

N60200.AR.001266
NAS CECIL FIELD, FL
5090.3a

CONFIRMATORY SAMPLING REPORT FOR BUILDING 615 TANK 615 BASE
REALIGNMENT AND CLOSURE UNDERGROUND STORAGE TANK AND ABOVEGROUND
STORAGE TANK GREY SITES NAS CECIL FIELD FL
4/1/1998
ABB ENVIRONMENTAL SERVICES INC

CONFIRMATORY SAMPLING REPORT
BUILDING 615, TANK 615
BASE REALIGNMENT AND CLOSURE
UNDERGROUND STORAGE TANK AND
ABOVEGROUND STORAGE TANK GREY SITES
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

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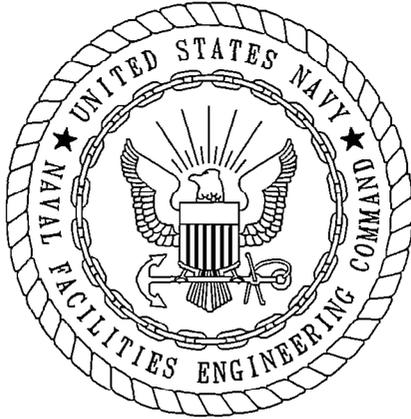
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April 1998



CERTIFICATION OF TECHNICAL
DATA CONFORMITY (MAY 1987)

The Contractor, ABB Environmental Services, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-89-D-0317/131 are complete and accurate and comply with all requirements of this contract.

DATE: April 17, 1998

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(DFAR 252.227-7036)

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Jacksonville, Florida

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GLOSSARY

| | |
|--------|----------------------------------|
| ABB-ES | ABB Environmental Services, Inc. |
| BEI | Bechtel Environmental, Inc. |
| bls | below land surface |
| FAC | Florida Administrative Code |
| OVA | organic vapor analyzer |
| ppm | parts per million |
| UST | underground storage tank |

1.0 INTRODUCTION

ABB Environmental Services, Inc. (ABB-ES), under contract to the Southern Division, Naval Facilities Engineering Command, has completed the confirmatory sampling for Tank 615 at Naval Air Station Cecil Field in Jacksonville, Florida. This report summarizes the related field operations, results, conclusions, and recommendations of the confirmatory sampling.

Tank 615 was an underground storage tank (UST) located at Building 615, which was a maintenance building for Yellow Water Weapons Area (Figure 1). The UST, which was installed in 1960, had a 3,000-gallon capacity and was used to store fuel oil for onsite heating (ABB-ES, 1997). A Contamination Assessment Plan for the assessment of soil and groundwater at Tank 615 was prepared by ABB-ES in November 1996 (ABB-ES, 1996).

Tank 615 was removed by Bechtel Environmental, Inc. (BEI), on April 8, 1997. No soil was removed from the site at that time. A Closure Report was prepared for Tank 615 and submitted to the Florida Department of Environmental Protection (BEI, 1997).

2.0 FIELD INVESTIGATION

The confirmatory sampling for Tank 615 was initiated in January 1997 (before the UST was removed) and included

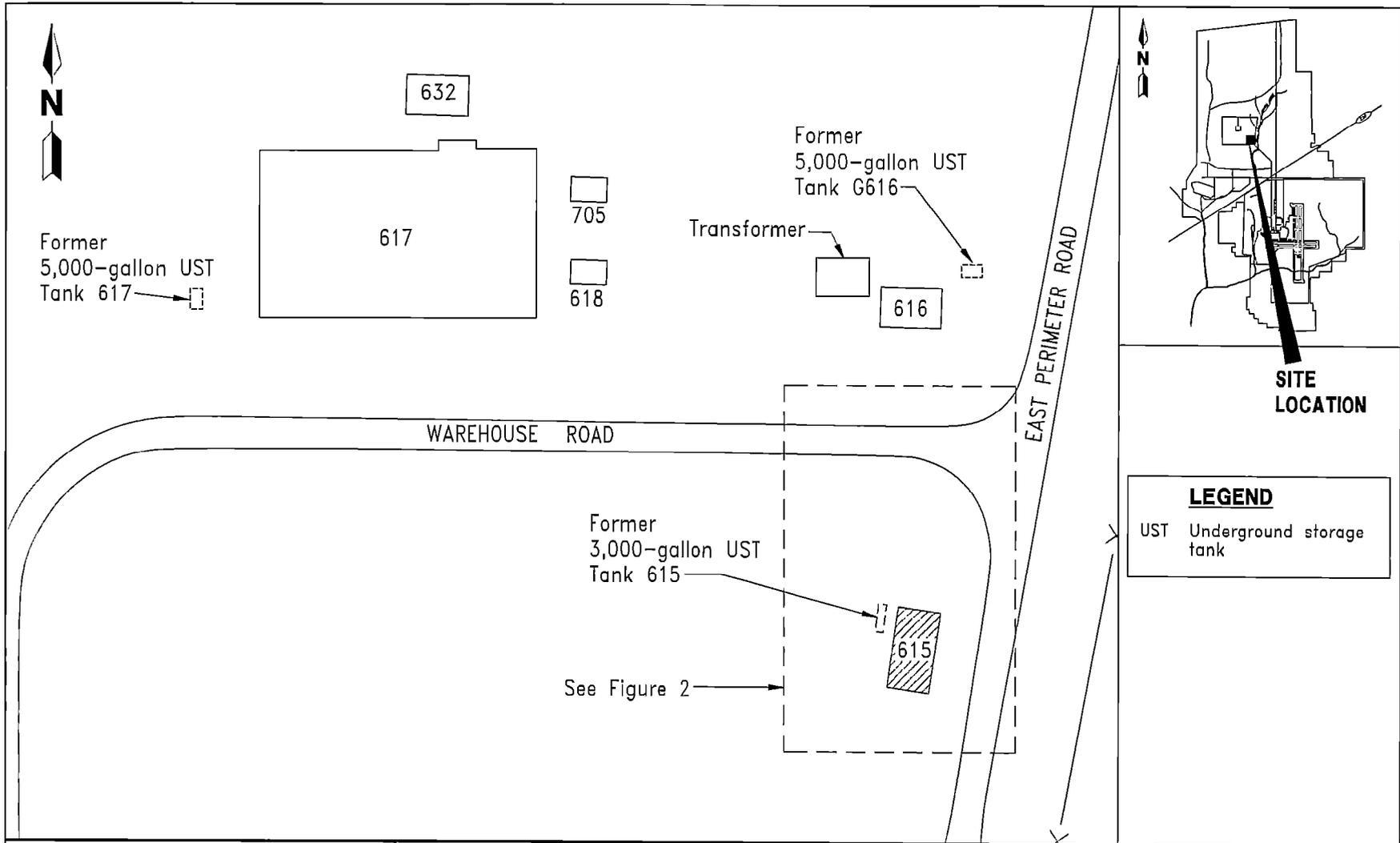
- the advancement of four soil borings to the water table,
- the installation of one shallow groundwater monitoring well, and
- collection and analysis of one groundwater sample.

Soil samples were collected from each boring at depth intervals of 1 foot below land surface (bls) and every 2 feet thereafter to the water table. These samples were screened for hydrocarbon vapors with an organic vapor analyzer (OVA).

A monitoring well, CEF-615-1S, was installed west of the UST near the location of soil boring CEF-615-SB2 to a depth of 13 feet bls. One groundwater sample was collected from the well and analyzed for the Kerosene Analytical Group parameters. A general site plan indicating the location of the soil borings and the monitoring well is presented on Figure 2. The monitoring well installation detail is included in Appendix A.

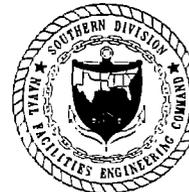
3.0 SCREENING AND ANALYTICAL RESULTS

Excessively contaminated soil (greater than 50 parts per million [ppm] on an OVA) was detected in all four soil borings. The highest OVA reading (1,890 ppm) was detected at 5 feet bls from a sample collected from soil boring CEF-615-SB2. The soil OVA data are summarized in Table 1 and presented on Figure 2.



0 50 100
SCALE: 1 INCH = 100 FEET

**FIGURE 1
TANK 615
MAINTENANCE BUILDING**



**CONFIRMATORY SAMPLING REPORT
BUILDING 615, TANK 615**

**NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA**

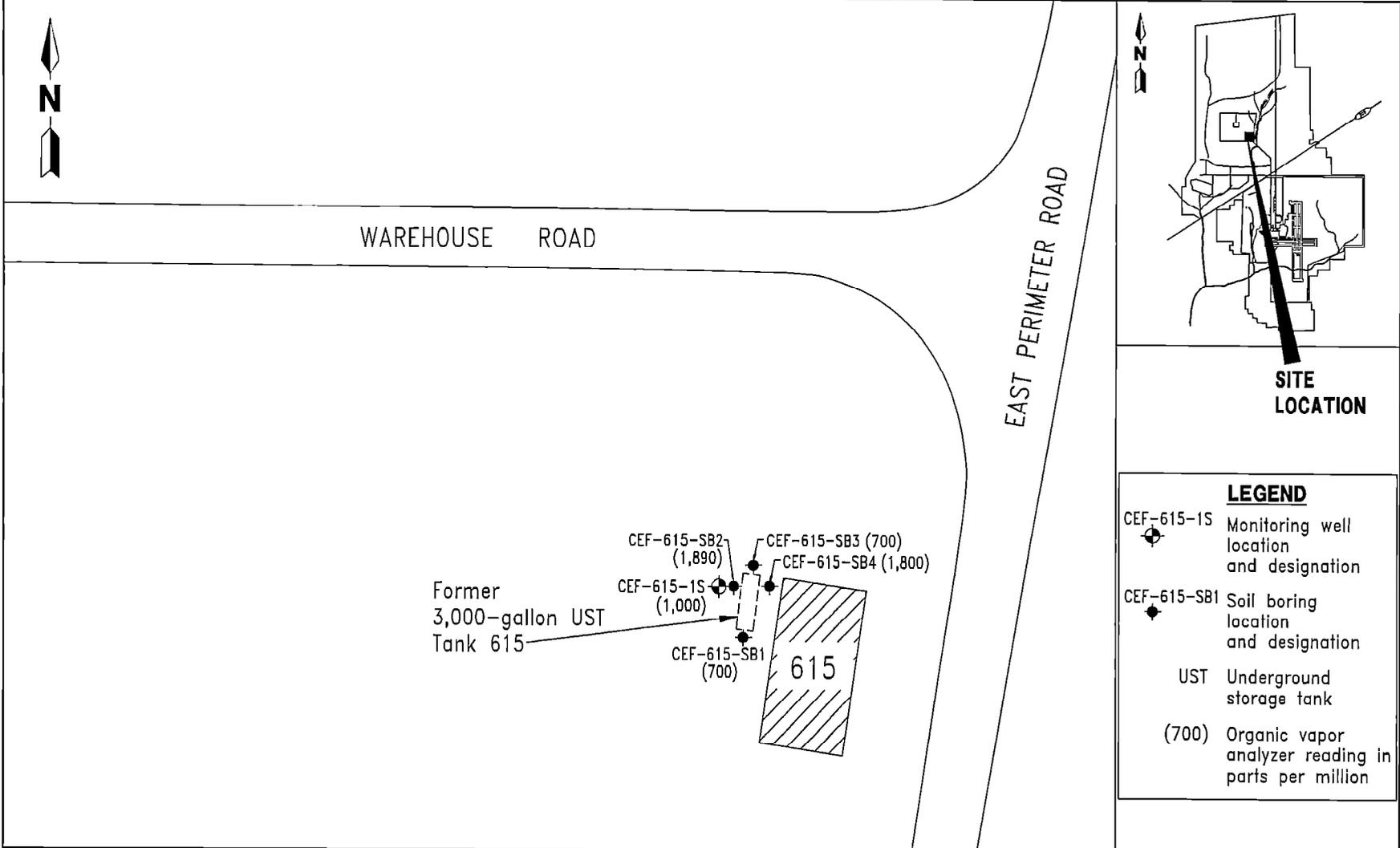


FIGURE 2
BUILDING 615
SOIL BORING AND MONITORING WELL LOCATIONS



CONFIRMATORY SAMPLING REPORT
BUILDING 615, TANK 615

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

**Table 1
Soil Screening Results**

Confirmatory Sampling Report
Building 615, Tank 615
Naval Air Station Cecil Field
Jacksonville, Florida

| Location | OVA Concentration (ppm) | | | |
|-------------|-------------------------|------------|----------|--------|
| | Depth (feet bls) | Unfiltered | Filtered | Actual |
| CEF-615-SB1 | 1 | 0 | – | 0 |
| | 3 | 700 | 0 | 700 |
| | 5 | 250 | 0 | 250 |
| | 7 (wet) | 290 | 0 | 290 |
| CEF-615-SB2 | 1 | 0 | – | 0 |
| | 3 | 0 | – | 0 |
| | 5 | 1,900 | 10 | 1,890 |
| | 7 (wet) | 1,300 | 0 | 1,300 |
| CEF-615-SB3 | 1 | 4 | 0 | 4 |
| | 3 | 95 | 0 | 95 |
| | 5 | 700 | 0 | 700 |
| | 7 (wet) | 360 | 0 | 360 |
| CEF-615-SB4 | 1 | 0 | – | 0 |
| | 3 | 130 | 0 | 130 |
| | 5 | 1,800 | 0 | 1,800 |
| | 7 (wet) | 400 | 0 | 400 |
| CEF-615-1S | 1 | 600 | – | 600 |
| | 3 | 1,000 | – | 1,000 |
| | 5 | 110 | – | 110 |
| | 11 (wet) | 500 | – | 500 |

Notes: All soil samples were collected on January 22, 1997.
Monitoring well CEF-615-1S was installed on February 24, 1997.
Soil samples were filtered with carbon to determine the methane concentration.

OVA = organic vapor analyzer.
ppm = parts per million.
bls = below land surface.
– = filtered readings were not collected.
wet = soil sample was completely saturated when analyzed.

Groundwater contamination was not detected at concentrations exceeding requirements specified in Chapter 62-770 of the Florida Administrative Code (FAC). The complete analytical data set is presented in Appendix B.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Data obtained during the confirmatory sampling at the Tank 615 site did not provide an adequate assessment of the horizontal and vertical extent of excessively contaminated soil.

No contaminants were detected above the regulatory standard specified in Chapter 62-770, FAC, in the groundwater sample collected from monitoring well CEF-615-1S.

It is recommended that additional confirmatory sampling be conducted to assess the extent of excessively contaminated soil at the Tank 615 site.

These conclusions and recommendations are based on site conditions as of March 1997.

REFERENCES

- ABB Environmental Services, Inc. (ABB-ES). 1996. *Contamination Assessment Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), North Charleston, South Carolina (November).
- ABB-ES. 1997. *Base Realignment and Closure Tank Management Plan, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina (January).
- Bechtel Environmental, Inc. 1997. DO #59: *Closure Report for Above Storage Tank/Underground Storage Tank Removals, Naval Air Station Cecil Field, Jacksonville, Florida*. (July).

APPENDIX A
MONITORING WELL INSTALLATION DETAIL

| | | | |
|------------------------------|--------------------------------|-------------------------|-----------------------------|
| TITLE: NAS Cecil Field | | LOG of WELL: CEF-615-1S | BORING NO. CEF-615-1S |
| CLIENT: SOUTHDIVNAVFACENGCOM | | | PROJECT NO: 8542-03 |
| CONTRACTOR: GEOTEK | | DATE STARTED: 2-24-97 | COMPLTD: 2-24-97 |
| METHOD: 6.25" HSA | CASE SIZE: 2" | SCREEN INT.: 3-13 | PROTECTION LEVEL: D |
| TOC ELEV.: FEET. | MONITOR INST.: FID | TOT DPTH: 14 FEET. | DPTH TO ∇ 1.75 FEET. |
| LOGGED BY: J Tarr | WELL DEVELOPMENT DATE: 2-27-97 | | SITE: Building 615 |

| DEPTH FT. | LABORATORY SAMPLE ID. | SAMPLE | RECOVERY | HEADSPACE (ppm) | SOIL/ROCK DESCRIPTION AND COMMENTS | LITHOLOGIC SYMBOL | SOIL CLASS | BLOWS/6-IN | WELL DATA |
|--------------|--------------------------|--------|----------|---|---|----------------------|------------|------------|-----------|
| 6.00 | | | | | SILTY SAND: Grey, fine grain, poorly graded, no petroleum odor. | | SM | posthole | |
| 1.000 | | | | CLAYEY SAND: Light grey to orange-brown, no petroleum odor. | | SC | posthole | | |
| 5.110 | | | 50% | CLAYEY SAND: Grey to dark grey, no petroleum odor. | | | 2,4,7,8 | | |
| 10.500 | | | 100% | CLAYEY SAND: Dark grey to greenish grey with large pieces of wood, no petroleum odor. | | | 1,2,3,5 | | |

APPENDIX B
GROUNDWATER ANALYTICAL DATA

NAS CECIL FIELD -- TANK 615
 UST GREY ANALYTICAL PARAMETERS -- REPORT NO. 9494

Lab Sample Number: B7C2001620
 Site BRACGREY
 Locator CEF6151S
 Collect Date: 18-MAR-97

VALUE QUAL UNITS DL

BRACGREY ANALYTICAL PARAMETERS

| | | | |
|------------------------------|-------|------|-----|
| 1,1,1-Trichloroethane | 1 U | ug/l | 1 |
| 1,1,2,2-Tetrachloroethane | 1 U | ug/l | 1 |
| 1,1,2-Trichloroethane | 1 U | ug/l | 1 |
| 1,1-Dichloroethane | 1 U | ug/l | 1 |
| 1,1-Dichloroethene | 1 U | ug/l | 1 |
| 1,2-Dichlorobenzene | 1 U | ug/l | 1 |
| 1,3-Dichlorobenzene | 1 U | ug/l | 1 |
| 1,4-Dichlorobenzene | 1 U | ug/l | 1 |
| 1,2-Dichloroethane | 1 U | ug/l | 1 |
| 1,2-Dichloropropane | 1 U | ug/l | 1 |
| 1-Methylnaphthalene | 2 U | ug/l | 2 |
| 2-Methylnaphthalene | 2 U | ug/l | 2 |
| Acenaphthene | 2 U | ug/l | 2 |
| Acenaphthylene | 2 U | ug/l | 2 |
| Anthracene | 2 U | ug/l | 2 |
| Benzene | 1 U | ug/l | 1 |
| Benzo (a) anthracene | .1 U | ug/l | .1 |
| Benzo (a) pyrene | .1 U | ug/l | .1 |
| Benzo (b) fluoranthene | .1 U | ug/l | .1 |
| Benzo (g,h,i) perylene | .2 U | ug/l | .2 |
| Benzo (k) fluoranthene | .15 U | ug/l | .15 |
| Bromodichloromethane | 1 U | ug/l | 1 |
| Bromoform | 1 U | ug/l | 1 |
| Bromomethane | 1 U | ug/l | 1 |
| Carbon tetrachloride | 1 U | ug/l | 1 |
| Chlorobenzene | 1 U | ug/l | 1 |
| Chloromethane | 1 U | ug/l | 1 |
| Chloroform | 1 U | ug/l | 1 |
| Chloromethane | 1 U | ug/l | 1 |
| Chrysene | .1 U | ug/l | .1 |
| Dibenzo (a,h) anthracene | .2 U | ug/l | .2 |
| Dibromochloromethane | 1 U | ug/l | 1 |
| Dichlorodifluoromethane | 1 U | ug/l | 1 |
| Ethylbenzene | 1 U | ug/l | 1 |
| Ethylene dibromide | .02 U | ug/l | .02 |
| Fluoranthene | .2 U | ug/l | .2 |
| Fluorene | 2 U | ug/l | 2 |
| Indeno (1,2,3-cd) pyrene | .1 U | ug/l | .1 |
| Lead | 5 U | ug/l | 5 |
| Methyl tert-butyl ether | 1 U | ug/l | 1 |
| Methylene chloride | 1 U | ug/l | 1 |
| Naphthalene | 2 U | ug/l | 2 |
| Phenanthrene | 2 U | ug/l | 2 |
| Pyrene | .2 U | ug/l | .2 |
| Tetrachloroethene | 1 U | ug/l | 1 |
| Toluene | 1 U | ug/l | 1 |
| Total petroleum hydrocarbons | .5 U | mg/l | .5 |
| Trichloroethene | 1 U | ug/l | 1 |
| Trichlorofluoromethane | 1 U | ug/l | 1 |
| Vinyl chloride | 1 U | ug/l | 1 |

NAS CECIL FIELD -- TANK 615
UST GREY ANALYTICAL PARAMETERS -- REPORT NO. 9494

Lab Sample Number: B7C2001620
Site BRACGREY
Locator CEF6151S
Collect Date: 18-MAR-97

| | VALUE | QUAL | UNITS | DL |
|---------------------------|-------|------|-------|----|
| Xylenes (total) | 1 U | | ug/l | 1 |
| cis-1,3-Dichloropropene | 1 U | | ug/l | 1 |
| trans-1,2-Dichloroethene | 1 U | | ug/l | 1 |
| trans-1,3-Dichloropropene | 1 U | | ug/l | 1 |
| Lead-DISS | - | | | |

U = NOT DETECTED J = ESTIMATED VALUE
UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
R = RESULT IS REJECTED AND UNUSABLE