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5090.3a

22

# QUARTERLY REPORT ON GROUNDWATER MONITORING WASTEWATER TREATMENT FACILITY NAVAL AIR STATION, PENSACOLA, FLORIDA

October 1989

**Prepared for:**

DEPARTMENT OF THE NAW
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive, P.O. Box 10068
Charleston, South Carolina 29411-0068

Contract Number N62467-88-C-0200

ecology and environment, inc.
1203 GOVERNOR'S SQUARE BOULEVARD, TALLAHASSEE, FLORIDA 32301, TEL. 904/877-1978
International Specialists in the Environment

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DEPARTMENT OF THE NAVY
NAVY PUBLIC WORKS CENTER
NAVAL AIR STATION
PENSACOLA, FLORIDA 32508-6500

IN REPLY REFER TO:

5090/1017F00625
Code 480

Mr. William E. Kellenberger, P.E.
Hazardous Waste Engineer, Northwest District
Florida Department of Environmental Regulation
160 Governmental Center
Pensacola, Florida 32501-5794

Re: Closure Permit HF17-148989, Close Surface Impoundment

Dear Mr. Kellenberger:

Enclosed are the Quarterly Reports for June - August 1989 of the Water Quality Monitoring as required by the above referenced permit, Specific Condition 25. The report lists the wells that were sampled from August 28 through August 30, 1989 and the analyses that were performed for the Corrective Action (CA) and Point of Compliance (POC) monitoring requirements. All analysis were performed using EPA approved methodologies by Ecology and Environment, Inc. Analytical Services Center, Buffalo, New York.

Specific Condition 27 of the referenced permit requires submittal of the report within 30 days of the sampling period. An extension was granted by Mr. Tom Moody during a telephone conversation with Mr. David Criswell, Southern Division, Naval Facilities Engineering Command on 2 August, 1989.

The results of analyses for the monitoring wells are reported on DER Form 17-1.216(2).

No significant changes or trends from previous report were noted. A brief summary of results follow:

- Specific Conductance:

  8 shallow wells tested 500 umhos/cm or less; 7 wells tested between 500 and 900 umhos/cm; and 2 wells tested over 1,000 umhos/cm.
  2 Intermediate wells tested over 10,000 umhos/cm; 1 tested 1900 umhos/cm and 1 tested 4,190 umhos/cm.
  2 deep wells tested 800 umhos/cm or less and 1 tested 2,600 umhos/cm.

- pH: Ranged from 4.2 in GM66 to 7.4 with 14 of 25 measurements being 6.5 or higher.

- Sodium: 7 of 25 readings exceeded drinking water standards. Highest levels were in shallow wells adjacent to the bay.

- Chlorides: 6 of 25 readings exceeded drinking water standards. Again, highest level was in a shallow well adjacent to the bay.

- Inorganics: Iron, manganese, and cyanide were reported at levels exceeding drinking water standards or exceeding Florida Groundwater Guidance concentrations. These results were at the following wells:

| Results in ug/l | UG-1 | GM-8 | GM-9 | GM-10 | 6Y-11 | GM-12R | GM-13 | GM-14 |
|---|---|---|---|---|---|---|---|---|
| Iron | 750 | 14,000 | 2,540 | 630 | | 970 | 590 | |
| Manganese | | 100 | 46 | 160 | | 230 | | 120 |
| Cyanide | | | | | 200 | | | 240 |

Cyanide was not detected in the previous report. This pollutant will be watched closely in the November sampling.

- Organics: 17 wells were tested for organics. 5 wells were found to have organics exceeding the Florida Groundwater Guidance concentrations. A summary of these wells follows:

| | Shallow | | Intermediate | | |
|---|---|---|---|---|---|
| Results in ug/l | GM-8 | GM-10 | GM-64 | GM-66 | GM-69 |
| Acetone | | | | 3,700 | |
| Chlorobenzene | | | 15 | | 110 |
| 1.2-Dichlorobenzene | 79 | 12 | 17 | 42 | 770 |
| 1.3-Dichlorobenzene | 47 | | | 11 | 650 |
| 1,4-Dichlorobenzene | | | | | 560 |
| Napthalene | | | | 94 | |
| Tetrachloroethene | 9 | - | | | 7 |
| Trichloroethme | | | | 11,000 | |

Point of contact for this report is Mr. E. A. Pike. Feel free to call his at (904) 252-3790 if you have any questions.

Sincerely,

T. W. BONE
Captain, CEC, USN
Commanding Officer

Enclosure:
(1) Quarterly Monitoring Report

Copy to:
COSOUTHNAVFACENGCOM (11526) w/o encl.



326223

STATE OF FLORIDA

# DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHWEST DISTRICT
160 GOVERNMENTAL CENTER
PENSACOLA, FLORIDA 32501-5794

BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY
ROBERT V. KRIEGEL
DISTRICT MANAGER

## QUARTERLY REPORT ON GROUND WATER MONITORING
Rule 17-4.245(6)(k)2.

GMS # 1017F00625 DATE 26 Oct 1989

DER PERMIT # HF17-148989

U.S. Navy Public Works - Storage Surface Impoundment Closure
Installatron Name

NAS Pensacola — Pensacola — Florida — Escambia
Address — city — State Zip — County

T. W. Bone, Captain, CEC, USN — o Officer
Owner or Authorized Representative's Name — Title

Method of Discharge N/A

Type of Industry Military

Report for Period 6/89 (date) to 9/89 (date)

Attach monitoring drtr as approved in uonitoring plan using parameter monitoring report Torrs. When applicable, attach additional sheets describing any changes in the backgtound water quality and the discharge plume since the last reported description. Include any changes in size, direction of movement, rate of movement, snd concentration changes of plume constituents in violation of the applicable standards.

NOTE: 'Pursuant to Rule 17-4.245(6)(k)3., at any time there is a change in the permitted volume* location or chemical, physical or microbiological composition of the discharge plume, the permittee shall notify the department and, if required by the department, submit a new report stating the volume and chemical, physical and microbiological compositions of the discharge at the point of release or contact with the ground water at the site boundary.

### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

TWBone — 31 October 1989
Owner or Authorized Representative's Signature — Date

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| | |
|---|---|
| At —— A | List of Honitoring Wells Sampled and Analytical Parameters |
| Attachment B | Locations of Honitoring and Recovery Wells at NAS Pensacola Wastewater Treatment Plant |
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## ATTACHMENT A

## LIST OF MONITORING WELLS SAMPLED AND ANALYTICAL PARAMETERS (Source: U.S. Navy)

a

| | | | pH (150.1) | Specific Conductance | Sodium (200.7) | Chlorides (300.0) | List I (624) | List II (625) | List III | List IV | Groundwater Elev. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BACKC | UC-1 | S | X | X | | | X | X | X | | X |
| | Dc-3 | S | | | | | | | | | |
| | Dc-4 | S | | | | | | | | | |
| | DG-5 | S | | | | | | | | | |
| /POC | GH8 | S | X | X | | | X | X | X | | X |
| CA/POC | GM9 | S | X | X | | | X | X | X | | X |
| POC | GH10 | S | X | X | | | X | X | X | | X |
| POC | GH11 | S | X | X | | | X | X | X | | X |
| POC | GH12R | S | X | X | | | X | X | X | | X |
| POC | GH13 | S | X | X | | | X | X | X | | X |
| POC | GH14 | S | X | X | | | X | X | X | | X |
| CA | GH62 | S | | | | | X | X | | | X |
| CA | CH63 | D | X | X | X | X | X | X | | | X |
| CA | GH64 | I | X | X | X | X | X | X | | | X |
| CA | GH65 | D | X | X | X | X | X | X | | | X |
| CA | CH66 | I | X | X | X | X | X | X | | | X |
| CA | CH67 | S | X | X | X | X | X | X | | | X |
| CA | CH68 | D | X | X | X | X | X | X | | | X |
| CA | GH69 | I | X | X | X | X | X | X | | | X |
| | GH70 | S | | | | | | | | | |
| CA | GH71 | S | X | X | X | X | | | | | X |
| CA | GH72 | S | X | X | X | X | | | | | X |
| | GH73 | S | | | | | | | | | |
| CA | CH76 | S | X | X | X | X | | | | | X |
| CA | GH77 | S | X | X | X | X | | | | | X |
| CA | GH78 | S | X | X | X | X | | | | | X |
| CA | GH79 | S | X | X | X | X | | | | | X |
| | GH80 | S | | | | | | | | | |
| | GH81 | S | | | | | | | | | |
| | GH82 | S | | | | | | | | | |
| CA | GH83 | S | X | X | X | X | | | | | X |
| CA | GH84 | I | X | X | X | X | X | X | | | X |
| CA | RW1-6 | | X | X | X | X | | | | | X |
| | RINS 1 | | X | X | : | | X | X | X | | X |
| | DUP 1 | | X | X | | | X | X | X | | X |
| | DUP 2 | | X | X | | | X | X | X | | X |
| | TB 1 | | X | X | | | X | X | X | | X |
| | FB 1 | | X | X | | | X | X | X | | X |

BACC = BACKGROUND WELL
POC = POINT OF COMPLIANCE WELL
CA = CORRECTIVE ACTION WELL
LIST I = VOLATILES (METHOD 624)
LIST II = DASE NEUTRALS (METHOD 625)
LIST III = SPECIFIC CONDITION 34(c) H017-127026 (Attached)
LIST IV = 40 CFR 264 APPENDIX IX

328225

NOTE: LISTS III AND IV HAVE HAD CONSTITUENTS LISTED IN LISTS I AND II DELETED ELIMINATING TESTING MORE THAN ONCE FOR ONE PARAMETER.

PERMITTEE:

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Date of Issue:

Expiration Date: November 1, 1988

SPECIFIC CONDITIONS:

b. The following wells, as shown in Figure E-14 in the Part B application, shall constitute the POC wells to which the groundwater protection standards shall apply:

Shallow Wells: DG-5, DG-4, DG-1, DG-6.
Intermediate Well: GM-75.

The background monitoring well shall be well DG-1. The facility may designate or install another well that is more representative of unaffected background to ensure completion of corrective action. The facility may apply for alternate concentration limits (ACL) in accordance with 40 CFR 264.94 for the grouudwater protection standard as a permit modification in accordance with PAC Rule 17-30.290.

34 c. The groundwater protection standard (40 CFR 264.92) as established 40 CFR 264.94 shall be:

| Parameter | Standard |
|---|---|
| Arsenic | 0.05 mg/l* |
| Barium | 1.0 mg/l* |
| Cadmium | 0.01 mg/l* |
| Chromium (total) | 0.05 mg/l* |
| Lead | 0.05 mg/l* |
| Mercury | 0.002 mg/l* |
| Selenium | 0.01 mg/l* |
| Silver | 0.05 mg/l* |
| Copper | 1.00 mg/l** |
| Zinc | 5.00 mg/l** |
| Iron | 0.3 mg/l** |
| Manganese | 0.05 mg/l** |
| Antimony | minimum detection limit |
| Thallium | minimum detection limit |
| Nickel | minimum detection limit |
| Chloride | 250 mg/l** |
| Sulfate | 250 mg/l** |
| Sodium | 160 mg/l** |

*Federal primary drinking water standard (40 CFR 264.94 Table 1)
**Florida secondary drinking water standards (FAC 17-22.104(2))

PERMITTEE:

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Date of Issue:

Expiration Date: November 1, 1988

SPECIFIC CONDITIONS:

## ACID EXTRACTABLES

| | |
|---|---|
| 2-Chlorophenol | minimum detection limit |
| 2,4-Dichlorophenol | minimum detection limit |
| 2,4-Dimethylphenol | minimum detection limit |
| 4,6-Dinitro-o-Cresol | minimum detection limit |
| 2,4-Dinitrophenol | minimum detection limit |
| 2-Nitrophenol | minimum detection limit |
| 4-Nitrophenol | minimum detection limit |
| p-Chloro-m-Cresol | minimum detection limit |
| Pentachlorophenol | minimum detection limit |
| Phenol | minimum detection limit |
| 2,4,6-Trichlorophenol | minimum detection limit |
| 2-methyl phenol | minimum detection limit |
| o-methyly phenol | minimum detection limit |
| methyl ethyl phenol | minimum detection limit |
| dimethyl ethyl phenol | minimum detection limit |
| tetramethyl butyl phenol | minimum detection limit |

## VOLATILES

| | |
|---|---|
| Acrolein | minimum detection limit |
| Acrylonitrile | minimum detection limit |
| Benzene | minimum detection limit |
| Bis(chloromethyl) ether | minimum detection limit |
| Bromoform | minimum detection limit |
| Carbon Tetrachloride | minimum detection limit |
| Chlorobenzene | minimum detection limit |
| Chlorodibromomethane | minimum detection limit |
| Chloroethane | minimum detection limit |
| 2-Chloroethylvinyl Ether | minimum detection limit |
| Chloroform | minimum detection limit |
| Dichlorobromomethane | minimum detection limit |
| Dichlorodifluoromethane | minimum detection limit |
| 1,1-Dichloroethane | minimum detection limit |
| 1,2-Dichloroethane | minimum detection limit |
| 1,1-Dichloroethylene | minimum detection limit |

328226

**PERMITTEE:**

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Date of Issue:

Expiration Date: November 1, 1988

**SPECIFIC CONDITIONS:**

| | |
|---|---|
| 1,2-Dichloropropane | minimum detection limit |
| 1,2-Dichloropropylene | minimum detection limit |
| Ethylbenzene | minimum detection limit |
| Methyl Bromide | minimum detection limit |
| Methyl Chloride | minimum detection limit |
| Methyl Ethyl Ketone | minimum detection limit |
| Methylene Chloride | minimum detection limit |
| 1,1,2,2-Tetrachloroethane | minimum detection limit |
| Tetrachloroethylene | minimum detection limit |
| Toluene | minimum detection limit |
| 1,2-trans-Dichloroethylene | minimum detection limit |
| 1,1,1-Trichloroethane | minimum detection limit |
| 1,1,2-Trichloroethane | minimum detection limit |
| Trichloroethylene | minimum detection limit |
| Trichlorofluoromethane | minimum detection limit |
| Vinyl Chloride | minimum detection limit |

**BASE NEUTRAL EXTRACTABLES**

| | |
|---|---|
| Acenaphthene | minimum detection limit |
| Acenaphthylene | minimum detection limit |
| Anthracene | minimum detection limit |
| Benzidine | minimum detection limit |
| Benzo(a)anthracene | minimum detection limit |
| Benzo(a)pyrene | minimum detection limit |
| 3,4-Benzofluoranthene | minimum detection limit |
| Benzo(ghi)perylene | minimum detection limit |
| Bis(2-chloroethoxy)methane | minimum detection limit |
| Bis(2-chloroethyl)ether | minimum detection limit |
| Bis(2-chloroisopropyl)ether | minimum detection limit |
| Bis(2-ethylhexyl)phthalate | minimum detection limit |
| 4-Bromophenyl Phenyl Ether | minimum detection limit |
| Butylbenzyl Phthalate | minimum detection limit |
| 2-Chloronaphthalene | minimum detection limit |
| 4-Chlorophenyl Phenyl Ether | minimum detection limit |
| Chrysene | minimum detection limit |
| Dibenzo(a,h)anthracene | minimum detection limit |
| 1,2-Dichlorobenzene | minimum detection limit |
| 1,3-Dichlorobenzene | minimum detection limit |
| 1,4-Dichlorobenzene | minimum detection limit |
| 3,3-Dichlorobenzidine | minimum detection limit |

PERMITTEE:

U.S. Navy Public Works

I.D. Number: 1017F00625 (FL9170024567)
Permit/Certification Number: H017-127026
Date of Issue:

Expiration Date: November 1, 1988

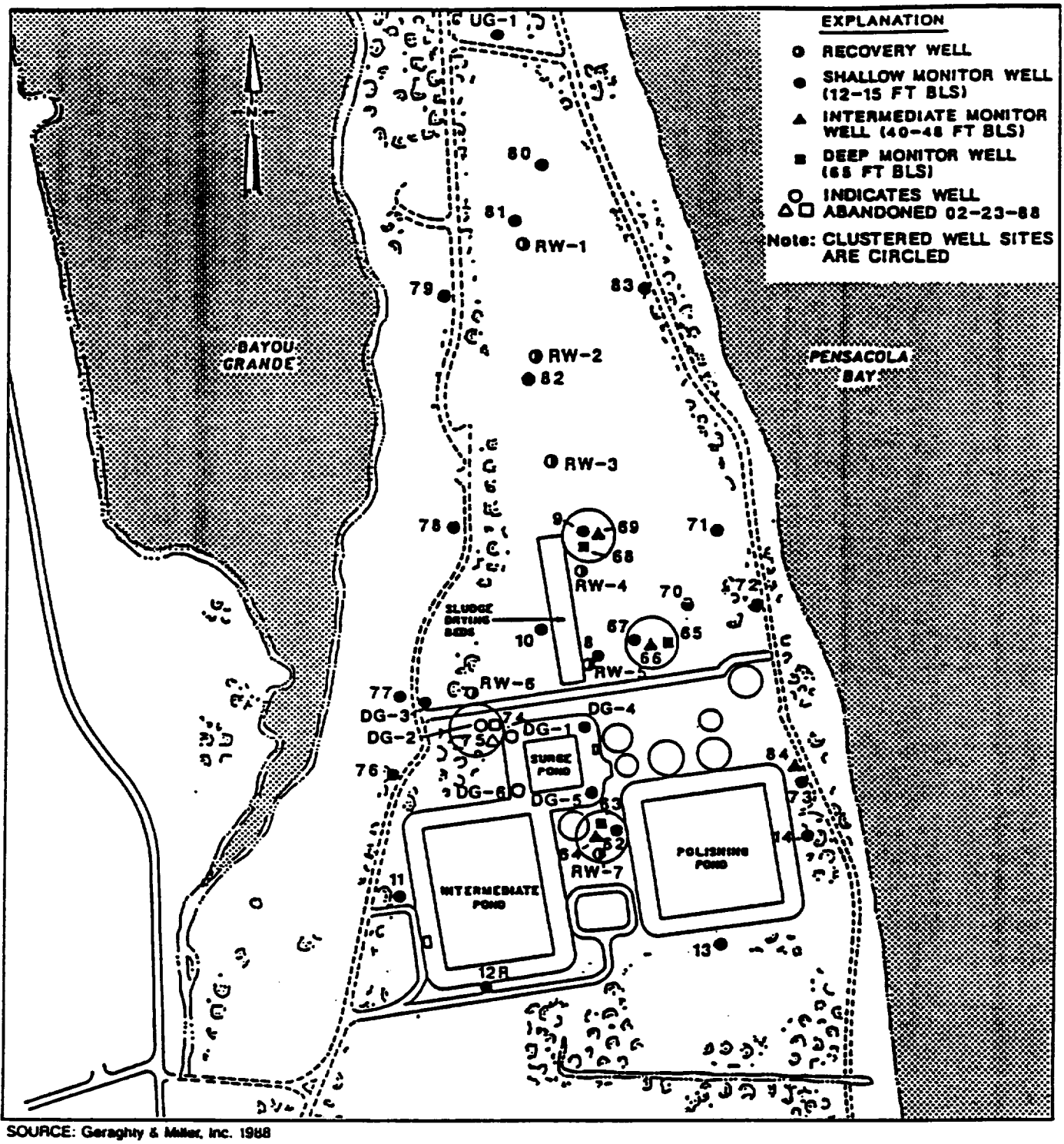
SPECIFIC CONDITIONS:

| | |
|---|---|
| Diethylphthalate | minimum detection limit |
| Dimethylphthalate | minimum detection limit |
| Di-n-Butyl Phthalate | minimum detection limit |
| 2,4-Dinitrotoluene | minimum detection limit |
| Di-n-Octyl-Phthalate | minimum detection limit |
| 1,2-Diphenylhydrazine | minimum detection limit |
| Fluoranthene | minimum detection limit |
| Fluorene | minimum detection limit |
| Hexachlorobenzene | minimum detection limit |
| Hexachlorobutadiene | minimum detection limit |
| Hexachlorocyclopentadiene | minimum detection limit |
| Hexachloroethane | minimum detection limit |
| Indeno(1,2,3-cd)pyrene | minimum detection limit |
| Isophorone | minimum detection limit |
| Methyl napthalene | minimum detection limit |
| 2-Methyl napthalene | minimum detection limit |

328227

## ATTACHMENT B

## LOCATIONS OF MONITORING AND RECOVERY WELLS AT NAS PENSACOLA WASTEWATER TREATMENT PLANT




SOURCE: Geraghty & Miller, Inc. 1988

SCALE

0 300 600 FEET

Attachment B LOCATIONS OF MONITORING AND RECOVERY WELLS AT NAS PENSACOLA WASTEWATER TREATMENT PLANT

328228

# ATTACHMENT C

## CORRECTIVE-ACTION MONITORING WELLS GROUNDWATER SAMPLING ANALYTICAL RESULTS

# H E H O R A N D U M

TO: John Barksdale

FROM: Gary Hahn

DATE: September 30, 1989

SUBJECT: U.S. Navy Southern Division Report

RE: 961.001

CC: Lab File

Attached is the laboratory report of the analysis conducted on thirty-two samples received at the Analytical Services Center on August 30, 1989. Analysis was performed according to the procedures set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, Third Edition, U.S. EPA, 1986.

All samples on which this report is based will be retained by E & E for a period of 30 days from the date of this report unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of $1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

GH:ec
enclosure

328229

# M E M O R A N D U M

TO: John Barksdale

FROM: Gary Hahn G. Hahn

DATE: September 30, 1989

SUBJECT: U.S. Navy Southern Division Report

RE: 961.002

CC: Lab File

Attached is the laboratory report of the analysis conducted on fourteen samples received at the Analytical Services Center on August 31, 1989. Analysis was performed according to the procedures set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, Third Edition, U.S. EPA, 1986.

All samples on which this report is based will be retained'by E & E for a period of 30 days from the date of this report unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of $1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

GH:ec
enclosure

ANALYTICAL REFERENCE SUMMARY

| PARAMETER | METHOD |
|---|---|
| Chloride | Method 325.3 - 'Methods for the Chemical Analysis of Water and Wastes", EPA-600/ 4-79-020, March 1983. |
| Sulfate | Method 375.4 - "Hethods for the Chemical Analysis of Water and Wastes', EPA-600/ 4-79-020, March 1983. |
| Complex Cyanide | Method 355.1 and 335.2 - "Hethods for the Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983. . |
| Antimony<br>Barium<br>Cadmium<br>Chromium<br>Copper<br>Iron<br>Lead<br>Manganese<br>Nickel<br>Silver<br>Sodium<br>Zinc | Method 6010 - 'Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, Third Edition, U.S.EPA 1986. |
| Arsenic<br>Selenium<br>Thallium | Method 7000 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA 1986. |
| Mercury | Method 7470 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods', SW-846, Third Edition, U.S. EPA 1986. |
| Volatile Organics | Method 8240 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods', SW-846, Third Edition, U.S. EPA 1986. |
| Base Neutral/Acid Extractables | Method 8270 - "Test Hethods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, U.S. EPA, 1986. |

328230

# EPA - CLP DEFINED QUALIFIERS

Note: All qualifiers appear in the "Q" column.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

Table C-1

**GROUNDWATER SAMPLE DESIGNATIONS**
**CORRECTIVE-ACTION MONITORING WELLS**

| Location | Sample Designation |
|---|---|
| Vell GX-62 | P32W062 |
| Vell GM-63 | P32W063 |
| Well GX-64 | P32W064 |
| Vell GH-65 | P32W065 |
| Vell GX-66 | P32W066 |
| Well 'GX-67 | P32W067 |
| Vell GM-68 | P32W068 |
| Vell GX-69 | P32W069 |
| Vell GH-71 | P32W071 |
| Well GX-72 | P32W072 |
| Vell GX-76 | P32W076 |
| Well GX-77 | P32W077 |
| Well GX-78 | P32W078 |
| Well GX-79 | P32W079 |
| Well GX-83 | P32W083 |
| Well GH-84 | P32W084 |
| RW1-6* | P32WR1-6 |

* Composite discharge from the recovery well system

325231

Table C-2
SUMMARY ANALYTICAL RESULTS FOR
CORRECTIVE-ACTION MONITORING WELLS
(All results in ug/L unless noted)

| Compound | Sample No. (Location) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | P32W062* (GM-62) | P32W063 (GM-63) | P32W064 (GM-64) | P32W065 (GM-65) | P32W066 (GM-66) | P32W067 (GM-67) | P32W068 (GM-68) | P32W069 (GM-69) | P32W084 (GM-84) |
| Sodium (mg/L) | — | 449 | 105 | 1,070 | 60 | 74 | 600 | 618 | 4,470 |
| Chloride (mg/L) | — | 93[illegible] | 501 | [illegible]70 | 602 | 144 | 132 | 835 | 7,910 |
| Vinyl Chloride | — | — | — | — | — | — | — | 9(J) | — |
| Chloroethane | — | — | — | — | — | — | — | 12 | — |
| Methylene Chloride | — | — | 1(J,B) | — | 180(J) | 1(J,B) | 1(J,B) | 2(J,B) | 1(J) |
| Acetone | 12(B) | 14(B) | 15(B) | 10(B) | 3,700 | 37(B) | 5(J,B) | 13(B) | 17(B) |
| Carbon Disulfide | — | — | — | 9(J) | — | 2(J) | 3(J) | 4(J) | — |
| 1,2-Dichloroethane | — | — | 1(J) | — | — | — | — | 100 | — |
| 1,1-Dichloroethene | — | — | — | — | 320(J) | — | — | — | — |
| Vinyl Acetate | — | — | — | — | — | — | — | 3(J) | — |
| 1,2-Dichloroethene (total) | 2(J) | — | — | — | — | — | — | — | — |
| 2-Butanone | — | — | — | — | — | 7(J) | — | — | — |
| Chlorobenzene | — | — | 15 | — | 120(J) | 1(J) | — | 110 | — |
| Benzene | — | — | — | — | — | — | — | 3(J) | — |
| Trichloroethene | — | — | — | — | 11,000 | — | — | — | — |
| Tetrachloroethene | — | — | — | — | — | — | — | 7 | — |
| Toluene | — | — | — | — | — | 13 | — | 3(J) | — |
| Total Xylenes | — | — | — | — | — | — | — | 2(J) | — |
| Phenol | — | — | — | — | — | 3(J) | — | — | — |
| 2-Chlorophenol | — | — | — | — | 2[illegible]0) | — | — | — | — |
| 1,3-Dichlorobenzene | — | — | 9(J) | — | 11 | 2(J) | — | 650 | — |
| 1,4-Dichlorobenzene | — | — | 14 | — | 22 | 4(J) | — | 560 | — |

J-Estimated value, compound present below detection limit
B-Compound also present in method blank at similar concentration
*Analyzed for VOCs and BNAs only

Table C-2 (Continued)

**SUMMARY ANALYTICAL RESULTS FOR**
**CORRECTIVE-ACTION MONITORING WELLS**
**(All results in ug/L unless noted)**

| Compound | Sample No. (Location) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | P32W062* (GM-62) | P32W063 (GM-63) | P32W064 (GM-64) | P32W065 (GM-65) | P32W066 (GM-66) | P32W067 (GM-67) | P32W068 (GM-68) | P32W069 (GM-69) | P32W084 (GM-84) |
| 1,2-Dichlorobenzene | — | — | 17 | — | 42 | 1(J) | — | 770 | — |
| 2-Methylphenol | — | — | — | — | — | 1(J) | — | — | — |
| 4-Methylphenol | — | — | — | — | 2(J) | 3(J) | — | — | — |
| 2,4-Dimethylphenol | — | — | — | — | 79 | — | — | — | — |
| Napthalene | — | — | — | — | 94. | — | — | — | — |
| 2-Methylnaphthalene | — | — | — | — | 4(J) | — | — | — | — |
| Acenaphthene | — | — | — | — | 3(J) | — | — | — | — |
| Dibenzofurane | — | — | — | — | 1(J) | — | — | — | — |
| Fluorene | — | — | — | — | 2(J) | — | — | — | — |
| Butylbenzylphthalate | — | — | 3(J) | — | — | — | — | — | — |
| bis (2-Ethylhexyl) phthalate | 2(J,B) | — | 4(J,B) | — | 2(J,B) | 2(J,B) | — | 14(J,B) | 4(J,B) |

J-Estimated value, compound present below detection limit.
B-Compound also present la method blank at similar concentration.
*Analyzed Cor VOCs rad BNAs only.

Table C-2 (Continued)

**SUMMARY ANALYTICAL RESULTS FOR**
**CORRECTIVE-ACTION MONITORING WELLS**
**(All results in mg/L)**

| Compound | Sample No. (Location) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | P32W071 (GM-71) | P32W072 (GM-72) | P32W076 (GM-76) | P32W077 (GM-77) | P32W078 (GM-78) | P32W079 (GM-79) | P32W083 (GM-83) | P32WR1-6 (RW1-6) |
| Sodium | 483 | 10.5 | 61.3 | 66.9 | 4.12 | 5.52 | 22.8 | 130 |
| Chloride | 571 | 19.3 | 75.6 | 136 | 6.15 | S.27 | 47.5 | 217 |

Note: Thoro samples analyzed for sodium and chloride only.

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-30-89

Monitoring Well # GM-62

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Nan: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.75 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.1 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 530 | umhos/cm | Unfiltered | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328233

. 1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NU.

P32W062

Lab Name: E & E INC. Contract: UH-3000

Lab Coda: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: .48165

Sample wt/vol: 1000 (g/mL) ML Lab Fila ID: 81685

Lowl: (low/med) LOW Date Received: 08/31/09

% Moisture: not dec. dec. Data Extractad: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Data Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

09/28/89 LH

(1) - Cannot be separated from Diphenylamine

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

**GMS #** 1017F00625

Sample Date: 8-30-89

Monitoring Well # GM-63

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Deep

Classification of Groundwater G-1

Well Developed*: Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.85 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon Bailer | 150.1 | 6.8 | | Unfiltered | |
| | Specific Conductance | Teflon Bailer | 120.1 | 2,600 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Porn 17-1.216(2) 328234

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48166 MATRIX: WATER
SAMPLE ID CLIENT: GM-63

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 449 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Curter

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48166 MATRIX: VATER
SAMPLE ID CLIENT: GM-63

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 993 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328235

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W063

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case NO.: 961_002 SAS NO.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48166

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01069

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 14 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 2 | J |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | tu |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W063

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48166

Sample wt/vol: 1000 (g/mL) ML Lab File 10: 81686

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dsc. doc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION WITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W063

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDC No. :

Matrix: (soil/water) WATER Lab Sample ID: 48166

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E1686

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

CPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Rcenaphthenc | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-30-89

Monitoring Well # GX-64

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Intermediate

Classification of Groundvater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundvater Elevation (above MSL) 0.67 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon Bailer | 150.1 | 6.9 | | Unfiltered | |
| | Specific Conductance | Teflon Bailer | 120.1 | 1,900 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflod bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

338337

HETALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48167 MATRIX: WATER
SAMPLE ID CLIENT: *GH-64*

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 105 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION

JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48167
MATRIX: WATER
SAMPLE ID CLIENT: GM-64

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 501 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT
ND = NOT DETECTED
J = ESTIMATED VALUE
B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

322233

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W064

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDC No. :

Matrix: (soil/water) WATER Lab Sample ID: 48167

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01070

Leu. 1 : (low/med) LOW Date Received: 08/31/89

% Moisture: not doc. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 1 | BJ |
| 67-64-1 | Acetone | 15 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 1 | J |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 15 | |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W064

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48167

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81702

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 2 | JB 09/28/89 |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 1 | J |
| 541-73-1 | 1,3-Dichlorobenzene | 9 | J |
| 106-46-7 | 1,4-Dichlorobenzene | 15 | |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 18 | |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |



328233

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W064

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48167

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81731

Level: (low/med) LOW Data Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Data Analyzed: 09/14/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 9 | J |
| 106-46-7 | 1,4-Dichlorobenzene | 14 | |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 17 | |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W064

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_U02 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48167

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81702

Lowl: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dsc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 3 | J |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

09/28/89 LH

(1) - Cannot be separated fror Diphenylamine

FORM I SV-2 1/87 Rev.

328240

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-30-89

Monitoring Well # GM-65

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Deep

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.84 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon Bailer | 150.1 | 6.6 | | Unfiltered | |
| | Specific Conductance | Teflon Bailer | 120.1 | 800 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48168 MATRIX: VATER
SAMPLE ID CLIENT: GM-65

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| sodium | 1070 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328241

GENERAL *ANALYTICAL* SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48168 MATRIX: WATER
SAMPLE ID CLIENT: GH-65

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 173 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W065

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48168

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01071

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 10 | B |
| 75-15-0 | Carbon Disulfide | 9 | J |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W065

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48168.03RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81839

Level: (low/med) LOW Date Rotoived: 08/31/89

% Moisture: not dec. doc. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPC Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | O |
|---|---|---|---|---|
| 108-95-2 | Phenol | 10 | IU | |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | IU | |
| 95-57-8 | 2-Chlorophenol | 10 | IU | |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | IU | |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | IU | |
| 100-51-6 | Benzyl Alcohol | 10 | IU | |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | IU | |
| 95-48-7 | 2-Methylphenol | 10 | IU | |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | IU | |
| 106-44-5 | 4-Methylphenol | 10 | IU | I |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | IU | |
| 67-72-1 | Hexachloroethane | 10 | IU | |
| 98-95-3 | Nitrobenzene | 10 | IU | |
| 78-59-1 | Isophorone | 10 | IU | |
| 88-75-5 | 2-Nitrophenol | 10 | IU | |
| 105-67-9 | 2,4-Dimethylphenol | 10 | IU | |
| 65-85-0 | Benzoic Acid | 50 | IU | |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | IU | |
| 120-83-2 | 2,4-Dichlorophenol | 10 | IU | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | IU | |
| 91-20-3 | Naphthalene | 10 | IU | |
| 106-47-8 | 4-Chloroaniline | 10 | IU | |
| 87-68-3 | Hexachlorobutadiene | 10 | IU | |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | IU | |
| 91-57-6 | 2-Methylnaphthalene | 10 | IU | I |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | IU | |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | IU | |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | IU | |
| 91-58-7 | 2-Chloronaphthalene | 10 | IU | |
| 88-74-4 | 2-Nitroaniline | 50 | IU | |
| 131-11-3 | Dimethyl Phthalate | 10 | IU | |
| 208-96-8 | Acenaphthylene | 10 | IU | |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | IU | |



320243

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W065

Lab Name: E & E INC. Contract; UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48168.03RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81839

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not doc. dec. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

CPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-30-89

Honitoring Well # GM-66

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Narc: Intermediate

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.06 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 4.3 | | Unfiltered | |
| | Specific Conductanc | Teflon bailer | 120.1 | >10,000 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached. | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

336241

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48169 MATRIX: WATER
SAMPLE ID CLIENT: GN-66

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 160 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48169 MATRIX: WATER
SAMPLE ID CLIENT: GM-66

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 602 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328245

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W066

Lab Name: E & E INC. Contract: Uti-3000

Lab Code: EANDE Case No.: 961-0132 SAS No.: SDC No.:

Matrix: (soil/water) WATER Lab sample ID: 48169

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01107

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/09/89

Column: (pack/cap) CAP Dilution Factor: 200

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 2000 | U |
| 74-83-9 | Bromomethane | 2000 | U |
| 75-01-4 | Vinyl Chloride | 2000 | U |
| 75-00-3 | Chloroethane | 2000 | U |
| 75-09-2 | Methylene Chloride | 1000 | U |
| 67-64-1 | Acetone | 3700 | |
| 75-15-0 | Carbon Disulfide | 1000 | U |
| 75-35-4 | 1,1-Dichloroethene | 1000 | U |
| 75-34-3 | 1,1-Dichloroethane | 1000 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 1000 | U |
| 67-66-3 | Chloroform | 1000 | U |
| 107-06-2 | 1,2-Dichloroethane | 1000 | U |
| 78-93-3 | 2-Butanone | 2000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 1000 | U |
| 56-23-5 | Carbon Tetrachloride | 1000 | U |
| 108-05-4 | Vinyl Acetate | 2000 | U |
| 75-27-4 | Bromodichloromethane | 1000 | U |
| 78-87-5 | 1,2-Dichloropropane | 1000 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 1000 | U |
| 79-01-6 | Trichloroethene | 11000 | |
| 124-48-1 | Dibromochloromethane | 1000 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 1000 | U |
| 71-43-2 | Benzene | 1000 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 1000 | U |
| 75-25-2 | Bromoform | 1000 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 2000 | U |
| 591-78-6 | 2-Hexanone | 2000 | U |
| 127-18-4 | Tetrachloroethene | 1000 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 1000 | U |
| 108-88-3 | Toluene | 1000 | U |
| 108-90-7 | Chlorobenzene | 1000 | U |
| 100-41-4 | Ethylbenzene | 1000 | U |
| 100-42-5 | Styrene | 1000 | U |
| 1330-20-7 | Xylene (total) | 1000 | U |

"A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W066

Lab Name: E 6 E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48169

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1135

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dac. Data Analyzed: 09/12/89

Column: (pack/cap) CAP Dilution Factor: 100

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 1000 | U |
| 74-83-9 | Bromomethane | 1000 | U |
| 75-01-4 | Vinyl Chloride | 1000 | U |
| 75-00-3 | Chloroethane | 1000 | U |
| 75-09-2 | Methylene Chloride | 180 | JB |
| 67-64-1 | Acetone | 940 | JB |
| 75-15-0 | Carbon Disulfide | 500 | U |
| 75-35-4 | 1,1-Dichloroethene | 320 | J |
| 75-34-3 | 1,1-Dichloroethane | 500 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 500 | U |
| 67-66-3 | Chloroform | 500 | U |
| 107-06-2 | 1,2-Dichloroethane | 500 | U |
| 78-93-3 | 2-Butanone | 1000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 500 | U |
| 56-23-5 | Carbon Tetrachloride | 500 | U |
| 108-05-4 | Vinyl Acetate | 1000 | U |
| 75-27-4 | Bromodichloromethane | 500 | U |
| 78-87-5 | 1,2-Dichloropropane | 500 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 500 | U |
| 79-01-6 | Trichloroethene | 13000 | |
| 124-48-1 | Dibromochloromethane | 500 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 500 | U |
| 71-43-2 | Benzene | 500 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 500 | U |
| 75-25-2 | Bromoform | 500 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 1000 | U |
| 591-78-6 | 2-Hexanone | 1000 | U |
| 127-18-4 | Tetrachloroethene | 500 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 500 | U |
| 108-88-3 | Toluene | 500 | U |
| 108-90-7 | Chlorobenzene | 120 | J |
| 100-41-4 | Ethylbenzene | 500 | U |
| 100-42-5 | Styrene | 500 | U |
| 1330-20-7 | Xylene (total) | 500 | U |

09/28/89 LH

FORM I VOA 1/87 Rev.

328246

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W066

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48169.03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81725

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/14/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 2 | J |
| 541-73-1 | 1,3-Dichlorobenzene | 11 | |
| 106-46-7 | 1,4-Dichlorobenzene | 22 | |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 42 | |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 2 | J |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 79 | |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 94 | |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 4 | J |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W066

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48169.03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1725

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. doc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/14/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | a |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 3 | J |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 1 | J |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 2 | J |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | BJ |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine



328247

. PARAMETER HONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-30-89

Monitoring Well # GH-67

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.37 ft

| STORET Code | Parameter Monitored | Sampling Method | BPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | *Teflon bailer | 150.1 | 6.3 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 200 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48170 MATRIX: WATER
SAMPLE ID CLIENT: GM-67

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 74 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328248

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48170 MATRIX: WATER
SAMPLE ID CLIENT: GM-67

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 144 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W067

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48170

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01087

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Data Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 1 | BJ |
| 67-64-1 | Acetone | 37 | B |
| 75-15-0 | Carbon Disulfide | 2 | J |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 7 | J |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 13 | |
| 108-90-7 | Chlorobenzene | 1 | J |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |



328243

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W067

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 46170

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81703

Level: (low/med) LOW Date Received: 08/31/89

% noisturs: not dec. dec. Date Extractod: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 108-95-2 | Phenol | 3 | JB | 09/20/89LH |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U | |
| 95-57-8 | 2-Chlorophenol | 10 | U | |
| 541-73-1 | 1,3-Dichlorobenzene | 2 | J | |
| 106-46-7 | 1,4-Dichlorobenzene | 4 | J | |
| 100-51-6 | Benzyl Alcohol | 10 | U | |
| 95-50-1 | 1,2-Dichlorobenzene | 1 | J | |
| 95-48-7 | 2-Methylphenol | 1 | J | |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U | |
| 106-44-5 | 4-Methylphenol | 3 | J | |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U | |
| 67-72-1 | Hexachloroethane | 10 | U | |
| 98-95-3 | Nitrobenzene | 10 | U | |
| 78-59-1 | Isophorone | 10 | U | |
| 88-75-5 | 2-Nitrophenol | 10 | U | |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U | |
| 65-85-0 | Benzoic Acid | 50 | U | |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U | |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U | |
| 91-20-3 | Naphthalene | 10 | U | |
| 106-47-8 | 4-Chloroaniline | 10 | U | |
| 87-68-3 | Hexachlorobutadiene | 10 | U | |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U | |
| 91-57-6 | 2-Methylnaphthalene | 10 | U | |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U | |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U | |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U | |
| 91-58-7 | 2-Chloronaphthslene | 10 | U | |
| 88-74-4 | 2-Nitroaniline | 50 | U | |
| 131-11-3 | Dimethyl Phthalate | 10 | U | |
| 208-96-8 | Acenaphthylene | 10 | U | |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U | |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

P32W067

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48170

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81703

Lowl: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. doc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB | 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot bo separated fror Diphenylamine



328250

# PARAMETER MONITORING REPORT

(Rule *17-3.402, 17-3.404 - 17-3.406)*

GMS # 1017F00625

Sample Date: 8-29-89

Monitoring Well # GM-68

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Deep

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.89 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon Bailer | 150.1 | 6.7 | | Unfiltered | |
| | Specific Conductance | Teflon Bailer | 120.1 | 720 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48171 MATRIX: WATER
SAMPLE ID CLIENT: GM-68

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 600 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328251

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48171 MATRIX: WATER
SAMPLE ID CLIENT: GH-68

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 132 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L =.PRESENT BELOW STATED DETECTION LIMIT

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W068

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48171

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1090

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

0

| CAS No. | COMPOUND | | |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 1 | BJ |
| 67-64-1 | Acetone | 5 | BJ |
| 75-15-0 | Carbon Disulfide | 3 | J |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |



328252

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W068

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SOG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48171.03RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81841

Level: (low/med) LOW Date Received: 09/31/89

% Moisture: not dec. dec. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NU. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W068

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48171.03RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1841

LowI: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. doc. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine



328253

# PARAMETER HONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-29-89

Monitoring Well # GM-69

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Intermediate

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.13 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.4 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 4,100 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCS | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EB-89-48172 MATRIX: WATER
SAMPLE ID CLIENT: GM-69

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 618 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
3 = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328254

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48172 HATRIX: WATER
SAMPLE ID CLIENT: GM-69

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 835 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W069

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WTER Lab Sample ID: 48172

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1091

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | IU |
| 74-83-9 | Bromomethane | 10 | IU |
| 75-01-4 | Vinyl Chloride | 9 | IJ |
| 75-00-3 | Chloroethane | 12 | I |
| 75-09-2 | Methylene Chloride | 2 | IBJ |
| 67-64-1 | Acetone | 13 | IB |
| 75-15-0 | Carbon Disulfide | 4 | IJ |
| 75-35-4 | 1,1-Dichloroethene | 3 | IU |
| 75-34-3 | 1,1-Dichloroethane | 100 | I |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | IU |
| 67-66-3 | Chloroform | 5 | IU |
| 107-06-2 | 1,2-Dichloroethane | 5 | IU |
| 78-93-3 | 2-Butanone | 10 | IU |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | IU |
| 56-23-5 | Carbon Tetrachloride | 5 | IU |
| 108-05-4 | Vinyl Acetate | 3 | IJ |
| 75-27-4 | Bromodichloromethane | 5 | IU |
| 78-87-5 | 1,2-Dichloropropane | 5 | IU |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | IU |
| 79-01-6 | Trichloroethene | 5 | IU |
| 124-48-1 | Dibromochloromethane | 5 | IU |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | IU |
| 71-43-2 | Benzene | 3 | IJ |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | IU |
| 75-25-2 | Bromoform | 5 | IU |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | IU |
| 591-78-6 | 2-Hexanone | 10 | IU |
| 127-18-4 | Tetrachloroethene | 7 | I |
| 79-34-5 | 1,1,2,2-Tetrachloroothane | 5 | IU |
| 108-88-3 | Toluene | 3 | IJ |
| 108-90-7 | Chlorobenzene | 110 | I |
| 100-41-4 | Ethylbenzene | 5 | IU |
| 100-42-5 | Styrene | 5 | IU |
| 1330-20-7 | Xylene (total) | 2 | IJ |

FORM I VOA 1/87 Rev.

328255

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W069

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48172

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1842

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 50 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 50 | U |
| 95-57-8 | 2-Chlorophenol | 50 | U |
| 541-73-1 | 1.3-Dichlorobenzene | 650 | |
| 106-46-7 | 1,4-Dichlorobenzene | 560 | |
| 100-51-6 | Benzyl Alcohol | 50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 770 | |
| 95-48-7 | 2-Methylphenol | 50 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 50 | U |
| 106-44-5 | 4-Methylphenol | 50 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 50 | U |
| 67-72-1 | Hexachloroethane | 50 | U |
| 98-95-3 | Nitrobenzene | 50 | U |
| 78-59-1 | Isophorona | 50 | U |
| 88-75-5 | 2-Nitrophenol | 50 | U |
| 105-67-9 | 2,4-Dimethylphenol | 50 | U |
| 65-85-0 | Benzoic Acid | 250 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 50 | U |
| 120-83-2 | 2,4-Dichlorophenol | 50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | U |
| 91-20-3 | Naphthalene | 50 | U |
| 106-47-8 | 4-Chloroaniline | 50 | U |
| 87-68-3 | Hexachlorobutadiene | 50 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 50 | U |
| 91-57-6 | 2-Methylnaphthalene | 50 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 250 | U |
| 91-58-7 | 2-Chloronaphthalene | 50 | U |
| 88-74-4 | 2-Nitroaniline | 250 | U |
| 131-11-3 | Dimethyl Phthalate | 50 | U |
| 208-96-8 | Acenaphthylene | 50 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W069

Lab Name: E & E INC. Contract: UH-3000

Lab Cod.: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48172

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81842

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. doc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 250 | U |
| 83-32-9 | Acenaphthene | 50 | U |
| 51-28-5 | 2,4-Dinitrophenol | 250 | U |
| 100-02-7 | 4-Nitrophenol | 230 | U |
| 132-64-9 | Dibenzofuran | 50 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | U |
| 84-66-2 | Diethylphthalate | 50 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 50 | U |
| 86-73-7 | Fluorene | 50 | U |
| 100-10-6 | 4-Nitroaniline | 250 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 250 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 50 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 50 | U |
| 118-74-1 | Hexachlorobenzene | 50 | U |
| 87-86-5 | Pentachlorophenol | 250 | U |
| 85-01-8 | Phenanthrene | 50 | U |
| 120-12-7 | Anthracene | 50 | U |
| 84-74-2 | Di-n-Butylphthalate | 50 | U |
| 206-44-0 | Fluoranthene | 50 | U |
| 129-00-0 | Pyrene | 50 | U |
| 85-68-7 | Butylbenzylphthalate | 50 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 100 | U |
| 56-55-3 | Benzo(a)Anthracene | 50 | U |
| 218-01-9 | Chrysene | 50 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 14 | JB |
| 117-84-0 | Di-n-Octyl Phthalate | 50 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 50 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 50 | U |
| 50-32-8 | Benzo(a)Pyrene | 50 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 50 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 50 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 50 | U |

(1) - Gnnot be separated from Diphenylamine

09/28/89 AH

FORM I SV-2 1/87 Rev.

328256

PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017100625

Sample Date: 8-28-89

Monitoring Well # GM-71

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.17 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 3,700 | umhos/cm | Unfiltered | |
| | Inorganics | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48014 MATRIX: WATER
SAMPLE ID CLIENT: P32-W071

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 483 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328257

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48014 MATRIX: WATER
SAMPLE ID CLIENT: P32-W071

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 571 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-72

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundvatcr G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundvater Elevation (above MSL) 1.49 ft

| STORET Code | Parameter Monitored | Sampling Method | BPA Analysis Method | Analysis Result | Units | Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 440 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | see attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328258

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48012 MATRIX: WATER
SAMPLE ID CLIENT: P32-W072

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 10.5 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EB-89-48012 MATRIX: VATER
SAMPLE ID CLIENT: P32-W072

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 19.3 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328250

# PARAMETER MONITORING REPORT

(Rule *17-3.402, 17-3.404 - 17-3.406)*

GHS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-76

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed Prior to Sample Collection (Yes/No)* YES

Groundwater Elevation (above HSL) 1.53 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | *7.0* | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 900 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attathed | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

**METALS** SECTION

**JOB NUMBER** : 961.001

Ecology and Environment, Inc.
Analytical Services Center

*CLIENT:* **U.S.NAVY-SOUTHERN** DIVISION
**SAMPLE ID LAB:** **EE-89-48015** **MATRIX: WATER**
**SAMPLE ID** *CLIENT:* **P32-W076**

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| sodium | 61.3 | | 0.2 | MG/L |

**QUALIFIERS:** C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328260

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAHPLE ID LAB: EE-89-48015 MATRIX: WATER
SAHPLE ID CLIENT: P32-W076

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 75.6 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GU-77

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.45 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 840 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2) 320261

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48013 MATRIX: WATER
SAMPLE ID CLIENT: P32-W077

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 66.9 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

**GENERAL ANALYTICAL** SECTION **JOB NUMBER** : 961.001

Ecology and Environment, Inc.
Analytical Services Center

**CLIENT:** U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48013 **MATRIX:** WATER
**SAMPLE ID** *CLIENT:* P32-V077

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 136 | | 1.0 | MG/L |

**QUALIFIERS:** C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328262

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017300625

Sample Date: 8-28-89

Monitoring Well # GM-78

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallov

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.36 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 190 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48011 MATRIX: WATER
SAMPLE ID CLIENT: P32-W078

| PARAMETER | RESULTS | Q | DBT. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 4.12 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328263

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DMSION
SAMPLE ID LAB: EE-89-48011 MATRIX: WATER
SAMPLE ID CLIENT: P32-W078

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 6.15 | | 1.0 | MG/L |

QUALIFIERS: C = COHHENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-79

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallov

Classification of Groundwater G1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.25 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preservatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 5.9 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 100 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DEB Form 17-1.216(2)
Effective January 1, 1983

328264

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48010 MATRIX: WATER
SAMPLE ID CLIENT: P32-W079

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 5.52 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48010 MATRIX: WATER
SAMPLE ID CLIENT: P32-W079

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 5.27 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328265

. PARAMETER HONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-83

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.29 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 5.2 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 250 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)
Effective January 1, 1983

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48009 MATRIX: WATER
SAMPLE ID CLIENT: P32-W083

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 22.8 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328266

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48009 MATRIX: WATER
SAMPLE ID CLIENT: P32-W083

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 47.5 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-29-89

Monitoring Well # GM-84

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: Intermediate

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.28 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon Bailer | 150.1 | 7.4 | | Unfiltered | |
| | Specific Conductance | Teflon Bailer | 120.1 | >10,000 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

333267

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: *E-89-48033* . MATRIX: WATER
SAMPLE ID CLIENT: P32-W084

| PARAMETER | RESULTS | Q | DET. LIHIT | UNITS |
|---|---|---|---|---|
| Sodium | *4470* | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = *ALSO* PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Iac.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48033 MATRIX: WATER
SAMPLE ID CLIENT: P32-W084

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 7910 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328268

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W084

Name: E & E INC. Contract: UH-3000

Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48023

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1039

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 1 | J | |
| 67-64-1 | Acetone | 17 | B | 09/28/89 LH |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 1 | J | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W084

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48033

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1654

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | L0 | U |
| 98-95-3 | Nitrobenzene | 10 | tU |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 14 | U |



328269

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W084

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

matrix: (soil/water) WATER Lab Sample ID: 48033

saaple wt/vol: 1000 (g/mL) ML Lab File ID: 81654

Level: (low/med) LOW Date Raceived: 08/30/89

% Moisture: not dec. dac. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 2 | J |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 4 | JB 09/28/89 LH |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

P32W084

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48033

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1654

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Oiwthyl ethyl phenol | | ND | |
| 110. Totrawthylbutyl phonol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

323270

. PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GHS # 1017F00625

Sample Date: 8-30-89

Honitoring Well # RW1-6

Well Type:

[ X ] Corrective Action

[ ] Point-of-Compliance

Well Name: composite discharge from recovery well system

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) N/A ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Recovery well discharge | 150.1 | 6.0 | | Unfiltered | |
| | Specific Conductance | Recovery well discharge | 120.1 | 1,600 | umhos/cm | Unfiltered | |
| | Inorganics: | Recovery well discharge | | See attached | | Unfiltered | |
| | Sodium | | 6010 | | | | $HNO_3$ |
| | Chloride | | 325.3 | | | | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

METALS SECTION

JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S NAVY-SOUTHERN DIVISION
WLEIDLAB: EE-89-48174
SAMPLE ID CLIENT: P32-WRI6

MATRIX: WATER

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 130 | | 0.2 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328271

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48174 MATRIX: WATER
SAMPLE ID CLIENT: P32-WRI6

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 217 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

# ATTACHMENT D

## POINT-OF-COMPLIANCE MONITORING WELLS
## GROUNDWATER SAMPLING ANALYTICAL RESULTS

328272

Table D-1

**GROUNDWATER SAMPLE DESIGNATIONS**
**POINT-OF-COMPLIANCE MONITORING WELLS**

| Sample Location | Sample Designation |
|---|---|
| Well UG-1 | P32W001 |
| Well GM-8 | P32W008 |
| Well Gn-9 | P32W009 |
| Well GM-10 | P32W010 |
| Well GM-11 | P32W011 |
| Well GM-12R | P32W012R |
| Well GM-13 | P32W013 |
| Well Gn-14 | P32W014 |

322273

ble D-2

SUMMARY ANALYTICAL RESULTS FOR

POINT-OF-COMPLIANCE MONITORING WELLS

(All results in ug/L)

| Compound | Sample No. (Location) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | P32W001 (UG-1) | P32W008 (GM-8) | P32W009 (GM-9) | P32W010 (GM-10) | P32W011 (GM-11) | P32W012R (GM-12R) | P32W013 (GM-13) | P32W014 (GM-14) |
| Barium | — | 81 | 31 | 58 | — | 58 | 15 | 24 |
| Cadmium | — | 5.4 | — | — | — | — | — | — |
| Chromium | — | 13 | — | 11 | — | — | — | — |
| Iron | 750 | 14,000 | 2,540 | 630 | 50 | 970 | 590 | 100 |
| Lead | — | — | 5.1 | — | — | — | — | — |
| Manganese | — | 100 | 46 | 160 | 15 | 230 | 48 | 120 |
| Mercury | 0.22 | — | — | — | 0.22 | — | 0.22 | — |
| Sodium | 6,800 | 6,800 | 2,970 | 9,400 | 34,900 | 12,000 | 6,000 | 180,000 |
| Zinc | — | 37 | 17 | — | — | — | 15 | — |
| Chloride | 7,900 | 7,000 | 4,400 | 13,000 | 48,000 | 13,000 | 9,700 | 230,000 |
| Sulfate | 14,000 | 200,000 | 25,000 | 48,000 | 36,000 | 25,000 | 48,000 | 140,000 |
| Cyanide | — | 80 | — | 140 | 200 | 20 | 40 | 240 |
| Methylene Chloride | 1(J) | 3(J,B) | 5(B) | 5(B) | 3(J) | 2(J) | 3(J) | 1(J) |
| Acetone | 24(B) | 45(B) | 23(B) | 14(B) | 32(B) | 23(B) | 12(B) | 19(B) |
| Carbon Disulfide | — | — | — | — | — | — | — | 4(J) |
| Tetrachloroethene | — | 9 | — | — | — | — | — | — |
| Chlorobenzene | — | 5 | — | 12(J) | — | — | — | 1(J) |
| Tetramethyl Benzene | — | 0.44(J) | — | — | — | — | — | — |
| 2-Chlorophenol | — | — | — | — | — | 1(J) | — | — |
| 1,3-Dichlorobenzene | — | 47 | — | 6(J) | — | — | — | — |
| 1,4-Dichlorobenzene | — | 66 | — | 10 | — | — | — | — |
| 1,2-Dichlorobenzene | — | 79 | — | 12 | — | — | — | — |
| Naphthalene | — | 2(J) | — | — | — | 1(J) | — | — |
| 2-Methylnapthalene | — | — | — | — | — | 2(J) | — | — |
| Diethylpthalate | — | — | — | — | — | 2(J) | — | — |
| Butylbenzylphthalate | — | — | — | — | — | 2(J) | — | — |
| bis(2-Ethylhexyl) phthalate | 1(J,B) | 2(J,B) | — | 2(J,B) | 2(J,B) | 4(J,B) | 2(J,B) | 1(J,B) |
| Di-n-butlphthalate | — | — | — | — | — | 1(J) | — | — |
| Pyrene | — | | — | — | — | 1(J) | — | — |
| Tetramethylbutyl phenol | — | — | — | 31(J) | — | 3(J) | — | 3(J) |

J-Estimated value, compound present below detection limit

B-Compound also present in method blank at similar concontration

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-29-89

Monitoring Vell # UG-1

Vell Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Well Name: Shallov Background

Classification of Groundvater GL

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundvater Elevation (above MSL) 1.28 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.6 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 300 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | see attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 37s.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | Set attached | | Unfiltered | |

* Well development is the process of pumping the vell prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

336274

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48032 MATRIX: WATER
SAMPLE ID CLIENT: P32W00~~2~~ UG-1
1 YDB

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 750 | | 25 | UG/L |
| Manganese | (ICP) | ND | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 6800 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | 0.22 | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 7900 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48032 MATRIX: WATER
SAMPLE ID CLIENT: P32-W002-UG-1
1 of 1

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 14 | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328273

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W001

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48017

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01032

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. Data Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | CORPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 1 | J | |
| 67-64-1 | Acetone | 24 | B | 09/08/89LH |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 5 | U | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

EPA SAMPLE No.

P32W001

# VOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No.:

Matrix: (soil/water) WATER  Lab Sample ID: 48017

Sample wt/vol: 5.0 (g/mL) ML  Lab File ID: 01032

Level: (low/med) LOW  Date Received: 08/30/89

% Moisture: not dec.  Date Analyzed: 09/06/89

Column (pack/cap) CAP  Dilution Factor: 1.0

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | I | EST. CONC. | Q |
|---|---|---|---|---|
| 1. Acrolein | | | ND | |
| 2. Acrylonitrile | | | ND | |
| 3. Bis(chloromethyl) ether | | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | | ND | |
| 5. Dichlorodifluoromethane | | | ND | |
| 6. 1,2-Dichloropropylene | | | ND | |
| 7. Trichlorofluoromethane (1) | | | ND | |
| 8. Tetramethylbenzene | | | ND | |
| 9. "alkylated" benzene | | | ND | |
| 110. Trimethyl Benzene | | | ND | |

(1) - These compounds are included in the daily calibration standard. Quantitation is based on tho standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

328276

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W0021 YB

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: 1000 (g/mL) ML Lab Fila ID: 81653

Level: (low/med) LOW Data Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/99

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroro-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W002/L YAB

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: 1000 (g/mL) ML Lab Fila ID: B1653

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 89/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | JB | 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot bo separated from Diphenylamine



328277

EPA SAMPLE NO.

P32W002/1 /08

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No. :

Matrix: (soil/water) WATER  Lab Sample ID: 48032

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81653

Level: (low/med) LOW  Date Received: 08/30/89

% Moisture: not dec. dec.  Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF  Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH:  Dilution Factor: 1.0

Number TICs found: 0

CONCENTRRTION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | NO | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-29-89

Uonitoring Vell # GM-8

Vell Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Vell Name: Shallow

Classification of Groundvater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundvater Elevation (above MSL) 1.42 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.3 | | Unfiltered | |
| | Specific Conductanc | Teflon bailer | 120.1 | 760 | umhos/ cm | Unfi1tered | |
| | Inorganics | Teflon bailer | | See attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 375.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltcred | |

* Vell development is he process of pumping the well prior to sampling in order to obtain a representative groundvater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

333 273

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48030 MATRIX: WATER
SAMPLE ID CLIENT: P32W008

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 81 | | 10 | UG/L |
| Cadmium | (ICP) | 5.4 | | 5.0 | UG/L |
| Chromium | (ICP) | 13 | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 14000 | | 25 | UG/L |
| Manganese | (ICP) | 100 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 6800 | | 200 | UG/L |
| Zinc | (ICP) | 37 | | 10 | UG/L |
| Arsenfc | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 7000 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S. NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: BE-89-48030 MATRIX: WATER
SAMPLE ID CLIENT: P32-W008

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 200 | | 2.0 | MG/L |
| Cyanide, complex | 0.08 | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328273

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W008

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDC No.:

matrix: (soil/water) WATER Lab Sample ID: 48026

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01063

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 3 | JB | |
| 67-64-1 | Acetone | 45 | B | 09/08/89 LH |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 9 | J | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 5 | J | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

EPA SAMPLE No.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W008

Lab Name: E & E  Contract: WH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No.:

Matrix: (soil/water) WATER  Lab Sample ID: 48026

Sample wt/vol: 5.0 (g/mL) ML  Lab File ID: 01063

Level: (low/med) LOW  Date Received: 08/30/89

% Moisture: not dac.  Date Analyzed: 09/07/89

Column (pack/cap) CAP  Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TIC8 found: Ø 1 9/18/94

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | 26.85 | 0.44 | J |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in tho daily calibration standard. Quantitation is based on tho standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

328230

# SEI?IVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W008

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

llatrix: (soil/water) WATER Lab Sample ID: 48030

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81651

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dac. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| cas NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 108-95-2 | Phenol | 10 | U | |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U | |
| 95-57-8 | 2-Chlorophenol | 10 | U | |
| 541-73-1 | 1,3-Dichlorobenzene | 47 | | |
| 106-46-7 | 1,4-Dichlorobenzene | 66 | | |
| 100-51-6 | Benzyl Alcohol | 10 | U | |
| 95-50-1 | 1,2-Dichlorobenzene | 79 | | |
| 95-48-7 | 2-Methylphenol | 10 | U | |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U | |
| 106-44-5 | 4-Methylphenol | 10 | U | |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U | |
| 67-72-1 | Hexachloroethane | 10 | U | |
| 98-95-3 | Nitrobenzene | 10 | U | |
| 78-59-1 | Isophorone | 10 | U | |
| 88-75-5 | 2-Nitrophenol | 10 | U | |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U | |
| 65-85-0 | Benzoic Acid | 50 | U | |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U | |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U | |
| 91-20-3 | Naphthalene | 2 | J | |
| 106-47-8 | 4-Chloroaniline | 10 | U | |
| 87-68-3 | Hexachlorobutadiene | 10 | U | |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U | |
| 91-57-6 | 2-Methylnaphthalene | 10 | U | |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U | |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U | |
| 95-95-4 | 2,4,5-Trichlorophenol | SO | U | |
| 91-58-7 | 2-Chloronaphthalene | 10 | U | |
| 88-74-4 | 2-Nitroaniline | 50 | U | |
| 131-11-3 | Dimethyl Phthalate | 10 | U | |
| 208-96-8 | Acenaphthylene | 10 | U | |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U | |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

P32W008

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48030

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1651

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extractaon: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

09/28/89 44

(1) - knnot be separated from Diphenylamine



328281

EPA SAMPLE NO.

P32W008

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No. :

Matrix: (soil/water) WATER  Lab Sample ID: 48030

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81651

Level: (low/med) LOW  Date Received: 08/30/89

% Moisture: not dec. dec.  Date Extracted: 09/01/09

Extraction: (SepF/Cont/Sonc) SEPF  Data Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH:  Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | NO | |
| 6. Hydroxymethyl Pentanone | | NO | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GXS # 1017F00625

Sample Date: 8-29-89

Monitoring Well # GX-9

Well Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above XSL) 1.32 ft

| STORET Code | Parameter Monitored | Sampling Method | BPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preservatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.4 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 410 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7041 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 375.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328282

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48029 MATRIX: VATER
SAMPLE ID CLIENT: P32W009

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 31 | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 2540 | | 25 | UG/L |
| Manganese | (ICP) | 46 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 2970 | | 200 | UG/L |
| Zinc | (ICP) | 17 | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | 5.1 | | 5.0 | UG/L |
| Mercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 4400 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
3 = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOV STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: BB-89-48029 MATRIX: WATER
SAMPLE ID CLIENT: P32-W009

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 25 | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328283

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W009

Lab Name: E & E INC. Contract: UH-3000

Lab Code: ERNDE Case No.: 961_001 SRS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48028

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1065

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | B |
| 67-64-1 | Acetone | 23 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

09/08/89 LH

EPA SAMPLE No.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W009

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48028

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1065

Level: (low/med) LOW Date Received: 08/30/89

Si Moisture: not dec. Date Analyzed: 09/07/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TIC. found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in the drily calibration standard. Quantitation io based on tha standard RF rather than an RF of 1.

ND - None datected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

328284

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W009

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: isoil/water) WATER Lab Sample ID: 48029

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81650

Level: ' (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NU. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 X | 18U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | IU |
| 95-57-8 | 2-Chlorophenol | 10 | IU |
| 541-73-1 | 1,3-Dichlorobenzene | 10 X | 18U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 X | 18U |
| 100-51-6 | Benzyl Alcohol | 10 | IU |
| 95-50-1 | 1,2-Dichlorobenzene | 10 X | 18U |
| 95-48-7 | 2-Methylphenol | 10 | IU |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | IU |
| 106-44-5 | 4-Methylphenol | 10 | IU |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | IU |
| 67-72-1 | Hexachloroethane | 10 | IU |
| 98-95-3 | Nitrobenzene | 10 | IU |
| 78-59-1 | Isophorone | 10 | IU |
| 88-75-5 | 2-Nitrophenol | 10 | IU |
| 105-67-9 | 2,4-Dimethylphenol | 10 | IU |
| 65-85-0 | Benzoic Acid | 50 | IU |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | IU |
| 120-83-2 | 2,4-Dichlorophenol | 10 | IU |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | IU |
| 91-20-3 | Naphthalene | 10 | IU |
| 106-47-8 | 4-Chloroaniline | 10 | IU |
| 87-68-3 | Hexachlorobutadiene | 10 | IU |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | IU |
| 91-57-6 | 2-Methylnaphthalene | 10 | IU |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | IU |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | IU |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | IU |
| 91-58-7 | 2-Chloronaphthalene | 10 | IU |
| 88-74-4 | 2-Nitroaniline | 50 | IU |
| 131-11-3 | Dimethyl Phthalate | 10 | IU |
| 208-96-8 | Acenaphthylene | 10 | IU |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | IU |

AH 9/29/89

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W009

Lab Name: E 6 E INC. Contract: UH-3000

Lab Cod.: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48029

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81650

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophrnol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

P32W009

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No. :

Matrix: (soil/water) WATER  Lab Sample ID: *48029*

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81650

Level: (low/med) LOW  Date Received: 08/30/89

% Moisture: not dec. dec.  Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF  Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH:  Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | NO | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | NO | |
| 6. Hydroxymethyl Pentanone | | NO | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Totramethylbutyl phenol | | ND | |

ND - Nons detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as ouch.

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-29-89

Monitoring Well # GH-10

Well Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above HSL) 1.37 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 6.3 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 500 | umhos/cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | see attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 37s.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

* Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328286

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAHPLE ID LAB : EE#89-48034 MATRIX: WATER
SAMPLE ID CLIENT: P32W010

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 58 | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | 11 | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 630 | | 25 | UG/L |
| Manganese | (ICP) | 160 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 9400 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Hercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 13000 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48034 MATRIX: WATER
SAMPLE ID CLIENT: P32-W010

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 48 | | 2.0 | MG/L |
| Cyanide, complex | 0.14 | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328287

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W010

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48025

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1062

Leuel: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 5 | B | 09/08/89LH |
| 67-64-1 | Acetone | 14 | B | |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 2 | J | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

EPA SAMPLE No.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

1 P32W010

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48025

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1062

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 09/07/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | N D | |
| 2. Acrylonitrile | | N D | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | N D | |
| 5. Dichlorodifluoromethane | | ND | 1 |
| 6. 1,2-Dichloropropylene | | ND | I |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | N D I | |
| 9. "alkylated" benzene | | ND | |
| 110. Trimethyl Benzene | | ND | |

(1) - Thoro compounds are included in the drily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

* - Total, more than one isomer present.

328283

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W010

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDC No. :

Matrix: (soil/water) WATER Lab Sample ID: 48034

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1655

Lev. 1: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 6 | J |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 12 | |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W010

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48034

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1655

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SLPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB 09/28/89 LH |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

P32W010

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E  Contract: UH-3000

Lab Code: EANOE  Case No.: 961-001  SAS No.:  SDG No. :

Matrix: (soil/water) WATER  Lab Sample ID: 48034

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81655

Level: (low/med) LOW  Date Received: 08/30/89

% Moisture: not dec. dec.  Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF  Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH:  Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | NO | |
| 3. N-Nitrosodimethylamine | | NO | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 110. Tetramethylbutyl phenol | 18.80 | 31 | IJ |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposer to azobenzene during gas chromatography, reported as such.

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-11

Well Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 1.96 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preservatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 730 | umhos/cm | Unfiltered | |
| | Inorganics | Teflon bailer | | See attached | | Unfiltered | |
| | metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 375.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328230

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48039 MATRIX: WATER
SAMPLE ID CLIENT: P32W011

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 50 | | 25 | UG/L |
| Manganese | (ICP) | 15 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 34900 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | 0.22 | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 48000 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EB-89-48039 MATRIX: WATER
SAMPLE ID CLIENT: P32-W011

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 36 | | 2.0 | MG/L |
| Cyanide, complex | 0.20 | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328291

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W011

Lab Name: E & E INC. Contract: UH-30UO

Lab Code: EANDE Case No.: 961_001 SAS No.: SQG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48021

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01035

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 3 | J | |
| 67-64-1 | Acetone | 32 | B | 09/08/89LH |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 1 | J | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W011

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48021

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1035

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - Those compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

* - Total, more than one isomer present.

328292

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W011

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48039

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81682

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Data Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Oilution factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W011

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48039

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E1682

LoWI: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophonol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB | 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot be separated from Diphenylamine



328293

EPA SAMPLE NO.

P32W011

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E Contract: UH-3000

Lab Code: ERNDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48039

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1682

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Rnalyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | NO | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | NO | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reportsd as such.

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-12R

Vell Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Vell Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundwater Elevation (above MSL) 2.23 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Reservati — Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.0 | | Unfiltered | |
| | Specific Conductanc( | Teflon bailer | 120.1 | 700 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 375.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)
Effective January 1, 1983

328294

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48037 MATRIX: WATER
SAMPLE ID CLIENT: P32W012R

| PARAMETER | Y | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 58 | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 970 | | 25 | UG/L |
| Manganese | (ICP) | 230 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 12000 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium. | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 13000 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48037 MATRIX: WATER
SAMPLE ID CLIENT: P32-W012R

| PARAMETER | RESULTS | a | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 25 | | 2.0 | MG/L |
| Cyanide, complex | 0.02 | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328295

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W012R

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1033

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 2 | J |
| 67-64-1 | Acetone | 23 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (totall | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

09/28/89 LH

FORM I VOA 1/87 Rev.

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W012R

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WTER Lab Sample ID: 48019

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1033

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dsc. Date Analyzed: 09/06/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | a |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - Those compounds are included in the daily calibration standard. Quantitation is based on tho standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

* - Total, more than one isomer present.

328296

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WD12R

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Care No.: 961-001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48037

Samole ut/vol: 1000 (g/mL) ML Lab File ID: 81700

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRRTION UNITS: (ug/L or ug/Kg) UG/L | 0 |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 1 | J |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Fllcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Irophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 1 | J |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 2 | J |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | tu |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethul Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | tu |

1C

SEMIVOLATILE ORGANICS *ANALYSIS* DATA SHEET

EPA SAMPLE NO.

P32W012R

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48037

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 61700

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/99

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/15/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 2 | J |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 1 | J |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 1 | J |
| 85-68-7 | Butylbenzylphthalate | 2 | ~~12~~ J 09/26/89 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 4 | JB 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine



328297

EPA SAMPLE NO.

P32W012R

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81700

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not drc. dec. Data Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Data Analyzed: 69/13/99

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | I |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | NO | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | 18.79 | 3.0 | IJ |

ND - None detected, compound searched for, detection limit not determined.

(2) - Deconposrs to azobenzene during gas chromatography, reported as such.

# PARAMETER MONITORING REPORT

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Vel1 # GM-13

Well Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Well Name: Shallow

Classification of Groundvater EL

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundvater Elevation (above MSL) 1.69 ft

| STORET Code | Parameter Monitored | Sampling Method | BPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 410 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 375.4 | | | | |
| | VOCs | Teflon bailer | 8240 | See attached | | Unfiltered | HCl |
| | BNAs | Tefloa bailer | 8270 | See attached | | Unfiltared | |

* Well development is he process of pumping the vell prior to sampling in order to obtain a representative groundvater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328298

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48038 MATRIX: WATER
SAMPLE ID CLIENT: P32W013

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 15 | | 10 | UG/L |
| cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 590 | | 25 | UG/L |
| Manganese | (ICP) | 48 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 6000 | | 200 | UG/L |
| Zinc | (ICP) | 15 | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | 0.22 | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 9700 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL ANALYTICAL SECTION

JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48038
SAMPLE ID CLIENT: P32-W013

MATRIX: VATER

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 48 | | 2.0 | MG/L |
| Cyanide, complex | 0.04 | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT
J = ESTIMATED VALUE
L = PRESENT BELOW STATED DETECTION LIMIT
ND = NOT DETECTED
B = ALSO PRESENT IN BLANK

328299

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W013

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WFITER Lab Sample ID: 48020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1034

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRFITION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 3 | J | |
| 67-64-1 | Acetone | 12 | B | 09/08/89LH |
| 75-15-0 | Carbon Disulfide | 5 | | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 5 | U | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

EPA SAMPLE No.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W013

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48020

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1034

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | a |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

* - Total, more than one isomer present.

328300

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W013

Lab Name: E & E INC. Contract: UH-3000

Lab Code: ERNDE Case No.: 961_001 SAS No.: SOG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48038

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 91681

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 108-95-2 | Phenol | 10 | U | |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U | |
| 95-57-8 | 2-Chlorophenol | 10 | U | |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U | |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U | |
| 100-51-6 | Benzyl Alcohol | 10 | U | |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U | |
| 95-48-7 | 2-Methylphenol | 10 | U | |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U | |
| 106-44-5 | 4-Methylphenol | 10 | U | |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U | |
| 67-72-1 | Hexachloroethane | 10 | U | |
| 98-95-3 | Nitrobenzene | 10 | U | |
| 78-59-1 | Isophorone | 10 | U | |
| 88-75-5 | 2-Nitrophenol | 10 | U | |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U | |
| 65-85-0 | Benzoic Acid | 50 | U | |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U | |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U | |
| 91-20-3 | Naphthalene | 10 | U | |
| 106-47-8 | 4-Chloroaniline | 10 | U | |
| 87-68-3 | Hexachlorobutadiene | 10 | U | |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U | |
| 91-57-6 | 2-Methylnaphthalene | 10 | U | |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U | |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U | |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U | |
| 91-58-7 | 2-Chloronaphthalene | 10 | U | |
| 88-74-4 | 2-Nitroaniline | 50 | U | |
| 131-11-3 | Dimethyl Phthalate | 10 | U | |
| 208-96-8 | Acenaphthylene | 10 | U | |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U | |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W013

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48038

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81681

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factorr 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

09/28/89

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

P32W013

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTRTIUELY IDENTIFIED COMPOUNDS

Lab Name: E 6 E Contract: UH-3000

Lab Code: EANOE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48038

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1681

Leue1: (low/med) LOW Date Received: 08/30/89

% moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. methyl naphthalene | | NO | |
| 8. methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

**PARAMETER MONITORING REPORT**

(Rule 17-3.402, 17-3.404 - 17-3.406)

GMS # 1017F00625

Sample Date: 8-28-89

Monitoring Well # GM-14

Well Type:

[ ] Corrective Action

[ X ] Point-of-Compliance

Well Name: Shallow

Classification of Groundwater G-1

Well Developed* Prior to Sample Collection (Yes/No) YES

Groundvater Elevation (above MSL) 1.44 ft

| STORET Code | Parameter Monitored | Sampling Method | EPA Analysis Method | Analysis Result | Units | Sample Filtered/ Unfiltered | Preser-vatives Added |
|---|---|---|---|---|---|---|---|
| | pH | Teflon bailer | 150.1 | 7.0 | | Unfiltered | |
| | Specific Conductance | Teflon bailer | 120.1 | 1,700 | umhos/ cm | Unfiltered | |
| | Inorganics: | Teflon bailer | | See attached | | Unfiltered | |
| | Metals | | 6010 | | | | $HNO_3$ |
| | | | 7060 | | | | $HNO_3$ |
| | | | 7421 | | | | $HNO_3$ |
| | | | 7470 | | | | $HNO_3$ |
| | | | 7740 | | | | $HNO_3$ |
| | | | 7841 | | | | $HNO_3$ |
| | Cyanide | | 335.2 | | | | NaOH |
| | Chloride | | 325.3 | | | | |
| | Sulfate | | 375.4 | | | | |
| | VOCs | Tcflon bailer | a240 | See attached | | Unfiltered | HCl |
| | BNAs | Teflon bailer | 8270 | See attached | | Unfiltered | |

*Well development is the process of pumping the well prior to sampling in order to obtain a representative groundwater sample.

DER Form 17-1.216(2)

Effective January 1, 1983

328302

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48040 MATRIX: WATER
SAMPLE ID CLIENT: P32W014

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 24 | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 100 | | 25 | UG/L |
| Manganese | (ICP) | 120 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 180000 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 230000 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIHATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

GENERAL *ANALYTICAL* SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48040 MATRIX: WATER
SAMPLE ID CLIENT: P32-W014

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 140 | | 2.0 | MG/L |
| Cyanide, complex | 0.24 | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328303

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W014

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-001 SAS No.: SOG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48022

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1038

Level: (low/med) LOW Data Received: 08/30/89

% Moisture: not doc. Data Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 1 | J |
| 67-64-1 | Acetone | 19 | B |
| 75-15-0 | Carbon Disulfide | 4 | J |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Rethyl-2-Pantanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 1 | J |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

09/08/89 LH

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W014

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48022

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01038

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroothyluinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorefluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

* - Total, more than one isomer present.

328304

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W014

Lsb Name: E & E INC. Contract: UH-3000

Lab Code: EANOE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48040

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81683

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

P32W014

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48040

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81683

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

6PC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | JB | 09/08/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot be separated from Diphenylamine

h



328303

EPA SAMPLE NO.

P32W014

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TEHTATIUELY IDENTIFIED COMPOUNDS

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SOG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48040

Sample wt/vo1: 1000 (g/mL) ML Lab File ID: B1683

Leve1: (low/med) LOW Date Recaiued: 08/30/89

% tloisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found? 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodinethylámina | | ND | |
| 4. N-Nitrosodiphenylamide | | NO | |
| 5. Methyl Dihydro lndens | | NO | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | 1 |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | 18.79 | 3.0 | IJ |

ND - None detected, compound searched for, detection limit nat determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

# ATTACHMENT E

## FIELD AND LABORATORY QA/QC SAMPLE ANALYTICAL RESULTS

3283017

Two surrogates were outside of acceptable limits for P32WRB02 but the sample was not re-extracted. Since another rinsate sample was analyzed with acceptable surrogate recoveries, the validity of the data has not been jeopardized because of this oversight.

All semi-volatile analyses were performed under an acceptable calibration. The semi-volatile method blanks were also acceptable.

In my judgment, the overall data quality is good, although some sodium results are suspect. The minor errors uncovered were of a procedural nature and of little consequence to the technical validity and usability of the data.

**MEMORANDUM**

TO: **John Barksdale**

FROM: Barb Krajewski, QA Chemist

DATE: October 2, 1989

RE: U.S. Navy, Southern Division Report

---

I have reviewed the data issued for the U.S. Navy, Southern Division RCRA Monitoring under E & E, Inc. Job Nos. 961.001 and 961.002 for overall quality and validity.

All general chemistry and metals analyses are acceptable. Sufficient QA analyses were performed in support of the data vith acceptable recoveries and RPD values.

Method blank analyses were acceptable for all inorganic parameters except sodium. Sodium was detected in the blank at 943 ug/L. Reported values less than ten times this amount should be viewed as suspect.

Low level mercury vas detected in several samples, including a rinsate and the preservative blank. Since all laboratory blanks vere acceptable, it is possible that this mercury ray be linked to the preservative used in the field.

*All* volatile analyses vere performed within holding times and under acceptable calibrations. Matrix spike analyses were acceptable as were all surrogate recoveries, except for sample P32W068 MSD. One surrogate vas just below the acceptable limit. Since the original analyses of this sample and its matrix spike yielded acceptable surrogate recoveries, there was no effect upon the data.

The rinsate sample P32WRB02 contained an extremely high concentration of methylene chloride necessitating sample dilution. This high level of methylene chloride (37,000 ug/L) was not detected in any other sample. Laboratory blanks contained methylene chloride at the detection limit. The most likely source of the methylene chloride is the water used to prepare the blank.

Three semi-volatile samples - P32W065, R32W066, and P32W068 - vere re-extracted beyond the holding times due to unacceptable surrogate recoveries. Poor surrogate recoveries vere recorded for the P32W066 in both the original and reanalysis, indicating a matrix effect.

328307

# ATTACHMENT F

## DATA VALIDATION SUMMARY

ANALYZE ALL PARAMETERS ACCORDING TO SITE-SPECIFIC QAPP FOR THIS PROJECT (see M. Meredith)

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## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.: UH3000
Project Name: NASP RCRA QUARTERLY SAMPLING August 89
Project Manager: John Barksdale
Samplers: (Signatures) Hal Davis
Field Team Leader: HAL DAVIS

| | STATION NUMBER | DATE | TIME | SAMPLE TYPE: COMP | GRAB | AIR | SAMPLE INFORMATION: EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | EPA 8230 | SODIUM | CHLORIDE | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32 | WD68 | 8/29 | 18:15 | | X | | LOW LEVEL CONCENTRATIONS | GM-68 | 3 | 1 | 1 | 1 | | | | No PRESERVED WITH $HNO_3$ |
| P32 | WD69 | 8/29 | 19:00 | | X | | " " " | GM-69 | 3 | 1 | 1 | 1 | | | | |
| P32 | WD69D | 8/29 | 19:00 | | X | | " " " | GM-69 | 3 | 1 | 1 | 1 | | | | |
| P32 | WD63 | 8/30 | 11:00 | | X | | " " " | GM-62 | 1 | 1 | | | | | | |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Ship Via: |
|---|---|---|---|---|---|---|
| Hal Davis | 8/30/89 17:20 | | | | | FEDERAL EXPRESS |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | BL/Airbill Number: 4430455374 — Date: 8/30/89 |
| Relinquished By: (Signature) Fed. Express | Date/Time: 8-31-89/0700 | Received For Laboratory By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) | |

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

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ANALYZE ALL PARAMETERS ACCORDING TO SITE-SPECIFIC QUAPP FOR THIS PROJECT (SEE M. MEREDITH)

# CHAIN-OF-CUSTODY RECORD



Project No.: LLH3000
Project Name: NASP RCRA QUARTERLY SAMPLING August 89
Project Manager: John Barksdale
Samplers: (Signatures) Kimberly R. Wilkin, Hal Davis
Field Team Leader: HAL DAVIS

| STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | SAMPLE TYPE GRAB | SAMPLE TYPE AIR | SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | EPA 8330 + TICS | CYANIDE | METALS | CHLORIDE + SULFATE | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32WRB03 | 8/30 | 1645 | | X | | LOW LEVEL CONCENTRATIONS | RINSATE BLANK | 4 | 1 | 1 | 1 | 1 | | | Metals: As, Ba, Cd, Cr |
| P32WFD01 | 8/30 | 1650 | | X | | " " " | FIELD BLANK | 4 | 1 | 1 | 1 | 1 | | | Pb, Hg, Se, Ag, Cu, Zn |
| P32WPD01 | 8/30 | 1655 | | X | | " " " | PRESERVATIVE BLANK | 2 | | 1 | 1 | | | | Fe, Mn, Antimony, Th, |
| | | | | | | | | | | | | | | | Ni, Na |
| | | | | | | | | | | | | | | | Metals preserved with $HNO_3$ |
| | | | | | | | | | | | | | | | Cyanide preserved with NaOH |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
|---|---|---|---|---|---|
| Hal Davis | 8/30/89 17:30 | | | | |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
| | | | | | |
| Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) |
| Fed. Express | 8-31-89/0800 | [illegible] | | | |

Ship Via: FEDERAL EXPRESS
BL/Airbill Number: 4430755374
Date: 8/30/89

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
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ANALYZE FOR ALL PARAMETERS ACCORDING TO SITE-SPECIFIC QAPP FOR THIS PROJECT (SEE M. MEREDITH)

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# CHAIN-OF-CUSTODY RECORD



Project No.: UH3000
Project Name: NASP RCRA QUARTERLY SAMPLING AUGUST 89
Project Manager: John Berksdale
Samplers: (Signatures) [illegible], Hal Davis
Field Team Leader: HAL DAVIS

| | STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | SAMPLE TYPE GRAB | SAMPLE TYPE AIR | SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | VOA 8240 | EPA 8240 | CHLORIDE | SODIUM | EPA 8270 + TICS | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32 | W065 | 8/30 | | | X | | LOW LEVEL CONCENTRATIONS | GM-65 | 5 | 1 | 2 | 1 | 1 | | | VOA'S PRESERVED WITH HCL |
| P32 | W067 | 8/30 | | | X | | " " " | GM-67 | 5 | 1 | 2 | 1 | 1 | | | Na PRESERVED WITH $HNO_3$ |
| P32 | W066 | 8/30 | | | X | | " " " | GM-66 | 5 | 1 | 2 | 1 | 1 | | | |
| P32 | W063 | 8/30 | | | X | | " " " | GM-63 | 5 | 1 | 2 | 1 | 1 | | | |
| P32 | WR1-6 | 8/30 | | | X | | " " " | RW1-6 | 2 | | | 1 | 1 | | | |
| P32 | W064 | 8/30 | | | X | | " " " | GM-64 | 5 | 1 | 2 | 1 | 1 | | | |
| P32 | W068 | 8/29 | | | X | | " " " | GM-68 | 2 | | 2 | | | | | |
| P32 | W069 | 8/29 | | | X | | " " " | GM-69 | 2 | | 2 | | | | | |
| P32 | W069D | 8/29 | | | X | | " " " | GM-69 DUP | 2 | | 2 | | | | | |
| P32 | W062 | 8/30 | | | X | | " " " | GM-62 | 2 | | 2 | | | | | PER Hal Davis 8/31/89 |
| P32 | WTB02 | 8/30 | | | X | | " " " | TRIP BLANK | 2 | | | | | 2 | | |
| P32 | WPB01 | 8/30 | | | X | | " " " | PRESERVATIVE BLANK | 2 | | | | | 2 | | |
| P32 | WFB01 | 8/30 | | | X | | " " " | FIELD BLANK | 2 | | | | | 2 | | |
| P32 | WRB03 | 8/30 | | | X | | " " " | RINSATE BLANK | 2 | | | | | 2 | | |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
|---|---|---|---|---|---|
| [illegible] | 8/30/89 1730 | | | | |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
| | | | | | |
| Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) |
| Fed. Express | 8/31/89 0900 | [illegible] | | | |

Ship Via: FEDERAL EXPRESS
BL/Airbill Number: 4430455374
Date: 8/30/89

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*See CONCENTRATION RANGE on back of form.

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ANALYZE ALL PARAMETERS ACCORDING TO SITE-SPECIFIC QAP FOR THIS PROJECT (SEE MARCIA MEREDITH)

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project No.: 11H3000
Project Name: NASP RCRA SAMPLING AUGUST 89
Project Manager: JOHN BARKSDALE
Samplers: (Signatures) Kimberly R. Walker, Hal Davis
Field Team Leader: HAL DAVIS

| | STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | GRAB | AIR | SAMPLE INFORMATION EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | EPA 8270 + TICS | EPA 8240 + TICS | METALS | CYANIDE | SULFATE + CHLORIDE | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32 | 012R | 8/28 | 1750 | | X | | 48037 LOW LEVEL CONC. - | GM-12R | 4 | 1 | | 1 | 1 | 1 | METALS: As, Ba, Cd, Cr, Pb, Hg, Se, Ag, Cu |
| P32 | 013 | 8/28 | 1820 | | X | | 38 " " " - | GM-13 | 4 | 1 | | 1 | 1 | 1 | Zn, Fe, Mn, Antimony, Th, |
| P32 | W011 | 8/28 | 1720 | | X | | 39 " " " - | GM-11 | 4 | 1 | | 1 | 1 | 1 | Ni, Na |
| P32 | W014 | 8/28 | 1845 | | X | | 48040 " " " - | GM-14 | 4 | 1 | | 1 | 1 | 1 | |
| | | | | | | | | | | | | | | | Metals preserved $HNO_3$ |
| | | | | | | | | | | | | | | | Cyanide preserved NaOH |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
|---|---|---|---|---|---|
| Kimberly R. Walker | 8/29/89 1430 | FED. EXP. | | | |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
| Relinquished By: (Signature) FED. EXP. | Date/Time: 8/30/89 | Received For Laboratory By: (Signature) A. Marsh | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) |

Ship Via: FEDERAL EXPRESS
BL/Airbill Number: 4430455492
Date: 8/29/89

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Analyze all parameters according to site-SI QAP for this project (see Marsha Meredith)

## CHAIN-OF-CUSTODY RECORD



Project No.: UH 3000
Project Name: NASP RAA Sampling August 1989
Project Manager: John Berksdale
Samplers: (Signatures) Hal Davis, Kimberly A. Walker
Field Team Leader: Hal Davis

| STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | SAMPLE TYPE GRAB | SAMPLE TYPE AIR | SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | EPA 8270 TICs (BNAs) | Chloride | Sulfate | Metals | Chloride | Sulfate | CYANIDE | EPA 8270 | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32 WCE4 | 8/29 | 9:30 | | X | | Low level 48033 | EM-E4 | 3 | X | 1 | 1 | X | | | 1 | | Metals: As, Ba, Cd, Cr, |
| P32 WCE0 | 8/29 | 10:11 | | X | | " " 34 | EM-10 | 4 | 1 | | | 1 | 1 | 1 | | | Pb, Hg, Se, Ag, Cu, Zn, |
| P32 WRB01 | 8/30 | 11:00 | | X | | " " 35 | Rinsate blank | 4 | 1 | | | 1 | 1 | 1 | | | Fe, Mn, Antimony, Th, |
| P32 RB02 | 8/29 | 12:00 | | X | | " " 48036 | Rinsate blank | 4 | 1 | | | 1 | 1 | 1 | | | Ni, Na |
| | | | | | | | | | | | | | | | | | Metal preserved with $HNO_3$ |
| | | | | | | | | | | | | | | | | | Cyanide preserved with NaOH |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
|---|---|---|---|---|---|
| Hal Davis | 8/29 16:30 | FED.EXP. | | | |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
| | | | | | |
| Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) |
| FED. EXP | 8/30/89 | Rich Marsh | | | |

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Date: 8/29/89

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Analyze all parameters according to site-specific QAP for this project (see Marsha Meredith.

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# CHAIN-OF-CUSTODY RECORD

Page ___ of ___

Project Number: UH3000 | Project Name: NADP RCRA Sampling August 89 | Project Manager: John Barksdale

Samplers: (Signature) Hal Davis, Kimberly R. Walker | Field Team Leader: Hal Davis

| | STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | SAMPLE TYPE GRAB | SAMPLE TYPE AIR | SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | EPA 8270 + TICS | CHLORIDE, SULFATE | METALS | CYANIDE | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32 | W007 | 8/29 | 1035 | | X | | Low level / 48029 - | GM-9 | 4 | 1 | 1 | 1 | 1 | | | Metals: As, Ba, Cd, Cr |
| P32 | W008 | 8/29 | 1110 | | X | | " " 30 - | GM-8 | 4 | 1 | 1 | 1 | 1 | | | Pb, Hg, Se, Ag, Cu, Zn, |
| P32 | W008D | 8/29 | 1110 | | X | | " " 31 - | GM-8 | 4 | 1 | 1 | 1 | 1 | | | Fe, Mn, Antimony, Th |
| P32 | W002 | 8/28 | 1333 | | X | | " " 48032 - | LG-1 | 4 | 1 | 1 | 1 | 1 | | | Al, Na |
| | | | | | | | | | | | | | | | | Metal preserved with $HNO_3$ |
| | | | | | | | | | | | | | | | | Cyanide preserved wi |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Ship Via: |
|---|---|---|---|---|---|---|
| Kimberly R. Walker | 8/29 1430 | FED. EXP. | | | | Federal Express |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | BL/Airbill Number: 4430 45 6492 |
| Relinquished By: (Signature) FED. EXP. | Date/Time: 8/30/89 | Received For Laboratory By: (Signature) Rich Marsh | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) | Date: 8/29/89 |

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

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2340

ANALYSE ALL PARAMETERS ACCORDING TO SITE-SPEC GMP FOR THIS PROJECT (SEE MARCIA MEREDITH)

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## CHAIN-OF-CUSTODY RECORD



Project No.: UH3000
Project Name: NASP RCRA SAMPLING AUGUST 89
Project Manager: JOHN BARKSDALE
Sampler: (Signature) Kimberly A. Walker, Hal Davis
Field Team Leader: HAL DAVIS

| | STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | GRAB | AIR | SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | EPA 8240 | EPA 8240 TICS | EPA 8240 | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P32WOOW | 8/29 | 0930 | | X | | 48023 LOW LEVEL CONCENTRATIONS | GM-84 | 2 | 2 | | | | | | VOA'S PRESERVED WITH HCL |
| P32 | WPROA | 8/29 | 1500 | | X | | 24 - " " " | RINSATE BLANK | 2 | 2 | | | | | | |
| P32 | WO10 | 8/29 | 1011 | | X | | 25 - " " " | GM-10 | 2 | 2 | | | | | | |
| P32 | WOOB | 8/29 | 1110 | | X | | 26 - " " " | GM-8 | 2 | 2 | | | | | | |
| P32W | OOBD | 8/29 | 1110 | | X | | 27 - " " " | GM-8D | 2 | 2 | | | | | | |
| P32 | WOO9 | 8/29 | 1025 | | X | | 48028 - " " " | GM-9 | 2 | 2 | | | | | | |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
|---|---|---|---|---|---|
| Kimberly A. Walker | 8/29/89 1630 | FED. EXP. | | | |
| | | | | | |
| FED. EXP | 8/30/89 | R. Marsh (Received For Laboratory By: (Signature)) | | | |

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961.001

(32) $H_2O$

ANALYSE ALL PARAMETERS ACCORDING TO SITE-SPECIFIC QAP FOR THIS PROJECT (SEE MARCIA MEREDITH)

# CHAIN-OF-CUSTODY RECORD



Project No.: UH3000
Project Name: NASP RCRA SAMPLING August 89
Project Manager: John BARKSDALE
Samplers: (Signatures) Kimberly A. Walker, Hal Davis
Field Team Leader: HAL DAVIS

| | STATION NUMBER | DATE | TIME | SAMPLE TYPE COMP | GRAB | AIR | SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)* | STATION LOCATION | NUMBER OF CONTAINERS | CHLORIDE | SODIUM | EPA 8240 + TICS | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P32W | W83 | 8/28 | 1311 | | X | | 48009 LOW LEVEL CONCENTRATION | GM-83 | 2 | 1 | 1 | | | | Na PRESERVED WITH $HNO_3$ |
| P32 | W079 | 8/28 | 1250 | | X | | 48010 " " " | GM-79 | 2 | 1 | 1 | | | | |
| P32 | W078 | 8/28 | 1625 | | X | | 11 " " " | GM-78 | 2 | 1 | 1 | | | | VOA'S PRESERVED WITH HCL |
| P32 | W072 | 8/28 | 1600 | | X | | 12 " " " | GM-72 | 2 | 1 | 1 | | | | |
| P32 | W077 | 8/28 | 1145 | | X | | 13 " " " | GM-77 | 2 | 1 | 1 | | | | |
| P32 | W071 | 8/28 | 1538 | | X | | 14 " " " | GM-71 | 2 | 1 | 1 | | | | |
| P32 | W076 | 8/28 | 1518 | | X | | 48015 " " " | GM-76 | 2 | 1 | 1 | | | | |
| P32 | WRB01 | 8/28 | 1100 | | X | | 16 - " " " | RINSATE BLANK | 2 | | | 2 | | | |
| P32 | W001 | 8/28 | 1333 | | X | | 17 - " " " | ~~GM-01~~ KAN-UG-1 | 2 | | | 2 | | | |
| P32 | WTB01 | 8/28 | — | | X | | 18 - " " " | TRIP BLANK | 2 | | | 2 | | | |
| P32 | W012R | 8/28 | 1750 | | X | | 19 - " " " | GM-12R | 2 | | | 2 | | | |
| P32 | W013 | 8/28 | 1820 | | X | | 20 - " " " | GM-13 | 2 | | | 2 | | | |
| P32 | W011 | 8/28 | 1720 | | X | | 21 - " " " | GM-11 | 2 | | | 2 | | | |
| P32 | W014 | 8/28 | 1845 | | X | | 48022 " " " | GM-14 | 2 | | | 2 | | | |

| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
|---|---|---|---|---|---|
| Kimberly A. Walker | 8/29/89 1430 | FED. EXP | | | |
| Relinquished By: (Signature) | Date/Time: | Received By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received By: (Signature) |
| | | | | | |
| Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) | Relinquished By: (Signature) | Date/Time: | Received For Laboratory By: (Signature) |
| FED EXP. | 8/30/89 | R. Marsh | | | |

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BL/Airbill Number: 4430455492
Date: 8/29/89

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2340

# WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: E & E INC. Contract: UH-3000

L8b Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: P32W002 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 200 | 0 | 124 | 62 | 112- e91 |
| 2-Chloroohenol | 200 | 0 | 165 | 82 | 127-1231 |
| 1,4-Dichlorobenzene | 100 | 0 | 53 | 53 | 136- 971 |
| N-Nitroso-di-n-prop.(1) | 100 | 0 | 62 | 62 | 141-1161 |
| 1,2,4-Trichlorobenzene | 100 | 0 | 61 | 61 | 139- 981 |
| 4-Chloro-3-methylphenol | 200 | 0 | 198 | 99 | 123- 971 |
| Acenaphthene | 100 | 0 | 25 | 25 * | 146-118 |
| 4-Nitrophenol | 200 | 0 | 131 | 66 | 110- 801 |
| 2,4-Dinitrotoluene | 100 | 0 | 98 | 98 * | 124- 961 |
| Pentachlorophenol | 200 | 0 | 222 | 111 * | 9-1031 |
| Pyrene | 100 | 0 | 48 | 48 | 126-1271 |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 200 | 134 | 67 | -7.8 | 42 | 12- 891 |
| 2-Chlorophenol | 200 | 194 | 97 | -17 | 40 | 127-1231 |
| 1,4-Dichlorobenzene | 100 | 72 | 72 | -30 * | 28 | 136- 971 |
| N-Nitroso-di-n-prop.(1) | 100 | 4 | 4 * | 176 * | 38 | 141-1161 |
| 1,2,4-Trichlorobenzene | 100 | 78 | 78 | -24 | 28 | 139- 981 |
| 4-Chloro-3-methylphenol | 200 | 184 | 92 | 7.3 | 42 | 123- 971 |
| Acenaphthene | 100 | 94 | 94 | -116 * | 31 | 146-118 |
| 4-Nitrophonol | 200 | 145 | 73 | -10 | 50 | 110- 80 |
| 2,4-Dinitrotoluene | 100 | 126 | 126 * | -25 | 38 | 124- 96 |
| Pentachlorophenol | 200 | 241 | 122 * | -9.4 | 50 | 9-103 |
| Pyrene | 100 | 62 | 62 | -40 * | 31 | 126-127 |

(1) N-Nitroso-di-n-propylamine

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 4 out of 11 outside limits
Spike Recovery: 6 out of 22 outside limits

COMMENTS:



328312

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No. : SOG No. :

Matrix Spike - EPA Sample No.: P32WR803 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC. |
|---|---|---|---|---|---|
| Phenol | 200 | 0 | 119 | 60 | 12- 89 |
| 2-Chlorophenol | 200 | 0 | 155 | 77 | 27-123 |
| 1,4-Dichlorobenzene | 100 | 0 | 74 | 74 | 36- 97 |
| N-Nitroso-di-n-prop.(1) | 100 | 0 | 73 | 73 | 41-116 |
| 1,2,4-Trichlorobenzene | 100 | 0 | 80 | 80 | 39- 98 |
| 4-Chloro-3-methylphenol | 200 | 0 | 180 | 90 | 23- 97 |
| Acenaphthene | 100 | 0 | 93 | 93 | 46-118 |
| 4-Nitrophenol | 200 | 0 | 76 | 38 | 10- 80 |
| 2,4-Dinitrotoluene | 100 | 0 | 78 | 78 | 24- 96 |
| Pentachlorophenol | 200 | 0 | 184 | 92 | 9-103 |
| Pyrene | 100 | 0 | 134 | 134 * | 26-127 |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Phenol | 200 | 106 | 53 | 12 | 42 | 12- 89 |
| 2-Chloroohenol | 200 | 141 | 70 | 9.5 | 40 | 27-123 |
| 1,4-Oichlorobenzone | 100 | 74 | 74 | 0 | 28 | 36- 97 |
| N-Nitroso-di-n-prop.(1) | 100 | 76 | 76 | -4.0 | 38 | 41-116 |
| 1,2,4-Trichlorobenzene | 100 | 85 | 85 | -6.1 | 28 | 39- 98 |
| 4-Chloro-3-methylphenol | 200 | 160 | 80 | 12 | 42 | 23- 97 |
| Acenaphthene | 100 | 100 | 100 | -7.3 | 31 | 46-118 |
| 4-Nitrophenol | 200 | 80 | 40 | -2.6 | 50 | 10- 80 |
| 2,4-Dinitrotoluene | 100 | 85 | a5 | -8.6 | 38 | 24- 96 |
| Pentachlorophenol | 200 | 147 | 74 | 22 | 50 | 9-103 |
| Pyrene | 100 | 137 | 137 | -2.2 | 31 | 26-127 |

EPC 9/29/89

(1) N-Nitroso-di-n-propylamine

# column to be urbd to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outride limits
Spike Recouery: 1 out of 22 outside limits

COMMENTS:

# WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Level :(low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | 53 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| 01 | IP32W062 | 89 | 85 | 65 | 48 | 59 | 121 | 0 | 0 |
| 02 | IP32W063 | 78 | 72 | 74 | 52 | 61 | 105 | 0 | 0 |
| 03 | IP32W064 | 80 | 80 | 55 | 50 | 58 | 102 | 0 | 0 |
| 04 | IP32W065 | 61 | 76 | 60 | 44 | 60 | 87 | 0 | 0 |
| 05 | IP32W066RE | 0 | 82 | 85 | 60 | 68 | 114 | 0 | 1 |
| 05 | IP32W066 | 0 | 84 | 120 | 61 | 71 | 131 * | 0 | 2 |
| 06 | IP32W067 | 101 | 117 * | 72 | 52 | 62 | 130 * | 0 | 2 |
| U7 | IP32W068 | 75 | 71 | 84 | 35 | 48 | 67 | 0 | 0 |
| 08 | IP32W069 | 60 | 80 | 55 | 36 | 46 | 59 | 0 | 0 |
| 09 | IP32W069D | 77 | 85 | 77 | 36 | 45 | 65 | 0 | 0 |
| 10 | IP32WRB03 | 93 | 96 | 103 | 54 | 56 | 192 | 0 | 0 |
| 11 | IP32WFB01 | 86 | 88 | 97 | 45 | 50 | 98 | 0 | 0 |
| 12 | IP32WRB03MS | 94 | 106 | 119 | 72 | 61 | 108 | 0 | 0 |
| 13 | IP32WRB03MSD | 101 | 107 | 112 | 62 | 57 | 97 | 0 | 0 |
| 14 | ISBLKW1 | 88 | 82 | 99 | 32 | 61 | 121 | 0 | 0 |
| 15 | ISBLKW2 | 73 | 69 | 108 | 47 | 65 | 108 | 0 | 0 |

| | | QC LIMITS |
|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | ( 35-114) |
| S2 (FBP) | = 2-Fluorobiphony1 | ( 43-116) |
| S3 (TPH) | = Torphonyl | ( 33-141) |
| S4 (PHL) | = Phenol-d5 | ( 10-94) |
| S5 (2FP) | = 2-Fluorophonol | ( 21-100) |
| S6 (TBP) | = 2,4,6-Tribromophenol | ( 10-123) |

# Column to be used to flag rocowry values
* Values outride of contract required QC limits
D Surrogates diluted out

328313



FORM II SV-2 1/87 Rev.

# WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: E 6 E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDC No. :

Level:(low/med) LOW

| | EPA SAMPLE NO. | S1 (NBZ)# | S2 (FBP)# | S3 (TPH)# | S4 (PHL)# | S5 (2FP)# | S6 (TBP)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|---|---|---|
| 01 | IP32W009 | 96 | 97 | 101 | 65 | 74 | 135 * | 0 | 1 |
| 02 | IP32W008 | 100 | 94 | 80 | 39 | 46 | 117 | 0 | 0 |
| 03 | IP32W008D | 95 | 95 | 85 | 48 | 56 | 122 | 0 | 0 |
| 04 | IP32W002 | 96 | 95 | 198 | 55 | 69 | 1123 | 0 | 0 |
| 05 | IP32W084 | 86 | 83 | 68 | 56 | 64 | 68 | 0 | 0 |
| 06 | IP32W010 | 108 | 113 | 97 | 48 | 54 | 108 | 0 | 0 |
| 07 | IP32WRB01 | 104 | 113 | 132 | 43 | 61 | 120 | 0 | 0 |
| 08 | IP32WRB02 | 110 | 139 * | 173 * | 46 | 70 | 148 * | 0 | 3 |
| 09 | IP32W012R | 108 | 115 | 115 | 62 | 77 | 128 * | 0 | 1 |
| 10 | IP32W013 | 87 | 98 | 102 | 66 | 75 | 121 | 0 | 0 |
| 11 | IP32W011 | 113 | 116 | 94 | 58 | 63 | 124 * | 0 | 1 |
| 12 | IP32W014 | 89 | 83 | 81 | 53 | 59 | 101 | 0 | 0 |
| 13 | IP32W002MS | 81 | 86 | 93 | 72 | 77 | 132 * | 0 | 1 |
| 14 | IP32W002MSD | 108 | 149 * | 123 | 74 | 84 | 188 * | 0 | 2 |
| 15 | SBLKS1W1 09/08/89UH | 94 | 88 | 87 | 51 | 60 | 111 | 0 | 0 |

| | | QC LIMITS |
|---|---|---|
| S1 (NBZ) | = Nitrobenzene-d5 | ( 35-114) |
| S2 (FBP) | = 2-Fluorobiphenyl | ( 43-116) |
| S3 (TPH) | = Terphenul | ( 33-141) |
| S4 (PHL) | = Phenol-d5 | ( 10-94) |
| S5 (2FP) | = 2-Fluorophenol | ( 21-100) |
| S6 (TBP) | = 2,4,6-Tribromophenol | ( 10-123) |

# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: P32W068 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 0 | 31.9 | 64 | 161-1451 |
| Trichloroethene | 50 | 0 | 43.2 | 86 | 171-1201 |
| Benzene | 50 | 0 | 42.6 | 85 | 176-1271 |
| Toluene | 50 | 0 | 40.1 | 80 | 176-1251 |
| Chlorobenzene | 50 | 0 | 43.7 | 87 | 175-1301 |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 34.7 | 69 | -8 | 14 | 161-1451 |
| Trichloroetheno | 5u | 42.1 | 84 | 2 | 14 | 171-1201 |
| Benzene | 50 | 42.7 | 85 | 0 | 11 | 176-1271 |
| Toluene | 50 | 39.1 | 78 | 3 | 13 | 176-1251 |
| Chlorobenzene | 50 | 41.9 | 84 | 5 | 13 | 175-1301 |

- Column to be used to flag recovery and RPD values with an asterisk
- Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Racowry: 0 out of 10 outside limits

COMMENTS:

FORM III VOA-2 1/87 Rev.

328314

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix Spike - EPA Sample No.: P32W065 Level:(low/med) LOW

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC # | QC LIMITS REC. |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 0 | 45.8 | 92 | 161-1451 |
| Trichloroethene | 50 | 0 | 49.4 | 99 | 171-1201 |
| Benzene | 50 | 0 | 50.2 | 100 | 176-1271 |
| Toluene | 50 | 0 | 46.1 | 92 | 176-1251 |
| Chlorobenzene | 50 | 0 | 50.7 | 101 | 175-1301 |

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC # | % RPD # | QC LIRITS RPO | QC LIRITS REC. |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 42.6 | 85 | 8 | 14 | 161-1451 |
| Trichloroethene | 50 | 50.0 | 100 | -1 | 14 | 171-12UI |
| Benzene | 50 | 49.8 | 100 | 0 | 11 | 176-1271 |
| Toluene | 50 | 47.5 | 95 | -3 | 13 | 176-1251 |
| Chlorobenzene | 50 | 51.9 | 104 | -3 | 13 | 175-1301 |

* Column to be used to flag recovery and RPD values with an asterisk

• Ualues outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

# WATER VOLATILE SURROGATE RECOVERY

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Level:(low/med) LOW

| | EPA SAMPLE NO. | S1 (TOL)# | S2 (BFB)# | S3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | IP32W062 | 101 | 101 | 93 | 0 | 0 |
| 02 | IP32W063 | 98 | 98 | 100 | 0 | 0 |
| 03 | IP32W064 | 90 | 87 | 89 | 0 | 0 |
| 04 | IP32W065 | 100 | 98 | 99 | 0 | 0 |
| 05 | IP32W066 | 95 | 96 | 96 | 0 | 0 |
| 06 | IP32W066 | 97 | 99 | 85 | 0 | 0 |
| 07 | IP32W067 | 95 | 93 | 98 | 0 | 0 |
| 08 | IP32W068 | 99 | 96 | 94 | 0 | 0 |
| 09 | IP32W069 | 98 | 92 | 97 | 0 | 0 |
| 10 | IP32W069D | 88 | 87 | 91 | 0 | 0 |
| 11 | IP32WRB03 | 96 | 90 | 94 | 0 | 0 |
| 12 | IP32WFB01 | 100 | 98 | 99 | 0 | 0 |
| 13 | IP32WPB01 | 97 | 96 | 104 | 0 | 0 |
| 14 | IP32WTB02 | 92 | 92 | 96 | 0 | 0 |
| 15 | IVBLKW1 | 102 | 107 | 102 | 0 | 0 |
| 16 | IVBLKW2 | 97 | 97 | 98 | 0 | 0 |
| 17 | IVBLKW3 | 103 | 101 | 94 | 0 | 0 |
| 18 | IVBLKW4 | 97 | 97 | 89 | 0 | 0 |
| 19 | IP32W065MS | 98 | 98 | 97 | 0 | 0 |
| 20 | IP32W065MSD | 101 | 99 | 97 | 0 | 0 |
| 21 | IP32W068MS | 90 | 88 | 91 | 0 | 0 |
| 22 | IP32W068MSD | 89 | 85 * | 89 | 0 | 1 |

| | QC LIMITS |
|---|---|
| S1 (TOL) = Toluene-d8 | (88-110) |
| S2 (BFB) = Bromofluorobenzene | (86-115) |
| S3 (DCE) = 1,2-Dichloroethane-d4 | (76-114) |

# Column to be used to flag recovery values

* Values outride of contract required QC limits

D Surrogates diluted out



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328315

WATER VOLATILE SURROGATE RECOVERY

Lab Name: E & E INC. Contract: UH-3000

Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Level :(low/med) LOW

| | EPA SAMPLE NO. | S1 (TOL)# | S2 (BFB)# | S3 (DCE)# | OTHER | TOT OUT |
|---|---|---|---|---|---|---|
| 01 | P32WRB01 | 100 | 102 | 101 | 0 | 0 |
| 02 | P32W001 | 94 | 101 | 96 | 0 | 0 |
| 03 | P32WTB01 | 100 | 105 | 100 | 0 | 0 |
| 04 | P32W012R | 95 | 103 | 101 | 0 | 0 |
| 05 | P32W013 | 94 | 100 | 100 | 0 | 0 |
| 06 | P32W011 | 91 | 100 | 98 | 0 | 0 |
| 07 | P32W014 | 92 | 96 | 98 | 0 | 0 |
| 08 | P32W084 | 94 | 99 | 96 | 0 | 0 |
| 09 | P32WRB02 | 88 | 89 | 93 | 0 | 0 |
| 10 | P32W010 | 104 | 109 | 105 | 0 | 0 |
| 11 | P32W008 | 101 | 103 | 99 | 0 | 0 |
| 12 | P32W008D | 101 | 102 | 104 | 0 | 0 |
| 13 | P32W009 | 97 | 98 | 101 | 0 | 0 |
| 14 | P32W011MS | 97 | 101 | 93 | 0 | 0 |
| 15 | P32W011MSD | 95 | 97 | 95 | 0 | 0 |
| 16 | VBLKW1 | 96 | 108 | 101 | 0 | 0 |
| 17 | VBLKW2 | 102 | 107 | 102 | 0 | 0 |

| | QC LIMITS |
|---|---|
| S1 (TOL) = Toluene-d8 | (88-110) |
| S2 (BFB) = Bromofluorobenzene | (86-115) |
| S3 (DCE) = 1,2-Dichloroethane-d4 | (76-114) |

# Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out



FORM II UOA-2 1/87 REV.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W066RE

Lab Name: E a E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48169.03RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81840

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 3 | J |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 1 | J |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 1 | J |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 2 | J |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | BJ |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine



328316

1R

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W066RE

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48169.03RE

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1840

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. doc. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 2 | J |
| 541-73-1 | 1,3-Dichlorobenzene | 13 | |
| 106-46-7 | 1,4-Dichlorobenzene | 24 | |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 48 | |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 2 | J |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10. | U |
| 105-67-9 | 2,4-Dimethylphenol | 71 | |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 96 | |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 4 | J |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W064 RE

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.: 10/12/89 TDB

Matrix: (soil/water) WATER Lab Sample ID: 48167

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 91731

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not doc. dec. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/14/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 3 | J | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 4 | JB | 09/28/89 LH |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/07 Rev.

328317

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W068MSD

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48171

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01094

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 4 | BJ |
| 67-64-1 | Acetone | 7 | BJ |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroathano | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

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328313

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W068MS

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDC No.:

Matrix: (soil/water) WATER Lab Sample ID: 48171

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01093

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 3 | BJ |
| 67-64-1 | Acetone | 5 | BJ |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

4A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W065MSD

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

matrix: (soil/water) WATER Lab Sample ID: 48168

Sample wt/vol: 5.0 (g/mL) ML Lab Filo ID: D1073

Level : (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed : 09/07/89

Column: (pack/cap) cap Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | IU |
| 74-83-9 | Bromomethane | 10 | IU |
| 75-01-4 | Vinyl Chloride | 10 | IU |
| 75-00-3 | Chloroethane | 10 | IU |
| 75-09-2 | Methylene Chloride | 2 | IBJ |
| 67-64-1 | Acetone | 17 | IB |
| 75-15-0 | Carbon Disulfide | 3 | IU |
| 75-35-4 | 1,1-Dichloroethene | 5 | IU |
| 75-34-3 | 1,1-Dichloroethane | 5 | IU |
| 540-59-0 | 1,2-Dichloroethene (totall | 5 | IU |
| 67-66-3 | Chloroform | 5 | IU |
| 107-06-2 | 1,2-Dichloroethane | 5 | IU |
| 78-93-3 | 2-Butanone | 10 | IU |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | IU |
| 56-23-5 | Carbon Tetrachloride | 5 | IU |
| 108-05-4 | Vinyl Acetate | IO | IU |
| 75-27-4 | Bromodichloromethane | 3 | IU |
| 78-87-5 | 1,2-Dichloropropane | 5 | IU |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | IU |
| 79-01-6 | Trichloroethene | 5 | IU |
| 124-48-1 | Dibromochloromethane | 5 | IU |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | IU |
| 71-43-2 | Benzene | 5 | IU |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | IU |
| 75-25-2 | Bromoform | 5 | IU |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | IU |
| 591-78-6 | 2-Hexanone | 10 | IU |
| 127-18-4 | Tetrachloroethene | 5 | IU |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | IU |
| 108-88-3 | Toluene | 5 | IU |
| 108-90-7 | Chlorobenzene | 5 | IU |
| 100-41-4 | Ethylbenzene | 5 | IU |
| 100-42-5 | Styrene | 3 | IU |
| 1330-20-7 | Xylene (total) | 5 | IU |



328313

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W065MS

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANOE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48168

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1072

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRFITION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 2 | BJ |
| 67-64-1 | Acetone | 14 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tatrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

P32W00~~1~~2MSD

Lab Name: E & E INC. Contrast: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: 500 (g/mL) ML Lab File ID: B1701

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U | |
| 83-32-9 | Acenaphthene | 20 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U | |
| 100-02-7 | 4-Nitrophenol | 100 | U | |
| 132-64-9 | Dibenzofuran | 20 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U | |
| 84-66-2 | Diethylphthalate | 20 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U | |
| 86-73-7 | Fluorene | 20 | U | |
| 100-10-6 | 4-Nitroaniline | 100 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U | |
| 118-74-1 | Hexachlorobenzene | 20 | U | |
| 87-86-5 | Pentachlorophenol | 100 | U | |
| 85-01-8 | Phenanthrene | 20 | U | |
| 120-12-7 | Anthracene | 20 | U | |
| 84-74-2 | Di-n-Butylphthalate | 20 | U | |
| 206-44-0 | Fluoranthene | 20 | U | |
| 129-00-0 | Pyrene | 20 | U | |
| 85-68-7 | Butylbenzylphthalate | 20 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U | |
| 56-55-3 | Benzo(a)Anthracene | 20 | tu | |
| 218-01-9 | Chrysene | 20 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB | 09/08/89 LH |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U | |
| 50-32-8 | Benzo(a)Pyrene | 20 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U | |

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2

P32W00/MSD

Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: 500 (g/mL) ML Lab File ID: 81701

Level: (low/med) LOW Data Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Data Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | U |
| 95-57-8 | 2-Chlorophenol | 20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | U |
| 100-51-6 | Benzyl Alcohol | 20 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | U |
| 95-48-7 | 2-Methylphenol | 2u | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 20 | U |
| 106-44-5 | 4-Methylphenol | 20 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | U |
| 67-72-1 | Hexachloroethane | 20 | U |
| 98-95-3 | Nitrobenzene | 20 | U |
| 78-59-1 | Isophorone | 20 | U |
| 88-75-5 | 2-Nitrophenol | 20 | U |
| 105-67-9 | 2,4-Dimethylphenol | 20 | U |
| 65-85-0 | Benzoic Acid | 100 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | U |
| 120-83-2 | 2,4-Dichlorophenol | 1 | J |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | U |
| 91-20-3 | Naphthalene | 20 | U |
| 106-47-8 | 4-Chloroaniline | 20 | U |
| 87-68-3 | Hexachlorobutadiene | 20 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 | U |
| 91-57-6 | 2-Methylnaphthalene | 20 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 | U |
| 91-58-7 | 2-Chloronaphthalene | 20 | U |
| 88-74-4 | 2-Nitroaniline | 100 | U |
| 131-11-3 | Dimethyl Phthalate | 20 | U |
| 208-96-8 | Acenaphthylene | 20 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20 | U |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

2

P32W00/MS

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: ~~1000~~ 500 (g/mL) ML Lab File ID: 81658

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. doe. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-10-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 100 | U |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 20 | U |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthrlate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated from Diphenylamine



328321

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W002MS

b Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48032

Sample wt/vol: 500 (g/mL) ML Lab File ID: 81658

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | U |
| 95-57-8 | 2-Chlorophenol | 20 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | U |
| 100-51-6 | Benzyl Alcohol | 20 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | U |
| 95-48-7 | 2-Methylphenol | 20 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 20 | U |
| 106-44-5 | 4-Methylphenol | 20 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | U |
| 67-72-1 | Hexachloroethane | 20 | U |
| 98-95-3 | Nitrobenzene | 20 | U |
| 78-59-1 | Isophorone | 20 | U |
| 88-75-5 | 2-Nitrophenol | 20 | U |
| 105-67-9 | 2,4-Dimethylphenol | 20 | U |
| 65-85-0 | Benzoic Acid | 100 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | U |
| 120-83-2 | 2,4-Dichlorophenol | 20 | tu |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | U |
| 91-20-3 | Naphthalene | 20 | U |
| 106-47-8 | 4-Chloroaniline | 20 | U |
| 87-68-3 | Hexachlorobutadiene | 20 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 | U |
| 91-57-6 | 2-Methylnaphthalene | 20 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 | U |
| 91-58-7 | 2-Chloronaphthalene | 20 | U |
| 88-74-4 | 2-Nitroaniline | 100 | U |
| 131-11-3 | Dimethyl Phthalate | 20 | U |
| 208-96-8 | Acenaphthylene | 20 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 20 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

€Pa ~AWL €NO.

P32WR803MSD

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 500 (g/mL) ML Lab File ID: 81709

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not doc. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | a |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-10-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 100 | U |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 20 | U |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthalate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 20 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated fror Diphenylamine

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328322

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WRB03MSD

Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 500 (g/mL) ML Lab File ID: 81709

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRRTION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 20 | IU |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | IU |
| 95-57-8 | 2-Chlorophenol | 20 | IU |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | IU |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | IU |
| 100-51-6 | Benzyl Alcohol | 20 | IU |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | tu |
| 95-48-7 | 2-Methylphenol | 20 | IU |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 20 | IU |
| 106-44-5 | 4-Methylphenol | 20 | IU |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | IU |
| 67-72-1 | Hexachloroethane | 20 | IU |
| 98-95-3 | Nitrobenzene | 20 | IU |
| 78-59-1 | Isophorone | 20 | IU |
| 88-75-5 | 2-Nitrophenol | 20 | IU |
| 105-67-9 | 2,4-Dimethylphenol | 20 | IU |
| 65-85-0 | Benzoic Acid | 100 | IU |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | IU |
| 120-83-2 | 2,4-Dichlorophenol | 20 | IU |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | IU |
| 91-20-3 | Naphthalene | 20 | IU |
| 106-47-8 | 4-Chloroaniline | 20 | IU |
| 87-68-3 | Hexachlorobutadiene | 20 | IU |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 | IU |
| 91-57-6 | 2-Methylnaphthalene | 20 | IU |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | IU |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 | IU |
| 95-95-4 | 2,4,5-Trrchlorophenol | 100 | IU |
| 91-58-7 | 2-Chloronaphthalene | 20 | IU |
| 88-74-4 | 2-Nitroaniline | 100 | IU |
| 131-11-3 | Dimethyl Phthalate | 20 | IU |
| 208-96-8 | Acenaphthylene | 20 | IU |
| 606-20-2 | 2,6-Dinitrotoluene | 20 | IU |

1C

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WRB03MS

Lab Name: E 6 E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 500 (g/mL) ML Lab File ID: 81708

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dac. doc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 100 | U |
| 83-32-9 | Acenaphthene | 20 | U |
| 51-28-5 | 2,4-Dinitrophenol | 100 | U |
| 100-02-7 | 4-Nitrophenol | 100 | U |
| 132-64-9 | Dibenzofuran | 20 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 20 | U |
| 84-66-2 | Diethylphthalate | 20 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 20 | U |
| 86-73-7 | Fluorene | 20 | U |
| 100-10-6 | 4-Nitroaniline | 100 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 100 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 20 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 20 | U |
| 118-74-1 | Hexachlorobenzene | 20 | U |
| 87-86-5 | Pentachlorophenol | 100 | U |
| 85-01-8 | Phenanthrene | 20 | U |
| 120-12-7 | Anthracene | 20 | U |
| 84-74-2 | Di-n-Butylphthalate | 20 | U |
| 206-44-0 | Fluoranthene | 20 | U |
| 129-00-0 | Pyrene | 20 | U |
| 85-68-7 | Butylbenzylphthalate | 20 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 40 | U |
| 56-55-3 | Benzo(a)Anthracene | 20 | U |
| 218-01-9 | Chrysene | 20 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 20 | U |
| 117-84-0 | Di-n-Octyl Phthalate | 20 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 20 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 20 | U |
| 50-32-8 | Benzo(a)Pyrene | 20 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 20 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 20 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 20 | U |

(1) - Cannot be separated from Diphenylamine



328323

1B

SEM UOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WRB03MS

Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 500 (g/mL) ML Lab Fila ID: 81708

Level: (low/med) LOW Gate Received: 08/31/89

% moisture: not dec. dec. Data Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Data Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | O |
|---|---|---|---|---|
| | | | 1 | |
| 108-95-2 | Phenol | 20 | IU | |
| 111-44-4 | bis(2-Chloroethyl)Ether | 20 | IU | |
| 95-57-8 | 2-Chlorophenol | 20 | IU | |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | IU | |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | IU | 1 |
| 100-51-6 | Benzyl Alcohol | 20 | IU | |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | IU | |
| 95-48-7 | 2-Methylphenol | 20 | IU | |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 20 | IU | |
| 106-44-5 | 4-Methylphenol | 20 | IU | |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 20 | IU | |
| 67-72-1 | Hexachloroethane | 20 | IU | |
| 98-95-3 | Nitrobenzene | 20 | IU | |
| 78-59-1 | Isophorone | 20 | IU | |
| 88-75-5 | 2-Nitrophenol | 20 | IU | |
| 105-67-9 | 2,4-Dimethylphenol | 20 | IU | 1 |
| 65-85-0 | Benzoic Acid | 100 | IU | I |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 20 | IU | |
| 120-83-2 | 2,4-Dichlorophenol | 20 | IU | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 20 | IU | |
| 91-20-3 | Naphthalene | 20 | IU | |
| 106-47-8 | 4-Chloroaniline | 20 | IU | |
| 87-68-3 | Hexachlorobutadiene | 20 | IU | |
| 59-50-7 | 4-Chloro-3-Methylphenol | 20 | IU | |
| 91-57-6 | 2-Methylnaphthalene | 20 | IU | |
| 77-47-4 | Hexachlorocyclopentadiene | 20 | IU | |
| 88-06-2 | 2,4,6-Trichlorophenol | 20 | IU | |
| 95-95-4 | 2,4,5-Trichlorophenol | 100 | IU | |
| 91-58-7 | 2-Chloronaphthalene | 20 | IU | |
| 88-74-4 | 2-Nitroaniline | 100 | IU | |
| 131-11-3 | Dimethyl Phthalate | 20 | IU | |
| 208-96-8 | Acenaphthylene | 20 | IU | |
| 606-20-2 | 2,6-Dinitrotoluene | 2u | IU | |

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW2

Lab NIM: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLK(9/15)BNA

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81838

Level: (low/med) LOW Date Received:

% Moisture: not doc. doc. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 5 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine



328324

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW2

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLK(9/15)BNA

Sample wt/vol: 1000 (g/mL) ML Lab fila ID: 81838

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 09/15/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: . . Dilution factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW1

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SRS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLK(9/5)

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81684

Level: (low/med) LOW Date Received:

% Moisture: not dec. doc. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | J |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine



328325

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW1

Name: E & E INC  Contract: UH-3000

Code: EANDE  Care No.: 961_002  SAS No.:  SDG No.:

Matrix: (soil/water) WATER  Lab Sample ID: BLK(9/5)

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81684

Level: (low/med) LOW  Date Received:

% Moisture: not dec.  dec.  Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF  Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N  pH:  Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 1 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

EPA SAMPLE NO.

SBLKW1

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
## TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No.:

Matrix: (soil/water) WATER  Lab Sample ID: BLK(9/1)BNA

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: B1649

Level: (low/med) LOW  Date Received:

% Moisture: not dec. dec.  Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF  Oat. Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH:  Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

328326

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW1

b Name: E 6 E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

tlrtrix: (soil/water) WATER Lab Sample ID: BLK(9/1)BNA

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81649

Level: (low/med) LOW Date Recaiued:

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB | 09/28/89LH |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot bo separated from Diphenylamine

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NU.

SBLKW1

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: BLK(9/1)BNA

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81649

Level: (low/med) LOW Date Received:

% Moisture: not doc. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

CPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |



328327

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW4

Lab Name: E & E INC. Contract: UH-3000

Lab code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.U (g/mL) ML Lab File ID: D1134

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/11/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 2 | J |
| 67-64-1 | Acetone | 11 | |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

VBLKW3

Lab Nau: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.0 (g/mL) ML Lab Film ID: 01106

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/09/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | | a |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 1 | J | |
| 67-64-1 | Acetone | 8 | J | |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 5 | U | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 5 | U | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 3 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |



328328

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW2

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1083

Level: (low/med) LOW Date Received:

% moisture: not doc. Date Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 1 | J |
| 67-64-1 | Acetone | 5 | J |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLKW2

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Care No.: 961-001  SAS No.:  SDG No.:

Matrix: (soil/water) WATER  Lab Sample ID: VBLK

Sample wt/vol: 5.0 (g/mL) ML  Lab File ID: D1061

Level: (low/med) LOW  Date Received:

% Moisture: not dec.  Date Analyzed: 09/07/89

Column (pack/cap) CAP  Dilution Factor: 1.0

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | a |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | Not | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | Not | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in the daily calibration standard. Quantitation is bored on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

328323

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# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW2

Lab Name: E & E INC. Contract: UH-3000

Lab code: EANDE Case No.: 961_001 SAS No.: SDC No.:

Matrix: (soil/water) WATER Lab Sample ID: UBLK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1061

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | |
| 67-64-1 | Acetone | 12 | |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hewanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: E & E INC. Contract: UH-3000

Lab code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WTER Lab Sample ID: VBLK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1061

Level: (low/med) LOW Date Received:

% Moisture: not dsc. Date Analyzed: 09/07/09

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | IU |
| 74-83-9 | Bromomethane | 10 | IU |
| 75-01-4 | Vinyl Chloride | 10 | IU |
| 75-00-3 | Chloroethane | 10 | IU |
| 75-09-2 | Methylene Chloride | 5 | I |
| 67-64-1 | Acetone | 12 | I |
| 75-15-0 | Carbon Disulfide | 5 | IU |
| 75-35-4 | 1,1-Dichloroethene | 5 | IU |
| 75-34-3 | 1,1-Dichloroethane | 2 | IJ |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | IU |
| 67-66-3 | Chloroform | 5 | IU |
| 107-06-2 | 1,2-Dichloroethane | 5 | IU |
| 78-93-3 | 2-Butanone | 10 | IU |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | IU |
| 56-23-5 | Carbon Tetrachloride | 5 | IU |
| 108-05-4 | Vinyl Acetate | 10 | IU |
| 75-27-4 | Bromodichloromethane | 5 | IU |
| 78-87-5 | 1,2-Dichloropropane | 5 | IU |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | IU |
| 79-01-6 | Trichloroethene | 5 | IU |
| 124-48-1 | Dibromochloromethane | 5 | IU |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | IU |
| 71-43-2 | Benzene | 5 | IU |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | IU |
| 75-25-2 | Bromoform | 5 | IU |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | IU |
| 591-78-6 | 2-Hexanone | 10 | IU |
| 127-18-4 | Tetrachloroethene | 5 | IU |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | IU |
| 108-88-3 | Toluene | 5 | IU |
| 108-90-7 | Chlorobenzene | 5 | IU |
| 100-41-4 | Ethylbenzene | 5 | IU |
| 100-42-5 | Styrene | 5 | IU |
| 1330-20-7 | Xylene (total) | 5 | IU |



328330

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIUELY IDENTIFIED COMPOUNDS

VBLKW1

Lab Name: E & E Contract: UH-3000

Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: UBLK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01029

Level: (low/med) LOW Date Received:

% Moisture: not dec. Data Analyzed: 09/06/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | NO | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | NO | |
| 9. @'alkylated@'benzene | | ND | |
| 110. Trimethyl Benzene | | ND | |

- These compound8 are included in the daily calibration standard. Ouantitation is baaed on the standard RF rather than an RF of 1.

J - None detected, compound searched for, detection limit not determined.

* - Total, more than one isomer present.

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKW1

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: VBLK

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01029

Level: (low/med) LOW Date Received:

% Moisture: not dac. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 9 | J |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |



328331

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32WP801

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Samole ID: 48177

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01085

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRFITION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethyluinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 0. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in the daily calibration standard. Quantitation is bared on the standard RF rather than an RF of 1.

ND - None detected, compound searched For, detection limit not determined.

• - Total, more than one isomer present.

1a

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WPB01

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SOG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48177

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01085

Level: (low/med) LOW Date Received: 08/31/09

% Moisture: not dec. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 22 | B |
| 67-64-1 | Acetone | 12 | B |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropons | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

FORM I VOA 1/87 Rev.

323332

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: 33-89-48177 MATRIX: WATER
SAMPLE ID CLIENT: P32-WPB01

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = *ALSO* PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48177 MATRIX: WATER
SAMPLE ID CLIENT: P32WPB01

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | ND | | 25 | UG/L |
| Hanganese | (ICP) | ND | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 100 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | 0.26 | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328333

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

P32WFB01

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961-002  SAS No.:  SDG No. :

Matrix: (soil/water) WATER  Lab Sample ID: 48176

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81710

Level: (low/med) LOW  Date Received: 08/31/89

% Moisture: not dec. dec.  Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF  Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH:  Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | NO | |
| 2. 1,2-Diphenylhydrazine (2) | | NO | |
| 3. N-Nitrosodimethylamine | | NO | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | NO | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | NO | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | NO | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WFB01

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48176

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81710

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extractsd: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | JB | 10/28/89 LH |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot bo separated from Diphenylamine



328331

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WFB01

ab Name: E & E INC. Contract: UH-3000

Lab Code: EANOE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48176

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81710

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NU. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 2 | JB |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 1 | J |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

09/28/89

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32WFB01

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48176

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1084

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | NO | |
| 4. 2-Chlorosthyluinyl Ether (1) | | NO | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | NO | |

(1) - These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

328335

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WF801

Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48176

Sample wt/vol: 5.0 (g/mL) ML Lab Fila ID: D1084

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Oata Analyzed: 09/08/89

Column: (pack/cap) CAP Oilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | IU |
| 74-83-9 | Bromomethane | 10 | IU |
| 75-01-4 | Vinyl Chloride | 10 | IU |
| 75-00-3 | Chloroethane | 10 | IU |
| 75-09-2 | Methylene Chloride | 2 | IBJ |
| 67-64-1 | Acetone | 10 | IB |
| 75-15-0 | Carbon Disulfide | 5 | IU |
| 75-35-4 | 1,1-Dichloroethene | 5 | IU |
| 75-34-3 | 1,1-Dichloroethane | 5 | IU |
| 540-59-0 | 1,2-Dichloroethene (totall | 5 | IU |
| 67-66-3 | Chloroform | 5 | IU |
| 107-06-2 | 1,2-Dichloroethane | 5 | IU |
| 78-93-3 | 2-Butanone | 10 | IU |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | IU |
| 56-23-5 | Carbon Tatrachlorido | 5 | IU |
| 108-05-4 | Vinyl Acetate | 10 | IU |
| 75-27-4 | Bromodichloromethane | 5 | IU |
| 78-87-5 | 1,2-Dichloropropane | 5 | IU |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | IU |
| 79-01-6 | Trichloroethene | 5 | IU |
| 124-48-1 | Dibromochloromethane | 5 | IU |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | IU |
| 71-43-2 | Benzene | 5 | IU |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | IU |
| 75-25-2 | Bromoform | 5 | IU |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | IU |
| 591-78-6 | 2-Hexanone | 10 | IU |
| 127-18-4 | Tetrachloroethene | 5 | IU |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | IU |
| 108-88-3 | Toluene | 5 | IU |
| 108-90-7 | Chlorobenzene | 5 | IU |
| 100-41-4 | Ethylbenzene | 5 | IU |
| 100-42-5 | Styrene | 5 | IU |
| 1330-20-7 | Xylene (total) | 5 | IU |

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S. NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48176 MTRIX: WATER
SAMPLE ID CLIENT: P32-WFB01

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | ND | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328331;

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48176 MATRIX: WATER
SAMPLE ID CLIENT: P32WFB01

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | ND | | 25 | UG/L |
| Manganese | (ICP) | ND | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 1200 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | ND | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

EPA SAMPLE NO.

P32WR803

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961-002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81707

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extr8cted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

328337

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPFI SAMPLE NO.

P32WR803

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANOE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48175

Ssmple wt/vol : 1000 (g/mL) ML Lab File ID: 81707

Level : (low/med) LOW Date Received: 08/31/89

% Hoisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRRTION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | IU |
| 83-32-9 | Acenaphthene | 10 | IU |
| 51-28-5 | 2,4-Dinitrophenol | 50 | IU |
| 100-02-7 | 4-Nitrophenol | 5Q | IU |
| 132-64-9 | Dibenzofuran | 10 | IU |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | IU |
| 84-66-2 | Diethylphthalate | 10 | IU |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | IU |
| 86-73-7 | Fluorene | 10 | IU |
| 100-10-6 | 4-Nitroaniline | 50 | IU |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | IU |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | IU |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | IU |
| 118-74-1 | Hexach IOrobenzene | 10 | IU |
| 87-86-5 | Pentachlorophenol | 50 | IU |
| 85-01-8 | Phenanthrene | 10 | IU |
| 120-12-7 | Anthracene | 10 | IU |
| 84-74-2 | Di-n-Butylphthalate | 10 | IU |
| 206-44-0 | Fluoranthene | 10 | IU |
| 129-00-0 | Pyrene | 10 | IU |
| 85-68-7 | Butylbenzylphthalate | 10 | IU |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | IU |
| 56-55-3 | Benzo(a)Anthracene | 10 | tu |
| 218-01-9 | Chrysene | 10 | IU |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 10 | IU |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | IU |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | IU |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | IU |
| 50-32-8 | Benzo(a)Pyrene | 10 | IU |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | IU |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | IU |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | IU |

(1) - Cannot be saparatad from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WR803

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48171;

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1707

Lavel: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dec. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |



328333

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32WR803

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961-002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01089

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dac. Date Analyzed: 09/08/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylwinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

1) - These compound8 are included in the daily calibration standard. Quantitation is based on the standard RF rather thsn an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

* - Total, mora than one isomer present.

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WRB03

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANOE Case No.: 961_002 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48175

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1089

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 2 | BJ |
| 67-64-1 | Acetone | 12 | B |
| 75-15-0 | Carbon Disulfide | 1 | J |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 3 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

FORM I VOA 1/87 Rev.

328339

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: E-89-48175 MATRIX: WATER
SAMPLE ID CLIENT: P32-WRB03

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | ND | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = 'PRESENT BELOW STATED DETECTION LIMIT

METALS SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48175 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB03

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 40 | | 25 | UG/L |
| Manganese | (ICP) | ND | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | ND | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Xercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | ND | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATBD DETECTION LIHIT

323340

EPA SAMPLE NO.

P32WR802

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTRTIUELY IDENTIFIED COMPOUNOS

.ab Name: E 8 E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48036

Sample wt/vol: 1000 (g/mL) ML Lab Fils ID: 81657

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Data Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | NO | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Psntanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| .0. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WR802

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Care No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WTER Lab Sample ID: 48036

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81657
Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dac. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U | |
| 83-32-9 | Acenaphthene | 10 | U | |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U | |
| 100-02-7 | 4-Nitrophenol | 50 | U | |
| 132-64-9 | Dibenzofuran | 10 | U | |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U | |
| 84-66-2 | Diethylphthalate | 10 | U | |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U | |
| 86-73-7 | Fluorene | 10 | U | |
| 100-10-6 | 4-Nitroaniline | 50 | U | |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U | |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U | |
| 118-74-1 | Hexachlorobenzene | 10 | U | |
| 87-86-5 | Pentachlorophenol | 50 | U | |
| 85-01-8 | Phenanthrene | 10 | U | |
| 120-12-7 | Anthracene | 10 | U | |
| 84-74-2 | Di-n-Butylphthalate | 10 | U | |
| 206-44-0 | Fluoranthene | 10 | U | |
| 129-00-0 | Pyrene | 10 | U | |
| 85-68-7 | Butylbenzylphthalate | 10 | U | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U | |
| 56-55-3 | Benzo(a)Anthracene | 10 | U | |
| 218-01-9 | Chrysene | 10 | U | |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | JB | 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U | |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U | |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U | |
| 50-32-8 | Benzo(a)Pyrene | 10 | U | |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U | |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U | |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U | |

(1) - Cannot be separated from Diphenylamine



328341

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WR802

b Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48036

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1657

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NU. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobensene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32WR802

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48024

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01066

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column (pack/cap) CAP Dilution Factor: 500

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

(1) - These compounds are included in tho daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

• - Total, more than on isomer present.

328343

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WR802

Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48024

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1066

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 500

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 5000 | U |
| 74-83-9 | Bromomethane | 5000 | U |
| 75-01-4 | Vinyl Chloride | 5000 | U |
| 75-00-3 | Chloroethane | 5000 | U |
| 75-09-2 | Methylene Chloride | 37000 | B |
| 67-64-1 | Acetone | 4400 | JB |
| 75-15-0 | Carbon Disulfide | 2500 | U |
| 75-35-4 | 1,1-Dichloroethene | 2500 | U |
| 75-34-3 | 1,1-Dichloroethane | 2500 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 2500 | U |
| 67-66-3 | Chloroform | 2500 | U |
| 107-06-2 | 1,2-Dichloroethane | 2500 | U |
| 78-93-3 | 2-Butanone | 5000 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 2500 | U |
| 56-23-5 | Carbon Tetrachloride | 2500 | U |
| 108-05-4 | Vinyl Acetate | 5000 | U |
| 75-27-4 | Bromodichloromethane | 2500 | U |
| 78-87-5 | 1,2-Dichloropropane | 2500 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 2500 | U |
| 79-01-6 | Trichloroethene | 2500 | U |
| 124-48-1 | Dibromochloromethane | 2500 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 2500 | U |
| 71-43-2 | Benzene | 2500 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 2500 | U |
| 75-25-2 | Bromoform | 2500 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 5000 | U |
| 591-78-6 | 2-Hexanone | 2500 | U |
| 127-18-4 | Tetrachloroethene | 2500 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 2500 | U |
| 108-88-3 | Toluene | 2500 | U |
| 108-90-7 | Chlorobenzene | 2500 | U |
| 100-41-4 | Ethylbenzene | 2500 | U |
| 100-42-5 | Styrene | 2500 | U |
| 1330-20-7 | Xylene (total) | 2500 | U |

09/20/89 LM

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48036 MATRIX: WATER
SAMPLE ID CLIENT: P32-WRB02

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | ND | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328343

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48036 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB02

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | ND | | 25 | UG/L |
| Manganese | (ICP) | ND | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UGIL |
| Sodium | (ICP) | 930 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | ND | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | ND | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

EPA SAMPLE No.

P32WR801

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTRTIUELY IDENTIFIED COMPOUNDS

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER ab Sample ID: 48035

Sample wt/vol: 1000 (g/mL) ML Lab File ID: B1656

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. doc. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. tlsthyl Dihydro Indene | | NO | |
| 6. Hydroxymethyl Pentanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tatramathylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gar chromatography, reported as such.

328344

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WRB01

, Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS NO.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48035

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81656

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophenol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 1 | JB 09/28/89 LH |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WR801

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48035

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81656

Level: (low/med) LOW Date Rocoiuad: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Oilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 10 | U |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 10 | U |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 10 | U |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |



328345

EPA SAMPLE NO.

VOLATILE ORGANICS HNALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32WR801

Lab Name: E & E Contract: UH-3000

Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48016

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01030

Leu. 1: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: U

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | NO | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethyluinyl Ether (1) | | NO | |
| 5. Dichlorodifluoromethane | | NO | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | NO | |
| 10. Trimethyl Benzene | | ND | |

- These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

- None detected, compound searched for, detection limit not determined.

- Total, mora than one isomer present.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WR801

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48016

Sample wt/vol: 5.0 (g/mL) ML Lab Filr ID: 01030

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/06/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS No. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 8 | | |
| 67-64-1 | Acetone | 35 | B | 09/08/89 |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 1 | J | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroothane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 5 | U | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

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328346

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: €E-8948035 MATRIX: WATER
SAMPLE ID CLIENT: P32-WRB01

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | ND | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48035 MATRIX: WATER
SAMPLE ID CLIENT: P32WRB01

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | ND | | 10 | UG/L |
| Cadmium | (ICP) | ND | | 5.0 | UG/L |
| Chromium | (ICP) | ND | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | ND | | 25 | UG/L |
| Manganese | (ICP) | ND | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| sodium | (ICP) | 450 | | 200 | UG/L |
| Zinc | (ICP) | ND | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | 0.29 | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | ND | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

323347

EPA SAMPLE NO.

VOLATILE ORGANICS ANGLYSIS DATA SHEET
TENTRTIUELY IDENTIFIED COMPOUNDS

P32WT802

) Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_002  SAS No.:  SDG No. :

Matrix: (soil/water) WATER  Lab Sample ID: 48178

Sample wt/vol: 5.0 (g/mL) ML  Lab File ID: D1086

Level: (low/med) LOW  Date Received: 08/31/89

% moisture: not dec.  Date Analyzed: *09/08/89*

Column (pack/cap) CAP  Dilution Factor: 1.0

Number TICs found: 0  CONCENTRATION UNITS: (ug/L *or* ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | | ND | |
| 9. "alkylated" benzene | | NO | |
| 10. Trimethyl Benzene | | NO | |

- These compounds are included in the daily calibration atandard. Quantitation is based on the standard RF rather than an RF of 1.

NO - None detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

1A

# VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WT802

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48178

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1086

Level: (low/med) LOW Date Receiurd: 08/31/89

% Moisture: not dec. Date Analyzed: 09/08/89

column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | U |
| 67-64-1 | Acetone | 3 | BJ |
| 75-15-0 | Carbon Disulfide | 5 | U |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 1 | J |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 5 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

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328343

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTRTIUELY IDENTIFIED COMPOUNDS

P32WT801

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SOG No. :

Matrix: (soil/water) WATER  Lab Sample ID: 48018

Sample wt/vol: 5.0 (g/mL) ML  Lab File ID: D1031

Level: (low/med) L W  Date Received: 08/30/89

% Moisture: not dec.  Date Analyzed: 09/06/89

Column (pack/cap) CRP  Dilution Factor: 1.0

Number TICs found: 0  CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. MNC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | NO | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethyluinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tatramethylbenzene | | ND | |
| 9. "alkylated" benzene | | ND | |
| 110. Trimethyl Benzene | | ND | |

(1) - These compounds are included in the daily calibration standard. Quantitation is basad on the standard RF rather than an RF of 1.

U - Nons detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32WTB01

Lab Name: E 6 E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48018

Sample wt/vol: 5.0 (g/mL) ML Lab Fila ID: D1031

Level: (low/med) LOW Date Received: OW30089

% Moisture: not dec. Date Analyzed: 09/06/89

column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q | |
|---|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U | |
| 74-83-9 | Bromomethane | 10 | U | |
| 75-01-4 | Vinyl Chloride | 10 | U | |
| 75-00-3 | Chloroethane | 10 | U | |
| 75-09-2 | Methylene Chloride | 2 | J | |
| 67-64-1 | Acetone | 12 | B | 09/06/8944 |
| 75-15-0 | Carbon Disulfide | 5 | U | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U | |
| 75-34-3 | 1,1-Dichloroethane | 5 | U | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U | |
| 67-66-3 | Chloroform | 1 | J | |
| 107-06-2 | 1,2-Dichloroethane | 5 | U | |
| 78-93-3 | 2-Butanone | 10 | U | |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U | |
| 56-23-5 | Carbon Tetrachloride | 5 | U | |
| 108-05-4 | Vinyl Acetate | 10 | U | |
| 75-27-4 | Bromodichloromethane | 5 | U | |
| 78-87-5 | 1,2-Dichloropropane | 5 | U | |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U | |
| 79-01-6 | Trichloroethene | 5 | U | |
| 124-48-1 | Dibromochloromethane | 5 | U | |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U | |
| 71-43-2 | Benzene | 5 | U | |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U | |
| 75-25-2 | Bromoform | 5 | U | |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U | |
| 591-78-6 | 2-Hexanone | 10 | U | |
| 127-18-4 | Tetrachloroethene | 5 | U | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U | |
| 108-88-3 | Toluene | 5 | U | |
| 108-90-7 | Chlorobenzene | 5 | U | |
| 100-41-4 | Ethylbenzene | 5 | U | |
| 100-42-5 | Styrene | 5 | U | |
| 1330-20-7 | Xylene (total) | 5 | U | |

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W069D

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANOE Case No.: 961_002 SAS No.: SDG No. :

matrix: (soil/water) WATER Lab Sample ID: 48173

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81843

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. dac. Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 250 | U |
| 83-32-9 | Acenaphthene | 50 | U |
| 51-28-5 | 2,4-Dinitrophenol | 250 | U |
| 100-02-7 | 4-Nitrophenol | 250 | U |
| 132-64-9 | Dibenzofuran | 50 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | U |
| 84-66-2 | Diethylphthalate | 50 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 50 | U |
| 86-73-7 | Fluorene | 50 | U |
| 100-10-6 | 4-Nitroaniline | 250 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 250 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 50 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 50 | U |
| 118-74-1 | Hexachlorobenzene | 50 | U |
| 87-86-5 | Pentachlorophenol | 250 | U |
| 85-01-8 | Phenanthrene | 50 | U |
| 120-12-7 | Anthracene | 50 | U |
| 84-74-2 | Di-n-Butylphthalate | 50 | U |
| 206-44-0 | Fluoranthane | 50 | U |
| 129-00-0 | Pyrene | 50 | U |
| 85-68-7 | Butylbenzylphthalate | 50 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 100 | U |
| 56-55-3 | Benzo(a)Anthracene | 50 | U |
| 218-01-9 | Chrysene | 50 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 14 | JB |
| 117-84-0 | Di-n-Octyl Phthalate | 50 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 50 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 50 | U |
| 50-32-8 | Benzo(a)Pyrene | 50 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 50 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 50 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 50 | U |

09/28/89 LH

(1) - Cannot be separated from Diphenylamine

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NU.

P32W069D

Lab Name: E & E INC. Contract: UH-3000

Lab Coda: EANOE Case No.: 961_002 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48173

Sample wt/vol: 1000 (g/mL) ML Lab Fila ID: 81843

Level: (low/med) LOW Date Received: 08/31/89

% tloiaturr: not dec. dec. Data Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SEPF Data Analyzed: 09/22/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 5.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 50 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 50 | U |
| 95-57-8 | 2-Chlorophenol | 50 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 760 | |
| 106-46-7 | 1,4-Dichlorobenzene | 660 | |
| 100-51-6 | Benzyl Alcohol | 50 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 870 | |
| 95-48-7 | 2-Methylphenol | 50 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 50 | U |
| 106-44-5 | 4-Methylphenol | 50 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 50 | U |
| 67-72-1 | Hexachloroethane | 50 | U |
| 98-95-3 | Nitrobenzene | 50 | U |
| 78-59-1 | Isophorone | 50 | U |
| 88-75-5 | 2-Nitrophenol | 50 | U |
| 105-67-9 | 2,4-Dimethylphenol | 50 | U |
| 65-85-0 | Benzoic Acid | 250 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 50 | U |
| 120-83-2 | 2,4-Dichlorophenol | 50 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | U |
| 91-20-3 | Naphthalene | 50 | U |
| 106-47-8 | 4-Chloroaniline | 50 | U |
| 87-68-3 | Hexachlorobutadiene | 50 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 50 | U |
| 91-57-6 | 2-Methylnaphthalene | 50 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 250 | U |
| 91-58-7 | 2-Chloronaphthalene | 50 | U |
| 88-74-4 | 2-Nitroaniline | 250 | U |
| 131-11-3 | Dimethyl Phthalate | 50 | U |
| 208-96-8 | Acenaphthylene | 50 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | U |



328350

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W069D

Lab Name: E & E INC  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_002  SAS No.:  SOG No.:

Matrix: (soil/water) WATER  Lab Sample ID: 48173

Sample wt/vol: 5.0 (g/mL) ML  Lab File ID: D1092

Level: (low/med) LOW  Date Received: 08/31/89

% Moisture: not dec.  Date Analyzed: 09/08/89

Column: (pack/cap) CAP  Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 8 | J |
| 75-00-3 | Chloroethane | 11 | |
| 75-09-2 | Methylene Chloride | 1 | BJ |
| 67-64-1 | Acetone | 15 | B |
| 75-15-0 | Carbon Disulfide | 3 | J |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 99 | |
| 540-59-0 | 1,2-Dichloroethene (total) | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 3 | J |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 3 | J |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 6 | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 3 | J |
| 108-90-7 | Chlorobenzene | 10 | U |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 2 | J |

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48173 MATRIX: WATER
SAMPLE ID CLIENT: GM-69D

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Chloride | 598 | | 1.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

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GENERAL ANALYTICAL SECTION JOB NUMBER : 961.002

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48173 MATRIX: WATER
SAMPLE ID CLIENT: P32-W069D

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sodium | 644 | | 200.0 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMTED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

P32W008D

Lab Name: E & E  Contract: UH-3000

Lab Code: EANDE  Case No.: 961_001  SAS No.:  SDG No.:

tlatrix: (soil/water) WATER  Lab Sample ID: 48031

Sample wt/vol: 1000 (g/mL) ML  Lab File ID: 81652

Level: (low/med) LOW  Date Receiued: 08/30/89

% Moisture: not dec. dec.  Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF  Date analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH:  Oilution Factor: 1.0

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Benzidine | | ND | |
| 2. 1,2-Diphenylhydrazine (2) | | ND | |
| 3. N-Nitrosodimethylamine | | ND | |
| 4. N-Nitrosodiphenylamide | | ND | |
| 5. Methyl Dihydro Indene | | ND | |
| 6. Hydroxymethyl Pantanone | | ND | |
| 7. Methyl naphthalene | | ND | |
| 8. Methyl ethyl phenol | | ND | |
| 9. Dimethyl ethyl phenol | | ND | |
| 10. Tetramethylbutyl phenol | | ND | |

ND - None detected, compound searched for, detection limit not determined.

(2) - Decomposes to azobenzene during gas chromatography, reported as such.

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAHPLE NO.

P32W0080

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48031

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81652

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. dec. Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 99-09-2 | 3-Nitroaniline | 50 | U |
| 83-32-9 | Acenaphthene | 10 | U |
| 51-28-5 | 2,4-Dinitrophenol | 50 | U |
| 100-02-7 | 4-Nitrophrnol | 50 | U |
| 132-64-9 | Dibenzofuran | 10 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 10 | U |
| 84-66-2 | Diethylphthalate | 10 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | U |
| 86-73-7 | Fluorene | 10 | U |
| 100-10-6 | 4-Nitroaniline | 50 | U |
| 534-52-1 | 4,6-Dinitro-2-Methylphenol | 50 | U |
| 86-30-6 | N-Nitrosodiphenylamine (1) | 10 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | U |
| 118-74-1 | Hexachlorobenzene | 10 | U |
| 87-86-5 | Pentachlorophenol | 50 | U |
| 85-01-8 | Phenanthrene | 10 | U |
| 120-12-7 | Anthracene | 10 | U |
| 84-74-2 | Di-n-Butylphthalate | 10 | U |
| 206-44-0 | Fluoranthene | 10 | U |
| 129-00-0 | Pyrene | 10 | U |
| 85-68-7 | Butylbenzylphthalate | 10 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 20 | U |
| 56-55-3 | Benzo(a)Anthracene | 10 | U |
| 218-01-9 | Chrysene | 10 | U |
| 117-81-7 | bis(2-Ethylhexyl)Phthalate | 2 | JB 09/28/89 |
| 117-84-0 | Di-n-Octyl Phthalate | 10 | U |
| 205-99-2 | Benzo(b)Fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)Fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)Pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | 10 | U |
| 53-70-3 | Dibenz(a,h)Anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)Perylene | 10 | U |

(1) - Cannot be separated from Diphenylamine

1B

# SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W0080

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48031

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 81652

Laval: (low/med) LOW Date Received: 08/30/89

% Moisture: not doc. dec. . Date Extracted: 09/01/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 09/11/89

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)Ether | 10 | U |
| 95-57-8 | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 47 | |
| 106-46-7 | 1,4-Dichlorobenzene | 68 | |
| 100-51-6 | Benzyl Alcohol | 10 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 80 | |
| 95-48-7 | 2-Methylphenol | 10 | U |
| 39638-32-9 | bis(2-Chloroisopropyl)Ether | 10 | U |
| 106-44-5 | 4-Methylphenol | 10 | U |
| 621-64-7 | N-Nitroso-Di-n-Propylamine | 10 | U |
| 67-72-1 | Hexachloroethane | 10 | U |
| 98-95-3 | Nitrobenzene | 10 | U |
| 78-59-1 | Isophorone | 10 | U |
| 88-75-5 | 2-Nitrophenol | 10 | U |
| 105-67-9 | 2,4-Dimethylphenol | 10 | U |
| 65-85-0 | Benzoic Acid | 50 | U |
| 111-91-1 | bis(2-Chloroethoxy)Methane | 10 | U |
| 120-83-2 | 2,4-Dichlorophenol | 10 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | U |
| 91-20-3 | Naphthalene | 2 | J |
| 106-47-8 | 4-Chloroaniline | 10 | U |
| 87-68-3 | Hexachlorobutadiene | 10 | U |
| 59-50-7 | 4-Chloro-3-Methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | U |
| 88-74-4 | 2-Nitroaniline | 50 | U |
| 131-11-3 | Dimethyl Phthalate | 10 | U |
| 208-96-8 | Acenaphthylene | 10 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | U |



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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

P32W0080

Lab Name: E & E Contract: UH-3000

Lab Code: EANDE Case No.: 961_001 SAS No.: SDG No. :

Matrix: (soil/water) WATER Lab Sample ID: 48027

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: D1064

Level: (low/med) LOW Date Received: 08/30/89

% moisture: not dec. Date Analyzed: 09/07/89

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

| COMPOUND NAME | RT | EST. CONC. | Q |
|---|---|---|---|
| 1. Acrolein | | ND | |
| 2. Acrylonitrile | | ND | |
| 3. Bis(chloromethyl) ether | | ND | |
| 4. 2-Chloroethylvinyl Ether (1) | | ND | |
| 5. Dichlorodifluoromethane | | ND | |
| 6. 1,2-Dichloropropylene | | ND | |
| 7. Trichlorofluoromethane (1) | | ND | |
| 8. Tetramethylbenzene | 26.85 | 0.52 | J |
| 9. "alkylated" benzene | | ND | |
| 10. Trimethyl Benzene | | ND | |

) - These compounds are included in the daily calibration standard. Quantitation is based on the standard RF rather than an RF of 1.

ND - None detected, compound searched for, detection limit not determined.

• - Total, more than one isomer present.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

P32W008D

Lab Name: E & E INC. Contract: UH-3000

Lab Code: EANDE Case No.: 961-001 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 48027

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 01064

Level: (low/med) LOW Date Received: 08/30/89

% Moisture: not dec. Date Analyzed: 09/07/89

Column: (pack/cap) CAP Dilution Factor: 1.0

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|---|---|---|---|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | U |
| 75-01-4 | Vinyl Chloride | 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 5 | B |
| 67-64-1 | Acetone | 33 | B |
| 75-15-0 | Carbon Disulfide | 6 | |
| 75-35-4 | 1,1-Dichloroethene | 5 | U |
| 75-34-3 | 1,1-Dichloroethane | 5 | U |
| 540-59-0 | 1,2-Dichloroethene (totall | 5 | U |
| 67-66-3 | Chloroform | 5 | U |
| 107-06-2 | 1,2-Dichloroethane | 5 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5 | U |
| 56-23-5 | Carbon Tetrachloride | 5 | U |
| 108-05-4 | Vinyl Acetate | 10 | U |
| 75-27-4 | Bromodichloromethane | 5 | U |
| 78-87-5 | 1,2-Dichloropropane | 5 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5 | U |
| 79-01-6 | Trichloroethene | 5 | U |
| 124-48-1 | Dibromochloromethane | 5 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5 | U |
| 71-43-2 | Benzene | 5 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 5 | U |
| 75-25-2 | Bromoform | 5 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 591-78-6 | 2-Hexanone | 10 | U |
| 127-18-4 | Tetrachloroethene | 7 | 1 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5 | U |
| 108-88-3 | Toluene | 5 | U |
| 108-90-7 | Chlorobenzene | 5 | |
| 100-41-4 | Ethylbenzene | 5 | U |
| 100-42-5 | Styrene | 5 | U |
| 1330-20-7 | Xylene (total) | 5 | U |

09/20/89 LH

FORM I VOA 1/87 Rev.

328354

GENERAL ANALYTICAL SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT: U.S.NAVY-SOUTHERN DIVISION
SAMPLE ID LAB: EE-89-48031 MATRIX: WATER
SAMPLE ID CLIENT: P32-W008D

| PARAMETER | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|
| Sulfate | 180 | | 2.0 | MG/L |
| Cyanide, complex | ND | | 0.01 | MG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

METALS SECTION JOB NUMBER : 961.001

Ecology and Environment, Inc.
Analytical Services Center

CLIENT : U.S. Navy Southern Division (UH-3000)
SAMPLE ID LAB : EE#89-48031 MATRIX: WATER
SAMPLE ID CLIENT: P32W008D

| PARAMETER | | RESULTS | Q | DET. LIMIT | UNITS |
|---|---|---|---|---|---|
| Antimony | (ICP) | ND | | 60 | UG/L |
| Barium | (ICP) | 83 | | 10 | UG/L |
| Cadmium | (ICP) | 5.5 | | 5.0 | UG/L |
| Chromium | (ICP) | 12 | | 10 | UG/L |
| Copper | (ICP) | ND | | 10 | UG/L |
| Iron | (ICP) | 14700 | | 25 | UG/L |
| Manganese | (ICP) | 100 | | 5.0 | UG/L |
| Nickel | (ICP) | ND | | 15 | UG/L |
| Silver | (ICP) | ND | | 10 | UG/L |
| Sodium | (ICP) | 5900 | | 200 | UG/L |
| Zinc | (ICP) | 40 | | 10 | UG/L |
| Arsenic | (FU) | ND | | 5.0 | UG/L |
| Lead | (FU) | ND | | 5.0 | UG/L |
| Mercury | (Vap) | 0.22 | | 0.20 | UG/L |
| Selenium | (FU) | ND | | 5.0 | UG/L |
| Thallium | (FU) | ND | | 5.0 | UG/L |
| Chloride | | 7000 | | 1000 | UG/L |

QUALIFIERS: C = COMMENT ND = NOT DETECTED
J = ESTIMATED VALUE B = ALSO PRESENT IN BLANK
L = PRESENT BELOW STATED DETECTION LIMIT

328355

Table E-2 (Continued)

SUMMARY ANALYTICAL RESULTS FOR FIELD QA/QC SAMPLES
(All results in urn)

| Compound | Sample No. (Location) | | | | |
|---|---|---|---|---|---|
| | P32WRB01 | P32WRB02 | P32WRB03 | P32WFB01 | P32WPB01[d] |
| Barium | — | — | — | — | — |
| cadmium | — | — | — | — | — |
| Chromium | — | — | — | — | — |
| Iron | — | — | 40 | — | — |
| Manganese | — | — | — | — | — |
| Mercury | 0.29 | — | — | — | 0.26 |
| Sodium | 450 | 930 | — | 1200 | 100 |
| Zinc | — | — | — | — | — |
| Chlorido | — | — | — | — | — |
| Sulfate | — | — | — | | — |
| Cyanide | — | — | — | — | — |
| Vinyl Chlorido | — | — | — | — | — |
| Methylene Chlorido | 8 | 37,000(B) | 2(J,B) | 2(J,B) | 22(B) |
| Acetone | 35(B) | 4,400(J,B) | 12(B) | — | 12(B) |
| Carbon Disulfide | — | — | 1(J) | — | — |
| 1.1 Dichloroethane | — | — | — | — | — |
| Chloroform | — | — | — | — | — |
| Vinyl Acetate | — | — | — | — | — |
| Chloroethane | — | — | — | — | — |
| Trichloroethene | — | — | — | — | — |
| Total Xylenes | — | — | — | — | — |
| Benzene | — | — | — | — | — |
| Tetrachloroethene | — | — | — | — | — |
| Chlorobenzene | — | — | — | — | — |
| Tetramethylbenzene | — | — | — | — | — |
| Toluene | — | — | — | — | — |
| Phenol | — | — | — | 2(J) | — |
| 2-Chlorophenol | — | — | — | 1(J) | — |
| 1,3-Dichlorobenzene | — | — | — | — | — |
| 1,4-Dichlorobenzene | — | — | — | — | — |
| 1,2-Dichlorobenzene | — | — | — | — | — |
| Naphthalene | — | — | — | — | — |
| bis (2-Ethylhexyl) phthalate | 1(J,B) | 1(J,B) | — | 1(J,B) | — |

[a] Duplicate sample of P32W008
[b] Duplicate of sample P32W069, analyzed tor sodium, chlorides, VOCs and BNAs only
[c] Analyzed for VOCs only
[d] Analyzed tor metals and cyanide only

J-Estimated value, compound present below detection limit
8-Compound also present in method blank at similar concentration

328356

**Table E-2**
**SUMMARY ANALYTICAL RESULTS FOR FIELD QA/QC SAMPLES**
**(All results in ug/L)**

| Compound | Sample No. (Location) | | | | | |
|---|---|---|---|---|---|---|
| | P32W008 (GM-8) | P32W008D[a] (GM-8) | P32W069 (GM-69) | P32W069D[b] (GM-69) | P32WTB01[c] | P32WTB02[c] |
| Barium | 81 | 83 | — | — | — | — |
| Cadmium | 5.4 | 5.5 | — | — | — | — |
| chromium | 13 | 12 | — | — | — | — |
| Iron | 14.000 | 14,700 | — | — | — | — |
| Manganese | 100 | 100 | — | — | — | — |
| Mercury | — | 0.22 | — | — | — | — |
| Sodium | 6,800 | 5,900 | 618 | 644 | — | — |
| Zinc | 37 | 40 | — | — | — | — |
| Chloride | 7,000 | 7,000 | 835 | 598 | — | — |
| Sulfate | 200,000 | 180,000 | — | — | — | — |
| Cyanide | 80 | — | — | — | — | — |
| Vinyl Chloride | — | | 9(J) | 8(J) | — | — |
| Methylene Chloride | 3(J,B) | 5(B) | 2(J,B) | 1(J,B) | 2(J) | — |
| Acetone | 45(B) | 33(B) | 13(B) | 15(B) | 12(B) | 3(J,B) |
| Carbon Disulfide | — | 6 | 4(J) | 3(J) | — | — |
| 11 Dichloroethane | — | — | 100 | 99 | — | — |
| Chloroform | | — | — | — | 1(J) | 1(J) |
| Vinyl Acetate | — | — | 3(J) | 3(J) | — | — |
| Chloroethane | — | — | 12 | 11 | — | — |
| Trichloroethene | — | — | 7 | — | — | — |
| Total Xylenes | — | — | 2(J) | 2(J) | — | — |
| Benzene | — | — | 3(J) | 3(J) | — | — |
| Tetrachloroethene | 9 | 7 | 7 | 6 | — | — |
| Chlorobenzene | 5 | 5 | 110 | 100 | — | — |
| Tetramethylbenzene | 0.44(J) | 0.52(J) | — | — | — | — |
| Toluene | — | — | 3(J) | 3(J) | — | — |
| Phenol | — | | — | — | — | — |
| 2-Chlorophenol | — | — | — | — | — | — |
| 1,3-Dichlorobenzene | 47 | 41 | 650 | 760 | — | — |
| 1,4-Dichlorobenzene | 66 | 68 | 560 | 660 | — | — |
| 1,2-Dichlorobenzene | 79 | 80 . | 770 | 870 | — | — |
| Naphthalene | 2(J) | 2(J) | — | — | — | — |
| bis (2-Ethylhexyl) phthalate | 2(B) | 2(J,B) | 14(J,B) | 14(J,B) | — | — |

a Duplicate sample of P32W008
b Duplicate of sample P32W069, analyzed tor sodium, chlorides, VOCs and BNAs only
c Analyzed tor VOCs only
d Analyzed tor metals, cyanide, and VOCs only

J-Estimated value, compound present bolov detection limit
B-Compound also present in method blank at similar concontration

Table E-1

**SAMPLE DESIGNATIONS**
FIELD **QA/QC SAMPLES**

| Sample Type | Sample Designation |
|---|---|
| Groundwater Duplicate | P32W008D |
| Groundwater Duplicate | P32W069D |
| Trip bottle blank[a] | P32WTB01 |
| Trip bottle blank[a] | P32WTB02 |
| Sampling equipment rinsate[b] | P32WRB01 |
| Sampling equipment rinsate[c] | P32WRB02 |
| Sampling equipment rinsate[d] | P32WRB03 |
| Field blank | P32WFB01 |
| Preservative blank[e] | P32WPB01 |

[a] Prepared in laboratory, shipped to field, and back to laboratory with volatile organic compound (VOC) samples. Analyzed for VOCs only.

[b] Collected 8-28-89.

[c] Collected 8-29-89.

[d] Collected 8-30-89.

[e] Analyzed for metals, cyanide, and VOCs only.