N00213.AR.000070
NAS KEY WEST
5090.3a

ENGINEERING SERVICE REQUEST TO PERFORM BULK SOIL AND WIPE SAMPLES TO DETERMINE REQUIREMENTS REPORTING/REMEDIATION OF POLYCHLORINATED BIPHENYL CONTAMINATION AT BUILDING A-126 NAS KEY WEST FL

4/1/1989

NAVAL FACILITIES ENGINEERING COMMAND SOUTHERN DIVISION

ENGINEERING SERVICE REQUEST

8256-241

NAVAL AIR STATION, KEY WEST, FLORIDA

PREPARED BY
R. W. MOSER
APRIL 1989

NAVAL INSTALLATION RESTORATION PROGRAM SECTION A

ENVIRONMENTAL BRANCH

UTILITIES DIVISION

SOUTHERN DIVISION

NAVAL FACILITIES ENGINEERING COMMAND

CHARLESTON, SOUTH CAROLINA

TABLE OF CONTENTS

FIGURES

TABLE

APPENDICES

1.0. INTRODUCTION

Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) was requested (by Naval Air Station (NAS), Key West through Engineering Service Request (ESR) 8256-241 dated September 1988) to perform bulk soil and wipe samples to determine any requirements for reporting and/or remedial action pursuant to Toxic Substances Control Act (40CFR761), CERCLA and Navy IRP, for potential polychlorinated biphenol (PCB) contamination in and around building A-126 at NAS Key West. This report presents the findings that have resulted from a thorough and comprehensive review of existing data and literature. An assessment of the amount and location of PCB contamination in this report provides a feasible remedial strategy.

In response to the ESR a site visit was conducted on 10 October 1988 with NAS personnel. The field sampling and investigation was conducted on 7 and 8 February 1989 by SOUTHNAVFACENGCOM personnel. Based on our findings, it is concluded that NAS has not properly adhered with EPA's spill response policy nor OPNAVINST 5090.1 in response to the release of PCB materials. To correct this, we recommend that NAS immediately clean up the existing spillage; report the amount spilled and implement a base instruction on the procedures to be adhered with once a spill of this nature occurs.

2.0. SAMPLE COLLECTION

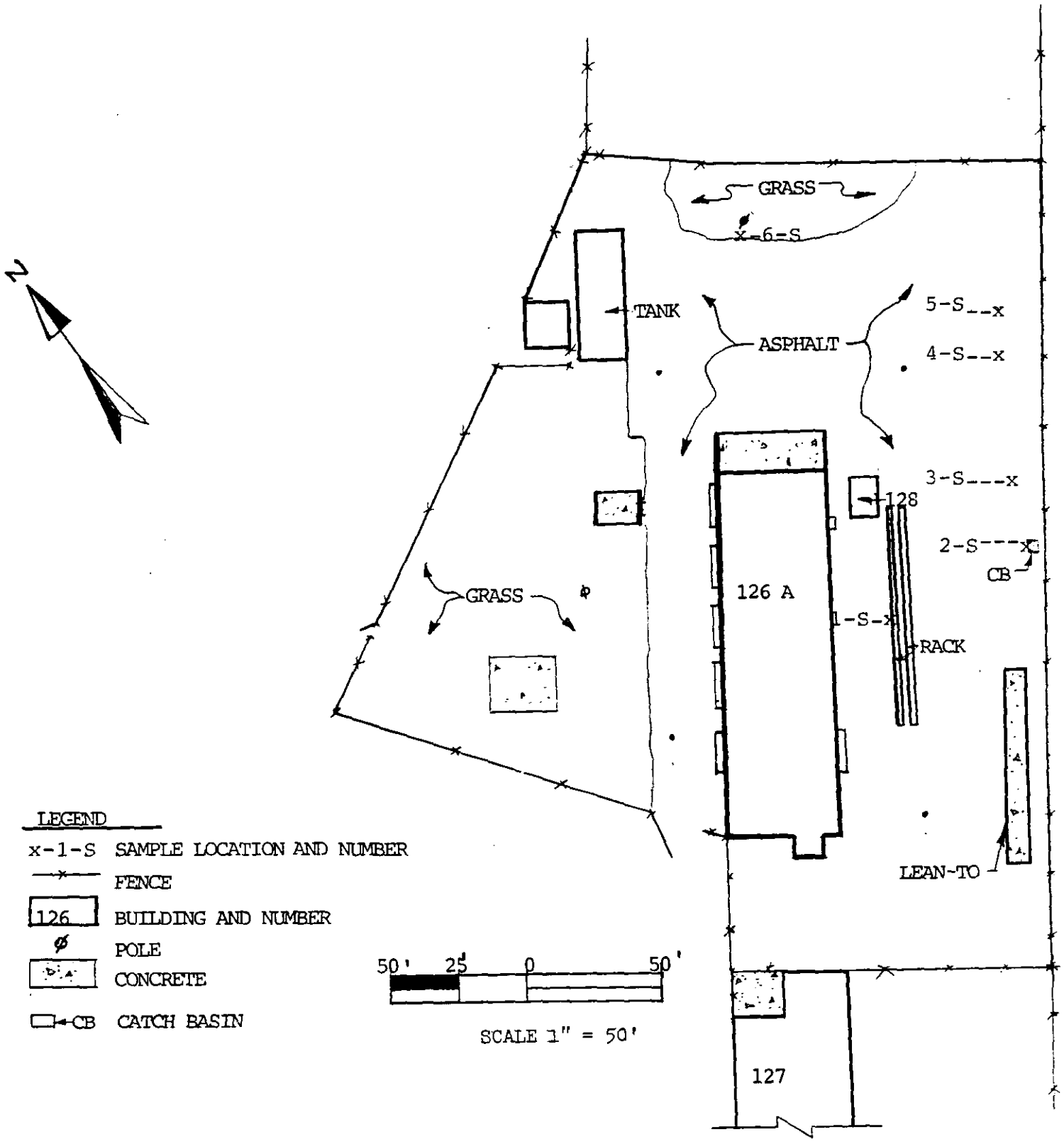
Six surface soil samples, ten surface wipe samples, ten equipment surface wipe samples, nine oil samples and one quality control sample were taken as part of the field investigation conducted by SOUTHNAVFACENGCOM on 7 and 8 February 1989. The location of the soil and surface wipe samples are shown on figures 2-1 and 2-2. Table 2-A, list the location and/or equipment from which either equipment surface wipe samples or oil samples were taken from. Gloves were worn to collect the samples.

2.1. SOIL SAMPLES COLLECTION

The specific soil sample locations were chosen based on either visual observation, past sampling data, or where runoff was apparent. Locations included a storm drain, areas where leaking transformer were present, and areas where samples had been collected in the past. Tables 2-B includes the sample codes and description of the sample locations.

Soil samples were collected using stainless steel spoons and placed directly into the sample containers for shipment to the analytical laboratory. However, the soil sample collected from the storm drain was collected by a steel shovel and placed directly into the sample container for shipment. Prior to sample collection, the spoons and shovel used were cleaned using the following procedures:

- Wash with potable water and soap solution with a brush
- Rinse with potable water (triple-rinse)
- Air dry
- Placed with a plastic bag



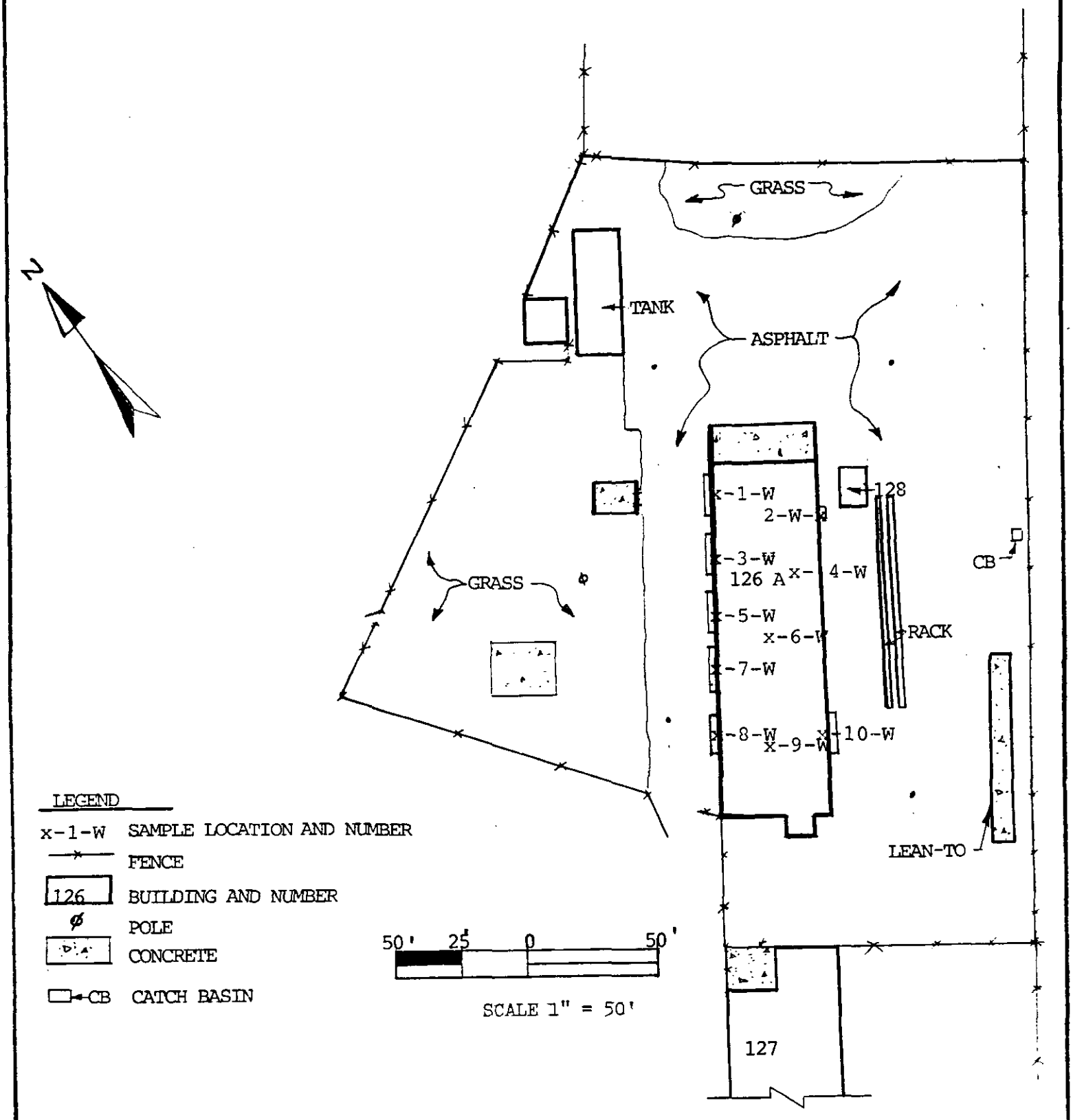
SURFACE SOIL SAMPLE COLLECTION LOCATION

TRANSFORMER STORAGE AREA - BOCA CHICA KEY

NAVAL AIR STATION KEY WEST, FLORIDA

FIGURE NUMBER

2-1



SURFACE WIPE SAMPLE COLLECTION LOCATION

TRANSFORMER STORAGE AREA - BOCA CHICA KEY

NAVAL AIR STATION KEY WEST, FLORIDA

FIGURE NUMBER

2-2

TABLE 2-A

SAMPLE LOCATION OF EQUIPMENT SURFACE WIPE SAMPLES AND OIL SAMPLES
A-126 COMPOUND
NAVAL AIR STATION, KEY WEST, FL

SAMPLE NO.	EQUIPMENT	LEAK	PCB CONCENTRATION	LOCATION
*11-W XF-128	Switch	NO	BDL	APPROX 69' east of CB
*12-W XF-145	Switch	MOD	30.1ug/100cm^2	Approx 69' east of CB
*13-W XF-160	Switch	MOD	BDL	Approx 69' east of CB
*14-W	Uptagraph 61569	MOD	BDL	Approx 69'east of CB
*15-W XF-141	Switch	NO	BDL	Approx 69' east of CB
*16-W XF-198	Transform	NO	BDL	Approx 90' east of CB
17-W	No Name Transformer	MOD	BDL	Approx 90' east of CB
18-W	Switch (set of 3)	NO	BDL	Approx 69' east of CB
*19-W XF-40	RTE 751049663	BAD	BDL	Approx 31' east of CB
20-W	Transformer	NO	BDL	South of ramp

W - wipe
CB - catch basin
BDL - Blow detection limit of 20.0 ug/100 cm^2
* - Known PCB content prior to sampling
NO - No visual leakage
MOD - Visual leakage on ground (damp)
Bad - Visual leakage on ground (dripping)

TABLE 2-A CONTINUATION

SAMPLE LOCATION OF EQUIPMENT SURFACE WIPE SAMPLES AND OIL SAMPLES
A-126 COMPOUND
NAVAL AIR STATION, KEY WEST, FL

SAMPLE NO.	EQUIPMENT	LEAK	PCB CONCENTRATION	LOCATION
1-0	Westinghouse 7414453	NO	BDL	South of North PP
2-0	No Name	NO	BDL	9' from North PP
3-0	GE 6585693	NO	466.0 mg/kg	South of North PP
4-0	RTE 751051167	NO	BDL	South of North PP
5-0	Westinghouse 54M15267	Slight	32.5 mg/kg	5' South of North PP
6-0	GE D154478	NO	10.9 mg/kg	South of North PP
*7-0	Uptagraph W-95386	Slight	BDL	Approx 69' east of CB
8-0	Uptagraph no-name	NO	BDL	South of Ramp
9-0	No name	NO	387.0 mg/kg	Concrete slab on Northwest

0 - oil
CB - catch basin
BDL - Below detection unit 5 mg/kg
* - known PCB contents prior to sampling
NO - No visual leakage
Slight - Only wet on outside of equipment
PP - Power pole
Note: Mg/kg is ppm and is the same as mg/l (ppm)

TABLE 2-B

SURFACE SOIL SAMPLE LOCATION
A-126 COMPOUND
NAVAL AIR STATION KEY WEST, FL

SAMPLE NO.	PCB CONCENTRATION	LEAKAGE	LOCATION
*1-S	0.36 mg/kg	NO	33' east and 22' South of A-126 South Vehicle doorway
2-S	0.89 mg/kg		Catch Basin
3-S	5.54 mg/kg	BAD	24' east of CB and 10' North of fence
4-S	0.80 mg/kg	MOD	Approx 70' east of CB and 15' North of fence
*5-S	1.11 mg/kg	MOD	Approx 87' east of CB and 15' North of fence
*6-S	0.57 mg/kg	NO	Approx 3' west of east PP

* Near locations were 1985 samples were taken.

1-S = SS-8 ; 0.16 mg/kg in 1985
5-S = SS-5 ; 0.24 mg/kg in 1985
6-S = SS-4 ; 0.24 mg/kg in 1985
CB - catch basin
PP - Power pole
NO - No visual leakage
MOD - Visual leakage on ground (damp)
BAD - Visual leakage on ground (pool)

The equipment cleaning effort was conducted in the field. This procedure may have allowed for minor cross-contamination of samples, but such is not likely. Samples were placed in a pint glass jar filled approximately full, capped, labeled accordingly, and placed in a cooler for shipment to the analytical laboratory.

2.2. SURFACE WIPE SAMPLES

The specific surface wipe sample locations were chosen based on the likelihood that if PCB is present it would be detected on the floor at the doorways and center interior of the building. Table 2-C includes the sample codes and description of the sample location.

The surface wipe samples were collected using a set of stainless steel tongs and swabs. The swabs were removed and held with the set of stainless steel tongs. The samples were obtained by swabing a 10cm X 10cm surface area of the concrete floor. The swabs were returned to the same vial from which they came, each of which contained hexane solvent. Each vial was tightly capped and labeled for shipment to the analytical laboratory. A wooden pencil was used to get the swab back into the vial. Prior to each sample collection, the tongs and pencil were cleaned using the following procedures:

- Wash with potable water and soap solution with a brush
- Rinse with potable water (triple-rinse)
- Air dry
- Placed on a plastic bag

The equipment cleaning effort was conducted in the field. This procedure may have allowed minor cross-contamination of samples; the results are thus biased towards the false-positive and represent a worst case scenario.

2.3. EQUIPMENT SURFACE WIPE SAMPLES

The specific equipment surface wipe sample locations were chosen based on visual evidence of release and an existing data relating to PCB content. Table 2-A includes the sample codes and description of the equipment sampled.

The sampling and cleaning procedures used was the same as that described for surface wipe samples in the above section.

2.4. OIL SAMPLES

The specific equipment sampled were chosen based on visual evidence of leakage and data concerning PCB content. Previously tested equipment with known PCB content were re-tested to verify the previous results.

The oil samples were collected using plastic pipets to place the oil directly into the sample containers for shipment to the analytical laboratory. NAS Public Works maintenance electrical personnel opened and closed the transformers which were sampled. Samples were placed in 4oz. glass bottles filled approximately full, capped, and labeled accordingly. Table 2-A lists the

TABLE 2-C

SURFACE WIPE SAMPLES
BUILDING A-126
NAVAL AIR STATION KEY WEST, FL

SAMPLE NO.	PCB CONCENTRATION	LOCATION
1-W	BDL	Center of North East Vehicle doorway
2-W	BDL	Center of South East personnel doorway
3-W	BDL	Center of 1st veh doorway west of North East door
4-W	BDL	27' South of Westside of 1st veh doorway West of North East door
5-W	BDL	Center of 2nd veh doorway west of North East door
6-W	BDL	13' South of Westside of 2nd veh doorway West of N.E. door
7-W	BDL	Center of 3rd veh doorway West of North East door
8-W	BDL	Center of 4th Veh doorway West of North East door
9-W	BDL	27' South of center of 4th veh doorway
10-W	BDL	Center of South West veh doorway

W - wipe
BDL - Below detection limit

equipment sampled. One quality control sample was taken by filling one 4oz. glass bottle with the potable water used in the cleaning of the sampling tools. Upon filling, the bottle was capped and labeled accordingly for shipment to the analytical laboratory.

3.0. LABORATORY ANALYSES

The samples were analysed under contract by Environmental Testing & Consulting, Inc. of Memphis, Tennessee. The tests were performed in laboratory #00210 according to SW-846, method 8080.

The analytical results for the samples are presented in Table 3-A. The chain of custody forms and sampling logs are provided in Appendix A.

4.0. INVESTIGATION

4.1. VISUAL OBSERVATION

A visual site inspection of the area determined that there are five areas where recent spillage has occurred due to either leaking transformer or electrical switches. Figure 4-1 showes the locations of the areas of spillage. Based on the spill surface area of approximately 680 square feet and an average depth of free liquid assumed to be a 0.1 inch, an estimated maximum of 30 gallons of low PCB concentrated material is assumed to have been released.

Table 4-A lists the seven transformers and five switches observed leaking during the site visit. Transformers TL-3 was not sampled because it could not be located during the field sampling visit. A review of manifests, turn-in-documents, and service reports by NAS personnel have failed to locate this transformer. The PCB concentrations in the other transformers and switches ranged from 2mg/kg to 32.5 mg/kg. Appendix B is a list of electrical devices being stored at the site during the 10 October 1988 site visit.

4.2. RECORD REVIEW

The 1985 PCB audit report of NAS Key West, reported two leaking transformers. PCB concentrations ranged from 2mg/kg to 320 mg/kg. The 320 mg/kg PCB transformer was properly contained and disposed in June 1987. All visibly stained soils from this transformer were also removed and disposed. As part of the 1985 PCB audit, eight surface soil samples were collected from A-126 compound at locations of apparent runoff and where rain water would pool. The results of the samples, detected PCB concentrations in the surface soils ranging from 0.16 mg/kg to 2.4 mg/kg.

The 1982 transformer inventory report, reported six transformers leaking from slight to moderate. Transformer RTE-751049663, which was identified in the 1985 PCB audit report, was one of the six transformers reported leaking. Table 4-B is a list of the six transformers reported as leaking. The PCB concentrations ranged from 2.0 mg/kg to 203,000 mg/kg and was not known

TABLE 3-A
ENVIRONMENTAL TESTING AND CONSULTING, INC.
ORGANIC ANALYSIS DATA SHEET
PCBs

SAMPLE NAME : _NAS KEYWEST_____
SAMPLE ID(S) : _SEE BELOW_____
SAMPLE DATE : _02/07/89_____
DATE ARRIVED : _02/09/89_____
MATRIX : _SOIL_____

PROJECT # : _____
INSTRUMENT ID : _V3700___
ANALYST : _LB_____

FILE NAME : _0209-005.DOC

DATE EXTRACTED/PREPARED : _02/10/89_
DATE ANALYZED : _02/21/89_

METHOD (SW-846) : _8080____
3550

ID STA.NO	DATE	TIME	STATION LOCATION	RESULT (mg/kg)	MDL (mg/kg)
1-S	02/07/89	230	A126	0.36	0.05
2-S	02/07/89	235	A126	0.89	0.05
3-S	02/07/89	238	A126	5.54	0.05
4-S	02/07/89	243	A126	0.80	0.05
5-S	02/07/89	247	A126	1.11	0.05
6-S	02/07/89	249	A126	0.57	0.05

BDL - BELOW DETECTION LIMIT

TABLE 3-A Cont.
ENVIRONMENTAL TESTING AND CONSULTING, INC.
ORGANIC ANALYSIS DATA SHEET
PCBs

REVISED

SAMPLE NAME : _NAS KEYWEST____
SAMPLE ID(S) : _SEE BELOW_____
SAMPLE DATE : _02/07/89_____
DATE ARRIVED : _02/09/89_____
MATRIX : _WIPES_____

PROJECT # : _____
INSTRUMENT ID : _V3700___
ANALYST : _LB_____

FILE NAME : _0209-005.DOC

DATE EXTRACTED/PREPARED : _02/10/89_
DATE ANALYZED : _02/27/89_

METHOD (SW-846) : _8080____
3580

ID STA.NO	DATE	TIME	STATION LOCATION	RESULT (ug/pad)	MDL (ug/pad)
1-W	02/07/89	325	A126	BDL	20.0
2-W	02/07/89	328	A126	BDL	20.0
3-W	02/07/89	330	A126	BDL	20.0
4-W	02/07/89	333	A126	BDL	20.0
5-W	02/07/89	336	A126	BDL	20.0
6-W	02/07/89	337	A126	BDL	20.0
7-W	02/07/89	340	A126	BDL	20.0
8-W	02/07/89	342	A126	BDL	20.0
9-W	02/07/89	346	A126	BDL	20.0
10-W	02/07/89	348	A126	BDL	20.0
11-W	02/07/89	355	A126	BDL	20.0
12-W	02/07/89	357	A126	30.1	20.0
13-W	02/07/89	359	A126	BDL	20.0
14-W	02/07/89	400	A126	18.3j	20.0
15-W	02/07/89	503	A126	BDL	20.0
16-W	02/07/89	405	A126	BDL	20.0
17-W	02/07/89	407	A126	BDL	20.0
18-W	02/07/89	410	A126	BDL	20.0
19-W	02/07/89	412	A126	BDL	20.0
20-W	02/07/89	416	A126	BDL	20.0

BDL - BELOW DETECTION LIMIT
j - ESTIMATED VALUE

TABLE 3-A Cont.
ENVIRONMENTAL TESTING AND CONSULTING, INC.
ORGANIC ANALYSIS DATA SHEET
PCBs

SAMPLE NAME : _NAS KEYWEST_____
SAMPLE ID(S) : _SEE BELOW_____
SAMPLE DATE : _02/07 & 08/89__
DATE ARRIVED : _02/09/89_____
MATRIX : _OIL_____

PROJECT # : _____
INSTRUMENT ID : _V3700___
ANALYST : _LB_____

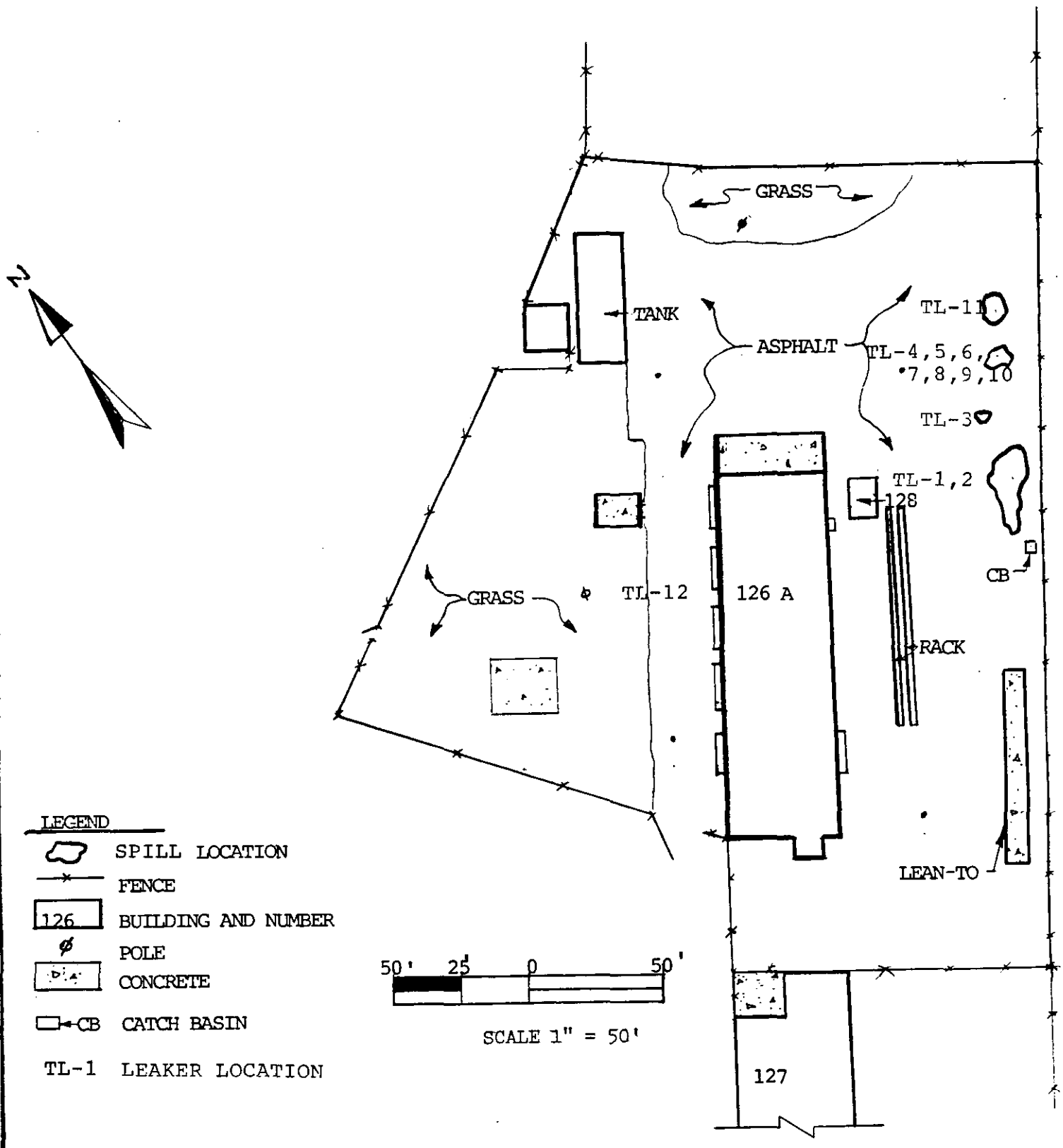
FILE NAME : _0209-005.DOC

DATE EXTRACTED/PREPARED : _02/10/89_
DATE ANALYZED : _02/14/89_

METHOD (SW-846) : _8080_____
3580

ID STA.NO	DATE	TIME	STATION LOCATION	RESULT (mg/kg)	MDL (mg/kg)
NA-1	02/07/89	215	A126	BDL	5.00
1-0	02/08/89	837	A126	BDL	5.00
2-0	02/08/89	847	A126	BDL	5.00
3-0	02/08/89	842	A126	466	5.00
4-0	02/08/89	902	A126	BDL	5.00
5-0	02/08/89	850	A126	32.5	5.00
6-0	02/08/89	853	A126	10.9	5.00
7-0	02/08/89	905	A126	BDL	5.00
8-0	02/08/89	910	A126	BDL	5.00
9-0	02/08/89	935	A126	387	5.00

BDL - BELOW DETECTION LIMIT



SPILL LOCATION
TRANSFORMER STORAGE AREA - BOCA CHICA KEY
NAVAL AIR STATION KEY WEST, FLORIDA

FIGURE NUMBER
4-1

TABLE 4-A

LEAKING TRANSFORMERS AND SWITCHES
10 OCTOBER 1988
A-126 COMPOUND
NAVAL AIR STATION, KEY WEST, FL

TL NO.	NAS NO.	MAKE	SERIAL NO.	PCB CONCENTRATION	LEAK	LOCATION
TL-1	XF-55*	GE	6593346	14.0 mg/kg	(MOD)	Approx 31' East of CB
TL-2	XF-40*	RTE	751049663	2.0 mg/kg	(BAD)	Approx 31' East of CB
TL-3		GE	384764	(unknown)	(MOD)	Approx 50' East of CB
TL-4	XF-184	Switch		3.0 mg/kg	(MOD)	Approx 61' East of CB
TL-5	XF-144	Switch		15.0 mg/kg	(MOD)	Approx 61' East of CB
TL-6		Uptagraph	61569	28.0 mg/kg	(MOD)	Approx 69' East of CB
TL-7		Uptagraph	W-95386	5.0 mg/kg	(Slight)	Approx 69' East of CB
TL-8	XF-127	Switch		7.0 mg/kg	(MOD)	Approx 69' East of CB
TL-9	XF-145	Switch		23.0 mg/kg	(MOD)	Approx 69' East of CB
TL-10	XF-160	Switch		2.0 mg/100cm^2	(MOD)	Approx 69' East of CB
TL-11		No-Name		5.0 mg/kg	(MOD)	Approx 90' East of CB
TL-12		Westinghouse	54M15267	32/5 mg/kg	(Slight)	5' South of North PP

* Transformers noted leaking in 1985 and/or 1982
MOD - Bad = actual spillage on ground
Slight = oil on outside of equipment
Note: mg/kg is ppm and is the same as mg/l (ppm)

TABLE 4-B
LEAKING TRANSFORMERS
1982
A-126 COMPOUND
NAVAL AIR STATION KEY WEST, FL

NAS NO.	MAKE	SERIAL NO.	LEAK	PCB CONCENTRATION	TURN-IN DOCUMENT
XF-62	GE	B345569	Slight	450.0 mg/kg	Clin-7010
XF-40**	RTE	751049663	Slight	2.0 mg/kg	
XF-39	GE	6968039	Slight	120.0 mg/kg	Clin-7010
XF-33	STANDARD	18653	Slight	203,000 mg/kg	Clin-7007
XF-55*	GE	6593346	MOD	14.0 mg/kg	
XF-51	Allis Chalmers	1881209	MOD	360.0 mg/kg	Clin-7010

* - Transformers which were also found being stored in 1985
** - Transformer found leaking in 1985
Slight - oil on outside of equipment
MOD - actual spillage on ground
Note: mg/kg is ppm and is the same as mg/l (ppm)

until early 1987. Four of the transformers contained PCB in concentrations above 50 mg/kg and NAS properly disposed of them, offsite, in June 1987.

5.0. PCB SPILL CLEANUP POLICY

The Environmental Protection Agency (EPA) established a PCB spill cleanup policy to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 mg/kg or greater. EPA policy is outlined in the Toxic Substances Control Act (TSCA). EPAs spill policy applies to spills which occur after May 4, 1987. Existing spills (those spills which occur prior to May 4, 1987) are excluded from this policy.

The EPA requires reporting of spills involving 10 pounds (generally 1 gallon of PCB dielectric fluid) or more of PCB material. Also, such a spill should be reported to the National Response Center. Upon notification, decontamination should begin in accordance with TSCA policy in the shortest possible time after discovery, but in no case later than 24 hours after discovery. Spills of less than 10 pounds or 1 gallon do not need to be reported but must be cleaned up in accordance with this policy.

Decontamination requirements for cleanup of low-concentration spills which involve less than 1 pound of PCBs by weight (less than 270 gallons of untested mineral oil) are as follows:

- solid surfaces shall be washed two times with an appropriate solvent or other material in which PCBs are at least 5 percent solable (by weight). The wash solution must be of sufficient volume to cover the contaminated surface completely during each wash/rinse.

- All soil within the spill area (i.e. visible traces of soil and a buffer of 1 lateral foot around the visible traces) must be excavated and the ground be restored with clean fill containing less than 1ppm PCBs.

- The above action must be completed within 48 hours after the spill is discovered.

At the completion of cleanup, the responsible party shall document the cleanup with records and certification of decontamination. The records and decontamination certification must be kept on file for 5 years. The following records and certifications must be kept:

- Identification of the source of the spill
- Date and time the spill occured
- Date and time the spill cleanup was completed
- Brief description of the spill location
- Precleanup sampling data and sampling methodology
- Approximate depth and volume of soil removed

- The responsible party must sign a certification stating that the cleanup requirements have been met and that the information in the record is true to the best of his/her knowledge
- Post-cleanup sampling should be performed but is not required
- All concentrated soils, sovents, rags and other materials resulting from a cleanup shall be stored, labeled, and disposed in accordance with TSCA

6.0. RISKS POSED BY LEAKS AND SPILLS OF PCBs

EPA published the development of TSCA's spill cleanup policy in the Federal Register 1 Vol. 52, No. 63/Thrusday, April 2, 1987. As part of the development of TSCA spill cleanup policy EPA identified the potential risk posed by PCB spills for exposures in a residential/commercial setting from an outdoor spill into soil, sand, gravel and other similar materials. The principal routes of exposure for this type of PCB spill is assumed to be inhalation and ingestion with possible dermal exposure also occurring. The office of Health and Environment Assessment (OHEA) of EPA concludes that PCB at levels of 1 to 6 mg/kg PCBs in soil in a residential/commercial area would be associated with a 1×10^{-5} level of additional oncogenic risk. This assumption is based on the spill area being 18,225 square feet, 0.6 gram of soil is ingested per day by children of ages ranging from 0 to 6 years and that the population is exposed for 50 percent of their lifetime.

The estimated level of oncogenic risk associated with exposures to low contact concrete and asphalt outdoor surfaces in residential/commercial settings is from 1×10^{-5} to 1×10^{-6} for exposures to surface levels of 10 mg/100 cm^2.

Based on EPAs risk/benefit discussion, where the spill material is relatively low in PCB concentration (containing 50 mg/kg or greater but less than 500 mg/kg PCBs) only a double wash/rinse of solid surfaces or the removal of visible traces plus a 1-foot lateral boundary for soil to a 10 inch depth is required rather than sampling to verify that numerical cleanup standards have been met.

Those spills of 500 mg/kg or greater of PCBs on soils in outdoor residential/commercial areas must be cleaned up to 10 mg/kg PCB and capped with soil containing less than 1 mg/kg to a minimum thickness of 10 inches. Porous surfaces such as asphalt may be encapsulated for such outdoor areas if approved by EPA.

7.0. CONCLUSIONS

PCB was detected in all soil samples. The concentrations ranged from 0.36 mg/kg (ppm) to 5.54 mg/kg. PCB was not detected in any of the surface wipe samples taken indoors of building A-126. One equipment surface wipe sample was found to contain PCB above the detection limit, at a concentration of 30.1 $ug/100cm^2$. PCB was detected in four of the oil samples taken. The

concentrations of PCB in the transformers were below 500 mg/kg and the test results ranged from 10.9 mg/kg to 466 mg/kg.

According to CDM, historically EPA Region IV requires remediation of PCB spills to less than 10 mg/kg. This also is the objective of the Toxic Substance Control Act (TSCA). This also will be the state of Florida requirements since they have adopted EPA's (TSCA) regulations. This site is not eligible for the Installation Restoration (IR) program since leakage occurred after December 1980.

NAS has failed to respond by not cleaning up the PCB material spill within 48 hours, in accordance with EPA regulations and OPNAVINST 5090.1, after discovering this spill. This must not continue as it has since 1982. NAS must become more responsive to incidential PCB material releases as directed by OPNAVINST 5090.1, Chapter 11.

8.0. RECOMMENDATIONS

All leaking transformers and switches should be immediately contained. All electrical devices being stored, if they are not going to be reused, should be properly disposed, or else they should be stored in an isolated area with provisions to contain runoff in the event leaks develop prior to disposal. The isolated area should be covered to prevent the accumulation of storm water. Only workers qualified to work with PCB should be used. The National Response Center should be notified of the amount of PCB material released. The areas where leaking transformers or switches were found should be immediately double washed/rinsed in accordance with TSCA requirements. The double wash/rinse should be collected and properly disposed in accordance with TSCA requirements. All stained soils plus one foot laterally should be removed and properly disposed in accordance with TSCA requirements. These actions must be taken immediately. Upon completing these actions, a record and certification of the cleanup efforts should be completed and kept on file for five years. Also upon the completion of the cleanup efforts, post-cleanup sampling should be performed.

To prevent similar occurrences from happening again, we recommend that NAS implement instructions outlining the proper response action which NAS personnel and tenants must take upon the discovery of any leaking electrical device.

Prepared by,

Robert Moser

ROBERT MOSER, P.E.

APPENDIX A
CHAIN OF CUSTODY
AND
SAMPLING LOGS

CHAIN OF CUSTODY RECORD

NAME OF INDUSTRY: Naval Air Station Key West, Florida

SAMPLERS: (Signature) Robert W. Moen Marion W. Olmsted

ID STA. NO.	DAY DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. of CONTAINERS	ANALYSES FOR PCB	REMARKS
1-S	2-7-89	230		/	A126 1-S	1		Soil To be analyzed for PCBs
2-S	2-7-89	235		/	A126 2-S	1		
3-S	2-7-89	238		/	A126 3-S	1		
4-S	2-7-89	243		/	A126 4-S	1		
5-S	2-7-89	247		/	A126 5-S	1		
6-S	2-7-89	249		/	A126 6-S	1		Soil To be analyzed for PCB
BLANK SPACE								
1-W	2-7-89	325			A126 1-W	1		Wipes To be analyzed for PCB
2-W	2-7-89	328			A126 2-W	1		
3-W	2-7-89	330			A126 3-W	1		
4-W	2-7-89	333			A126 4-W	1		
5-W	2-7-89	336			A126 5-W	1		
6-W	2-7-89	337			A126 6-W	1		
7-W	2-7-89	340			A126 7-W	1		
8-W	2-7-89	342			A126 8-W	1		
9-W	2-7-89	346			A126 9-W	1		Wipes To be analyzed for PCB

Relinquished by: (Sign.)	Day/Date	Time	Received by: (Signature)	Relinquished by: (Sign.)	Day/Date	Time	Received by: (Sig
Robert W. Moen	wed 2-8-89	1100					
Relinquished by: (Sign.)	Day/Date	Time	Received by: (Signature)	Relinquished by: (Sign.)	Day/Date	Time	Received by: (Sig
Robert W. Moen	wed 2-8-89	1100					

Relinquished by: (Sign.)	Day/Date	Time	Received for Laboratory by (Signature)	Day/Date	Time	Remarks
			Gerald LaLumiere	2/9/89	1200 noon	

CHAIN OF CUSTODY RECORD

NAME OF INDUSTRY: Naval AirStation Key West, Florida

SAMPLERS: (Signature) Robert W. Moen

ID STA.NO	DAY DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. of CONTAINERS	Analysis for PCB	REMARKS
NA-1	2-7-89	215		✓	A126 NA-1	1		OIL ~~TO~~ Be analyzed For PCB
1-0	2-8-89	837		✓	A126 1-0	1		
2-0	2-8-89	847		✓	A126 2-0	1		
3-0	2-8-89	842		✓	A126 3-0	1		
4-0	2-8-89	902		✓	A126 4-0	1		
5-0	2-8-89	850		✓	A126 5-0	1		
6-0	2-8-89	853		✓	A126 6-0	1		
7-0	2-8-89	905		✓	A126 7-0	1		
8-0	2-8-89	910		✓	A126 8-0	1		
9-0	2-8-89	935		✓	A126 9-0	1		OIC To Be analyzed for PCB

Relinquished by: (Sign.)	Day/Date	Time	Received by: (Signature)	Relinquished by: (Sign.)	Day/Date	Time	Received by: (Sig.
Robert W. Moen	2-8-89	1100					
Relinquished by: (Sign.)	Day/Date	Time	Received by: (Signature)	Relinquished by: (Sign.)	Day/Date	Time	Received by: (Sig.
Relinquished by: (Sign.)	Day/Date	Time	Received for Laboratory by (Signature)	Day/Date	Time	Remarks	
			Gerald Lee Lummen	2/9/89	1200 noon		

CHAIN OF CUSTODY RECORD

NAME OF INDUSTRY: Naval Air Station Key West, FLORIDA

SAMPLERS: (Signature) Robert W. Moser Marion W. Olmsted

ID STA.NO	DAY DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. of CONTAINERS	Analysis for PCB's	REMARKS
10-W	2-7-89	348			A126 10-W	1		Wipes to be analyzed for PCB
11-W	2-7-89	355			A126 11-W	1		
12-W	2-7-89	357			A126 12W	1		
13-W	2-7-89	359			A126 13-W	1		
14-W	2-7-89	400			A126 14-W	1		
15-W	2-7-89	503			A126 15-W	1		
16-W	2-7-89	405			A126 16-W	1		
17-W	2-7-89	407			A126 17-W	1		
18-W	2-7-89	410			A126 18-W	1		
19-W	2-7-89	412			A126 19-W	1		
20-W	2-7-89	416			A126 20-W	1		Wipes to be analyzed for PCB

Relinquished by: (Sign.)	Day/Date	Time	Received by: (Signature)	Relinquished by: (Sign.)	Day/Date	Time	Received by: (Sig.
Robert W Moser	2-8-89	1100					
Relinquished by: (Sign.)	Day/Date	Time	Received by: (Signature)	Relinquished by: (Sign.)	Day/Date	Time	Received by: (Sig.
Relinquished by: (Sign.)	Day/Date	Time	Received for Laboratory by (Signature) Gerald LaLumiere	Day/Date 2/9/89	Time 1200 noon	Remarks	

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 1 of 36

Site Location A-126 NAS KEY WEST, FL

Sample ID No. NA-1 Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 2:15 End 2:15

Weather CLEAR

Site Description RINSE AND WASH WATER

SAMPLING DATA

Collection Method POURING

Depth — Moisture Content — pH —

Color CLEAR Odor NONE

Description IN a Pressurized CONTAINER

Analyses Required	Container
EPA method 8080	4 oz Square Glass Bottles

Sample Monitoring (TIP, OVA, HNU, etc.)

NONE

Remarks NONE

Sampler(s) ROBERT MOSER

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 2 of 36

Site Location A-126 NAS KEY WEST, FL

Sample ID No. 1-S Coded/Replicate No. NONE

Date 2-7-89 Time of Sampling: Begin 2:30 End 2:30

Weather CLEAR

Site Description LOCATED 33' EAST AND 22' SOUTH OF SOUTH SIDE BAY DOOR OF BLDG A-126

SAMPLING DATA

Collection Method USE OF STAINLESS STEEL SPOON

Depth TOP SOIL Moisture Content — pH —

Color white/gray Odor NONE

Description Sal from the surface of the asphalt

Analyses Required	Container
EPA Method 8080	Pat Glass Jars

Sample Monitoring (TIP, OVA, HNU, etc.)

NONE

Remarks Grab sample

Sampler(s) ROBERT MOSER

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 3 of 36

Site Location A-126 NAS KEY WEST, FL

Sample ID No. 2-5 Coded/Replicate No. NONE

Date 2-7-89 Time of Sampling: Begin 2:35 End 2:35

Weather CLEAR

Site Description SOILS from the catchbasin.

SAMPLING DATA

Collection Method SHOVEL

Depth 8" to 12" Moisture Content — pH —

Color Dark Odor OILY - ORGANIC

Description Shovel was used to collect the dark hard soil.

Analyses Required	Container
EPA method 8080	PINT GLASS JAR

Sample Monitoring (TIP, OVA, HNU, etc.)

NONE

Remarks NO OIL SHEEN ON WATER

Sampler(s) ROBERT MOSER

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 4 of 36

Site Location A-126 NAS KEY WEST, FL

Sample ID No. 3-5 Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 2:38 End 2:38

Weather CLEAR

Site Description Located 24'-4" East of ℄ of catch basin and 10' North of fence.

SAMPLING DATA

Collection Method Stainless Steel Spoon

Depth TOP SOILS Moisture Content OIL wet pH —

Color Light Brown Odor OILY

Description The sample was collected by Spooning the soil off the top of Asphalt surface. Asphalt was also collected

Analyses Required	Container
EPA method 8080	Pint Glass Jar

Sample Monitoring (TIP, OVA, HNU, etc.) None

Remarks The Location was chosen because the area was OILY and soil was present

Sampler(s) Robert Moser

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 5 of 36

Site Location A-1206 NAS KEY WEST, FL

Sample ID No. 4-S Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 2:43 End 2:43

Weather CLEAR

Site Description Located 69'-10" East of ℄ of catch Basin and 15' North of fence

SAMPLING DATA

Collection Method Stainless Steel Spoon

Depth Top Soils Moisture Content — Oily wet — pH —

Color Light Brown Odor OILY

Description The sample was collected by spooning the soil off the top of Asphalt Surface. Asphalt was also collected.

Analyses Required	Container
EPA METHOD 8080	PINT GLASS JAR

Sample Monitoring (TIP, OVA, HNU, etc.)

NONE

Remarks The location was chosen because the area was oily and soil was present

Sampler(s) Robert Mason

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 6 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 5-5 Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 2:47 End 2:47

Weather CLEAR

Site Description Located 86'-10" East of ℄ of Catch Basin and 15' North of fence

SAMPLING DATA

Collection Method Stainless steel spoon

Depth Top Soil Moisture Content — OILY wet — pH —

Color Light Brown Odor OILY

Description The sample was collected by spooning the soil off the top of Asphalt Surface. Asphalt was also collected.

Analyses Required	Container
EPA METHOD 8080	PINT GLASS JAR

Sample Monitoring (TIP, OVA, HNU, etc.)

NONE

Remarks The Location was chosen because the area was oil and soil was present

Sampler(s) Robert Mason

FIGURE

SAMPLING LOG

Project No. ESR B256-241 Page 7 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 16-5 Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 2:49 End 2:49

Weather CLEAR

Site Description 3' west of power pole located at the far east end of A-126 Compound. [65'-4" From North East Pin and 80'-2" from South East Pin]

SAMPLING DATA

Collection Method stainless steel spoon

Depth 2" Moisture Content — pH —

Color White to Dark Odor None

Description The sample was collected by spooning loose soils from the area of an 18 inch Dia.

Analyses Required	Container
EPA method 8080	Pint Glass Jar

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks The location was chosen to verify the 1985 PCB Audit Report finds.

Sampler(s) Robert Moore

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 8 of 36

Site Location A-126 NAS KEY WEST, FL

Sample ID No. 1-W Coded/Replicate No. NONE

Date 2-7-89 Time of Sampling: Begin 3:25 End 3:25

Weather CLEAR

Site Description Center of Door-way of the North Eastern Bay of Building A-126

SAMPLING DATA

Collection Method WIPE SAMPLE using stainless Steel TONGS

~~Depth~~ surface 10cm x 10cm Moisture Content _____ pH _____

Color CONCRETE Odor NONE

Description Concrete surface was swabed

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks - A wipe was done as a scan.

Sampler(s) ROBERT MOSER

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 9 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 2-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:28 End 3:29

Weather CLEAR

Site Description Center of Doorway located at the south east side of Building A-126

SAMPLING DATA

Collection Method wipe Sample using stainless steel tongs

~~Depth~~ surface 10cm x 10cm Moisture Content ___ pH ___

Color concrete Odor None

Description Concrete surface was swabed

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks A wipe was done as a scan

Sampler(s) Robert Mosea

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 10 of 36

Site Location A-126-NAS Key West

Sample ID No. 3-W Coded/Replicate No. none

Date 2-7-89 Time of Sampling: Begin 2:30 End 3:30

Weather clear

Site Description Center of Doorway of the bay, one bay west of the Northeastern Bay of Building A-126

SAMPLING DATA

Collection Method wipe sample using stainless steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content ____ pH ____

Color Concrete Odor ____

Description Concrete surface was swabed

Analyses Required	Container
EPA method 8080	Vial with swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks A wipe was done as a scan

Sampler(s) MARTY OLIVER

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 11 of 35

Site Location A-126 NAS KEY WEST, FL

Sample ID No. 4-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:33 End 3:33

Weather Clear

Site Description 27' from West side of door and 10'-9.5" SOUTH East of interia column of the bay, one bay west of the Northeastern Bay of Building A-126

SAMPLING DATA

Collection Method wipe sample using stainless steel Tongs

~~Depth~~ surface 10cm x 10cm Moisture Content ——— pH ———

Color Concrete Odor ———

Description Concrete surface was swabed

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks A wipe was done as a scan

Sampler(s) Marty OLwen

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 12 of 36

Site Location A-126 NAS KEY WEST, FL

Sample ID No. 5-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:36 End 3:36

Weather CLEAR

Site Description Center of Doorway of the 2nd Bay West of the Northeastern most Bay of Building A-126

SAMPLING DATA

Collection Method Wipe sample using Stainless Steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content ——— pH ———

Color CONCRETE Odor ———

Description Concrete surface was swabed

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks A wipe was done as a Scan

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 13 of 35

Site Location A-126 - NAS Key West, Fl

Sample ID No. 6-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:37 End 3:37

Weather Clear

Site Description 13' from west side of door and 8'-3" North east of interior corner of the bay, two bays west of the Northeastern Bay of Building A-126

SAMPLING DATA

Collection Method wipe Sample using stainless steel tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content — pH —

Color Concrete Odor —

Description Concrete Surface was swabed

Analyses Required	Container
Epa method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.) —

None

Remarks A wipe was done as a SCAN

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR-8256-241 Page 14 of 34

Site Location ~~7-W~~ A-126 NAS Key West, FL

Sample ID No. 7-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:40 End 3:40

Weather Clear

Site Description Center of Doorway of the Bay three Bays west of the Northeastern Bay of Building A-126

SAMPLING DATA

Collection Method Wipe Sample using stainless steel tongs

~~Depth~~ surface 10 cm x 10 cm Moisture Content ——— pH ———

Color Concrete Odor ———

Description Concrete surface was swabed

Analyses Required	Container
EPA METHOD 8080	VIAL with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks A wipe was done as a scan

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 15 of 35

Site Location A-126 NAS Key West, FC

Sample ID No. B-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:42 End 3:42

Weather Clear

Site Description Center of Doorway of the Northwestern most Bay

SAMPLING DATA

Collection Method wipe sample using stainless Steel Tongs

~~Depth~~ surface 10cm x 10cm Moisture Content — pH —

Color concrete Odor —

Description Concrete surface was swabed

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks A wipe was done as a scan

Sampler(s) marty oliver

FIGURE

SAMPLING LOG

Project No. ESE 82506-241 Page 16 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 9-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:46 End 3:46

Weather Clear

Site Description 28' South of western portion of doorway and 21' south of Eastern portion of doorway - Doorway is the North Western Doorway of Bldg A-126

SAMPLING DATA

Collection Method wipe sample using stainless steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content — pH —

Color Concrete Odor —

Description Concrete surface was swabed

Analyses Required	Container
EPA Method 8080	Vial with swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.) —

None

Remarks A wipe was done as a scan

Sampler(s) Marty Olwer

FIGURE

SAMPLING LOG

Project No. ESE. 8256-241 Page 17 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 10-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:48 End 3:48

Weather Clear

Site Description Center of South west Door way of Building A-126

SAMPLING DATA

Collection Method wipe sample using Stainless steel ~~Spoon~~

~~Depth~~ surface 10cm x 10cm Moisture Content ____ pH ____

Color Concrete Odor ____

Description Concrete surface was swabed.

Analyses Required	Container
Epa method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

Done

Remarks A wipe was done as a Scan

Sampler(s) Mary Oliver

FIGURE

SAMPLING LOG

Project No. ESE 82510-241 Page 18 of 35

Site Location A-126 - NAS Key West, FL

Sample ID No. 11 - W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:55 End 3:55

Weather Clear

Site Description SWITCH WITH No. XF-128

SAMPLING DATA

Collection Method wipe sample using stainless steel ~~spoons~~

~~Depth~~ surface 10cm x 10cm Moisture Content ____ pH ____

Color Light Brown Odor oily

Description Outer surface was wiped.

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks Switch showed little signs of leakage - wanted to check 1985 PCB Audit Report & Activity sampling of 17ppm

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 82560-141 Page 19 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 12-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 3:57 End 3:57

Weather Clear

Site Description SWITCH WITH NO. XF-145

SAMPLING DATA

Collection Method wipe sample using stainless steel Tongs

~~Depth~~ surface 10cm x 10cm Moisture Content _____ pH _____

Color OIL Odor OILY

Description OUTER surface was wiped.

Analyses Required	Container
EPA method 8080	Vial with Swab and Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks SWITCH showed signs of leakage. wanted to check activity Sampling of 23 PPM

Sampler(s) MANNY OLIVER

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 20 of 36

Site Location A-1220 NAS Key West, FL

Sample ID No. 13-44 Coded/Replicate No. None

Date 2-2-89 Time of Sampling: Begin 3:51 End 3:59

Weather clear

Site Description SWITCH WITH NO. XF-1160

SAMPLING DATA

Collection Method wipe sample using Stainless steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content ____ pH ____

Color Oil Odor oily

Description outer surface was wiped

Analyses Required	Container
EPA method	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.) None

Remarks Switch showed signes of leakage. wanted to check Activities finding of 12 ug/100cm

Sampler(s) MARTY OLIVER

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 21 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 14-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:00 End 4:00

Weather Clear

Site Description TRANSFORMER - UPTAgraph # 615619

SAMPLING DATA

Collection Method Wipe sample using stainless steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content ____ pH ____

Color OIL Odor OILY

Description Outer surface was wiped

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks Transformer was leaking

wanted to check Activities finding of 28 ppm

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 82560-241 Page 22 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 15-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:03 End 4:03

Weather Clear

Site Description SWITCH WITH NO. XF-141

SAMPLING DATA

Collection Method Wipe Sample Using stainless steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content — pH —

Color green Odor —

Description Outer surface area wiped.

Analyses Required	Container
EPA Method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.) None

Remarks Switch was not leaking wanted to check Activity Finding of 4 ppm

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 8250-241 Page 23 of 36

Site Location A-120 NAS Key West, FL

Sample ID No. 160-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:05 End 4:05

Weather Clear

Site Description TRANSFORMER NO. XF198

SAMPLING DATA

Collection Method Wipe sample using stainless steel Tongs

~~Surface~~ Depth 10cm x 10cm Moisture Content — pH —

Color — Odor —

Description outer surface wiped

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

done

Remarks No existing data - Not leaking

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR-8256-241 Page 24 of 36

Site Location A-126 - NAS Key West, FL

Sample ID No. 17-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:07 End 4:07

Weather Clear

Site Description NO-Name Transformer Located 90' West of Catch Basin - Same leak where sample 5-5 was take from

SAMPLING DATA

Collection Method Wipesample using stainless steel Tongs

~~Surface Depth~~ 10 cm x 10 cm Moisture Content — pH —

Color — Odor —

Description Outer surface wiped.

Analyses Required	Container
EPA method 8080	Vial with Swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

NONE

Remarks Existing leak

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 82256-241 Page 25 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 18-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:10 End 4:10

Weather Clear

Site Description 3-SWITCHES NO. 703-35

SAMPLING DATA

Collection Method Wipesample using Stainless steel Tongs

~~Surface~~ ~~Depth~~ 10cm x 10cm Moisture Content — pH —

Color — Odor —

Description Acton surfaced wiped

Analyses Required	Container
EPA METHOD 8080	VIAL with swab ? Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks IN an area of leak Near Sample 5-5

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 26 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 19-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:12 End 4:12

Weather clear

Site Description TRANSFORM RTE - 7510 49663
WITH XF No. 40 -

SAMPLING DATA

Collection Method Wipe sample using stainless steel Tongs

~~Depth~~ Surface 10cm x 10cm Moisture Content — pH —

Color — Odor —

Description outer surface wiped

Analyses Required	Container
EPA METHOD 8080	Vial with swab & Hexane

Sample Monitoring (TIP, OVA, HNU, etc.)
None

Remarks Transformer leaking in area where soil sample S-3 was taken from

Sampler(s) MARTY Oliver

FIGURE

SAMPLING LOG

Project No. ESR-8256-241 Page 27 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 20-W Coded/Replicate No. None

Date 2-7-89 Time of Sampling: Begin 4:16 End 4:16

Weather Clear

Site Description TRANSFORM - No Name - located by Ramp - WITH mark of (S-1 2-7-87)

SAMPLING DATA

Collection Method Wipe sample using stainless steel Tongs

~~Depth~~ surface 10 cm x 10 cm Moisture Content — pH —

Color — Odor —

Description Outer Surface wiped

Analyses Required	Container
EPA method 8080	Vial with swab + hexane

Sample Monitoring (TIP, OVA, HNU, etc.) None

Remarks - Non leaking - Labled Non-PCB.

Sampler(s) Marty Oliver

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 28 of 36

Site Location A-126 NAS Key West FL

Sample ID No. 1-0 Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 8:37 End 8:37

Weather Clear

Site Description Transformer West-House - 3414453

SAMPLING DATA

Collection Method Oil collected by Pipet

~~Depth~~ — Moisture Content — pH —

Color Light Brown Odor Light

Description Located South of Power Pole on North Side of A-126

Assisted By Two PW - workers

Analyses Required	Container
EPA method 8080	40z square Glass Bottles

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks No leaking - Non-Labeled

Sampler(s) Robert Mason

FIGURE

SAMPLING LOG

Project No. ESN 8256-241 Page 29 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 3-0 Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 8:42 End 8:42

Weather Clear

Site Description Transformer GE 16585693

SAMPLING DATA

Collection Method Oil collected by pipet

Depth — Moisture Content — pH —

Color — Odor —

Description Located South of Power Pole North of A-126

Assisted By Two PW Workers

Analyses Required	Container
EPA Method 8080	4-oz. Square Glass Bottle

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks non-leaking - good shape

Sampler(s) Robert Moser

FIGURE

SAMPLING LOG

Project No. ESR8250-241 Page 30 of 30

Site Location A-1760 NAS Key West, FL

Sample ID No. 2-0 Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 8:47 End 8:47

Weather Clear

Site Description No Name Transformer - 9' from pole.

SAMPLING DATA

Collection Method Oil collected by Pipet.

Depth — Moisture Content — pH —

Color — Odor —

Description Located South of Power Pole on North side of A-1760

Assisted by Two PW workers

Analyses Required	Container
EPA method 8080	4-oz Square Glass Bottle

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks Minor Leak

Sampler(s) Robert Moore

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 31 of 35

Site Location A-126 NAS Key West, FL

Sample ID No. 5-0 Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 8:50 End 8:50

Weather Clear

Site Description Transformer Westinghouse 54M15267

SAMPLING DATA

Collection Method Oil collected by pipet

Depth — Moisture Content — pH —

Color — Odor —

Description Located south of Power Pole on north side of A-126 Assisted By Two PW workers

Analyses Required	Container
EPA method 8080	4-oz Sq Glass Bottle

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks spillage around the base from the top

Sampler(s) Robert Moser

FIGURE

SAMPLING LOG

Project No. EDR 8256-241 Page 32 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 6-0 Coded/Replicate No. none

Date 7-8-89 Time of Sampling: Begin 8:53 End 8:53

Weather Clear

Site Description Transformer GE D154478

SAMPLING DATA

Collection Method Oil collected by pipet

Depth — Moisture Content — pH —

Color — Odor —

Description Located South of power pole on NORTH SIDE OF A-126 Assisted By Two PW-workers

Analyses Required	Container
EPA method 8080	1-oz Square Glass Bottle

Sample Monitoring (TIP, OVA, HNU, etc.) None

Remarks No leaking

Sampler(s) Robert Mozen

FIGURE

SAMPLING LOG

Project No. ESR 8256-241 Page 33 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 4-0 Coded/Replicate No. none

Date 2-8-89 Time of Sampling: Begin 9:02 End 9:02

Weather Clear

Site Description Transformer RTE - 751051167

SAMPLING DATA

Collection Method Oil collected by Pipet

Depth — Moisture Content — pH —

Color — Odor —

Description Located South of Power Pole on North side of A-126 Assisted By Two PW workers

Analyses Required	Container
EPA Method - 8080	4-oz Square Glass Bottle.

Sample Monitoring (TIP, OVA, HNU, etc.)

Done

Remarks No Leak

Sampler(s) Robert Moses

FIGURE

SAMPLING LOG

Project No. ESR · 8256 - 241 Page 34 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 7-0 Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 9:05 End 9:05

Weather clear

Site Description Transformer UP-TGRMER W95386

SAMPLING DATA

Collection Method Oil collected by Pipet

Depth — Moisture Content — pH —

Color — Odor —

Description Located approximately 60' east of ℄ of Catch Basin - same location as soil sample 4-S (ASSISTED By Two PW workers (electricians)

Analyses Required	Container
EPA METHOD 8080	4-oz Square Glass Bottle

Sample Monitoring (TIP, OVA, HNU, etc.)

None

Remarks - Leaks

Sampler(s) Robert Moser

FIGURE

SAMPLING LOG

Project No. ESR-8256-241 Page 35 of 36

Site Location A126 NAS Key West, FL

Sample ID No. B-O Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 9:10 End 9:10

Weather Clear

Site Description Transformer - No - Name 250 KV

SAMPLING DATA

Collection Method Oil Collected by pipet

Depth — Moisture Content — pH —

Color — Odor —

Description Located Near the Ramp.
Assisted By Two PW - Workers (Electricians)

Analyses Required	Container
EPA method 8080	4-oz Square Glass Bottle

Sample Monitoring (TIP, OVA, HNU, etc.)
None

Remarks - Large Trans with Twin Cooling Fins
- No Labels -

Sampler(s) Robert Moser

FIGURE

SAMPLING LOG

Project No. ESR 92560-241 Page 36 of 36

Site Location A-126 NAS Key West, FL

Sample ID No. 9-0 Coded/Replicate No. None

Date 2-8-89 Time of Sampling: Begin 9:35 End 9:35

Weather Clear

Site Description Transformer No Name Located 49'-5" Northeast of North West Pin and 44'-6" North West of Power Pole on North side of A-126

SAMPLING DATA

Collection Method 0.1 Collected by Pipet

Depth — Moisture Content — pH —

Color — Odor —

Description open top By self

Analyses Required	Container
EPA Method 8080	1-oz - Bottle

Sample Monitoring (TIP, OVA, HNU, etc.) None

Remarks — Outside looked burned

Sampler(s) Robert Mozer

APPENDIX B

LIST OF DEVICES BEING STORED

PCB TRANSFORMER STATUS
BUILDING A-126 OCTOBER 1988
SOUTH OF NORTH POWER POLE

LIST No.	SERIAL	MAKE	SIZE/GAL	TEST	PCB (ppm)	STATUS
	D154478	GE		L	10.9	
	D154401	GE				
	SWITCHES		8			
	6587460	GE				
	54M15265	WH				
	55F4473	WH				
	E883513-62Y	GE				
	69L39059	CORTRAN V				
	54M15267	WH		L	32.5	SLIGHT
	NO-NAME			L	<5.0	
	5355682	AC				
	775879Y74AA	GE				
	6585693	GE		L	466.0	
	751051166	RTE				
	751051167	RTE		L	<5.0	
	6399506	WH				
	5355681	AC				
	6587020	GE				
	2214604	AC				
	5M26462	WAGNER				
	3414453	GE		L	<5.0	

list numerically

PCB TRANSFORMER STATUS
BUILDING A-126 OCTOBER 1988
ALONG SOUTH FENCE

LIST No.	SERIAL	MAKE	SIZE/GAL	TEST	PCB (ppm)	STATUS
	COILS					
	BOX					
	SWITCH (3)			W	BDL	
(127)		UPTAGRAPH		L	<5.0	
	NO PLATE			W	BDL	LEAK
	NO PLATE				NON-PCB	
	NO NAME			L	387.0	
(39)	41	GE				
(11)	42	GE				
	449(RECTIFIER)					
	763-39	SWITCH G&W				
	4330-2	PENSY	100			
(128)	59608	UPTAGRAF	75			
(54)	61569	UPTAGRAF		(28)	<5.0	LEAK
	166165	GE				
	184764	GE				
	240026(RECTIFIER)					
	354169	WAGNER				
	354174	WAGNER		(98)	NON PCB	
	384764	GE			?	LEAK
(129)	1821537	ALLISCH	50			
	3050461	ALLISCH				
	3394569	WESTHOUSE				
	3732962	GE				
	55C20730	WESTHOUSE				
	5518855	ALLISCH			NON-PCB	
	5518857	ALLISCH			NON-PCB	
	5526565	ALLISCH			NON-PCB	
	6703632	GE				
	6812184	GE				
	6812471	GE				
	6876079	GE				
	6877306	GE				
	6954407	GE				
(35)	9977707	GE				
	77A213745	WESTHOUSE				
	W-95386	UPTAGRAF		L	<5.0	SLIGHT

list numerically

PCB TRANSFORMER STATUS
BUILDING A-126 OCTOBER 1988
ALONG SOUTH FENCE

XF. LIST No.	SERIAL	MAKE	SIZE/GAL	TEST	PCB (ppm)	STATUS
XF-2	G484918-66Y	GE	15	L	<2	
XF-3	F9200555-64Y	GE	10	L	<2	
XF-5	1823497	ALLISCH	50	L	<2	
XF-6	2223764	WH	25	L	<2	
XF-7	N3545264YHTB	GE	15	L	<2	
XF-8	N348182YHTB	GE	15	L	<2	
XF-9	N354257YHTB	GE	15	L	<2	
XF-10	841065752	RTE	64	L	<2	
XF-13	3396642	W	25	L	3	
XF-14	6811230	GE	10	L	22	
XF-15	89757	MARCUS	75	L	2	
XF-20	1881210	AC	25	L	<2	
XF-21	6585968	GE	50	L	45	
XF-23	1086332	LINE MAT	25	L	2	
XF-24	5408093	W	25	L	13	
XF-27	5318739	AIILSCH	50	L	<2	
XF-28	5318739	ALLISCH	50	L	<2	
XF-29	5M26444	ALLISCH	15	L	11	
XF-30	6568951	GE	13.7	L	18	
XF-32	6210806	GE	37.5	L	11	
XF-34	667150	MALONEY	100	L	5	
XF-36	NO PLATE		37.5	L	10	
XF-38	56L18561	W	112.5	L	7	
XF-40	751049663	RTE	25	L	<2	MOD
XF-41	K244919Y71A	GE	50	L	<2	
XF-45	3282830	ALLISCH	75	L	<2	
XF-47	86651	MARCUS	95	L	<2	
XF-48	L9F1333	WAGNER	167	L		
XF-49	5148097	W	15	L	23	
XF-52	5091914	W	15	L	6	
XF-53	D228296-57P	GE	15	L	8	
XF-55	6593346	GE	75	L	14	BAD LEAK
XF-59	5408090	W	25	L	13	
XF-60	6575252	GE	25	L	17	
XF-61	1321894	LINE MAT	37.5	L	<2	
XF-63	667151	MALONEY	100	L	3	
XF-64	667149	MALONEY	100	L	2	

list numerically

PCB TRANSFORMER STATUS
BUILDING A-126 OCTOBER 1988
ALONG SOUTH FENCE

XF. LIST No.	SERIAL	MAKE	SIZE/GAL	TEST	PCB (ppm) STATUS
XF-65	L9F1331	WAGNER	167	L	8
XF-66	899758	MARCUS	75	L	<2
XF-67	1729751	AC	50	L	41
XF-68	F919349-64Y	GE	25	L	<2
XF-69	F920642-66Y	GE	15	L	<2
XF-70	G304752-66Y	GE	15	L	<2
XF-71	B400351	GE	25	L	38
XF-72	751018003	RTE	100	L	4
XF-73	9396482	GE	25	L	4
XF-74	9398825	GE	25	L	<2
XF-75	751018004	RTE	100	L	<2
XF-76	751009550	RTE	100	L	<2
XF-77	4927267	GE		L	<2
XF-77	4927267	GE		L	<2
XF-80	6576100	GE	25	L	17
XF-82	9398822	GE	25	L	3
XF-83	GEH-855C	GE		L	<2
XF-85	0073575	ALLISCH	37.5	L	<2
XF-91	6572421	GE	25	L	17
XF-92	5211734	ALLISCH	37.5	W	<2ug/100cm
XF-93	5T507911	WAGNER	15	L	<2
XF-94	W95389	UPTEGRAF	50	L	<2
XF-95	61B7940	W	75	L	6
XF-96	NOT READABLE	W		L	<2
XF-97	NO PLATE	GE		L	<2
XF-99	33175836	W	25	L	<2
XF-100	4927865	GE		L	<2
XF-101	(21) NO PLATE			L	<2
XF-102	7299394	GE	50	L	25
XF-103	5T50792	WAGNER	15	L	2
XF-104	NO PLATE			L	10
XF-105	NO PLATE			L	<2
XF-106	NO PLATE			L	<2
XF-107	3396632	W	25	L	27
XF-109	18771813	ALLISCH		L	<2
XF-110	2800700	W	75	L	<2
XF-111	18871812	ALLISCH	50	L	<2
XF-112	5211735	ALLISCH	37.5	L	12
XF-113	1776530	ALLISCH	10	L	<2
XF-108	D900896-59Y	GE	50	L	<2

list numerically

PCB TRANSFORMER STATUS
BUILDING A-126 OCTOBER 1988
ALONG SOUTH FENCE

XF. LIST No.	SERIAL	MAKE	SIZE/GAL	TEST	PCB (ppm)	STATUS
XF-115S	A5127	G&W		L	24	
XF-116	SWITCH			W	<2ug/100cm	
XF-117	SWITCH	W			<2ug/100cm	
XF-118	SWITCH			W	3ug/100cm	
XF-120	1734064	ALLISCH		L	24	
XF-121	1734061	ALLISCH		L	15	
XF-122	NO PLATE			L	24	
XF-123	SWITCH			L	33	
XF-124	SWITCH			L	4	
XF-125	SWITCH			L	21	
XF-126	SWITCH			L	21	
XF-127	SWITCH			L	7	MOD
XF-128	SWITCH			L	17	
XF-129	SWITCH			L	11	
XF-130	SWITCH			L	17	
XF-131	SWITCH			L	<2	
XF-132	SWITCH			L	<2	
XF-133	SWITCH			L	8	
XF-134	SWITCH			L	8	
XF-135	SWITCH			L	8	
XF-136	SWITCH			L	12	
XF-138	SWITCH			L	<2	
XF-139	SWITCH			L	<2	
XF-140	SWITCH			W	4yg/100cm	
XF-141	SWITCH			L	4	
XF-142	CUTOUT			L	14	
XF-143	CUTOUT			L	5	
XF-144	SWITCH			L	15	MOD
XF-145	SWITCH			L	23	MOD
XF-154	SWITCH			L	19	
XF-155	SWITCH			L	9	
XF-156	SWITCH			W	<2ug/100cm	
XF-157	SWITCH			L	48	
XF-158	SWITCH			L	48	
XF-160	SWITCH			W	<2ug/100cm	MOD
XF -164	SWITCH			L	25	
XF-165	SWITCH			W	3ug/100cm	
XF-167A	SWITCH			L	15	
B	SWITCH			L	<2	
C	SWITCH			L	<2	

list numerically

PCB TRANSFORMER STATUS
BUILDING A-126 OCTOBER 1988
ALONG SOUTH FENCE

XF. LIST No.	SERIAL	MAKE	SIZE/GAL	TEST	PCB (ppm)	STATUS
XF-173	1PXC95776	W	25	L	10	
XF-174	61E8737			L	7	
XF-180	79D954082			L	<2	
XF-181	79D954024			L	<2	
XF-182	SWITCH			L	2	
XF-183	SWITCH			L	<2	
XF-184	SWITCH			L	3	MOD
XF-185	SWITCH			L	4	
XF-186	SWITCH			W	<2ug/100cm	
XF-187	SWITCH			W	<2ug/100cm	
XF-188	4229588			L	<2	
XF-190	7841-F82			L	6	
XF-198	TRANS			W	BDL	
XF-199	SWITCH					