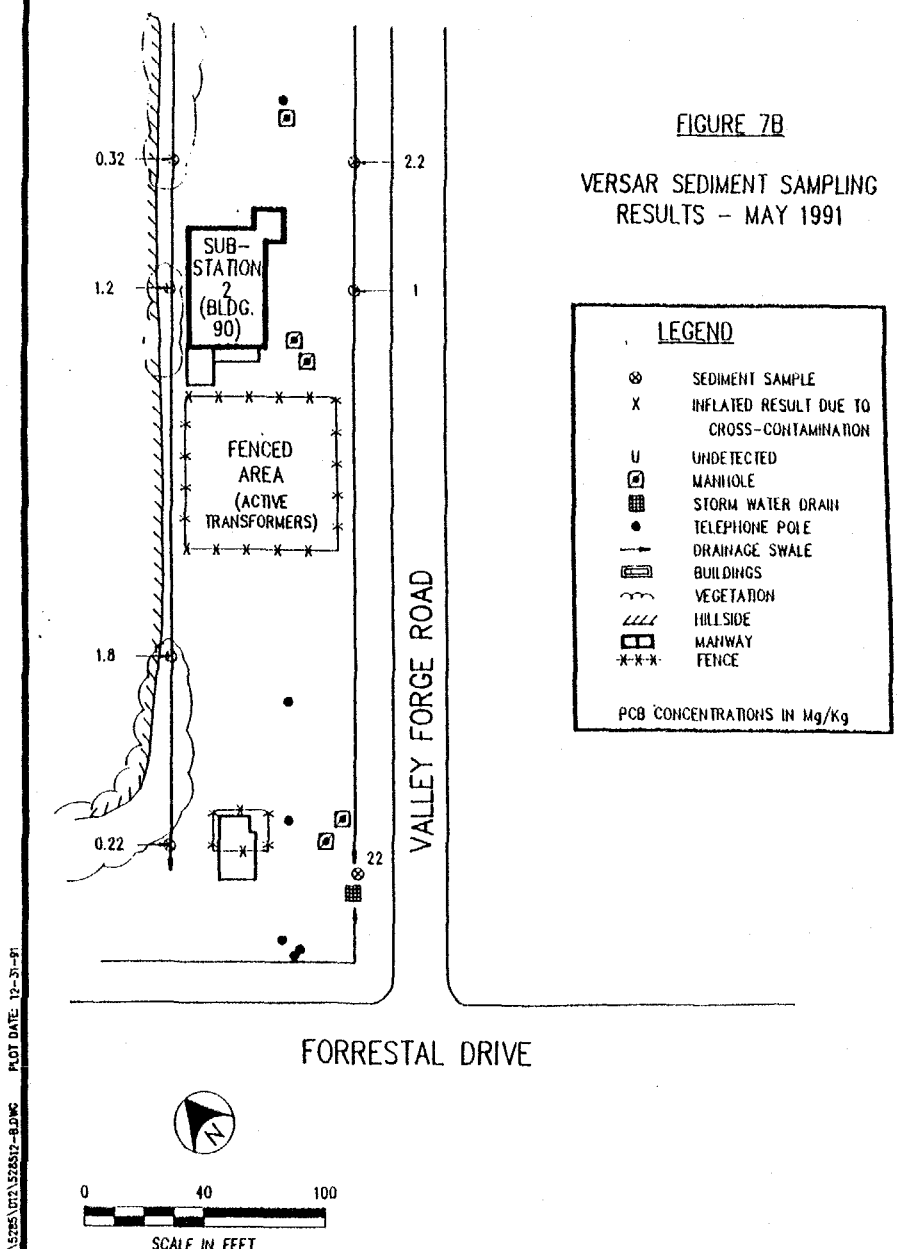


FIGURE 7B

VERSAR SEDIMENT SAMPLING RESULTS - MAY 1991

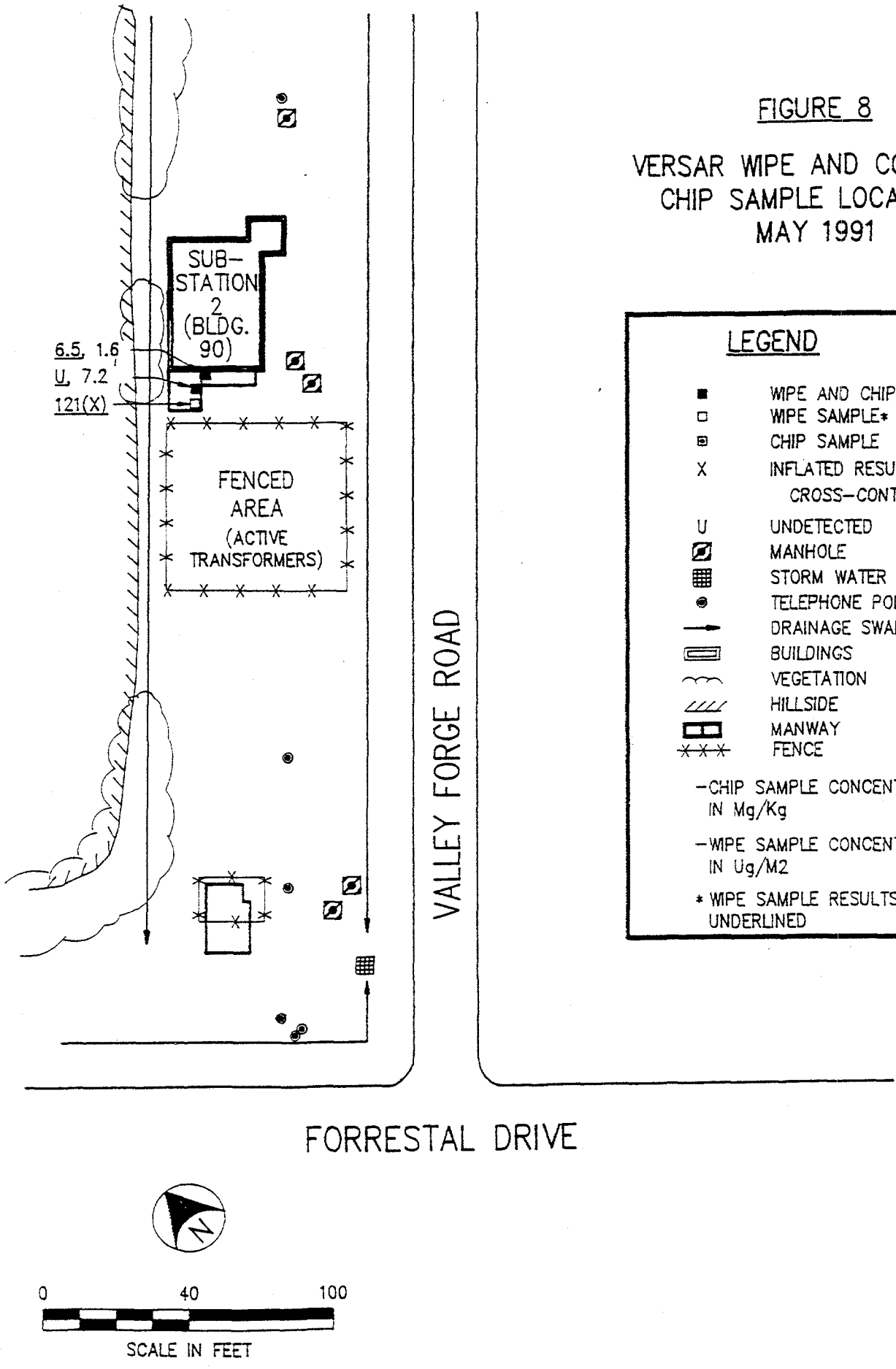


FIGURE 8

VERSAR WIPE AND CONCRETE CHIP SAMPLE LOCATIONS MAY 1991

LEGEND

- WIPE AND CHIP SAMPLE*
- WIPE SAMPLE*
- CHIP SAMPLE
- X INFLATED RESULT DUE TO CROSS-CONTAMINATION
- U UNDETECTED
- MANHOLE
- STORM WATER DRAIN
- TELEPHONE POLE
- DRAINAGE SWALE
- BUILDINGS
- VEGETATION
- HILLSIDE
- MANWAY
- FENCE

-CHIP SAMPLE CONCENTRATIONS IN Mg/Kg

-WIPE SAMPLE CONCENTRATIONS IN Ug/M2

* WIPE SAMPLE RESULTS ARE UNDERLINED

D:\61\5285\012\528512-C.DWG PLOT DATE: 11-11-91

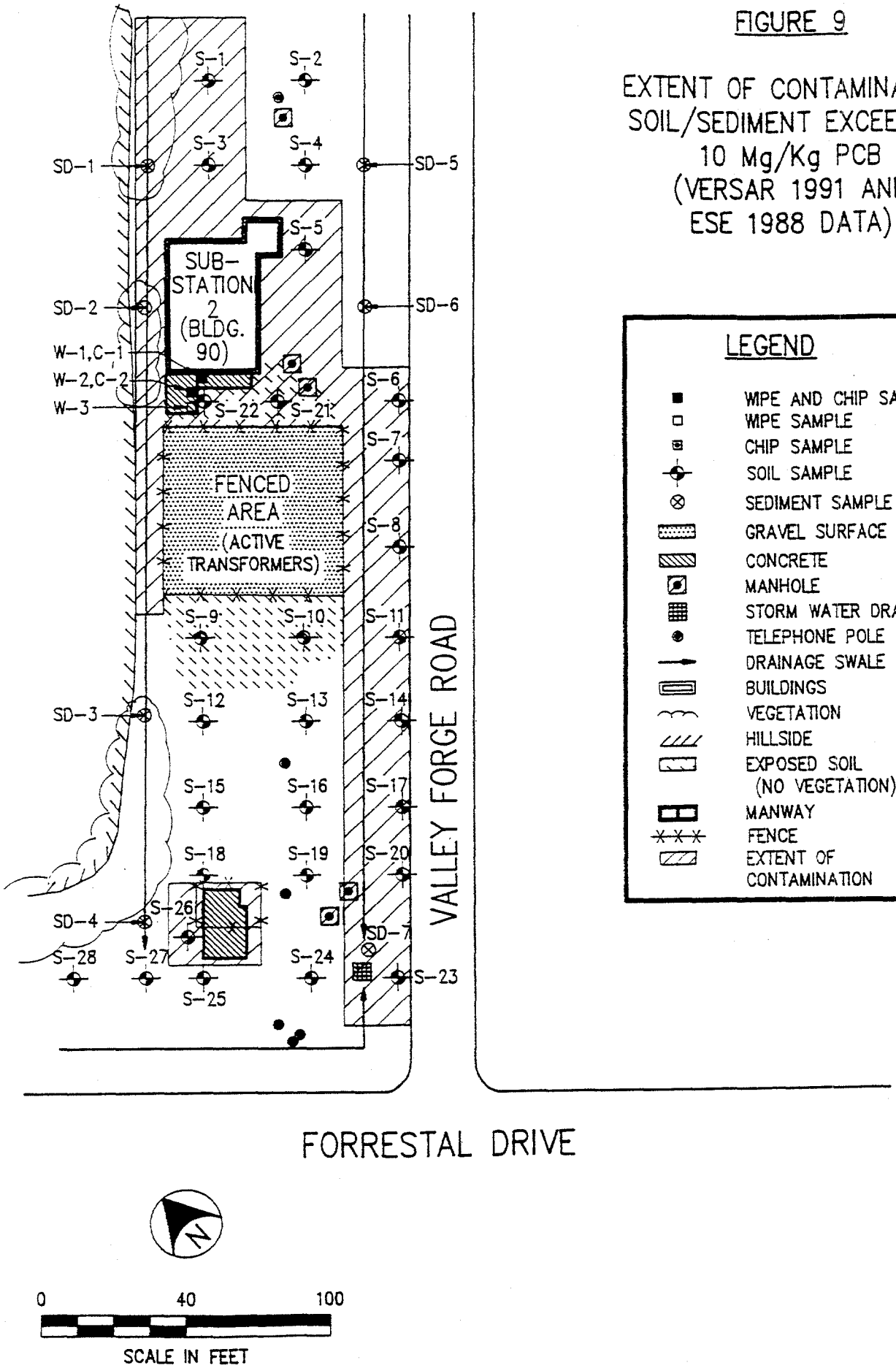


FIGURE 9

EXTENT OF CONTAMINATION SOIL/SEDIMENT EXCEEDING 10 Mg/Kg PCB (VERSAR 1991 AND ESE 1988 DATA)

LEGEND

- WIPE AND CHIP SAMPLE
- WIPE SAMPLE
- CHIP SAMPLE
- SOIL SAMPLE
- SEDIMENT SAMPLE
- GRAVEL SURFACE
- CONCRETE
- MANHOLE
- STORM WATER DRAIN
- TELEPHONE POLE
- DRAINAGE SWALE
- BUILDINGS
- VEGETATION
- HILLSIDE
- EXPOSED SOIL (NO VEGETATION)
- MANWAY
- FENCE
- EXTENT OF CONTAMINATION

D:\5285\004\FIG23A-X.DWG

Remedial Investigation/ Feasibility Study for Site 16 Naval Station Roosevelt Roads Puerto Rico

Prepared for

Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia

Prepared by

Versar INC.

MAY 15, 1992

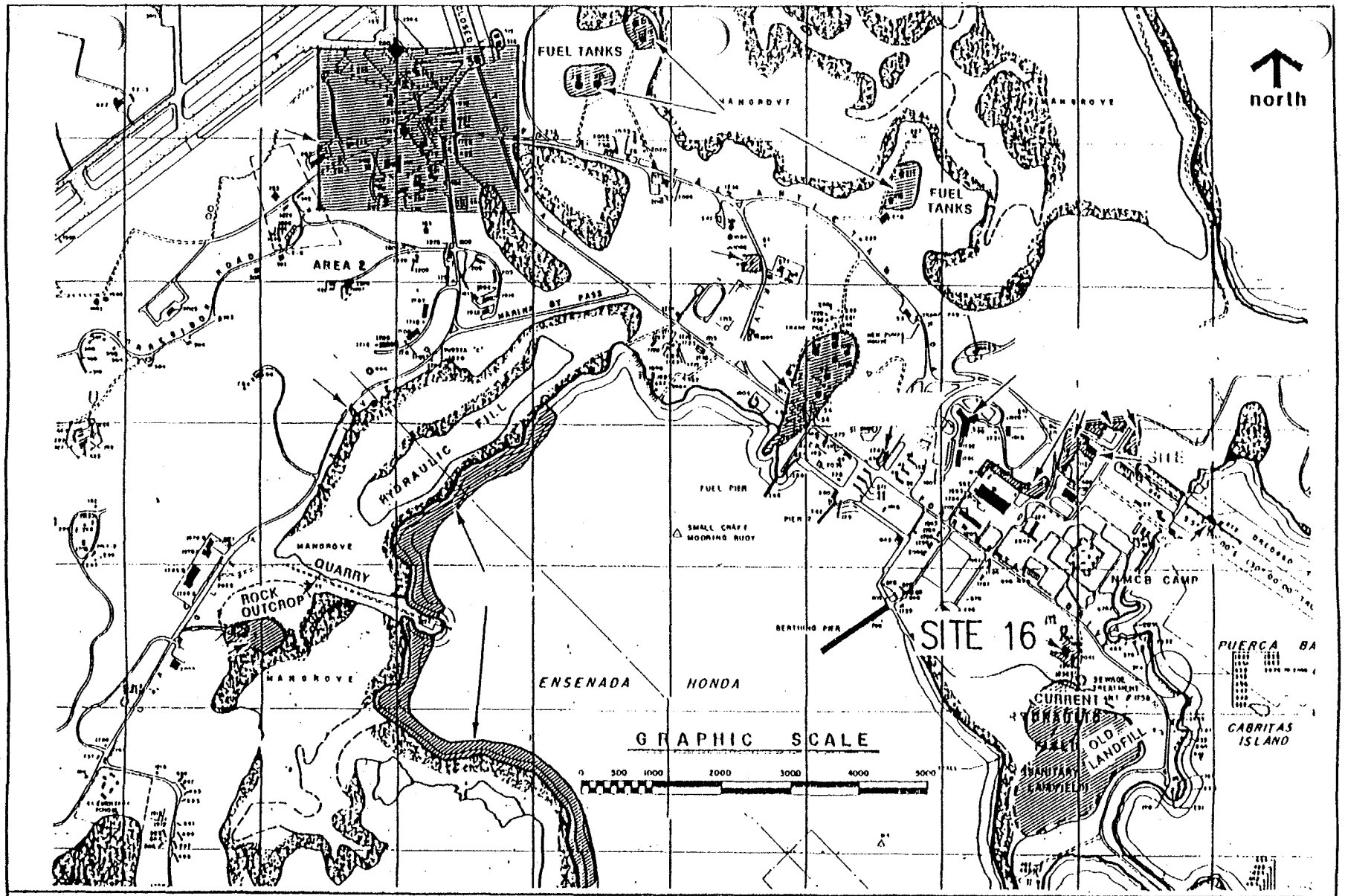


FIGURE 2
LOCATION OF SITE 16 NAVSTA ROOSEVELT ROADS

U.S. NAVAL COMPLEX
PUERTO RICO

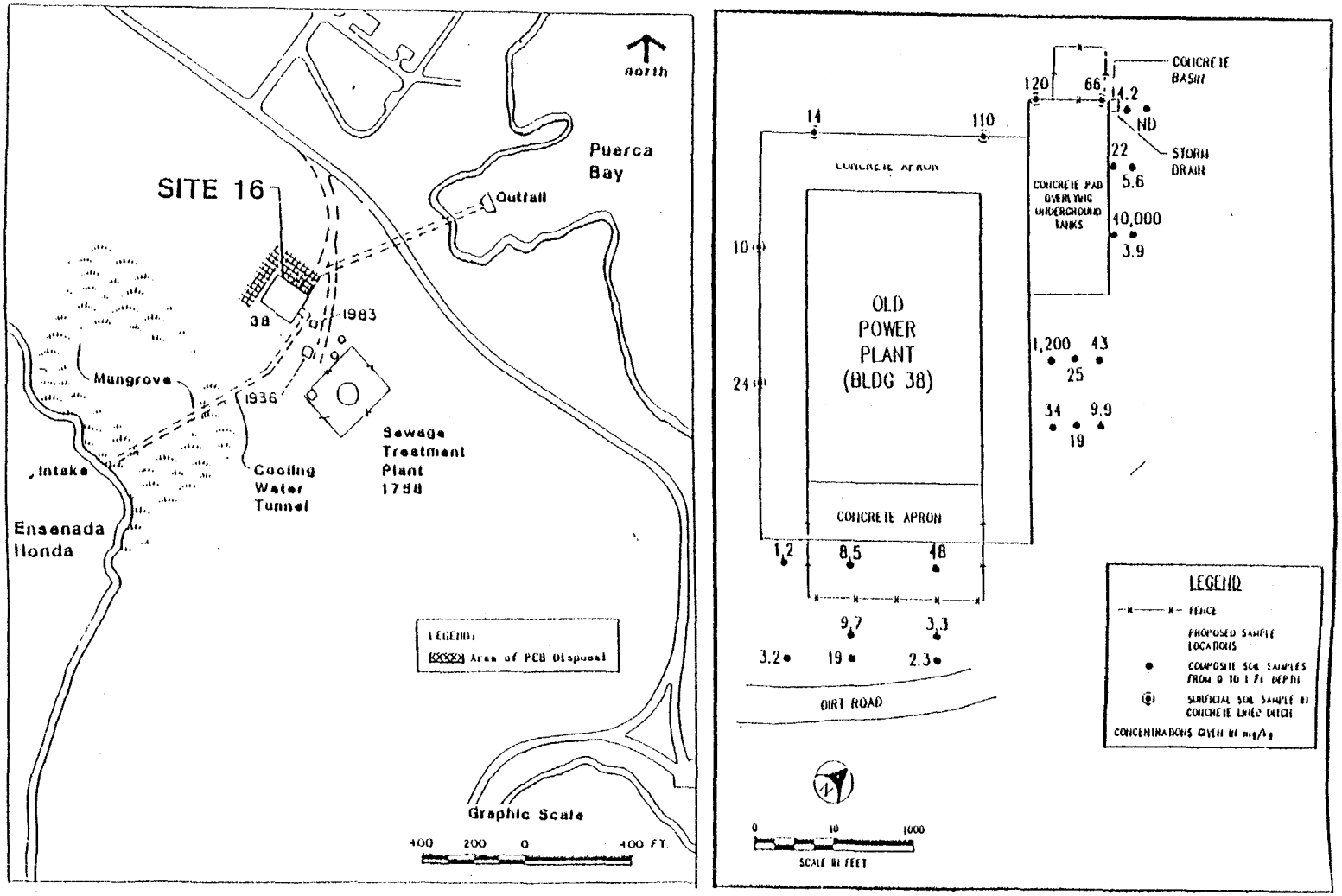
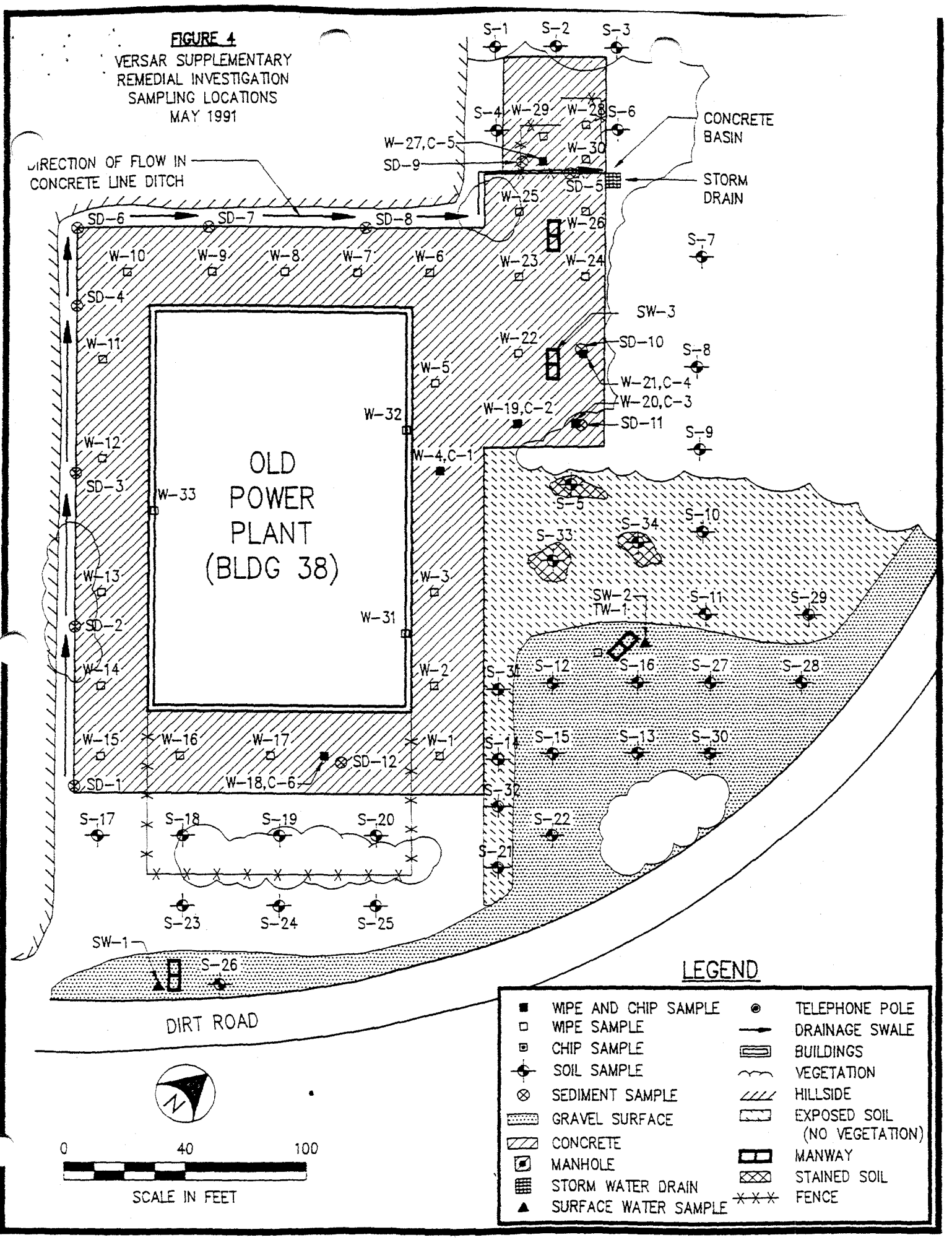


FIGURE 3

LOCATION AND CONFIRMATION STUDY SAMPLING LOCATIONS, SITE 16: OLD POWER PLANT, BUILDING 38



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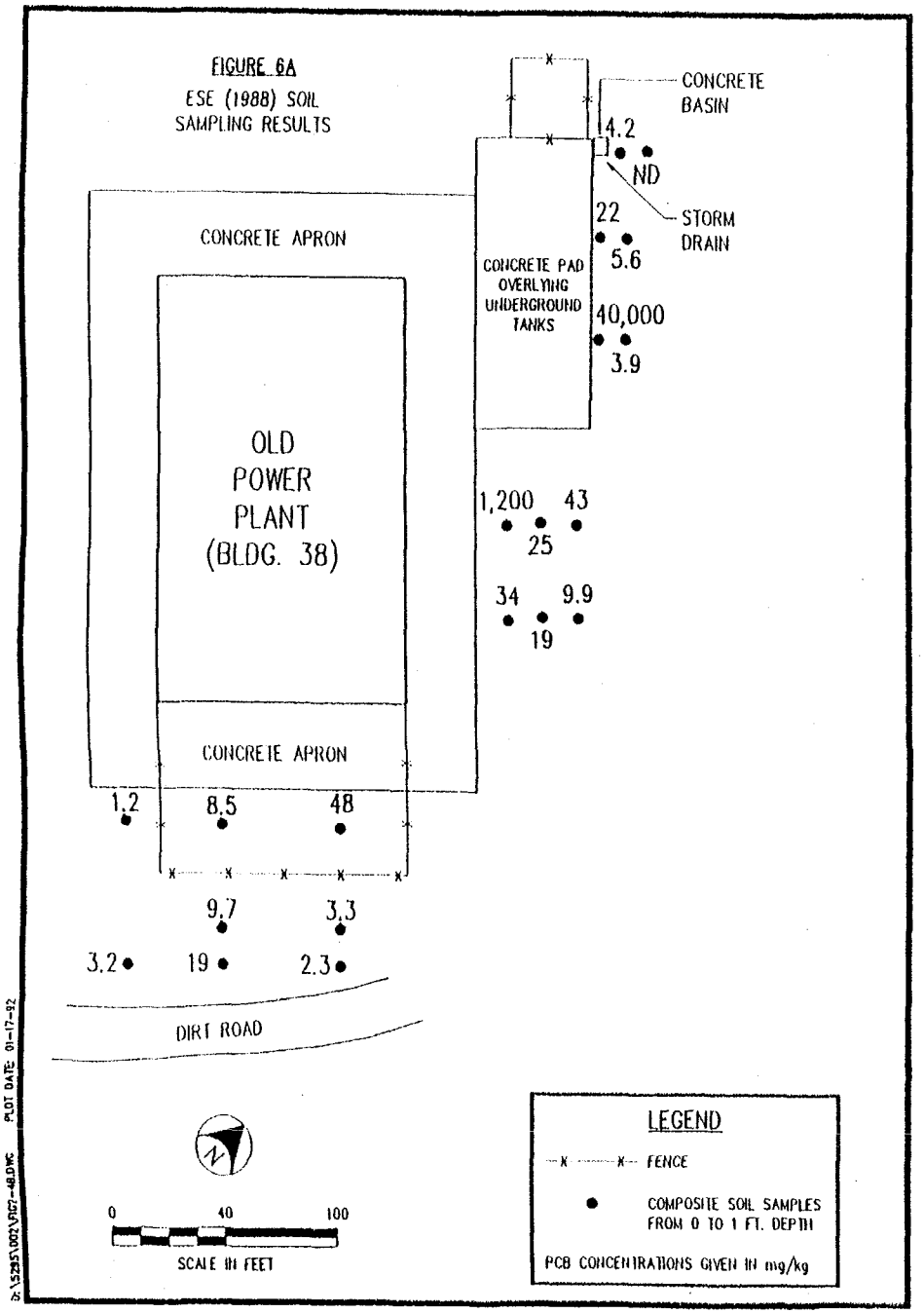
FIGURE 6A
ESE (1988) SOIL
SAMPLING RESULTS
CONCRETE BASIN
4.2
ND
STORM DRAIN
22
5.6
40,000
3.9
CONCRETE APRON
CONCRETE PAD OVERLYING UNDERGROUND TANKS
OLD POWER PLANT (BLDG. 38)
1,200
43
25
34
9.9
19
CONCRETE APRON
1.2
8.5
48
9.7
3.3
3.2
19
2.3
DIRT ROAD
0
40
100
SCALE IN FEET
LEGEND
FENCE
COMPOSITE SOIL SAMPLES FROM 0 TO 1 FT. DEPTH
PCB CONCENTRATIONS GIVEN IN mg/kg
PLOT DATE: 01-17-92

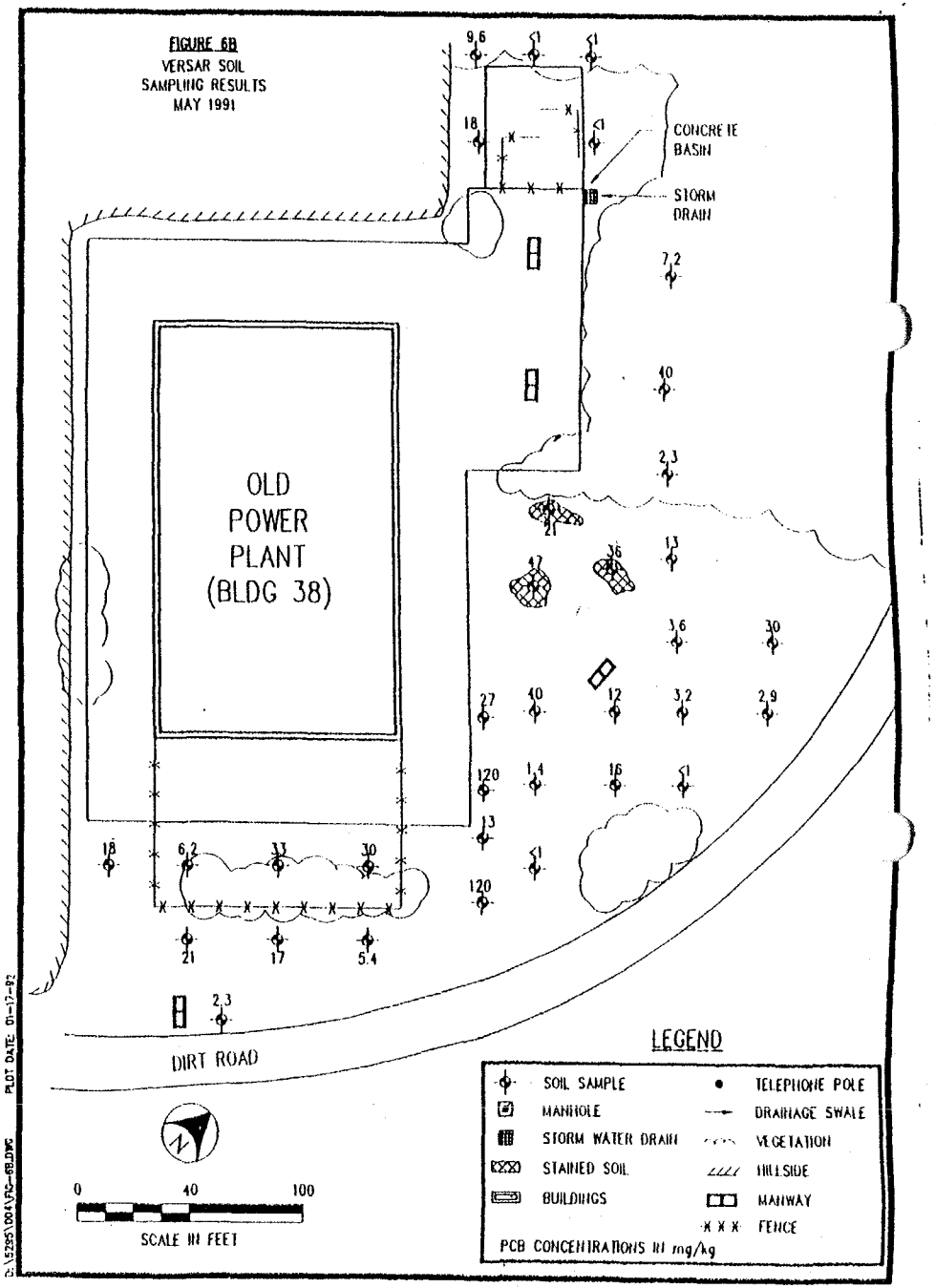
FIGURE 6B
VERSAR SOIL
SAMPLING RESULTS
MAY 1991
9.6
<1
<1
18
<1
CONCRETE BASIN
STORM DRAIN
7.2
40
2.3
21
47
36
13
3.6
30
27
40
12
3.2
2.9
120
1.4
16
<1
13
<1
120
18
6.2
33
30
21
17
5.4
2.3
OLD POWER PLANT (BLDG 38)
DIRT ROAD
0
40
100
SCALE IN FEET
LEGEND
SOIL SAMPLE
MANHOLE
STORM WATER DRAIN
STAINED SOIL
BUILDINGS
TELEPHONE POLE
DRAINAGE SWALE
VEGETATION
HILLSIDE
MAINWAY
FENCE
PCB CONCENTRATIONS IN mg/kg
PLOT DATE: 01-17-92

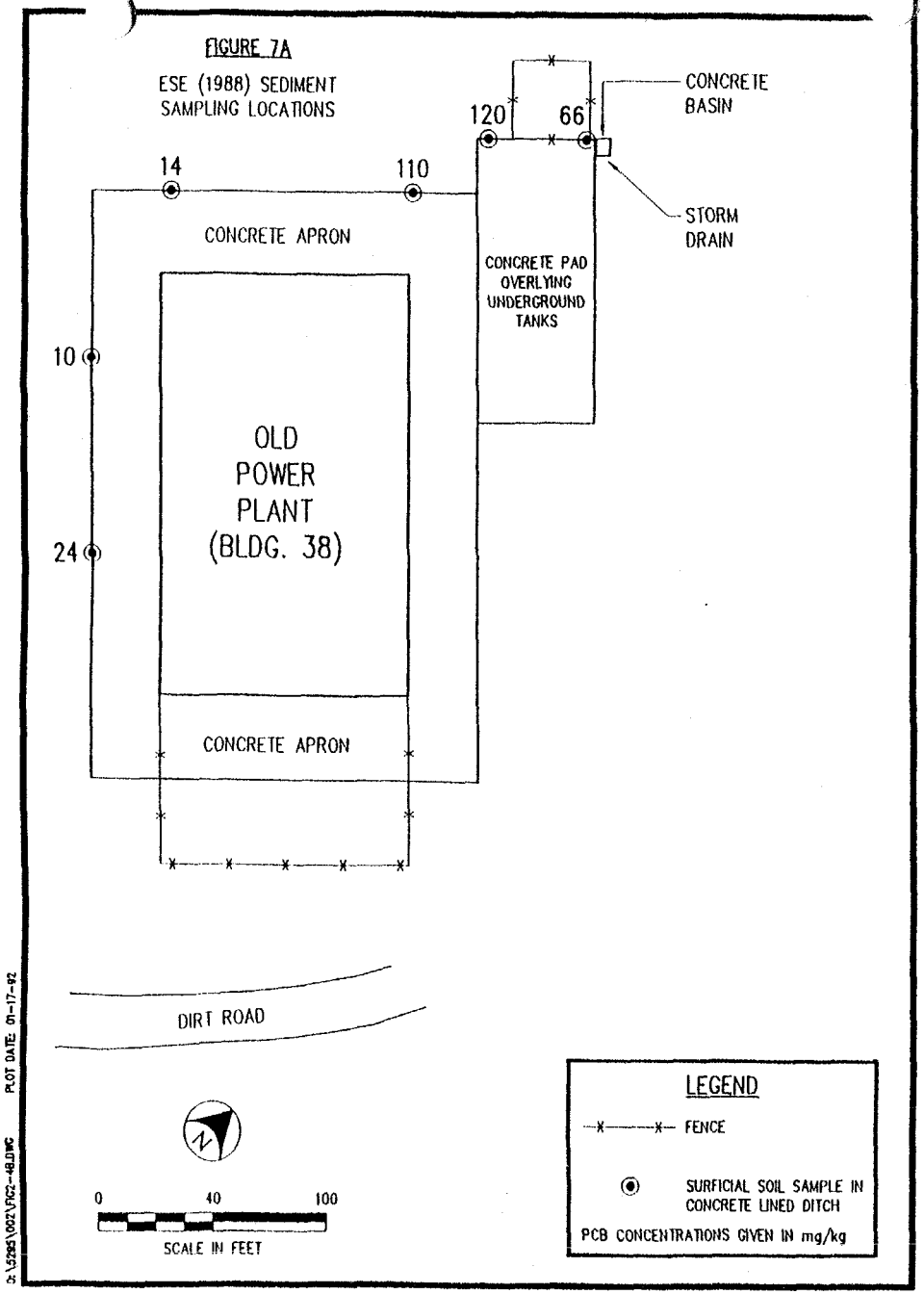
FIGURE 7A
ESE (1988) SEDIMENT SAMPLING LOCATIONS
CONCRETE BASIN
120
66
14
110
STORM DRAIN
CONCRETE APRON
CONCRETE PAD OVERLYING UNDERGROUND TANKS
10
24
OLD POWER PLANT (BLDG. 38)
CONCRETE APRON
DIRT ROAD
0
40
100
SCALE IN FEET
LEGEND
FENCE
SURFICIAL SOIL SAMPLE IN CONCRETE LINED DITCH
PCB CONCENTRATIONS GIVEN IN mg/kg
PLOT DATE: 01-17-92

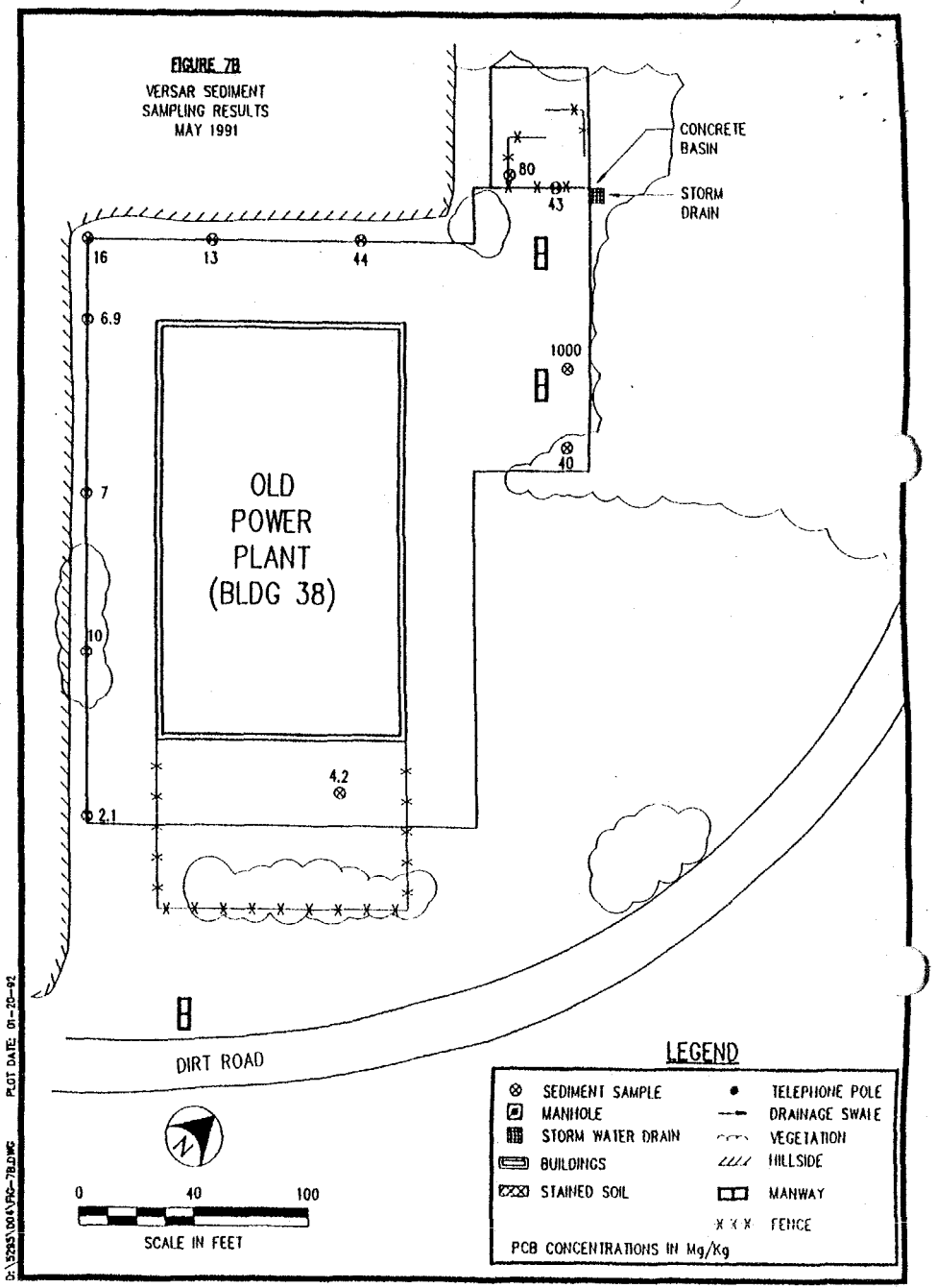
FIGURE 7B
VERSAR SEDIMENT SAMPLING RESULTS MAY 1991
CONCRETE BASIN
80
43
STORM DRAIN
16
13
44
6.9
1000
40
7
OLD POWER PLANT (BLDG 38)
10
4.2
2.1
DIRT ROAD
0
40
100
SCALE IN FEET
LEGEND
SEDIMENT SAMPLE
MANHOLE
STORM WATER DRAIN
BUILDINGS
STAINED SOIL
TELEPHONE POLE
DRAINAGE SWALE
VEGETATION
HILLSIDE
MANWAY
FENCE
PCB CONCENTRATIONS IN Mg/Kg
PLOT DATE: 01-20-92

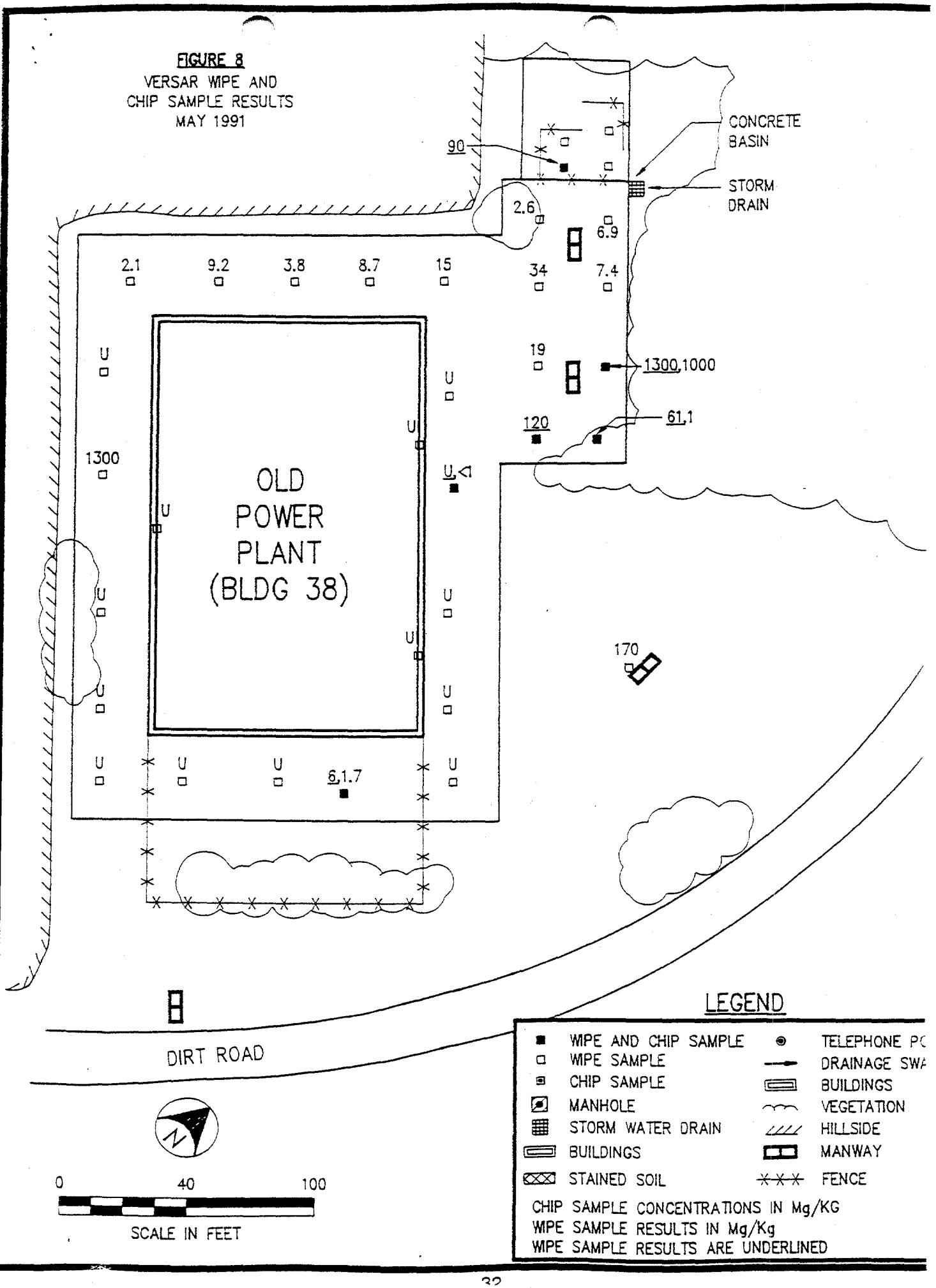
FIGURE 8
VERSAR WIPE AND
CHIP SAMPLE RESULTS
MAY 1991
CONCRETE BASIN
STORM DRAIN
90
2.6
6.9
2.1
9.2
3.8
8.7
15
34
7.4
19
1300,1000
120
61,1
1300
U
OLD POWER PLANT (BLDG 38)
170
6,1.7
DIRT ROAD
N
0
40
100
SCALE IN FEET
LEGEND
WIPE AND CHIP SAMPLE
WIPE SAMPLE
CHIP SAMPLE
MANHOLE
STORM WATER DRAIN
BUILDINGS
STAINED SOIL
TELEPHONE PO
DRAINAGE SWA
BUILDINGS
VEGETATION
HILLSIDE
MANWAY
FENCE
CHIP SAMPLE CONCENTRATIONS IN Mg/KG
WIPE SAMPLE RESULTS IN Mg/Kg
WIPE SAMPLE RESULTS ARE UNDERLINED
PLOT DATE: 01-17-92
D:\5295\004\FIG-8.DWG

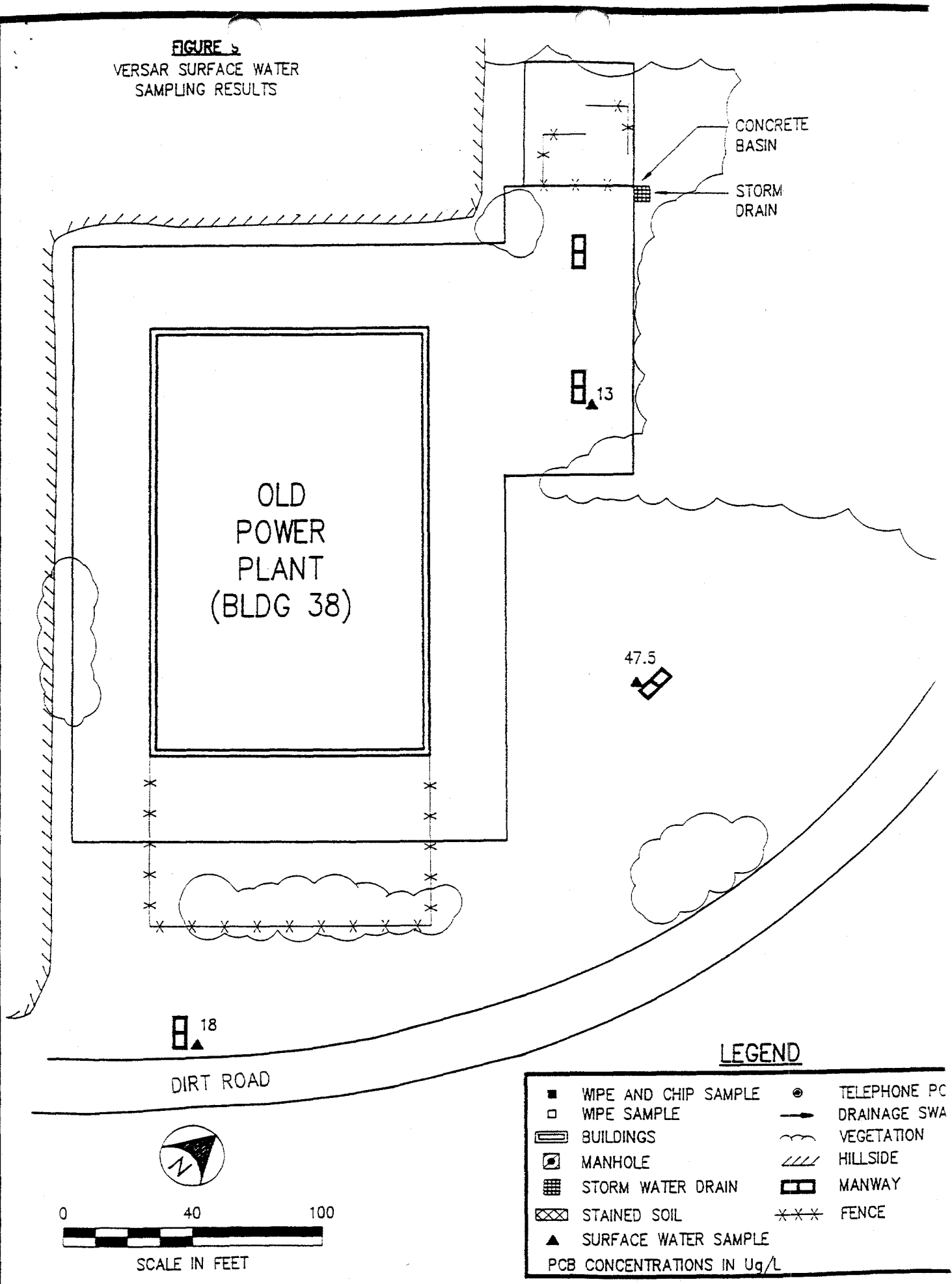
FIGURE 5
VERSAR SURFACE WATER
SAMPLING RESULTS
CONCRETE
BASIN
STORM
DRAIN
13
OLD
POWER
PLANT
(BLDG 38)
47.5
18
DIRT ROAD
LEGEND
WIPE AND CHIP SAMPLE
WIPE SAMPLE
BUILDINGS
MANHOLE
STORM WATER DRAIN
STAINED SOIL
SURFACE WATER SAMPLE
PCB CONCENTRATIONS IN Ug/L
TELEPHONE PO
DRAINAGE SWA
VEGETATION
HILLSIDE
MANWAY
FENCE
0
40
100
SCALE IN FEET
PLOT DATE: 01-20-92
D:\5295\004\FIG-9.DWG

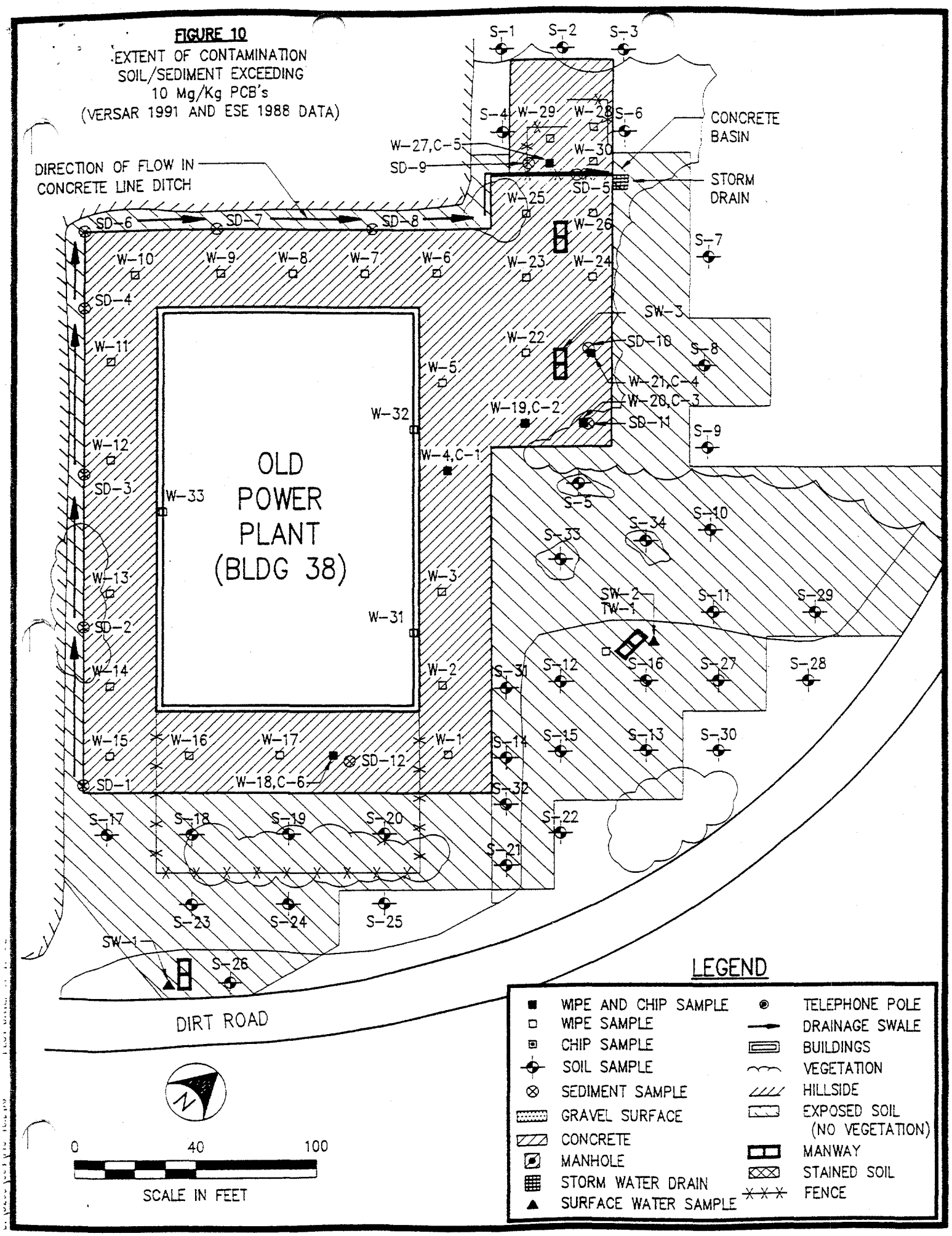
FIGURE 10
EXTENT OF CONTAMINATION
SOIL/SEDIMENT EXCEEDING
10 Mg/Kg PCB's
(VERSAR 1991 AND ESE 1988 DATA)
DIRECTION OF FLOW IN
CONCRETE LINE DITCH
CONCRETE
BASIN
STORM
DRAIN
OLD
POWER
PLANT
(BLDG 38)
DIRT ROAD
LEGEND
WIPE AND CHIP SAMPLE
WIPE SAMPLE
CHIP SAMPLE
SOIL SAMPLE
SEDIMENT SAMPLE
GRAVEL SURFACE
CONCRETE
MANHOLE
STORM WATER DRAIN
SURFACE WATER SAMPLE
TELEPHONE POLE
DRAINAGE SWALE
BUILDINGS
VEGETATION
HILLSIDE
EXPOSED SOIL
(NO VEGETATION)
MANWAY
STAINED SOIL
FENCE
0
40
100
SCALE IN FEET

ATTACHMENT
REVISED SCHEDULE

CTO Date	CTO Timeline	
4/2/92	0	Begin LANTDIV Revision
4/13/92	11	Comments on Draft Plans/Questionnaire
4/20/92	18	Submit Final Questionnaire
4/27/92	25	Submit Draft Work Plans
~~5/9/92~~ 6/1	~~37~~ 60	Initiate Community Interviews
6/1/92	60	Comments on Draft Work Plan
6/15/92	74	Submit Final Draft Work Plans
6/23/92	82	Submit Draft CRP
7/7/92	96	Comments on Draft CRP
15 July 92 → 7/21/92	110	TRC Meeting
8/2/92	122	Comments on Final Draft Work Plans
8/10/92	130	Optional Start of Field Investigations
8/17/92	137	Submit Final Draft CRP
8/24/92	144	Comments on Final Draft CRP
8/31/92	151	Submit Final Work Plans/CRP
9/14/92	165	Nominal Start of Field Investigations
11/30/92	242	End Field Investigations
12/21/92	263	Receive Analytical Results
1/5/93	278	Nominal: Submit Preliminary Drafts
1/20/93	293	Relieved: Submit Preliminary Drafts
1/26/93	299	Receive Comments on Preliminary Drafts
2/16/93	320	Submit Draft Reports
3/23/93	355	Receive Comments on Reports
→ 4/~~21~~/93	~~384~~ 385	Submit Final Draft Reports
5/~~26~~/93 ✓	~~410~~ ✓	TRC Meeting
→ 6/~~8~~/93	431	Receive Comments
6/28/93	452	Submit Final Reports/CRP
7/19/93	473	Submit Photograph Album/Brochures
7/26/93	480	Receive Comments on Album/Brochures
8/9/93	494	Submit Final Album/Brochures
8/21/93	506	Public Meeting