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# SAMPLING EVENT REPORT POTENTIAL SOURCE OF CONTAMINATION 38 (PSC38)
TORPEDO REWORK FACILITY NAS JACKSONVILLE FL
4/1/1999
HARDING LAWSON ASSOCIATES

# SAMPLING EVENT REPORT
# POTENTIAL SOURCE OF CONTAMINATION 38
# TORPEDO REWORK FACILITY

## NAVAL AIR STATION JACKSONVILLE
## JACKSONVILLE, FLORIDA

## UNIT IDENTIFICATION CODE: N00207
## CONTRACT NO.: N62467-89-D-0317/040

## APRIL 1999

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORTH CHARLESTON, SOUTH CAROLINA
29418

PRINTED ON RECYCLED PAPER

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# TORPEDO REWORK FACILITY

# NAVAL AIR STATION JACKSONVILLE
# JACKSONVILLE, FLORIDA

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**Contract No.: N62467-89-D-0317/040**

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**April 1999**

CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, Harding Lawson Associates, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/040 are complete and accurate and comply with all requirements of this contract.

DATE: April 15, 1999

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Task Order Manager

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Project Technical Lead

(DFAR 252.227-7036)

JAXPSC38 SER
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Torpedo Rework Facility
Naval Air Station Jacksonville
Jacksonville, Florida


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## GLOSSARY

| | |
|---|---|
| ABB-ES | ABB Environmental Services, Inc. |
| B&R | Brown & Root Environmental |
| BEHP | bis(2-ethylhexyl)phthalate |
| bls | below land surface |
| DDE | dichlorodiphenyldichloroethene |
| EDS | Environmental Data Services |
| FDEP | Florida Department of Environmental Protection |
| FRE | focused risk evaluations |
| GGCs | groundwater guidance concentrations |
| IAS | Initial Assessment Study |
| MCL | maximum contaminant level |
| mg/kg | milligrams per kilogram |
| $\mu g/\ell$ | micrograms per liter |
| NAS | Naval Air Station |
| NFESC | Naval Facilities Engineering Service Center |
| OESO | Ordnance Environmental Support Office |
| PARCC | precision, accuracy, representativeness, completeness, and comparability |
| PSC | potential source of contamination |
| PCB | polychlorinated biphenyl |
| QA/QC | quality assurance and quality control |
| RRDS | Remedial Response Decision System |
| SDG | sample delivery group |
| SCG | soil cleanup goal |
| SSW | Site Screening Workplan |
| SVOC | semivolatile organic compound |
| TAL | target analyte list |
| TCL | target compound list |
| USEPA | U.S. Environmental Protection Agency |
| UST | underground storage tank |
| VOC | volatile organic compound |

# 1.0 INTRODUCTION

Harding Lawson Associates, under contract to the Department of Navy (Contract No. N62467-89-D-0317, Task Order No. 040) is submitting this Sampling Event Report for Potential Source of Contamination (PSC) 38, the Torpedo Rework Facility, at Naval Air Station (NAS) Jacksonville, Jacksonville, Florida. PSC 38 is located within the restricted Magazine Area of NAS Jacksonville and encompasses Building 327, the Torpedo Rework Facility; Building 330, a storage building for paints and hazardous materials; and Building 367, the Bulk Waste Storage Area (Figures 1-1 and 1-2). Activities at the facility include the repair and cleaning of propulsion systems, the addition of Otto fuel to torpedoes, and inspection of torpedoes.

This Sampling Event Report summarizes the methods and the results of the field investigation and transmits the field and analytical data.

1.1 PURPOSE AND SCOPE. The purpose of the sampling event at PSC 38 was to gather sufficient information to support the next phase of the Remedial Response Decision System (RRDS) process (ABB Environmental Services, Inc. [ABB-ES], 1995). The scope of the sampling event, detailed in the Site Screening Workplan (SSW) (ABB-ES, 1997), at PSC 38 included the following:

- Collection of up to 17 soil samples. Up to 10 soil samples were to be collected from around the gravel sumps and the below-grade acid pit. Up to seven soil samples were to be collected from other suspect areas around the compound.

- Installation of two "micro" monitoring wells to collect groundwater samples downgradient of the facility.

- Collection of two surface water and sediment samples from the unlined drainage ditch along the east and south site borders.

- Laboratory analysis of the surface and subsurface soil, groundwater, surface water and sediment samples for U.S. Environmental Protection Agency (USEPA) target compound list (TCL) volatile organic compounds (VOCs), TCL semivolatile organic compounds (SVOCs), TCL pesticides and polychlorinated biphenyls (PCBs), and target analyte list (TAL) inorganics.

Fieldwork for this sampling event was completed between April 22, 1997, and May 6, 1997, as well as on August 28, 1997.

1.2 SITE DESCRIPTION The Torpedo Rework Facility encompasses approximately 2.5 acres within the restricted Magazine Area in the central-west part of NAS Jacksonville. The facility is surrounded by an 8-foot-high fence and is accessible from Allegheny Road via a paved driveway. However, accessibility to the Magazine Area is limited to persons having a weapons area clearance.

There are three buildings within PSC 38: Building 327, the Torpedo Rework Facility; Building 367, the Bulk Waste Storage Area; and Building 330, a storage

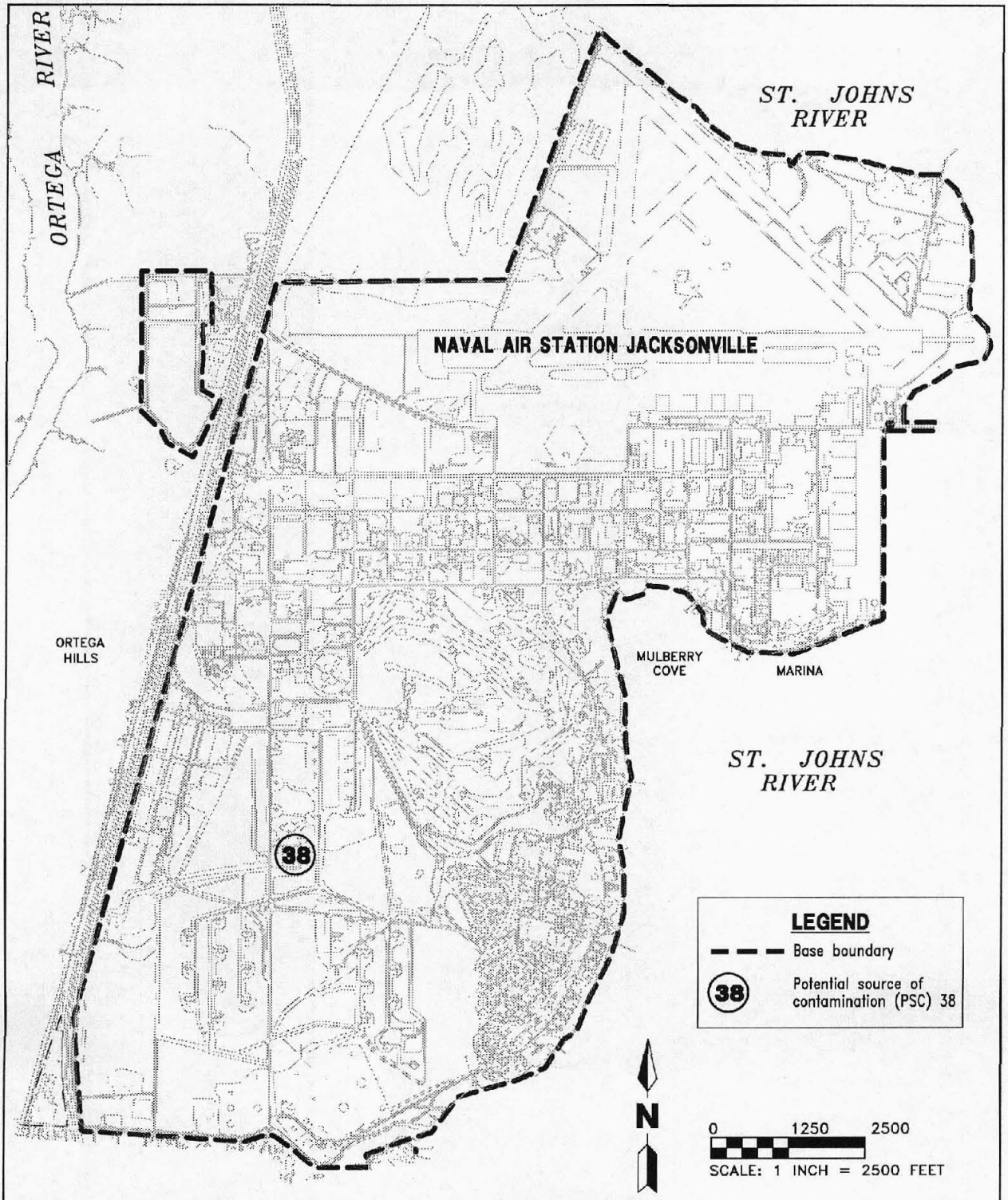


**FIGURE 1-1**
**LOCATION OF PSC 38 AT**
**NAVAL AIR STATION JACKSONVILLE**

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**SAMPLING EVENT REPORT**
**PSC 38**

**NAVAL AIR STATION JACKSONVILLE**
**JACKSONVILLE, FLORIDA**

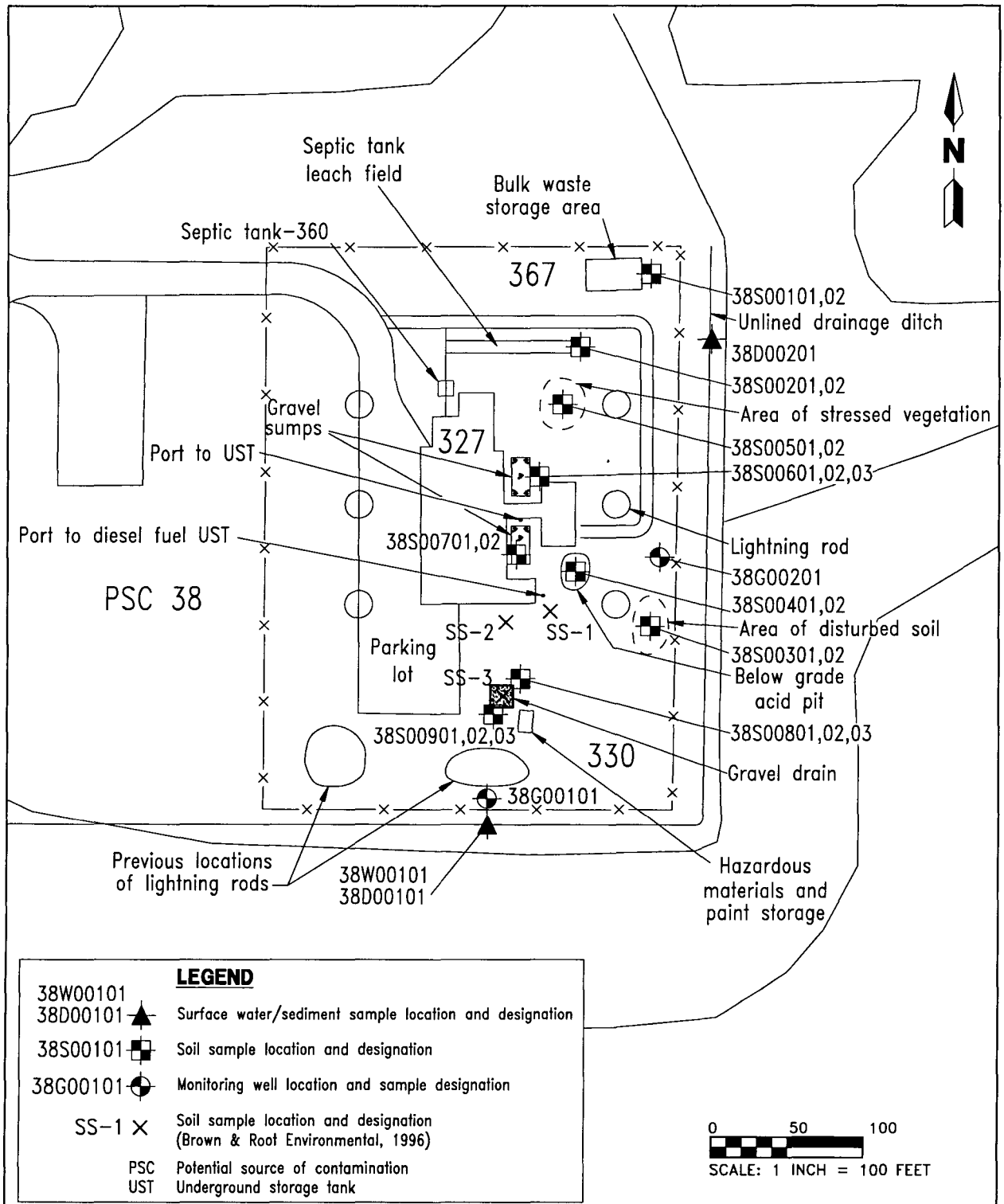


**FIGURE 1-2**
**SAMPLING LOCATIONS AT PSC 38**
**TORPEDO REWORK FACILITY**

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**SAMPLING EVENT REPORT**
**PSC 38**

**NAVAL AIR STATION JACKSONVILLE**
**JACKSONVILLE, FLORIDA**

building for paint and hazardous materials. The area between the buildings and the high-security fence is covered with grass, with the exception of a 60-by-240-foot asphalt slab on the western side of Building 327 and a concrete walkway connecting Building 327, Building 367, and the paved driveway (Figure 1-2). The absence of grass in parts of the unpaved areas was noted during the PSC reconnaissance. Facility employees identified these areas as former locations of lightning rods.

In general, the PSC is flat and gently slopes to the south and east. An unlined drainage ditch parallels the eastern and southern sides of the PSC and flows westward under Allegheny Road. According to the topography and drainage map included in the Initial Assessment Study (IAS) report, PSC 38 is within the drainage basin of the Ortega River. The surface drainage eventually discharges to tributaries of the Ortega River, which is about 1 mile to the west.

The Torpedo Rework Facility was identified as a PSC during the IAS (Fred C. Hart Associates, Inc, 1983). During IAS interviews, personnel from the station and from the Ordnance Environmental Support Office (OESO) stated that the processes associated with reworking torpedoes generated approximately one 55-gallon drum of solid waste material (gloves and rags containing Otto fuel) at the facility per day. OESO personnel further indicated that drums containing wastes had always been disposed of off site. Because no wastes were disposed of on site and no releases of Otto fuel were documented, the IAS report did not recommend a confirmation study for PSC 38.

Geraghty & Miller, Inc., later discovered that unmonitored underground storage tanks (USTs) might be present at PSC 38 (Geraghty & Miller, Inc., 1991). In addition to these USTs, the report mentioned two gravel sumps, which may have received wastes, on the east side of Building 327. The locations of these sumps were not provided. Volume 1 of the Navy Installation Restoration Program recommended site screening for PSC 38 based on the past disposal practices at the gravel sumps (Geraghty and Miller, Inc., 1991). Geraghty and Miller, Inc's. recommended site screening included sampling to determine if leakage from the gravel sumps had contaminated soil or groundwater in the vicinity of PSC 38. However, no sampling was conducted at that time.

During the PSC reconnaissance, ABB-ES observed fill ports for two USTs, confirming the presence of the two USTs noted previously by Geraghty & Miller, Inc. Mr. David Ford of the NAS Jacksonville Facilities Department confirmed that one tank was installed in 1958 and held 350 gallons of diesel fuel for an emergency generator (D. Ford, 1994). The second tank was a 1,000-gallon steel heating oil UST that was no longer in use. Diane Lancaster, NAS Jacksonville Installation Restoration Manager, subsequently reported that the steel UST is to be removed and replaced by a 1,500-gallon fiberglass UST. At that time the 350-gallon tank will also be removed. No records of tightness testing for either UST were available. ABB-ES observed dead grass around the fill port of the diesel fuel UST during the PSC reconnaissance, which suggests that diesel fuel may have spilled or overflowed.

During the records search in April 1994, ABB-ES found several maps showing a below-grade acid pit on the east side of Building 327. This pit is believed to have functioned as a disposal area for lead battery acid; however, its presence has not been confirmed. Septic tank No. 360 was also identified on a facility utility map. This tank was connected to sanitary facilities inside the building.

ABB-ES also observed a 3-by-6-foot concrete-bermed gravel drain on the west side of Building 330. Facility employees did not know its function and could not confirm it as a drain. No evidence of contamination, such as stained soil, odor, or stressed vegetation, was observed around the gravel drain.

In February 1996, Brown & Root Environmental (B&R) collected three surface soil samples for TCL and TAL analyses. The three sample locations (Figure 1-2) were selected in areas of suspected contamination: (1) within stained soil and stressed vegetation near the diesel fuel port; (2) within the area of sparse, vegetation at the southeast corner of Building 327; and (3) near the gravel drain adjacent to the doorway of Building 330 (B&R, 1996).

No organic chemicals were detected above Florida Department of Environmental Protection (FDEP) Soil Cleanup Goals (SCGs) (FDEP, 1995). However, several metals were detected in each sample. Of particular interest, the concentrations of antimony, arsenic, beryllium, cadmium, chromium, lead, and zinc exceeded their respective SCGs for residential areas.

## 2.0 SAMPLING APPROACH AND FIELD CHANGES

The work described herein was performed as presented in Section 4.11 of the SSW (ABB-ES, 1997). Exceptions to the proposed methods are described in this section.

Four additional soil samples were added to the 17 proposed samples in the SSW to investigate an area of fill near the eastern fence line and an area of stressed vegetation east of the bulk waste storage area (Figure 1-2). Five samples were collected from the gravel sump areas on the east side of Building 327 and six soil samples were collected from around the gravel drain near the hazardous materials and paint storage building (Building 330). Also, two samples were collected from near the area of the former below grade acid pit and two samples each were collected from near the bulk waste storage area (Building 367) and drainage field from septic tank No. 360. In addition, based on visually identified sparse or stressed vegetative cover, two samples each were collected from two additional suspect areas. A sample tracking log that includes sample and sample delivery group (SDG) identifiers, relevant dates, sample depths, and parameters analyzed is included in Appendix A.

One surface water and two sediment samples were collected from the unlined drainage ditch that parallels the eastern and southern side of the PSC. Surface water was present only at one of the sediment sample locations. Two "micro" monitoring wells were installed downgradient of the suspected source areas. Monitoring well MW001 was set at 13 feet below land surface (bls) with 9 feet of screen and MW002 was set at 12 feet bls with 9 feet of screen (Figure 1-2).

The soil, surface water, sediment, and groundwater samples collected for laboratory analysis were sent by overnight carrier to the subcontract laboratory, Compuchem Environmental Corporation, Cary, North Carolina. The samples were analyzed for TCL VOCs, SVOCs, pesticides and PCBs, and TAL inorganics. Following the laboratory analysis all data were validated in accordance with the Naval Facilities Engineering Service Center (NFESC) Level D protocol. The validated analytical results are included in Appendix B. A summary of the detections in the soil and groundwater analytical results is presented in Appendix C.

# 3.0 QUALITY ASSURANCE AND QUALITY CONTROL

Field samples and associated quality assurance and quality control (QA/QC) samples were collected and analyzed according to USEPA and NFESC requirements. The analytical data packages, submitted by SDGs were independently validated by a subcontract data validation company, Environmental Data Services (EDS) (Concord, New Hampshire), in accordance with validation requirements contained in NFESC document Navy Installation Restoration Laboratory Quality Assurance Guide, February 1996. Other documents utilized in the data validation and review include the USEPA *Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1994a and the USEPA *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 1994b).

A detailed QA/QC evaluation may be found in the EDS report (EDS, 1997), which summarizes the results of the data quality assessment according to the precision, accuracy, representativeness, completeness and comparability (PARCC) parameters for the entire site screening activity. The EDS report was issued as a separate document in Appendix B of the SSW. The generated analytical data were found to be acceptable according to the PARCC criteria, with less than 5 percent of the data requiring qualification (primarily estimated "J" qualifier).

# 4.0 ANALYTICAL RESULTS

**4.1 ANALYTICAL RESULTS FOR SURFACE SOIL SAMPLES** Eighteen surface soil samples were collected from nine locations at PSC 38. At each location a sample was collected from 0 to 1 foot and from 1 to 2 feet bls. The complete validated analytical data set are included in Appendix B. Appendix C presents a summary of the parameters detected in surface soil samples.

**4.1.1 Volatile Organic Compounds** No site-related VOCs were detected in the surface soil samples. Low levels of acetone and methylene chloride, indicative of lab or field contamination, were detected.

**4.1.2 Semivolatile Organic Compounds** Six SVOCs were detected in the surface soil samples analyzed, including 2,4-dimethylphenol, 2-methylnaphthalene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate (BEHP), and naphthalene. Only BEHP was detected in more than one sample.

**4.1.3 Pesticides and Polychlorinated Biphenyls** Nineteen pesticide and PCB compounds were identified in surface soil samples analyzed. All were detected at levels consistent with basewide background activities including the normal application of pesticides for insect control.

**4.1.4 Inorganic Parameters** Nineteen inorganic parameters were identified in the surface soil samples analyzed. Lead was detected at 2,350 milligrams per kilogram (mg/kg) in sample 38S00601.

**4.2 ANALYTICAL RESULTS FOR SUBSURFACE SOIL SAMPLES**. Soil samples were collected from three locations at 2 to 3 feet bls. The validated analytical data are included in Appendix B. Appendix C presents a summary of the parameters detected in the subsurface soil samples.

**4.2.1 Volatile Organic Compounds** Ethylbenzene, toluene, and xylene were the only site-related VOCs detected at PSC 38. Each was detected at low levels in only one sample (S00603), which was collected directly east of one of the gravel sumps.

**4.2.2 Semivolatile Organic Compounds** Three SVOCs (2-methylnaphthalene, BEHP, and naphthalene) were detected in the same sample as the VOCs. BEHP was also detected at low levels in sample S00803, which is directly northeast of the gravel drain.

**4.2.3 Pesticides and Polychlorinated Biphenyls** Several pesticides were detected in the three subsurface soil samples. All were detected at levels consistent with basewide application of pesticides for pest control.

**4.2.4 Inorganic Parameters** Thirteen inorganic parameters were detected in subsurface soil. Most were at levels consistent with basewide background activities. In sample S00603, aluminum, calcium, iron, lead, magnesium, and zinc were detected at elevated levels.

4.3 ANALYTICAL RESULTS FOR SURFACE WATER SAMPLES. The validated analytical data are included in Appendix B. Appendix C presents a summary of the parameters detected in surface water sample 38W00101.

4.3.1 Volatile Organic Compounds No VOCs were detected in the surface water sample analyzed.

4.3.2 Semivolatile Organic Compounds One SVOC, di-*n*-butylphthalate, was detected at 3 micrograms per liter ($\mu g/\ell$). This detection appears to be a laboratory and/or sampling artifact

4.3.3 Pesticides and Polychlorinated Biphenyls No pesticide or PCB compounds were detected in the surface water sample analyzed.

4.3.4 Inorganic Parameters Thirteen inorganic parameters were detected in the surface water sample analyzed. Only iron, at a concentration of 2,690 $\mu g/\ell$, was detected at elevated levels.

4.4 ANALYTICAL RESULTS FOR SEDIMENT SAMPLES. The validated analytical data are included in Appendix B. Appendix C presents a summary of the parameters detected in sediment samples.

4.4.1 Volatile Organic Compounds No VOCs were detected in the sediment samples analyzed.

4.4.2 Semivolatile Organic Compounds No SVOCs were detected in the sediment samples analyzed.

4.4.3 Pesticides and Polychlorinated Biphenyls Three pesticides were detected at low concentrations in the sediment samples analyzed. 4,4'-dichlorodiphenyldichloroethene (DDE) and heptachlor were detected in both samples, and endrin aldehyde was detected in only one sample. The detected levels were consistent with basewide application of pesticides for insect control.

4.4.4 Inorganic Parameters Nineteen inorganic parameters were detected in the sediment samples analyzed. All were detected at low levels consistent with basewide background activities.

4.5 ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES. The validated analytical data are included in Appendix B. Appendix C presents a summary of the parameters detected in the groundwater samples collected at PSC 38.

4.5.1 Volatile Organic Compounds VOCs were detected in groundwater sample 38G00201, which is on the east side of PSC 38. Of the four VOCs detected, three were at significant levels (1,2-dichloroethene [total] at 73 $\mu g/\ell$, trichloroethene at 24 $\mu g/\ell$, and vinyl chloride at 57 $\mu g/\ell$).

4.5.2 Semivolatile Organic Compounds No SVOCs were detected in the groundwater samples analyzed.

4.5.3 Pesticides and Polychlorinated Biphenyls No pesticide or PCB compounds were detected in the groundwater samples analyzed.

4.5.4 Inorganic Parameters Fourteen inorganic parameters were detected in groundwater samples analyzed. However, none were detected at levels that suggested contamination from on-site activities.

# 5.0 RISK EVALUATION

The purpose of performing focused risk evaluations (FRE) as part of the site screening evaluation is to assist in determining whether or not the existing risk at a PSC (1) supports a no further action decision, (2) indicates the need for an interim remedial action, or (3) requires additional investigation to make a decision. The documentation of the decision for PSC 38 may be found in the RRDS document for PSC 38 (ABB-ES, 1995). The FRE were not intended to characterize "baseline" risk at the PSC, but rather were used as a decision making tool.

It was not necessary to conduct an FRE to support the decision to perform an interim remedial action at one of the gravel sumps and to collect additional groundwater data because levels of certain contaminants significantly exceeded guidance and regulatory levels. One of the surface soil samples (sample 38S00601, which was immediately adjacent to one of the gravel sumps) contained lead at 2,350 mg/kg, which significantly exceeds the FDEP residential SCG of 500 mg/kg and the industrial SCG of 1,000 mg/kg (FDEP, 1995). The groundwater sample taken from the eastern side of PSC 38 contained trichloroethene, and its breakdown products 1,2-dichloroethene and vinyl chloride, at levels above the primary groundwater standards (the FDEP groundwater guidance concentrations [GGCs] and the Federal maximum contaminant levels [MCLs]). Trichloroethene was detected at 24 $\mu g/\ell$ compared to 3 $\mu g/\ell$ (GGC) and 5 $\mu g/\ell$ (MCL); vinyl chloride was detected at 57 $\mu g/\ell$ compared to 1 $\mu g/\ell$ (GGC) and 2 $\mu g/\ell$ (MCL); and dichloroethene was detected at 73 $\mu g/\ell$ compared to 70 $\mu g/\ell$ (GGC and MCL).

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# APPENDIX A

# OFF-SITE SAMPLE TRACKING LOG

## Appendix A

PSC 38
OFFSITE SAMPLE TRACKING LOG
SITE SCREENING, NAS JACKSONVILLE

| SDG | SAMPLE ID | SAMP DATE | UDEPTH (ft bls) | LDEPTH (ft bls) | MATRIX | TAL MET | TCL VOC | TCL SVOC | TCL PESTPCB | DRFL | TAT | DSTV | DRFV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0019S | 38D00101 | 8/28/97 | NA | NA | sediment | X | X | X | X | 10/7/97 | 40 | 10/7/97 | 10/21/97 |
| 0019S | 38D00201 | 8/28/97 | NA | NA | sediment | X | X | X | X | 10/7/97 | 40 | 10/7/97 | 10/21/97 |
| 00007 | 38G00101 | 4/22/97 | 4 | 13 | groundwater | X | X | X | X | 6/2/97 | 31 | 6/20/97 | 7/18/97 |
| 00007 | 38G00201 | 4/24/97 | 3 | 12 | groundwater | X | X | X | X | 6/2/97 | 31 | 6/20/97 | 7/18/97 |
| 00008 | 38S00101 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00102 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00201 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00202 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00301 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00302 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00401 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00402 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00501 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00502 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00601 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00008 | 38S00602 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/6/97 | 32 | 6/20/97 | 7/18/97 |
| 00009 | 38S00603 | 5/6/97 | 2 | 3 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00701 | 5/5/97 | 0 | 1 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00702 | 5/5/97 | 1 | 2 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00801 | 5/6/97 | 0 | 1 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00802 | 5/6/97 | 1 | 2 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00803 | 5/6/97 | 2 | 3 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00901 | 5/6/97 | 0 | 1 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00902 | 5/6/97 | 1 | 2 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 00009 | 38S00903 | 5/6/97 | 2 | 3 | soil | X | X | X | X | 6/12/97 | 30 | 6/20/97 | 7/21/97 |
| 0019W | 38W00101 | 8/28/97 | NA | NA | surface water | X | X | X | X | 10/7/97 | 40 | 10/7/97 | 10/21/97 |

## Appendix A

PSC 38
OFFSITE SAMPLE TRACKING LOG
SITE SCREENING, NAS JACKSONVILLE

| NOTES: | |
|---|---|
| SDG | Sample Delivery Group (defined group of 20 samples or less collected not more than 14 days of each other) |
| SAMPLE ID | Sample Identifier |
| SAMP DATE | Date of Sample Collection |
| UDEPTH, LDEPTH | Depths, upper (UDEPTH) and lower (LDEPTH) |
| MATRIX | Media Sampled |
| TAL MET | Target Analyte List Metals |
| TCL VOC | Target Compound List Volatile Organics |
| TCL SVOC | Target Compound List Semivolatile Organics |
| TCL PESTPCB | Target Compound List Pesticides and Polychlorinated Biphenyls |
| DRFL | Date Package Received from Laboratory |
| TAT | Turnaround Time (days) |
| DSTV | Date Package Sent to Validators |
| DRFV | Date Package Received from Validators |

# APPENDIX B

# VALIDATED ANALYTICAL RESULTS

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00101 | | 38S00102 | | 38S00201 | | 38S00202 | | 38S00301 | | 38S00302 | | 38S00401 | | 38S00402 | | 38S00501 | | 38S00502 | | 38S00601 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | |
| **Volatile organics, ug/kg** | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,1,2,2-Tetrachloroethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,1,2-Trichloroethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,1-Dichloroethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,1-Dichloroethene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,2-Dichloroethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,2-Dichloroethene (total) | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| 1,2-Dichloropropane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | UJ | 12 | UJ | 11 | UJ |
| 2-Butanone | 12 | UJ | 12 | UJ | 13 | UJ | 12 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 11 | UJ |
| 2-Hexanone | 12 | UJ | 12 | UJ | 13 | UJ | 12 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 11 | UJ |
| 4-Methyl-2-pentanone | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | UJ | 12 | UJ | 11 | UJ |
| Acetone | 15 | J | 56 | J | 220 | J | 160 | J | 98 | J | 74 | J | 50 | J | 49 | J | 12 | UJ | 12 | UJ | 11 | UJ |
| Benzene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Bromodichloromethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Bromoform | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Bromomethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Carbon disulfide | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Carbon tetrachloride | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Chlorobenzene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Chloroethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Chloroform | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Chloromethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| cis-1,3-Dichloropropene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | UJ | 12 | UJ | 11 | UJ |
| Dibromochloromethane | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Ethylbenzene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Methylene chloride | 1 | J | 1 | J | 2 | J | 2 | J | 2 | J | 2 | J | 2 | J | 12 | U | 12 | U | 12 | U | 2 | J |
| Styrene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Tetrachloroethene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Toluene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| trans-1,3-Dichloropropene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | UJ | 12 | UJ | 11 | UJ |
| Trichloroethene | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Vinyl chloride | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| Xylene (total) | 12 | U | 12 | U | 13 | U | 12 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 12 | U | 11 | U |
| **Semivolatile organics, ug/kg** | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00101 | | 38S00102 | | 38S00201 | | 38S00202 | | 38S00301 | | 38S00302 | | 38S00401 | | 38S00402 | | 38S00501 | | 38S00502 | | 38S00601 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | |
| 1,2-Dichlorobenzene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 1,3-Dichlorobenzene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 1,4-Dichlorobenzene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2,2'-oxybis(1-Chloropropane) | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2,4,5-Trichlorophenol | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| 2,4,6-Trichlorophenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2,4-Dichlorophenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2,4-Dimethylphenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2,4-Dinitrophenol | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| 2,4-Dinitrotoluene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2,6-Dinitrotoluene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2-Chloronaphthalene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2-Chlorophenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2-Methylnaphthalene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2-Methylphenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 2-Nitroaniline | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | UJ | 990 | UJ | 4600 | U |
| 2-Nitrophenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 3,3'-Dichlorobenzidine | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | UJ | 400 | UJ | 1800 | U |
| 3-Nitroaniline | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| 4,6-Dinitro-2-methylphenol | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| 4-Bromophenyl-phenylether | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 4-Chloro-3-methylphenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 4-Chloroaniline | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 4-Chlorophenyl-phenylether | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| 4-Methylphenol | 400 | UJ | 400 | UJ | 420 | UJ | 410 | UJ | 360 | UJ | 390 | UJ | 400 | UJ | 390 | UJ | 410 | UJ | 400 | UJ | 1800 | U |
| 4-Nitroaniline | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| 4-Nitrophenol | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| Acenaphthene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Acenaphthylene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Anthracene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Benzo(a)anthracene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Benzo(a)pyrene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | | | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Benzo(b)fluoranthene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Benzo(g,h,i)perylene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Benzo(k)fluoranthene | 400 | UJ | 400 | UJ | 420 | UJ | 410 | UJ | 360 | UJ | 390 | UJ | 400 | UJ | 390 | UJ | 410 | U | 400 | U | 1800 | U |
| bis(2-Chloroethoxy)methane | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00101 | | 38S00102 | | 38S00201 | | 38S00202 | | 38S00301 | | 38S00302 | | 38S00401 | | 38S00402 | | 38S00501 | | 38S00502 | | 38S00601 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | |
| bis(2-Chloroethyl)ether | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| bis(2-Ethylhexyl)phthalate | 400 | U | 400 | U | 80 | J | 49 | J | 51 | J | 110 | J | 52 | J | 54 | J | 66 | J | 400 | U | 1700 | J |
| Butylbenzylphthalate | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Carbazole | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Chrysene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Di-n-butylphthalate | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Di-n-octylphthalate | 400 | UJ | 400 | UJ | 420 | UJ | 410 | UJ | 360 | UJ | 390 | UJ | 400 | UJ | 390 | UJ | 410 | UJ | 400 | UJ | 1800 | U |
| Dibenz(a,h)anthracene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Dibenzofuran | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Diethylphthalate | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Dimethylphthalate | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Fluoranthene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Fluorene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Hexachlorobenzene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Hexachlorobutadiene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Hexachlorocyclopentadiene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Hexachloroethane | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Indeno(1,2,3-cd)pyrene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Isophorone | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| N-Nitroso-di-n-propylamine | 400 | UJ | 400 | UJ | 420 | UJ | 410 | UJ | 360 | UJ | 390 | UJ | 400 | UJ | 390 | UJ | 410 | UJ | 400 | UJ | 1800 | U |
| N-Nitrosodiphenylamine (1) | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Naphthalene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Nitrobenzene | 400 | UJ | 400 | UJ | 420 | UJ | 410 | UJ | 360 | UJ | 390 | UJ | 400 | UJ | 390 | UJ | 410 | UJ | 400 | UJ | 1800 | U |
| Pentachlorophenol | 1000 | U | 1000 | U | 1100 | U | 1000 | U | 910 | U | 990 | U | 1000 | U | 980 | U | 1000 | U | 990 | U | 4600 | U |
| Phenanthrene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Phenol | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| Pyrene | 400 | U | 400 | U | 420 | U | 410 | U | 360 | U | 390 | U | 400 | U | 390 | U | 410 | U | 400 | U | 1800 | U |
| **Pesticides/PCBs, ug/kg** | | | | | | | | | | | | | | | | | | | | | | |
| 4,4'-DDD | 4 | UJ | 4 | UJ | 6 7 | U | 4 1 | UJ | 3 6 | U | 3 9 | U | 4 | UJ | 3 9 | U | 4 1 | UJ | 4 | UJ | 4 | UJ |
| 4,4'-DDE | 0 34 | J | 4 | U | 6 4 | | 0 37 | J | 0 22 | J | 0 78 | J | 4 | U | 1 8 | J | 2 | J | 4 | U | 2 8 | J |
| 4,4'-DDT | 4 | UJ | 4 | UJ | 4 3 | U | 4 1 | U | 3 6 | UJ | 3 9 | UJ | 4 | UJ | 3 9 | UJ | 5 4 | U | 4 | UJ | 9 5 | UJ |
| Aldrin | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 0 2 | J | 2 1 | U | 2 | U | 2 1 | U | 2 | U | 1 2 | J |
| alpha-BHC | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 2 | U | 0 09 | J | 2 | U | 2 1 | U | 2 | U | 1 9 | U |
| alpha-Chlordane | 0 26 | J | 0 64 | J | 0 38 | J | 0 26 | J | 0 15 | J | 5 3 | | 6 6 | J | 7 9 | J | 0 2 | J | 2 | U | 4 9 | |
| Aroclor-1016 | 40 | U | 40 | U | 42 | U | 41 | U | 36 | U | 39 | U | 40 | U | 39 | U | 41 | U | 40 | U | 37 | U |
| Aroclor-1221 | 81 | U | 82 | U | 86 | U | 83 | U | 73 | U | 79 | U | 82 | U | 80 | U | 83 | U | 81 | U | 75 | U |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00101 | | 38S00102 | | 38S00201 | | 38S00202 | | 38S00301 | | 38S00302 | | 38S00401 | | 38S00402 | | 38S00501 | | 38S00502 | | 38S00601 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | |
| Aroclor-1232 | 40 | U | 40 | U | 42 | U | 41 | U | 36 | U | 39 | U | 40 | U | 39 | U | 41 | U | 40 | U | 37 | U |
| Aroclor-1242 | 40 | U | 40 | U | 42 | U | 41 | U | 36 | U | 39 | U | 40 | U | 62 | | 41 | U | 40 | U | 37 | U |
| Aroclor-1248 | 40 | U | 40 | U | 42 | U | 41 | U | 36 | U | 39 | U | 40 | U | 39 | U | 41 | U | 40 | U | 37 | U |
| Aroclor-1254 | 40 | U | 40 | U | 42 | U | 41 | U | 36 | U | 39 | U | 40 | U | 39 | U | 41 | U | 40 | U | 37 | U |
| Aroclor-1260 | 40 | U | 40 | U | 42 | U | 41 | U | 9 6 | J | 15 | J | 16 | J | 33 | J | 8 2 | J | 40 | U | 37 | U |
| beta-BHC | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 2 | U | 2 1 | U | 2 | U | 2 1 | U | 2 | U | 1 9 | U |
| delta-BHC | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 2 | U | 2 1 | U | 2 | U | 0 13 | J | 2 | U | 1 9 | U |
| Dieldrin | 0 15 | J | 4 | U | 0 25 | J | 4 1 | U | 3 6 | U | 3 9 | U | 4 | U | 3 9 | U | 0 26 | J | 0 18 | J | 1 2 | J |
| Endosulfan I | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 2 | U | 2 1 | U | 2 | U | 2 1 | U | 2 | U | 1 9 | U |
| Endosulfan II | 4 | U | 4 | U | 4 2 | U | 4 1 | U | 3 6 | U | 3 9 | U | 4 | U | 3 9 | U | 4 1 | U | 4 | U | 5 5 | J |
| Endosulfan sulfate | 4 | U | 4 | U | 4 2 | U | 4 1 | U | 3 6 | U | 0 1 | J | 4 | U | 3 9 | U | 4 1 | U | 4 | U | 12 | J |
| Endrin | 4 | U | 4 | U | 4 2 | U | 4 1 | U | 3 6 | U | 0 2 | J | 4 | U | 0 38 | J | 4 1 | U | 4 | U | 0 41 | J |
| Endrin aldehyde | 4 | U | 4 | U | 4 2 | U | 4 1 | U | 3 6 | U | 3 9 | U | 0 4 | J | 3 9 | U | 4 1 | U | 4 | U | 4 5 | J |
| Endrin ketone | 4 | U | 4 | U | 0 42 | J | 4 1 | U | 3 6 | U | 3 9 | U | 4 | U | 3 9 | U | 0 | J | 4 | U | 1 5 | J |
| gamma-BHC (Lindane) | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 2 | U | 2 1 | U | 2 | U | 2 1 | U | 2 | U | 1 9 | U |
| gamma-Chlordane | 0 2 | J | 0 38 | J | 0 32 | J | 0 18 | J | 0 4 | J | 5 2 | | 5 5 | J | 7 | J | 0 3 | J | 0 18 | J | 2 | |
| Heptachlor | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 2 | U | 2 1 | U | 2 | U | 2 1 | U | 2 | U | 0 11 | J |
| Heptachlor epoxide | 2 1 | U | 2 1 | U | 2 2 | U | 2 1 | U | 1 8 | U | 0 29 | J | 2 1 | U | 0 74 | J | 2 1 | U | 2 | U | 0 19 | J |
| Methoxychlor | 21 | U | 21 | U | 22 | UJ | 21 | U | 18 | U | 20 | U | 21 | U | 20 | U | 21 | U | 20 | UJ | 25 | UJ |
| Toxaphene | 210 | U | 210 | U | 220 | U | 210 | U | 180 | U | 200 | U | 210 | U | 200 | U | 210 | U | 200 | U | 190 | U |
| **Inorganics, mg/kg** | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | 756 | J | 610 | J | 1010 | J | 1250 | J | 2140 | J | 528 | J | 959 | J | 1600 | J | 760 | J | 846 | J | 1260 | J |
| Antimony | 0 59 | U | 0 58 | U | 0 62 | U | 0 6 | U | 0 53 | U | 1 9 | J | 0 58 | U | 0 57 | U | 0 6 | U | 0 58 | U | 0 54 | U |
| Arsenic | 0 68 | U | 0 68 | U | 0 72 | U | 0 7 | U | 0 75 | U | 0 67 | U | 0 68 | U | 0 67 | U | 0 7 | U | 0 68 | U | 0 63 | U |
| Barium | 3 3 | J | 3 3 | J | 10 2 | J | 2 5 | J | 14 8 | J | 23 1 | J | 5 | J | 6 9 | J | 9 4 | J | 1 5 | J | 10 | J |
| Beryllium | 0 05 | U | 0 05 | U | 0 08 | U | 0 08 | U | 0 14 | U | 0 05 | U | 0 09 | U | 0 07 | U | 0 09 | U | 0 1 | U | 0 07 | U |
| Cadmium | 0 1 | U | 0 1 | U | 0 1 | U | 0 1 | U | 0 09 | U | 5 5 | J | 0 1 | U | 0 1 | U | 0 1 | U | 0 1 | U | 11 | J |
| Calcium | 295 | J | 222 | J | 2660 | | 418 | J | 71600 | | 1540 | | 463 | J | 549 | J | 1050 | J | 257 | J | 814 | J |
| Chromium | 1 2 | J | 1 | J | 1 6 | J | 1 8 | J | 7 7 | J | 270 | J | 1 8 | J | 2 8 | J | 1 4 | J | 1 | J | 9 | J |
| Cobalt | 0 22 | U | 0 22 | U | 0 23 | U | 0 55 | U | 0 2 | U | 0 53 | U | 0 22 | U | 0 21 | U | 0 22 | U | 0 22 | U | 0 51 | U |
| Copper | 4 1 | U | 3 2 | U | 3 5 | U | 1 2 | U | 153 | J | 17 4 | U | 6 | J | 13 8 | J | 6 | J | 1 5 | U | 8 7 | J |
| Iron | 229 | J | 155 | J | 1190 | J | 518 | J | 3420 | J | 1500 | J | 1000 | J | 1860 | J | 1220 | J | 151 | J | 709 | J |
| Lead | 3 7 | J | 2 4 | J | 6 9 | J | 2 7 | J | 9 8 | J | 22 3 | J | 6 6 | J | 9 8 | J | 9 8 | J | 1 7 | J | 2350 | J |
| Magnesium | 36 1 | J | 26 5 | J | 66 5 | J | 30 9 | J | 490 | J | 35 | J | 45 4 | J | 54 7 | J | 43 1 | J | 22 2 | U | 77 8 | J |
| Manganese | 2 | J | 2 2 | J | 9 9 | J | 0 98 | J | 9 6 | J | 5 | J | 2 7 | J | 3 6 | J | 4 5 | J | 0 61 | J | 13 6 | J |
| Mercury | 0 06 | UJ | 0 06 | UJ | 0 06 | UJ | 0 06 | UJ | 0 05 | UJ | 0 08 | J | 0 06 | UJ | 0 06 | UJ | 0 06 | UJ | 0 06 | UJ | 0 06 | J |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00101 | | 38S00102 | | 38S00201 | | 38S00202 | | 38S00301 | | 38S00302 | | 38S00401 | | 38S00402 | | 38S00501 | | 38S00502 | | 38S00601 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | | 5/5/97 | |
| Nickel | 0 32 | UJ | 0 32 | UJ | 0 64 | J | 0 34 | J | 0 75 | | 1 8 | J | 0 54 | J | 0 63 | J | 0 65 | J | 0 44 | J | 1 2 | J |
| Potassium | 37 5 | U | 46 9 | U | 56 3 | U | 37 7 | U | 81 7 | J | 38 | U | 59 9 | U | 57 1 | U | 37 1 | U | 36 1 | U | 79 4 | J |
| Selenium | 1 1 | U | 1 | U | 1 1 | U | 1 1 | U | 0 94 | U | 1 | U | 1 | U | 1 | U | 1 1 | U | 1 | U | 0 96 | U |
| Silver | 0 17 | U | 0 17 | U | 0 18 | U | 0 17 | U | 0 17 | J | 6 3 | | 0 17 | U | 0 17 | U | 0 17 | U | 0 17 | U | 0 45 | U |
| Sodium | 365 | U | 400 | U | 389 | U | 377 | U | 341 | U | 374 | U | 398 | U | 390 | U | 381 | U | 357 | U | 384 | U |
| Thallium | 1 3 | U | 1 3 | U | 1 4 | U | 1 4 | U | 1 2 | U | 1 3 | U | 1 3 | U | 1 3 | U | 1 4 | U | 1 3 | U | 1 2 | U |
| Vanadium | 1 5 | J | 1 2 | J | 2 9 | J | 4 | J | 5 5 | J | 1 8 | J | 2 4 | J | 3 1 | J | 2 2 | J | 1 9 | J | 2 8 | J |
| Zinc | 14 | J | 5 8 | J | 7 1 | J | 3 4 | J | 9 5 | J | 16 4 | J | 11 8 | J | 77 6 | J | 8 8 | J | 3 4 | J | 105 | J |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00602 | | 38S00701 | | 38S00702 | | 38S00801 | | 38S00802 | | 38S00901 | | 38S00902 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| **Volatile organics, ug/kg** | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,1,2,2-Tetrachloroethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,1,2-Trichloroethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,1-Dichloroethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,1-Dichloroethene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,2-Dichloroethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,2-Dichloroethene (total) | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| 1,2-Dichloropropane | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | U | 12 | U | 13 | U |
| 2-Butanone | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 13 | UJ |
| 2-Hexanone | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 13 | UJ |
| 4-Methyl-2-pentanone | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | U | 12 | U | 13 | U |
| Acetone | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 12 | UJ | 13 | UJ |
| Benzene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Bromodichloromethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Bromoform | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Bromomethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Carbon disulfide | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Carbon tetrachloride | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Chlorobenzene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Chloroethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Chloroform | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Chloromethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| cis-1,3-Dichloropropene | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | U | 12 | U | 13 | U |
| Dibromochloromethane | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Ethylbenzene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Methylene chloride | 2 | J | 2 | J | 1 | J | 2 | J | 2 | J | 2 | J | 3 | J |
| Styrene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Tetrachloroethene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Toluene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| trans-1,3-Dichloropropene | 11 | UJ | 11 | UJ | 12 | UJ | 12 | UJ | 12 | U | 12 | U | 13 | U |
| Trichloroethene | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Vinyl chloride | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| Xylene (total) | 11 | U | 11 | U | 12 | U | 12 | U | 12 | U | 12 | U | 13 | U |
| **Semivolatile organics, ug/kg** | | | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00602 | | 38S00701 | | 38S00702 | | 38S00801 | | 38S00802 | | 38S00901 | | 38S00902 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | 5/5/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| 1,2-Dichlorobenzene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 1,3-Dichlorobenzene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 1,4-Dichlorobenzene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2,2'-oxybis(1-Chloropropane) | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2,4,5-Trichlorophenol | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| 2,4,6-Trichlorophenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2,4-Dichlorophenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2,4-Dimethylphenol | 300 | J | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2,4-Dinitrophenol | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| 2,4-Dinitrotoluene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2,6-Dinitrotoluene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2-Chloronaphthalene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2-Chlorophenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2-Methylnaphthalene | 40 | J | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2-Methylphenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 2-Nitroaniline | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| 2-Nitrophenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 3,3'-Dichlorobenzidine | 360 | UJ | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 3-Nitroaniline | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| 4,6-Dinitro-2-methylphenol | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| 4-Bromophenyl-phenylether | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 4-Chloro-3-methylphenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 4-Chloroaniline | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 4-Chlorophenyl-phenylether | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | UJ | 380 | UJ | 420 | UJ |
| 4-Methylphenol | 360 | UJ | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| 4-Nitroaniline | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| 4-Nitrophenol | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | UJ | 970 | UJ | 1000 | UJ |
| Acenaphthene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Acenaphthylene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Anthracene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Benzo(a)anthracene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Benzo(a)pyrene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Benzo(b)fluoranthene | 360 | U | 64 | J | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Benzo(g,h,i)perylene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Benzo(k)fluoranthene | 360 | U | 56 | J | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| bis(2-Chloroethoxy)methane | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00602 | | 38S00701 | | 38S00702 | | 38S00801 | | 38S00802 | | 38S00901 | | 38S00902 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| bis(2-Chloroethyl)ether | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| bis(2-Ethylhexyl)phthalate | 1100 | | 370 | U | 400 | UJ | 48 | J | 390 | U | 100 | J | 420 | U |
| Butylbenzylphthalate | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Carbazole | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Chrysene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Di-n-butylphthalate | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Di-n-octylphthalate | 360 | UJ | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Dibenz(a,h)anthracene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Dibenzofuran | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Diethylphthalate | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Dimethylphthalate | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Fluoranthene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Fluorene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | UJ | 380 | UJ | 420 | UJ |
| Hexachlorobenzene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Hexachlorobutadiene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Hexachlorocyclopentadiene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Hexachloroethane | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Indeno(1,2,3-cd)pyrene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Isophorone | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| N-Nitroso-di-n-propylamine | 360 | UJ | 370 | U | 400 | UJ | 410 | U | 390 | UJ | 380 | UJ | 420 | UJ |
| N-Nitrosodiphenylamine (1) | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Naphthalene | 80 | J | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Nitrobenzene | 360 | UJ | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Pentachlorophenol | 920 | U | 940 | U | 1000 | UJ | 1000 | U | 980 | U | 970 | U | 1000 | U |
| Phenanthrene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Phenol | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| Pyrene | 360 | U | 370 | U | 400 | UJ | 410 | U | 390 | U | 380 | U | 420 | U |
| **Pesticides/PCBs, ug/kg** | | | | | | | | | | | | | | |
| 4,4'-DDD | 3 7 | UJ | 5 7 | UJ | 4 | UJ | 4 | U | 3 9 | UJ | 3 8 | U | 4 2 | UJ |
| 4,4'-DDE | 1 8 | J | 3 8 | U | 4 | U | 2 6 | J | 2 1 | J | 2 | J | 1 6 | J |
| 4,4'-DDT | 3 7 | UJ | 3 8 | UJ | 5 3 | UJ | 4 | U | 3 9 | UJ | 7 7 | J | 4 2 | UJ |
| Aldrin | 0 41 | J | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| alpha-BHC | 1 9 | U | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| alpha-Chlordane | 18 | J | 1 9 | U | 2 1 | U | 4 2 | J | 0 7 | J | 2 | UJ | 0 91 | J |
| Aroclor-1016 | 37 | U | 38 | U | 40 | U | 40 | U | 39 | U | 38 | U | 42 | U |
| Aroclor-1221 | 75 | U | 76 | U | 81 | U | 82 | U | 79 | U | 78 | U | 86 | U |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00602 | | 38S00701 | | 38S00702 | | 38S00801 | | 38S00802 | | 38S00901 | | 38S00902 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sampling Date** | 5/5/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| Aroclor-1232 | 37 | U | 38 | U | 40 | U | 40 | U | 39 | U | 38 | U | 42 | U |
| Aroclor-1242 | 37 | U | 71 | | 40 | U | 40 | U | 39 | U | 38 | U | 42 | U |
| Aroclor-1248 | 37 | U | 38 | U | 40 | U | 40 | U | 39 | U | 38 | U | 42 | U |
| Aroclor-1254 | 37 | U | 38 | U | 40 | U | 40 | U | 39 | U | 38 | U | 42 | U |
| Aroclor-1260 | 27 | J | 58 | | 40 | U | 66 | | 48 | | 180 | | 42 | U |
| beta-BHC | 1 9 | U | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| delta-BHC | 1 9 | U | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| Dieldrin | 3 7 | U | 3 8 | U | 4 | U | 4 | U | 0 44 | J | 0 85 | J | 4 2 | U |
| Endosulfan I | 1 9 | U | 1 9 | U | 2 1 | U | 2 1 | U | 0 09 | J | 2 | U | 2 2 | U |
| Endosulfan II | 3 7 | U | 3 8 | U | 4 | U | 4 | U | 1 6 | J | 3 8 | U | 0 58 | J |
| Endosulfan sulfate | 1 | J | 3 8 | U | 4 | U | 4 | U | 3 9 | U | 1 1 | J | 4 2 | U |
| Endrin | 0 36 | J | 3 8 | U | 4 | U | 4 | U | 4 2 | | 3 8 | U | 4 2 | U |
| Endrin aldehyde | 1 | J | 3 8 | U | 4 | U | 4 | U | 0 58 | J | 3 | J | 4 2 | U |
| Endrin ketone | 3 7 | U | 3 8 | U | 4 | U | 4 | U | 3 9 | U | 3 8 | U | 0 8 | J |
| gamma-BHC (Lindane) | 0 26 | J | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| gamma-Chlordane | 22 | J | 1 2 | J | 0 22 | J | 4 1 | | 0 65 | J | 0 89 | J | 0 42 | J |
| Heptachlor | 1 9 | U | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| Heptachlor epoxide | 0 81 | J | 1 9 | U | 2 1 | U | 2 1 | U | 2 | U | 2 | U | 2 2 | U |
| Methoxychlor | 19 | UJ | 19 | U | 21 | U | 21 | U | 20 | U | 20 | UJ | 22 | UJ |
| Toxaphene | 190 | U | 190 | U | 210 | U | 210 | U | 200 | U | 200 | U | 220 | U |
| **Inorganics, mg/kg** | | | | | | | | | | | | | | |
| Aluminum | 1270 | J | 1030 | J | 1650 | J | 714 | J | 612 | J | 696 | J | 966 | J |
| Antimony | 0 54 | U | 0 55 | U | 0 59 | U | 0 59 | U | 0 57 | U | 0 57 | U | 0 62 | U |
| Arsenic | 0 63 | U | 0 65 | U | 0 69 | U | 0 69 | U | 0 67 | U | 0 66 | U | 0 72 | U |
| Barium | 6 4 | J | 14 8 | J | 10 9 | J | 5 4 | J | 2 3 | J | 6 9 | J | 3 5 | J |
| Beryllium | 0 13 | U | 0 14 | U | 0 07 | U | 0 06 | U | 0 05 | U | 0 05 | U | 0 05 | U |
| Cadmium | 1 2 | J | 0 79 | J | 0 1 | U | 0 11 | J | 0 1 | U | 0 09 | U | 0 1 | U |
| Calcium | 602 | J | 1110 | J | 642 | J | 422 | J | 134 | J | 395 | J | 708 | J |
| Chromium | 10 3 | J | 5 | | 2 5 | | 27 | | 5 2 | | 8 5 | | 2 4 | J |
| Cobalt | 0 31 | U | 0 4 | J | 0 22 | U | 0 42 | J | 0 22 | U | 0 26 | J | 0 23 | U |
| Copper | 3 6 | J | 123 | | 8 5 | | 5 1 | J | 1 7 | J | 12 | | 3 7 | J |
| Iron | 626 | J | 2180 | | 1740 | | 394 | | 421 | | 317 | | 190 | |
| Lead | 290 | J | 94 3 | | 6 3 | | 21 3 | | 3 5 | | 36 6 | | 3 9 | |
| Magnesium | 47 4 | J | 236 | J | 63 | J | 27 3 | J | 15 5 | U | 47 2 | J | 36 5 | J |
| Manganese | 6 5 | J | 31 2 | | 4 9 | | 2 5 | J | 1 6 | J | 4 8 | | 1 7 | J |
| Mercury | 0 06 | UJ | 0 07 | UJ | 0 07 | UJ | 0 07 | UJ | 0 07 | U | 0 07 | UJ | 0 06 | UJ |

**Appendix B-1**

# Validated Analytical Results
## Surface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00602 | | 38S00701 | | 38S00702 | | 38S00801 | | 38S00802 | | 38S00901 | | 38S00902 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sampling Date | 5/5/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| Nickel | 0 66 | J | 2 1 | J | 0 69 | J | 0 36 | J | 0 31 | U | 0 34 | J | 0 33 | U |
| Potassium | 59 6 | U | 60 8 | U | 80 7 | U | 47 8 | U | 53 3 | U | 55 6 | U | 47 6 | U |
| Selenium | 0 97 | U | 1 2 | | 1 1 | U | 1 1 | U | 1 | U | 1 | U | 1 1 | U |
| Silver | 0 21 | U | 0 17 | J | 0 17 | U | 0 22 | J | 0 17 | U | 0 33 | J | 0 18 | U |
| Sodium | 380 | U | 400 | U | 398 | U | 424 | U | 474 | U | 375 | U | 473 | U |
| Thallium | 1 2 | U | 1 3 | U | 1 3 | U | 1 3 | U | 1 3 | U | 1 3 | U | 1 4 | U |
| Vanadium | 1 8 | J | 3 2 | J | 2 9 | J | 1 3 | J | 1 7 | J | 1 5 | J | 1 2 | J |
| Zinc | 42 4 | J | 389 | J | 21 1 | J | 205 | J | 34 3 | J | 39 2 | J | 5 1 | J |

**Appendix B-2**

# Validated Analytical Results
## Subsurface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00603 | | 38S00803 | | 38S00903 | |
|---|---|---|---|---|---|---|
| Sampling Date | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| **Volatile organics, ug/kg** | | | | | | |
| 1,1,1-Trichloroethane | 12 | UJ | 12 | U | 13 | U |
| 1,1,2,2-Tetrachloroethane | 12 | UJ | 12 | U | 13 | U |
| 1,1,2-Trichloroethane | 12 | UJ | 12 | U | 13 | U |
| 1,1-Dichloroethane | 12 | UJ | 12 | U | 13 | U |
| 1,1-Dichloroethene | 12 | UJ | 12 | U | 13 | U |
| 1,2-Dichloroethane | 12 | UJ | 12 | U | 13 | U |
| 1,2-Dichloroethene (total) | 12 | UJ | 12 | U | 13 | U |
| 1,2-Dichloropropane | 12 | UJ | 12 | U | 13 | U |
| 2-Butanone | 12 | UJ | 12 | UJ | 13 | UJ |
| 2-Hexanone | 12 | UJ | 12 | UJ | 13 | UJ |
| 4-Methyl-2-pentanone | 12 | UJ | 12 | U | 13 | U |
| Acetone | 130 | J | 12 | UJ | 13 | UJ |
| Benzene | 12 | UJ | 12 | U | 13 | U |
| Bromodichloromethane | 12 | UJ | 12 | U | 13 | U |
| Bromoform | 12 | UJ | 12 | U | 13 | U |
| Bromomethane | 12 | UJ | 12 | U | 13 | U |
| Carbon disulfide | 12 | UJ | 12 | U | 13 | U |
| Carbon tetrachloride | 12 | UJ | 12 | U | 13 | U |
| Chlorobenzene | 12 | UJ | 12 | U | 13 | U |
| Chloroethane | 12 | UJ | 12 | U | 13 | U |
| Chloroform | 12 | UJ | 12 | U | 13 | U |
| Chloromethane | 12 | UJ | 12 | U | 13 | U |
| cis-1,3-Dichloropropene | 12 | UJ | 12 | U | 13 | U |
| Dibromochloromethane | 12 | UJ | 12 | U | 13 | U |
| Ethylbenzene | 25 | J | 12 | U | 13 | U |
| Methylene chloride | 12 | UJ | 2 | J | 3 | J |
| Styrene | 12 | UJ | 12 | U | 13 | U |
| Tetrachloroethene | 12 | UJ | 12 | U | 13 | U |
| Toluene | 3 | J | 12 | U | 13 | U |
| trans-1,3-Dichloropropene | 12 | UJ | 12 | U | 13 | U |
| Trichloroethene | 12 | UJ | 12 | U | 13 | U |
| Vinyl chloride | 12 | UJ | 12 | U | 13 | U |
| Xylene (total) | 250 | J | 12 | U | 13 | U |
| **Semivolatile organics, ug/kg** | | | | | | |
| 1,2,4-Trichlorobenzene | 3800 | U | 390 | U | 420 | U |
| 1,2-Dichlorobenzene | 3800 | U | 390 | U | 420 | U |

**Appendix B-2**

# Validated Analytical Results
## Subsurface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00603 | | 38S00803 | | 38S00903 | |
|---|---|---|---|---|---|---|
| Sampling Date | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| 1,3-Dichlorobenzene | 3800 | U | 390 | U | 420 | U |
| 1,4-Dichlorobenzene | 3800 | U | 390 | U | 420 | U |
| 2,2'-oxybis(1-Chloropropane) | 3800 | U | 390 | U | 420 | U |
| 2,4,5-Trichlorophenol | 9700 | U | 980 | U | 1000 | U |
| 2,4,6-Trichlorophenol | 3800 | U | 390 | U | 420 | U |
| 2,4-Dichlorophenol | 3800 | U | 390 | U | 420 | U |
| 2,4-Dimethylphenol | 3800 | U | 390 | U | 420 | U |
| 2,4-Dinitrophenol | 9700 | U | 980 | U | 1000 | U |
| 2,4-Dinitrotoluene | 3800 | U | 390 | U | 420 | U |
| 2,6-Dinitrotoluene | 3800 | U | 390 | U | 420 | U |
| 2-Chloronaphthalene | 3800 | U | 390 | U | 420 | U |
| 2-Chlorophenol | 3800 | U | 390 | U | 420 | U |
| 2-Methylnaphthalene | 4300 | | 390 | U | 420 | U |
| 2-Methylphenol | 3800 | U | 390 | U | 420 | U |
| 2-Nitroaniline | 9700 | U | 980 | U | 1000 | U |
| 2-Nitrophenol | 3800 | U | 390 | U | 420 | U |
| 3,3'-Dichlorobenzidine | 3800 | U | 390 | U | 420 | U |
| 3-Nitroaniline | 9700 | U | 980 | U | 1000 | U |
| 4,6-Dinitro-2-methylphenol | 9700 | U | 980 | U | 1000 | U |
| 4-Bromophenyl-phenylether | 3800 | U | 390 | UJ | 420 | U |
| 4-Chloro-3-methylphenol | 3800 | U | 390 | U | 420 | U |
| 4-Chloroaniline | 3800 | U | 390 | U | 420 | U |
| 4-Chlorophenyl-phenylether | 3800 | U | 390 | U | 420 | UJ |
| 4-Methylphenol | 3800 | U | 390 | U | 420 | U |
| 4-Nitroaniline | 9700 | U | 980 | U | 1000 | U |
| 4-Nitrophenol | 9700 | U | 980 | UJ | 1000 | UJ |
| Acenaphthene | 3800 | U | 390 | U | 420 | U |
| Acenaphthylene | 3800 | U | 390 | U | 420 | U |
| Anthracene | 3800 | U | 390 | U | 420 | U |
| Benzo(a)anthracene | 3800 | U | 390 | U | 420 | U |
| Benzo(a)pyrene | 3800 | U | 390 | U | 420 | U |
| Benzo(b)fluoranthene | 3800 | U | 390 | U | 420 | U |
| Benzo(g,h,i)perylene | 3800 | U | 390 | U | 420 | U |
| Benzo(k)fluoranthene | 3800 | U | 390 | U | 420 | U |
| bis(2-Chloroethoxy)methane | 3800 | U | 390 | U | 420 | U |
| bis(2-Chloroethyl)ether | 3800 | U | 390 | U | 420 | U |
| bis(2-Ethylhexyl)phthalate | 2300 | J | 320 | J | 420 | U |

# Validated Analytical Results
## Subsurface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38S00603 | | 38S00803 | | 38S00903 | |
|---|---|---|---|---|---|---|
| **Sampling Date** | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| Butylbenzylphthalate | 3800 | U | 390 | U | 420 | U |
| Carbazole | 3800 | U | 390 | U | 420 | U |
| Chrysene | 3800 | U | 390 | U | 420 | U |
| Di-n-butylphthalate | 3800 | U | 390 | U | 420 | U |
| Di-n-octylphthalate | 3800 | U | 390 | U | 420 | U |
| Dibenz(a,h)anthracene | 3800 | U | 390 | U | 420 | U |
| Dibenzofuran | 3800 | U | 390 | U | 420 | U |
| Diethylphthalate | 3800 | U | 390 | U | 420 | U |
| Dimethylphthalate | 3800 | U | 390 | U | 420 | U |
| Fluoranthene | 3800 | U | 390 | U | 420 | U |
| Fluorene | 3800 | U | 390 | UJ | 420 | UJ |
| Hexachlorobenzene | 3800 | U | 390 | U | 420 | U |
| Hexachlorobutadiene | 3800 | U | 390 | U | 420 | U |
| Hexachlorocyclopentadiene | 3800 | U | 390 | U | 420 | U |
| Hexachloroethane | 3800 | U | 390 | U | 420 | U |
| Indeno(1,2,3-cd)pyrene | 3800 | U | 390 | U | 420 | U |
| Isophorone | 3800 | U | 390 | U | 420 | U |
| N-Nitroso-di-n-propylamine | 3800 | U | 390 | UJ | 420 | UJ |
| N-Nitrosodiphenylamine (1) | 3800 | U | 390 | U | 420 | U |
| Naphthalene | 5200 | | 390 | U | 420 | U |
| Nitrobenzene | 3800 | U | 390 | U | 420 | U |
| Pentachlorophenol | 9700 | U | 980 | U | 1000 | U |
| Phenanthrene | 3800 | U | 390 | U | 420 | U |
| Phenol | 3800 | U | 390 | U | 420 | U |
| Pyrene | 3800 | U | 390 | U | 420 | U |
| **Pesticides/PCBs, ug/kg** | | | | | | |
| 4,4'-DDD | 3 9 | U | 3 9 | UJ | 21 | |
| 4,4'-DDE | 4 9 | | 2 6 | J | 9 9 | |
| 4,4'-DDT | 3 9 | UJ | 3 9 | UJ | 4 1 | UJ |
| Aldrin | 2 1 | J | 0 15 | J | 2 1 | U |
| alpha-BHC | 0 85 | J | 2 | U | 2 1 | U |
| alpha-Chlordane | 23 | | 0 54 | J | 2 1 | U |
| Aroclor-1016 | 39 | U | 39 | U | 41 | U |
| Aroclor-1221 | 78 | U | 79 | U | 84 | U |
| Aroclor-1232 | 39 | U | 39 | U | 41 | U |
| Aroclor-1242 | 39 | U | 39 | U | 41 | U |
| Aroclor-1248 | 39 | U | 39 | U | 41 | U |

**Appendix B-2**

# Validated Analytical Results
## Subsurface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38S00603 | | 38S00803 | | 38S00903 | |
|---|---|---|---|---|---|---|
| **Sampling Date** | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| Aroclor-1254 | 39 | U | 39 | U | 41 | U |
| Aroclor-1260 | 39 | U | 30 | J | 41 | U |
| beta-BHC | 2 | U | 2 | U | 2 1 | U |
| delta-BHC | 2 | U | 0 38 | J | 2 1 | U |
| Dieldrin | 3 9 | U | 0 6 | J | 0 17 | J |
| Endosulfan I | 2 | U | 0 2 | J | 0 83 | J |
| Endosulfan II | 3 9 | U | 1 2 | J | 4 1 | U |
| Endosulfan sulfate | 2 2 | J | 0 98 | J | 4 1 | U |
| Endrin | 1 4 | J | 2 8 | J | 4 1 | U |
| Endrin aldehyde | 3 9 | U | 1 8 | J | 1 1 | J |
| Endrin ketone | 0 47 | J | 3 9 | U | 1 7 | J |
| gamma-BHC (Lindane) | 0 83 | J | 2 | U | 2 1 | U |
| gamma-Chlordane | 22 | | 2 | UJ | 2 1 | UJ |
| Heptachlor | 0 18 | J | 0 1 | J | 2 1 | U |
| Heptachlor epoxide | 2 | U | 0 18 | J | 2 1 | U |
| Methoxychlor | 20 | UJ | 20 | U | 21 | UJ |
| Toxaphene | 200 | U | 200 | U | 210 | U |
| **Inorganics, mg/kg** | | | | | | |
| Aluminum | 1250 | J | 456 | J | 227 | J |
| Antimony | 0 56 | U | 0 57 | U | 0 61 | U |
| Arsenic | 0 66 | U | 0 67 | U | 0 71 | U |
| Barium | 5 7 | J | 1 8 | J | 3 8 | J |
| Beryllium | 0 07 | U | 0 05 | U | 0 05 | U |
| Cadmium | 0 21 | U | 0 1 | U | 0 1 | U |
| Calcium | 979 | J | 50 1 | J | 554 | J |
| Chromium | 5 | | 4 | | 1 3 | J |
| Cobalt | 0 21 | U | 0 22 | U | 0 23 | U |
| Copper | 1 5 | J | 1 3 | J | 1 5 | J |
| Iron | 4210 | | 233 | | 163 | |
| Lead | 21 5 | | 5 | | 3 6 | |
| Magnesium | 62 | J | 13 3 | U | 38 7 | J |
| Manganese | 5 4 | | 1 4 | J | 2 | J |
| Mercury | 0 07 | UJ | 0 07 | U | 0 06 | U |
| Nickel | 0 3 | U | 0 4 | J | 0 33 | U |
| Potassium | 50 8 | U | 44 5 | J | 69 8 | U |
| Selenium | 1 | U | 1 | U | 1 1 | U |
| Silver | 0 16 | U | 0 17 | U | 0 18 | U |

**Appendix B-2**

# Validated Analytical Results
## Subsurface Soil - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38S00603 | | 38S00803 | | 38S00903 | |
|---|---|---|---|---|---|---|
| **Sampling Date** | 5/6/97 | | 5/6/97 | | 5/6/97 | |
| Sodium | 382 | U | 441 | U | 450 | U |
| Thallium | 1 3 | U | 1 3 | U | 1 4 | U |
| Vanadium | 2 9 | J | 1 1 | J | 1 1 | J |
| Zinc | 26 1 | J | 6 9 | J | 6 3 | J |

**Appendix B-3**

# Validated Analytical Results
## Groundwater - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38G00101 | | 38G00201 | |
|---|---|---|---|---|
| Sampling Date | 4/22/97 | | 4/24/97 | |
| **Volatile organics, ug/L** | | | | |
| 1,1,1-Trichloroethane | 10 | U | 10 | U |
| 1,1,2,2-Tetrachloroethane | 10 | U | 10 | U |
| 1,1,2-Trichloroethane | 10 | U | 10 | U |
| 1,1-Dichloroethane | 10 | U | 2 | J |
| 1,1-Dichloroethene | 10 | U | 10 | U |
| 1,2-Dichloroethane | 10 | U | 10 | UJ |
| 1,2-Dichloroethene (total) | 10 | U | 73 | |
| 1,2-Dichloropropane | 10 | U | 10 | U |
| 2-Butanone | 10 | UJ | 10 | UJ |
| 2-Hexanone | 10 | U | 10 | U |
| 4-Methyl-2-pentanone | 10 | U | 10 | U |
| Acetone | 10 | U | 10 | UJ |
| Benzene | 10 | U | 10 | U |
| Bromodichloromethane | 10 | U | 10 | U |
| Bromoform | 10 | U | 10 | U |
| Bromomethane | 10 | U | 10 | U |
| Carbon disulfide | 10 | U | 10 | U |
| Carbon tetrachloride | 10 | U | 10 | U |
| Chlorobenzene | 10 | U | 10 | U |
| Chloroethane | 10 | U | 10 | U |
| Chloroform | 10 | U | 10 | U |
| Chloromethane | 10 | U | 10 | UJ |
| cis-1,3-Dichloropropene | 10 | U | 10 | U |
| Dibromochloromethane | 10 | U | 10 | U |
| Ethylbenzene | 10 | U | 10 | U |
| Methylene chloride | 10 | U | 10 | U |
| Styrene | 10 | U | 10 | U |
| Tetrachloroethene | 10 | U | 10 | U |
| Toluene | 10 | U | 10 | U |
| trans-1,3-Dichloropropene | 10 | U | 10 | U |
| Trichloroethene | 10 | U | 24 | |
| Vinyl chloride | 10 | U | 57 | |
| Xylene (total) | 10 | U | 10 | U |
| **Semivolatile organics, ug/L** | | | | |
| 1,2,4-Trichlorobenzene | 10 | U | 10 | U |
| 1,2-Dichlorobenzene | 10 | U | 10 | U |

**Appendix B-3**

# Validated Analytical Results
## Groundwater - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38G00101 | | 38G00201 | |
|---|---|---|---|---|
| Sampling Date | 4/22/97 | | 4/24/97 | |
| 1,3-Dichlorobenzene | 10 | U | 10 | U |
| 1,4-Dichlorobenzene | 10 | U | 10 | U |
| 2,2'-oxybis(1-Chloropropane) | 10 | U | 10 | U |
| 2,4,5-Trichlorophenol | 25 | U | 25 | U |
| 2,4,6-Trichlorophenol | 10 | U | 10 | U |
| 2,4-Dichlorophenol | 10 | U | 10 | U |
| 2,4-Dimethylphenol | 10 | U | 10 | U |
| 2,4-Dinitrophenol | 25 | U | 25 | U |
| 2,4-Dinitrotoluene | 10 | U | 10 | U |
| 2,6-Dinitrotoluene | 10 | U | 10 | U |
| 2-Chloronaphthalene | 10 | U | 10 | U |
| 2-Chlorophenol | 10 | U | 10 | U |
| 2-Methylnaphthalene | 10 | U | 10 | U |
| 2-Methylphenol | 10 | U | 10 | U |
| 2-Nitroaniline | 25 | U | 25 | U |
| 2-Nitrophenol | 10 | U | 10 | U |
| 3,3'-Dichlorobenzidine | 10 | U | 10 | U |
| 3-Nitroaniline | 25 | U | 25 | U |
| 4,6-Dinitro-2-methylphenol | 25 | U | 25 | U |
| 4-Bromophenyl-phenylether | 10 | U | 10 | U |
| 4-Chloro-3-methylphenol | 10 | U | 10 | U |
| 4-Chloroaniline | 10 | U | 10 | U |
| 4-Chlorophenyl-phenylether | 10 | U | 10 | U |
| 4-Methylphenol | 10 | U | 10 | U |
| 4-Nitroaniline | 25 | U | 25 | U |
| 4-Nitrophenol | 25 | U | 25 | U |
| Acenaphthene | 10 | U | 10 | U |
| Acenaphthylene | 10 | U | 10 | U |
| Anthracene | 10 | U | 10 | U |
| Benzo(a)anthracene | 10 | U | 10 | U |
| Benzo(a)pyrene | 10 | U | 10 | U |
| Benzo(b)fluoranthene | 10 | U | 10 | U |
| Benzo(g,h,i)perylene | 10 | U | 10 | U |
| Benzo(k)fluoranthene | 10 | U | 10 | U |
| bis(2-Chloroethoxy)methane | 10 | U | 10 | U |
| bis(2-Chloroethyl)ether | 10 | U | 10 | U |
| bis(2-Ethylhexyl)phthalate | 10 | U | 10 | U |

**Appendix B-3**

# Validated Analytical Results
## Groundwater - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38G00101 | | 38G00201 | |
|---|---|---|---|---|
| **Sampling Date** | 4/22/97 | | 4/24/97 | |
| Butylbenzylphthalate | 10 | U | 10 | U |
| Carbazole | 10 | U | 10 | U |
| Chrysene | 10 | U | 10 | U |
| Di-n-butylphthalate | 10 | U | 10 | U |
| Di-n-octylphthalate | 10 | U | 10 | U |
| Dibenz(a,h)anthracene | 10 | U | 10 | U |
| Dibenzofuran | 10 | U | 10 | U |
| Diethylphthalate | 10 | U | 10 | U |
| Dimethylphthalate | 10 | U | 10 | U |
| Fluoranthene | 10 | U | 10 | U |
| Fluorene | 10 | U | 10 | U |
| Hexachlorobenzene | 10 | U | 10 | U |
| Hexachlorobutadiene | 10 | U | 10 | U |
| Hexachlorocyclopentadiene | 10 | U | 10 | U |
| Hexachloroethane | 10 | U | 10 | U |
| Indeno(1,2,3-cd)pyrene | 10 | U | 10 | U |
| Isophorone | 10 | U | 10 | U |
| N-Nitroso-di-n-propylamine | 10 | U | 10 | U |
| N-Nitrosodiphenylamine (1) | 10 | U | 10 | U |
| Naphthalene | 10 | U | 10 | U |
| Nitrobenzene | 10 | U | 10 | U |
| Pentachlorophenol | 25 | U | 25 | U |
| Phenanthrene | 10 | U | 10 | U |
| Phenol | 10 | U | 10 | U |
| Pyrene | 10 | U | 10 | U |
| **Pesticides/PCBs, ug/L** | | | | |
| 4,4'-DDD | 0 1 | U | 0 1 | U |
| 4,4'-DDE | 0 1 | U | 0 1 | U |
| 4,4'-DDT | 0 1 | U | 0 1 | U |
| Aldrin | 0 05 | U | 0 05 | U |
| alpha-BHC | 0 05 | U | 0 05 | U |
| alpha-Chlordane | 0 05 | U | 0 05 | U |
| Aroclor-1016 | 1 | U | 1 | U |
| Aroclor-1221 | 2 | U | 2 | U |
| Aroclor-1232 | 1 | U | 1 | U |
| Aroclor-1242 | 1 | U | 1 | U |
| Aroclor-1248 | 1 | U | 1 | U |

**Appendix B-3**

# Validated Analytical Results
## Groundwater - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38G00101 | | 38G00201 | |
|---|---|---|---|---|
| Sampling Date | 4/22/97 | | 4/24/97 | |
| Aroclor-1254 | 1 | U | 1 | U |
| Aroclor-1260 | 1 | U | 1 | U |
| beta-BHC | 0 05 | U | 0 05 | U |
| delta-BHC | 0 05 | U | 0 05 | U |
| Dieldrin | 0 1 | U | 0 1 | U |
| Endosulfan I | 0 05 | U | 0 05 | U |
| Endosulfan II | 0 1 | U | 0 1 | U |
| Endosulfan sulfate | 0 1 | U | 0 1 | U |
| Endrin | 0 1 | U | 0 1 | U |
| Endrin aldehyde | 0 1 | U | 0 1 | U |
| Endrin ketone | 0 1 | U | 0 1 | U |
| gamma-BHC (Lindane) | 0 05 | U | 0 05 | U |
| gamma-Chlordane | 0 05 | U | 0 05 | U |
| Heptachlor | 0 05 | U | 0 05 | U |
| Heptachlor epoxide | 0 05 | U | 0 05 | U |
| Methoxychlor | 0 5 | U | 0 5 | U |
| Toxaphene | 5 | U | 5 | U |
| **Inorganics ug/L** | | | | |
| Aluminum | 489 | | 806 | |
| Antimony | 2 4 | U | 2 4 | U |
| Arsenic | 3 8 | J | 4 | J |
| Barium | 52 6 | J | 126 | J |
| Beryllium | 0 2 | U | 0 2 | U |
| Cadmium | 0 4 | U | 0 4 | U |
| Calcium | 8830 | | 50900 | |
| Chromium | 1 4 | J | 1 6 | J |
| Cobalt | 0 9 | U | 1 9 | U |
| Copper | 5 | J | 4 5 | U |
| Iron | 8700 | | 50300 | |
| Lead | 2 2 | U | 2 2 | U |
| Magnesium | 3220 | J | 11200 | |
| Manganese | 85 8 | | 138 | |
| Mercury | 0 12 | J | 0 13 | J |
| Nickel | 2 4 | J | 5 2 | J |
| Potassium | 742 | J | 1260 | J |
| Selenium | 4 3 | U | 4 3 | U |
| Silver | 0 7 | U | 0 7 | U |

**Appendix B-3**

# Validated Analytical Results
## Groundwater - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38G00101 | | 38G00201 | |
|---|---|---|---|---|
| **Sampling Date** | 4/22/97 | | 4/24/97 | |
| Sodium | 4110 | J | 20900 | J |
| Thallium | 5 5 | U | 5 5 | U |
| Vanadium | 5 1 | U | 3 2 | U |
| Zinc | 5 3 | J | 1 8 | J |

**Appendix B-4**

# Validated Analytical Results
## Sediment - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38D00101 | | 38D00201 | |
|---|---|---|---|---|
| Sampling Date | 28-Aug-97 | | 28-Aug-97 | |
| **Volatile Organics, ug/kg** | | | | |
| 1,1,1-Trichloroethane | 14 | U | 21 | U |
| 1,1,2,2-Tetrachloroethane | 14 | U | 21 | U |
| 1,1,2-Trichloroethane | 14 | U | 21 | U |
| 1,1-Dichloroethane | 14 | U | 21 | U |
| 1,1-Dichloroethene | 14 | U | 21 | U |
| 1,2-Dichloroethane | 14 | U | 21 | U |
| 1,2-Dichloroethene (total) | 14 | U | 21 | U |
| 1,2-Dichloropropane | 14 | U | 21 | U |
| 2-Butanone | 14 | UJ | 21 | UJ |
| 2-Hexanone | 14 | UJ | 21 | UJ |
| 4-Methyl-2-pentanone | 14 | U | 21 | U |
| Acetone | 14 | UJ | 21 | UJ |
| Benzene | 14 | U | 21 | U |
| Bromodichloromethane | 14 | U | 21 | U |
| Bromoform | 14 | U | 21 | U |
| Bromomethane | 14 | U | 21 | U |
| Carbon disulfide | 14 | U | 21 | U |
| Carbon tetrachloride | 14 | U | 21 | U |
| Chlorobenzene | 14 | U | 21 | U |
| Chloroethane | 14 | U | 21 | U |
| Chloroform | 14 | U | 21 | U |
| Chloromethane | 14 | UJ | 21 | UJ |
| cis-1,3-Dichloropropene | 14 | U | 21 | U |
| Dibromochloromethane | 14 | U | 21 | U |
| Ethylbenzene | 14 | U | 21 | U |
| Methylene chloride | 14 | U | 21 | U |
| Styrene | 14 | U | 21 | U |
| Tetrachloroethene | 14 | UJ | 21 | UJ |
| Toluene | 14 | U | 21 | U |
| trans-1,3-Dichloropropene | 14 | U | 21 | U |
| Trichloroethene | 14 | U | 21 | U |
| Vinyl chloride | 14 | UJ | 21 | UJ |
| Xylene (total) | 14 | U | 21 | U |
| **Semivolatile Organics, ug/kg** | | | | |
| 1,2,4-Trichlorobenzene | 460 | U | 700 | U |
| 1,2-Dichlorobenzene | 460 | U | 700 | U |
| 1,3-Dichlorobenzene | 460 | U | 700 | U |

**Appendix B-4**

# Validated Analytical Results
## Sediment - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38D00101 | | 38D00201 | |
|---|---|---|---|---|
| Sampling Date | 28-Aug-97 | | 28-Aug-97 | |
| 1,4-Dichlorobenzene | 460 | U | 700 | U |
| 2,2'-oxybis(1-Chloropropane) | 460 | U | 700 | U |
| 2,4,5-Trichlorophenol | 1200 | U | 1800 | U |
| 2,4,6-Trichlorophenol | 460 | U | 700 | U |
| 2,4-Dichlorophenol | 460 | U | 700 | U |
| 2,4-Dimethylphenol | 460 | U | 700 | U |
| 2,4-Dinitrophenol | 1200 | U | 1800 | U |
| 2,4-Dinitrotoluene | 460 | U | 700 | U |
| 2,6-Dinitrotoluene | 460 | U | 700 | U |
| 2-Chloronaphthalene | 460 | U | 700 | U |
| 2-Chlorophenol | 460 | U | 700 | U |
| 2-Methylnaphthalene | 460 | U | 700 | U |
| 2-Methylphenol | 460 | U | 700 | U |
| 2-Nitroaniline | 1200 | U | 1800 | U |
| 2-Nitrophenol | 460 | U | 700 | U |
| 3,3'-Dichlorobenzidine | 460 | U | 700 | U |
| 3-Nitroaniline | 1200 | U | 1800 | U |
| 4,6-Dinitro-2-methylphenol | 1200 | U | 1800 | U |
| 4-Bromophenyl-phenylether | 460 | U | 700 | U |
| 4-Chloro-3-methylphenol | 460 | U | 700 | U |
| 4-Chloroaniline | 460 | U | 700 | U |
| 4-Chlorophenyl-phenylether | 460 | UJ | 700 | UJ |
| 4-Methylphenol | 460 | U | 700 | U |
| 4-Nitroaniline | 1200 | U | 1800 | U |
| 4-Nitrophenol | 1200 | U | 1800 | U |
| Acenaphthene | 460 | U | 700 | U |
| Acenaphthylene | 460 | U | 700 | U |
| Anthracene | 460 | U | 700 | U |
| Benzo(a)anthracene | 460 | U | 700 | U |
| Benzo(a)pyrene | 460 | U | 700 | U |
| Benzo(b)fluoranthene | 460 | U | 700 | U |
| Benzo(g,h,i)perylene | 460 | U | 700 | U |
| Benzo(k)fluoranthene | 460 | U | 700 | U |
| bis(2-Chloroethoxy)methane | 460 | U | 700 | U |
| bis(2-Chloroethyl)ether | 460 | U | 700 | U |
| bis(2-Ethylhexyl)phthalate | 460 | U | 700 | U |
| Butylbenzylphthalate | 460 | U | 700 | U |
| Carbazole | 460 | U | 700 | U |

# Validated Analytical Results
## Sediment - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38D00101 | | 38D00201 | |
|---|---|---|---|---|
| **Sampling Date** | 28-Aug-97 | | 28-Aug-97 | |
| Chrysene | 460 | U | 700 | U |
| Di-n-butylphthalate | 460 | U | 700 | U |
| Di-n-octylphthalate | 460 | U | 700 | U |
| Dibenz(a,h)anthracene | 460 | U | 700 | U |
| Dibenzofuran | 460 | U | 700 | U |
| Diethylphthalate | 460 | U | 700 | U |
| Dimethylphthalate | 460 | U | 700 | U |
| Fluoranthene | 460 | U | 700 | U |
| Fluorene | 460 | U | 700 | U |
| Hexachlorobenzene | 460 | U | 700 | U |
| Hexachlorobutadiene | 460 | U | 700 | U |
| Hexachlorocyclopentadiene | 460 | U | 700 | U |
| Hexachloroethane | 460 | U | 700 | U |
| Indeno(1,2,3-cd)pyrene | 460 | U | 700 | U |
| Isophorone | 460 | U | 700 | U |
| N-Nitroso-di-n-propylamine | 460 | U | 700 | U |
| N-Nitrosodiphenylamine (1) | 460 | U | 700 | U |
| Naphthalene | 460 | U | 700 | U |
| Nitrobenzene | 460 | U | 700 | U |
| Pentachlorophenol | 1200 | U | 1800 | U |
| Phenanthrene | 460 | U | 700 | U |
| Phenol | 460 | U | 700 | U |
| Pyrene | 460 | U | 700 | U |
| **Pesticides/PCBs, ug/kg** | | | | |
| 4,4'-DDD | 4 6 | U | 7 | U |
| 4,4'-DDE | 0 45 | J | 0 83 | J |
| 4,4'-DDT | 4 6 | UJ | 7 | UJ |
| Aldrin | 2 4 | U | 3 6 | U |
| alpha-BHC | 2 4 | U | 3 6 | U |
| alpha-Chlordane | 2 4 | U | 3 6 | U |
| Aroclor-1016 | 46 | U | 70 | U |
| Aroclor-1221 | 94 | U | 140 | U |
| Aroclor-1232 | 46 | U | 70 | U |
| Aroclor-1242 | 46 | U | 70 | U |
| Aroclor-1248 | 46 | U | 70 | U |
| Aroclor-1254 | 46 | U | 70 | U |
| Aroclor-1260 | 46 | U | 70 | U |
| beta-BHC | 2 4 | U | 3 6 | U |

# Validated Analytical Results
## Sediment - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38D00101 | | 38D00201 | |
|---|---|---|---|---|
| Sampling Date | 28-Aug-97 | | 28-Aug-97 | |
| delta-BHC | 2 4 | UJ | 3 6 | UJ |
| Dieldrin | 4 6 | U | 7 | U |
| Endosulfan I | 2 4 | U | 3 6 | U |
| Endosulfan II | 4 6 | U | 7 | U |
| Endosulfan sulfate | 4 6 | U | 7 | U |
| Endrin | 4 6 | U | 7 | U |
| Endrin aldehyde | 4 6 | U | 0 48 | J |
| Endrin ketone | 4 6 | U | 7 | U |
| gamma-BHC (Lindane) | 2 4 | U | 3 6 | U |
| gamma-Chlordane | 2 4 | U | 3 6 | UJ |
| Heptachlor | 0 15 | J | 0 17 | J |
| Heptachlor epoxide | 2 4 | U | 3 6 | U |
| Methoxychlor | 24 | U | 36 | U |
| Toxaphene | 240 | U | 360 | U |
| **Inorganics, mg/kg** | | | | |
| Aluminum | 962 | J | 3720 | J |
| Antimony | 0 81 | UJ | 1 2 | UJ |
| Arsenic | 1 7 | U | 2 3 | U |
| Barium | 4 | J | 26 6 | J |
| Beryllium | 0 03 | U | 0 12 | J |
| Cadmium | 0 08 | U | 0 26 | J |
| Calcium | 72 5 | J | 3470 | J |
| Chromium | 1 3 | J | 6 9 | |
| Cobalt | 0 2 | U | 0 47 | J |
| Copper | 1 4 | U | 15 5 | |
| Iron | 207 | J | 7090 | J |
| Lead | 2 6 | | 17 | |
| Magnesium | 34 6 | J | 223 | J |
| Manganese | 1 9 | U | 12 4 | |
| Mercury | 0 07 | UJ | 0 13 | J |
| Nickel | 0 57 | J | 2 4 | J |
| Potassium | 36 6 | J | 123 | J |
| Selenium | 1 2 | U | 2 2 | |
| Silver | 0 22 | U | 1 8 | J |
| Sodium | 202 | U | 323 | U |
| Thallium | 1 4 | U | 2 | U |
| Vanadium | 1 5 | J | 9 1 | J |
| Zinc | 8 8 | J | 50 | J |

**Appendix B-5**

# Validated Analytical Results
## Surface Water - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38W00101 | |
|---|---|---|
| Sampling Date | 28-Aug-97 | |
| **Volatile Organics, ug/L** | | |
| 1,1,1-Trichloroethane | 10 | U |
| 1,1,2,2-Tetrachloroethane | 10 | U |
| 1,1,2-Trichloroethane | 10 | U |
| 1,1-Dichloroethane | 10 | U |
| 1,1-Dichloroethene | 10 | U |
| 1,2-Dichloroethane | 10 | U |
| 1,2-Dichloroethene (total) | 10 | U |
| 1,2-Dichloropropane | 10 | U |
| 2-Butanone | 10 | U |
| 2-Hexanone | 10 | U |
| 4-Methyl-2-pentanone | 10 | U |
| Acetone | 10 | U |
| Benzene | 10 | U |
| Bromodichloromethane | 10 | U |
| Bromoform | 10 | U |
| Bromomethane | 10 | U |
| Carbon disulfide | 10 | U |
| Carbon tetrachloride | 10 | U |
| Chlorobenzene | 10 | U |
| Chloroethane | 10 | U |
| Chloroform | 10 | U |
| Chloromethane | 10 | U |
| cis-1,3-Dichloropropene | 10 | U |
| Dibromochloromethane | 10 | U |
| Ethylbenzene | 10 | U |
| Methylene chloride | 10 | U |
| Styrene | 10 | U |
| Tetrachloroethene | 10 | U |
| Toluene | 10 | U |
| trans-1,3-Dichloropropene | 10 | U |
| Trichloroethene | 10 | U |
| Vinyl chloride | 10 | U |
| Xylene (total) | 10 | U |
| **Semivolatile Organics, ug/L** | | |
| 1,2,4-Trichlorobenzene | 10 | U |
| 1,2-Dichlorobenzene | 10 | U |

**Appendix B-5**

# Validated Analytical Results
## Surface Water - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| Sample ID | 38W00101 | |
|---|---|---|
| Sampling Date | 28-Aug-97 | |
| 1,3-Dichlorobenzene | 10 | U |
| 1,4-Dichlorobenzene | 10 | U |
| 2,2'-oxybis(1-Chloropropane) | 10 | U |
| 2,4,5-Trichlorophenol | 25 | U |
| 2,4,6-Trichlorophenol | 10 | U |
| 2,4-Dichlorophenol | 10 | U |
| 2,4-Dimethylphenol | 10 | U |
| 2,4-Dinitrophenol | 25 | U |
| 2,4-Dinitrotoluene | 10 | U |
| 2,6-Dinitrotoluene | 10 | U |
| 2-Chloronaphthalene | 10 | U |
| 2-Chlorophenol | 10 | U |
| 2-Methylnaphthalene | 10 | U |
| 2-Methylphenol | 10 | U |
| 2-Nitroaniline | 25 | U |
| 2-Nitrophenol | 10 | U |
| 3,3'-Dichlorobenzidine | 10 | U |
| 3-Nitroaniline | 25 | U |
| 4,6-Dinitro-2-methylphenol | 25 | U |
| 4-Bromophenyl-phenylether | 10 | U |
| 4-Chloro-3-methylphenol | 10 | U |
| 4-Chloroaniline | 10 | U |
| 4-Chlorophenyl-phenylether | 10 | U |
| 4-Methylphenol | 10 | U |
| 4-Nitroaniline | 25 | U |
| 4-Nitrophenol | 25 | UJ |
| Acenaphthene | 10 | U |
| Acenaphthylene | 10 | U |
| Anthracene | 10 | U |
| Benzo(a)anthracene | 10 | U |
| Benzo(a)pyrene | 10 | U |
| Benzo(b)fluoranthene | 10 | U |
| Benzo(g,h,i)perylene | 10 | U |
| Benzo(k)fluoranthene | 10 | U |
| bis(2-Chloroethoxy)methane | 10 | U |
| bis(2-Chloroethyl)ether | 10 | U |
| bis(2-Ethylhexyl)phthalate | 10 | U |

**Appendix B-5**

# Validated Analytical Results
## Surface Water - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38W00101 | |
|---|---|---|
| **Sampling Date** | 28-Aug-97 | |
| Butylbenzylphthalate | 10 | U |
| Carbazole | 10 | U |
| Chrysene | 10 | U |
| Di-n-butylphthalate | 3 | J |
| Di-n-octylphthalate | 10 | U |
| Dibenz(a,h)anthracene | 10 | U |
| Dibenzofuran | 10 | U |
| Diethylphthalate | 10 | U |
| Dimethylphthalate | 10 | U |
| Fluoranthene | 10 | U |
| Fluorene | 10 | U |
| Hexachlorobenzene | 10 | U |
| Hexachlorobutadiene | 10 | U |
| Hexachlorocyclopentadiene | 10 | U |
| Hexachloroethane | 10 | U |
| Indeno(1,2,3-cd)pyrene | 10 | U |
| Isophorone | 10 | U |
| N-Nitroso-di-n-propylamine | 10 | U |
| N-Nitrosodiphenylamine (1) | 10 | U |
| Naphthalene | 10 | U |
| Nitrobenzene | 10 | U |
| Pentachlorophenol | 25 | U |
| Phenanthrene | 10 | U |
| Phenol | 10 | U |
| Pyrene | 10 | U |
| **Pesticides/PCBs, ug/L** | | |
| 4,4'-DDD | 0 1 | U |
| 4,4'-DDE | 0 1 | U |
| 4,4'-DDT | 0 1 | U |
| Aldrin | 0 05 | U |
| alpha-BHC | 0 05 | U |
| alpha-Chlordane | 0 05 | U |
| Aroclor-1016 | 1 | U |
| Aroclor-1221 | 2 | U |
| Aroclor-1232 | 1 | U |
| Aroclor-1242 | 1 | U |
| Aroclor-1248 | 1 | U |

**Appendix B-5**

# Validated Analytical Results
## Surface Water - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38W00101 | |
|---|---|---|
| **Sampling Date** | 28-Aug-97 | |
| Aroclor-1254 | 1 | U |
| Aroclor-1260 | 1 | U |
| beta-BHC | 0 05 | U |
| delta-BHC | 0 05 | U |
| Dieldrin | 0 1 | U |
| Endosulfan I | 0 05 | U |
| Endosulfan II | 0 1 | U |
| Endosulfan sulfate | 0 1 | U |
| Endrin | 0 1 | U |
| Endrin aldehyde | 0 1 | U |
| Endrin ketone | 0 1 | U |
| gamma-BHC (Lindane) | 0 05 | U |
| gamma-Chlordane | 0 05 | U |
| Heptachlor | 0 05 | U |
| Heptachlor epoxide | 0 05 | U |
| Methoxychlor | 0 5 | U |
| Toxaphene | 5 | U |
| **Inorganics, ug/L** | | |
| Aluminum | 368 | |
| Antimony | 2 9 | U |
| Arsenic | 5 9 | U |
| Barium | 38 4 | J |
| Beryllium | 0 1 | U |
| Cadmium | 0 3 | U |
| Calcium | 9330 | |
| Chromium | 2 2 | J |
| Cobalt | 0 7 | U |
| Copper | 4 2 | J |
| Iron | 2690 | |
| Lead | 2 9 | U |
| Magnesium | 2570 | J |
| Manganese | 51 2 | |
| Mercury | 0 1 | U |
| Nickel | 1 6 | J |
| Potassium | 592 | J |
| Selenium | 4 4 | U |
| Silver | 0 8 | U |

**Appendix B-5**

# Validated Analytical Results
## Surface Water - TAL Metals and TCL Organics
## PSC 38

Naval Air Station, Jacksonville
Jacksonville, FL

| **Sample ID** | 38W00101 | |
|---|---|---|
| **Sampling Date** | 28-Aug-97 | |
| Sodium | 7550 | |
| Thallium | 5 | U |
| Vanadium | 1 4 | J |
| Zinc | 35 8 | J |

**Appendix B-1, B-2, B-3, B-4 and B-5**

# Notes for Validated Analytical Results Tables
## PSC 8

Naval Air Station Jacksonville
Jacksonville, Florida

Sample ID = Sample Identifier
Lab ID = Laboratory identifier

Units

| | |
|---|---|
| mg/kg | milligram per kilogram |
| ug/kg | microgram per kilogram |
| ug/L | microgram per liter |

The following standard validation qualifiers have the following definitions

| | |
|---|---|
| U | The analyte/compound was analyzed for but was not detected above the reported sample quantitation limit<br>The number preceding the U qualifier is the reported sample quantitation limit |
| J | The analyte/compound was positively identified and the associated numerical value is an estimated concentration of the analyte/compound in the sample<br>For most detected analytes and compounds, the J qualifier is also used to indicate that the reported concentration is below the contract required detection or quantitation limit |
| UJ | The analyte/compound was not detected above the reported sample quantitation limit<br>The reported quantitation limit, however, is approximate and may or may not represent the actual limit of quantitation necessary to accurately measure the analyte/compound in the sample |

# APPENDIX C

# SUMMARY OF DETECTIONS IN ANALYTICAL RESULTS

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Surface Soil | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | Frequency of Detects | Range of Detects | Range of CRQLs | Average (Detects) | Average (All) | Maximum Detected | 95% UCL | EPC |
| **Volatile Organics (ug/kg)** | | | | | | | | |
| Acetone | 8/18 | 15 - 220 | 11 - 13 | 90 3 | 43 4 | 220 | 133 | 133 |
| Methylene chloride | 15/18 | 1 - 3 | 11 - 13 | 1 9 | 2 6 | 3 | 3 4 | 3 |
| **Semivolatile Organics (ug/kg)** | | | | | | | | |
| 2,4-Dimethylphenol | 1/18 | 300 - 300 | 360 - 1,800 | 300 | 243 | 300 | 281 | 281 |
| 2-Methylnaphthalene | 1/18 | 40 - 40 | 360 - 1,800 | 40 | 229 | 40 | 296 | 40 |
| Benzo(b)fluoranthene | 1/18 | 64 - 64 | 360 - 1,800 | 64 | 230 | 64 | 281 | 64 |
| Benzo(k)fluoranthene | 1/18 | 56 - 56 | 360 - 1,800 | 56 | 229 | 56 | 284 | 56 |
| Naphthalene | 1/18 | 80 - 80 | 360 - 1,800 | 80 | 231 | 80 | 273 | 80 |
| bis(2-Ethylhexyl)phthalate | 11/18 | 48 - 1,700 | 360 - 1,800 | 310 | 267 | 1,700 | 446 | 446 |
| **Pesticides/PCBs (ug/kg)** | | | | | | | | |
| 4,4'-DDE | 13/18 | 0 22 - 6 4 | 3 8 - 10 | 1 9 | 1 9 | 6 4 | 3 5 | 3 5 |
| 4,4'-DDT | 1/18 | 7 7 - 7 7 | 3 6 - 10 | 7 7 | 2 5 | 7 7 | 2 9 | 2 9 |
| Aldrin | 3/18 | 0 2 - 1 2 | 1 8 - 5 | 0 6 | 0 96 | 1 2 | 1 2 | 1 2 |
| Aroclor-1242 | 2/18 | 62 - 71 | 36 - 98 | 66 5 | 24 9 | 71 | 29 7 | 29 7 |
| Aroclor-1260 | 10/18 | 8 2 - 180 | 37 - 100 | 46 1 | 34 5 | 180 | 48 9 | 48 9 |
| Dieldrin | 7/18 | 0 15 - 1 2 | 3 6 - 10 | 0 48 | 1 4 | 1 2 | 3 | 1 2 |
| Endosulfan I | 1/18 | 0 086 - 0 086 | 1 8 - 5 | 0 09 | 0 97 | 0 09 | 1 4 | 0 09 |
| Endosulfan II | 3/18 | 0 58 - 5 5 | 3 6 - 10 | 2 6 | 2 1 | 5 5 | 2 5 | 2 5 |
| Endosulfan sulfate | 4/18 | 0 1 - 12 | 3 6 - 10 | 3 6 | 2 3 | 12 | 4 3 | 4 3 |
| Endrin | 5/18 | 0 2 - 4 2 | 3 6 - 10 | 1 1 | 1 8 | 4 2 | 3 2 | 3 2 |
| Endrin aldehyde | 5/18 | 0 4 - 4 5 | 3 6 - 10 | 1 9 | 2 | 4 5 | 2 7 | 2 7 |
| Endrin ketone | 4/18 | 0 - 1 5 | 3 6 - 10 | 0 68 | 1 7 | 1 5 | 2 2 | 1 5 |
| Heptachlor | 1/18 | 0 11 - 0 11 | 1 8 - 5 | 0 11 | 0 97 | 0 11 | 1 4 | 0 11 |
| Heptachlor epoxide | 4/18 | 0 19 - 0 81 | 1 8 - 5 | 0 51 | 0 91 | 0 81 | 1 2 | 0 81 |
| alpha-BHC | 1/18 | 0 086 - 0 086 | 1 8 - 5 | 0 09 | 0 96 | 0 09 | 1 4 | 0 09 |
| alpha-Chlordane | 14/18 | 0 15 - 18 | 1 9 - 5 | 3 6 | 3 | 18 | 10 3 | 10 3 |
| delta-BHC | 1/18 | 0 13 - 0 13 | 1 8 - 5 | 0 13 | 0 97 | 0 13 | 1 3 | 0 13 |
| gamma-BHC (Lindane) | 1/18 | 0 26 - 0 26 | 1 8 - 5 | 0 26 | 0 98 | 0 26 | 1 2 | 0 26 |
| gamma-Chlordane | 18/18 | 0 18 - 22 | 5 - 5 | 2 8 | 2 8 | 22 | 9 7 | 9 7 |
| **Inorganics (mg/kg)** | | | | | | | | |
| Aluminum | 18/18 | 528 - 2,140 | 32 3 - 37 8 | 1,037 | 1,037 | 2,140 | 1,249 | 1249 |

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Surface Soil | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Parameter | Frequency of Detects | Range of Detects | Range of CRQLs | Average (Detects) | Average (All) | Maximum Detected | 95% UCL | EPC |
| Antimony | 1/18 | 1 9 - 1 9 | 0 53 - 5 7 | 1 9 | 0 38 | 1 9 | 0 44 | 0 44 |
| Barium | 18/18 | 1 5 - 23 1 | 0 44 - 0 51 | 7 8 | 7 8 | 23 1 | 11 9 | 11 9 |
| Cadmium | 5/18 | 0 11 - 11 | 0 09 - 0 98 | 3 7 | 1 1 | 11 | 3 4 | 3 4 |
| Calcium | 18/18 | 134 - 71,600 | 16 - 18 8 | 4,660 | 4,660 | 71,600 | 5,115 | 5115 |
| Chromium | 18/18 | 1 - 270 | 2 - 2 3 | 20 | 20 | 270 | 34 1 | 34 1 |
| Cobalt | 3/18 | 0 26 - 0 42 | 0 2 - 2 2 | 0 36 | 0 18 | 0 42 | 0 23 | 0 23 |
| Copper | 12/18 | 1 7 - 153 | 1 2 - 17 4 | 28 8 | 20 | 153 | 57 4 | 57 4 |
| Iron | 18/18 | 151 - 3,420 | 31 8 - 37 3 | 990 | 990 | 3,420 | 1,920 | 1920 |
| Lead | 18/18 | 1 7 - 2,350 | 4 8 - 5 7 | 160 | 160 | 2,350 | 446 | 446 |
| Magnesium | 16/18 | 26 5 - 490 | 14 - 22 2 | 85 2 | 76 8 | 490 | 128 | 128 |
| Manganese | 18/18 | 0 61 - 31 2 | 0 22 - 0 26 | 6 | 6 | 31 2 | 11 1 | 11 1 |
| Mercury | 2/18 | 0 06 - 0 08 | 0 05 - 0 12 | 0 07 | 0 04 | 0 08 | 0 04 | 0 04 |
| Nickel | 14/18 | 0 34 - 2 1 | 0 31 - 3 3 | 0 8 | 0 65 | 2 1 | 1 1 | 1 1 |
| Potassium | 2/18 | 79 4 - 81 7 | 36 1 - 80 7 | 80 6 | 31 5 | 81 7 | 38 5 | 38 5 |
| Selenium | 1/18 | 1 2 - 1 2 | 0 94 - 9 9 | 1 2 | 0 55 | 1 2 | 0 61 | 0 61 |
| Silver | 5/18 | 0 17 - 6 3 | 0 17 - 1 7 | 1 4 | 0 47 | 6 3 | 0 48 | 0 48 |
| Vanadium | 18/18 | 1 2 - 5 5 | 1 8 - 2 | 2 4 | 2 4 | 5 5 | 3 | 3 |
| Zinc | 18/18 | 3 4 - 389 | 0 66 - 0 77 | 55 5 | 55 5 | 389 | 158 | 158 |

**NOTES:**
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram
PCBs = Polychlorinated Biphenyls
CRQL = Contract Required Quantitation Limits
UCL = Upper confidence limit
EPC = Exposure point concentration
Exposure point concentration is defined as the lesser of the maximum detected concentration and the 95% UCL

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Subsurface Soil | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Frequency of Detects** | **Range of Detects** | **Range of CRQLs** | **Average (Detects)** | **Average (All)** | **Maximum Detected** |
| **Volatile Organics (ug/kg)** | | | | | | |
| Acetone | 1/3 | 130 - 130 | 12 - 13 | 130 | 47 5 | 130 |
| Ethylbenzene | 1/3 | 25 - 25 | 12 - 13 | 25 | 12 5 | 25 |
| Methylene chloride | 2/3 | 2 - 3 | 12 - 13 | 2 5 | 3 7 | 3 |
| Toluene | 1/3 | 3 - 3 | 12 - 13 | 3 | 5 2 | 3 |
| Xylene (total) | 1/3 | 250 - 250 | 12 - 13 | 250 | 87 5 | 250 |
| **Semivolatile Organics (ug/kg)** | | | | | | |
| 2-Methylnaphthalene | 1/3 | 4,300 - 4,300 | 390 - 3,800 | 4300 | 1568 | 4300 |
| Naphthalene | 1/3 | 5,200 - 5,200 | 390 - 3,800 | 5200 | 1868 | 5200 |
| bis(2-Ethylhexyl)phthalate | 2/3 | 320 - 2,300 | 390 - 3,800 | 1310 | 943 | 2300 |
| **Pesticides/PCBs (ug/kg)** | | | | | | |
| 4,4'-DDD | 1/3 | 21 - 21 | 3 9 - 10 | 21 | 8 3 | 21 |
| 4,4'-DDE | 3/3 | 2 6 - 9 9 | 10 - 10 | 5 8 | 5 8 | 9 9 |
| Aldrin | 2/3 | 0 15 - 2 1 | 2 1 - 5 | 1 1 | 1 1 | 2 1 |
| Aroclor-1260 | 1/3 | 30 - 30 | 39 - 97 | 30 | 23 3 | 30 |
| Dieldrin | 2/3 | 0 17 - 0 6 | 3 9 - 10 | 0 39 | 0 91 | 0 6 |
| Endosulfan I | 2/3 | 0 2 - 0 83 | 2 - 5 | 0 52 | 0 68 | 0 83 |
| Endosulfan II | 1/3 | 1 2 - 1 2 | 3 9 - 10 | 1 2 | 1 7 | 1 2 |
| Endosulfan sulfate | 2/3 | 0 98 - 2 2 | 4 1 - 10 | 1 6 | 1 7 | 2 2 |
| Endrin | 2/3 | 1 4 - 2 8 | 4 1 - 10 | 2 1 | 2 1 | 2 8 |
| Endrin aldehyde | 2/3 | 1 1 - 1 8 | 3 9 - 10 | 1 5 | 1 6 | 1 8 |
| Endrin ketone | 2/3 | 0 47 - 1 7 | 3 9 - 10 | 1 1 | 1 4 | 1 7 |
| Heptachlor | 2/3 | 0 1 - 0 18 | 2 1 - 5 | 0 14 | 0 44 | 0 18 |
| Heptachlor epoxide | 1/3 | 0 18 - 0 18 | 2 - 5 | 0 18 | 0 74 | 0 18 |
| alpha-BHC | 1/3 | 0 85 - 0 85 | 2 - 5 | 0 85 | 0 97 | 0 85 |
| alpha-Chlordane | 2/3 | 0 54 - 23 | 2 1 - 5 | 11 8 | 8 2 | 23 |
| delta-BHC | 1/3 | 0 38 - 0 38 | 2 - 5 | 0 38 | 0 81 | 0 38 |
| gamma-BHC (Lindane) | 1/3 | 0 83 - 0 83 | 2 - 5 | 0 83 | 0 96 | 0 83 |
| gamma-Chlordane | 1/3 | 22 - 22 | 2 - 5 | 22 | 8 | 22 |
| **Inorganics (mg/kg)** | | | | | | |
| Aluminum | 3/3 | 227 - 1,250 | 34 5 - 37 3 | 644 | 644 | 1250 |
| Barium | 3/3 | 1 8 - 5 7 | 0 47 - 0 51 | 3 8 | 3 8 | 5 7 |

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Subsurface Soil | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Frequency of Detects** | **Range of Detects** | **Range of CRQLs** | **Average (Detects)** | **Average (All)** | **Maximum Detected** |
| Calcium | 3/3 | 50 1 - 979 | 17 1 - 18 5 | 528 | 528 | 979 |
| Chromium | 3/3 | 1 3 - 5 | 2 1 - 2 3 | 3 4 | 3 4 | 5 |
| Copper | 3/3 | 1 3 - 1 5 | 1 4 - 1 5 | 1 4 | 1 4 | 1 5 |
| Iron | 3/3 | 163 - 4,210 | 34 - 36 8 | 1535 | 1535 | 4210 |
| Lead | 3/3 | 3 6 - 21 5 | 5 2 - 5 6 | 10 | 10 | 21 5 |
| Magnesium | 2/3 | 38 7 - 62 | 13 3 - 16 2 | 50 4 | 35 8 | 62 |
| Manganese | 3/3 | 1 4 - 5 4 | 0 23 - 0 25 | 2 9 | 2 9 | 5 4 |
| Nickel | 1/3 | 0 4 - 0 4 | 0 3 - 3 1 | 0 4 | 0 24 | 0 4 |
| Potassium | 1/3 | 44 5 - 44 5 | 50 8 - 69 8 | 44 5 | 34 9 | 44 5 |
| Vanadium | 3/3 | 1 1 - 2 9 | 1 9 - 2 | 1 7 | 1 7 | 2 9 |
| Zinc | 3/3 | 6 3 - 26 1 | 0 7 - 0 76 | 13 1 | 13 1 | 26 1 |

**NOTES:**
CRQL = Contract Required Quantitation Limits
PCBs = Polychlorinated Biphenyls
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Groundwater | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Frequency of Detects** | **Range of Detects** | **Range of CRQLs** | **Average (Detects)** | **Average (All)** | **Maximum Detected** |
| **Volatile Organics (ug/l)** | | | | | | |
| 1,1-Dichloroethane | 1/2 | 2 - 2 | 10 - 10 | 2 | 3 5 | 2 |
| 1,2-Dichloroethene (total) | 1/2 | 73 - 73 | 10 - 10 | 73 | 39 | 73 |
| Trichloroethene | 1/2 | 24 - 24 | 10 - 10 | 24 | 14 5 | 24 |
| Vinyl chloride | 1/2 | 57 - 57 | 10 - 10 | 57 | 31 | 57 |
| **Inorganics (ug/l)** | | | | | | |
| Aluminum | 2/2 | 489 - 806 | 14 7 - 14 7 | 648 | 648 | 806 |
| Arsenic | 2/2 | 3 8 - 4 | 2 8 - 2 8 | 3 9 | 3 9 | 4 |
| Barium | 2/2 | 52 6 - 126 | 0 2 - 0 2 | 89 3 | 89 3 | 126 |
| Calcium | 2/2 | 8,830 - 50,900 | 7 3 - 7 3 | 29865 | 29865 | 50900 |
| Chromium | 2/2 | 1 4 - 1 6 | 0 9 - 0 9 | 1 5 | 1 5 | 1 6 |
| Copper | 1/2 | 5 - 5 | 0 6 - 4 5 | 5 | 3 6 | 5 |
| Iron | 2/2 | 8,700 - 50,300 | 14 5 - 14 5 | 29500 | 29500 | 50300 |
| Magnesium | 2/2 | 3,220 - 11,200 | 6 4 - 6 4 | 7210 | 7210 | 11200 |
| Manganese | 2/2 | 85 8 - 138 | 0 1 - 0 1 | 112 | 112 | 138 |
| Mercury | 2/2 | 0 12 - 0 13 | 0 1 - 0 1 | 0 13 | 0 13 | 0 13 |
| Nickel | 2/2 | 2 4 - 5 2 | 1 3 - 1 3 | 3 8 | 3 8 | 5 2 |
| Potassium | 2/2 | 742 - 1,260 | 27 7 - 27 7 | 1001 | 1001 | 1260 |
| Sodium | 2/2 | 4,110 - 20,900 | 220 - 220 | 12505 | 12505 | 20900 |
| Zinc | 2/2 | 1 8 - 5 3 | 0 3 - 0 3 | 3 6 | 3 6 | 5 3 |

**NOTES:**
CRQL = Contract Required Quantitation Limits
ug/l = microgram per liter

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Surface Water | | | | | | |
|---|---|---|---|---|---|---|
| Parameter | Frequency of Detects | Range of Detects | CRQLs | Average (Detects) | Average (All) | Detections |
| **Semivolatile Organic Compounds (ug/l)** | | | | | | |
| Di-n-butylphthalate | 1/1 | NA | 01 | NA | NA | 3 |
| **Inorganics (ug/l)** | | | | | | |
| Aluminum | 1/1 | NA | 19 5 | NA | NA | 368 |
| Barium | 1/1 | NA | 1 | NA | NA | 38 4 |
| Calcium | 1/1 | NA | 7 4 | NA | NA | 9,330 |
| Chromium | 1/1 | NA | 0 8 | NA | NA | 2 2 |
| Copper | 1/1 | NA | 0 6 | NA | NA | 4 2 |
| Iron | 1/1 | NA | 13 4 | NA | NA | 2690 |
| Magnesium | 1/1 | NA | 5 4 | NA | NA | 2570 |
| Manganese | 1/1 | NA | 0 1 | NA | NA | 51 2 |
| Nickel | 1/1 | NA | 1 3 | NA | NA | 1 6 |
| Potassium | 1/1 | NA | 30 | NA | NA | 592 |
| Sodium | 1/1 | NA | 286 | NA | NA | 7550 |
| Vanadium | 1/1 | NA | 0 7 | NA | NA | 1 4 |
| Zinc | 1/1 | NA | 0 3 | NA | NA | 35 8 |

**NOTES:**
CRQL = Contract Required Quantitation Limits NA = Not applicable
ug/l = microgram per liter

APPENDIX C
SUMMARY OF DETECTIONS

Naval Air Station Jacksonville
Jacksonville, FL

| Sediment | | | | | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Frequency of Detects** | **Range of Detects** | **Range of CRQLs** | **Average (Detects)** | **Average (All)** | **Maximum Detected** |
| **Pesticides/PCBs (ug/kg)** | | | | | | |
| 4,4'-DDE | 2/2 | 0 45 - 0 83 | 12 - 18 | 0 64 | 0 64 | 0 83 |
| Endrin aldehyde | 1/2 | 0 48 - 0 48 | 4 6 - 18 | 0 48 | 1 4 | 0 48 |
| Heptachlor | 2/2 | 0 15 - 0 17 | 6 - 9 | 0 16 | 0 16 | 0 17 |
| **Inorganics (mg/kg)** | | | | | | |
| Aluminum | 2/2 | 962 - 3,720 | 54 6 - 77 6 | 2341 | 2341 | 3720 |
| Barium | 2/2 | 4 - 26 6 | 0 28 - 0 4 | 15 3 | 15 3 | 26 6 |
| Beryllium | 1/2 | 0 12 - 0 12 | 0 03 - 0 4 | 0 12 | 0 07 | 0 |
| Cadmium | 1/2 | 0 26 - 0 26 | 0 08 - 1 2 | 0 26 | 0 15 | 0 26 |
| Calcium | 2/2 | 72 5 - 3,470 | 20 7 - 29 4 | 1771 | 1771 | 3470 |
| Chromium | 2/2 | 1 3 - 6 9 | 2 2 - 3 2 | 4 1 | 4 1 | 6 9 |
| Cobalt | 1/2 | 0 47 - 0 47 | 0 2 - 2 8 | 0 47 | 0 28 | 0 47 |
| Copper | 1/2 | 15 5 - 15 5 | 1 4 - 2 4 | 15 5 | 8 1 | 15 5 |
| Iron | 2/2 | 207 - 7,090 | 37 5 - 53 3 | 3649 | 3649 | 7090 |
| Lead | 2/2 | 2 6 - 17 | 5 3 - 7 6 | 9 8 | 9 8 | 17 |
| Magnesium | 2/2 | 34 6 - 223 | 15 1 - 21 5 | 129 | 129 | 223 |
| Manganese | 1/2 | 12 4 - 12 4 | 0 4 - 1 9 | 12 4 | 6 7 | 12 4 |
| Mercury | 1/2 | 0 13 - 0 13 | 0 07 - 0 21 | 0 13 | 0 09 | 0 13 |
| Nickel | 2/2 | 0 57 - 2 4 | 3 6 - 5 2 | 1 5 | 1 5 | 2 4 |
| Potassium | 2/2 | 36 6 - 123 | 84 - 119 | 79 8 | 79 8 | 123 |
| Selenium | 1/2 | 2 2 - 2 2 | 1 2 - 17 5 | 2 2 | 1 4 | 2 2 |
| Silver | 1/2 | 1 8 - 1 8 | 0 22 - 3 2 | 1 8 | 0 96 | 1 8 |
| Vanadium | 2/2 | 1 5 - 9 1 | 2 - 2 8 | 5 3 | 5 3 | 9 1 |
| Zinc | 2/2 | 8 8 - 50 | 0 84 - 1 2 | 29 4 | 29 4 | 50 |

**NOTES:**
CRQL = Contract Required Quantitation Limits
PCBs = Polychlorinated Biphenyls
ug/kg = microgram per kilogram
mg/kg = milligram per kilogram

# Old SER

## Was Not Performed