

FORSCOM

## Interim Removal Action Report



**3d Inf Div (Mech)**

**SWMU 31: DEH Asphalt Tanks  
3rd Infantry Division  
Fort Stewart, Georgia**

**November 1999**

Prepared for:  
**HAZARDOUS WASTE REMEDIAL ACTIONS PROGRAM**  
Oak Ridge, Tennessee 37831-7606  
Managed by  
**LOCKHEED MARTIN ENERGY SYSTEMS, INC.**  
For the  
**U.S. DEPARTMENT OF ENERGY**  
under contract DE-AC05-84OR21400

Prepared by:  
Earth Tech, Inc.  
800 Oak Ridge Turnpike, Suite C-100  
Oak Ridge, Tennessee 37830

**SWMU 31:DEH ASPHALT TANKS  
FORT STEWART, GEORGIA**

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## SWMU 31 INTERIM REMOVAL ACTION

### **1. INTRODUCTION**

This Field Report documents the Interim Removal Action (IRA) conducted by Earth Tech, Inc. (Earth Tech) from April 12-20, 1999 at Fort Stewart's Solid Waste Management Unit (SWMU) 31: DEH Asphalt Tanks. The IRA included the removal of one aboveground storage tank (AST) and associated concrete supports, one abandoned utility pole, approximately 20 railroad ties, and an estimated 1,730 cubic yards of soil at Fort Stewart, Georgia. The AST was not regulated by the State of Georgia Department of Natural Resources Division and/or the State Fire Marshall's Office.

### **2. SITE LOCATION AND HISTORY**

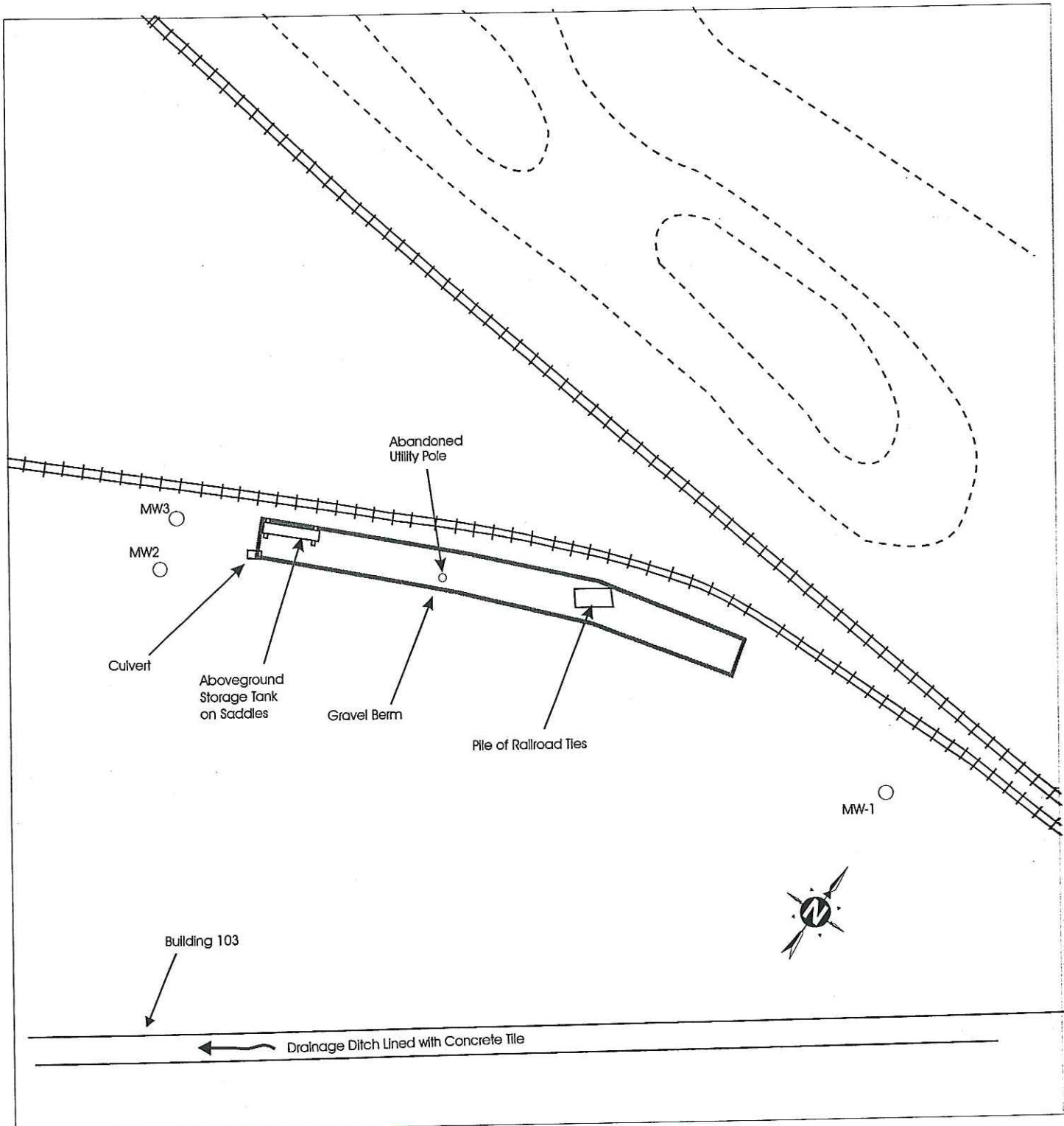
The Directorate of Engineering and Housing (DEH) Asphalt Tanks at SWMU 31 (Figure 2-1) were located in the south garrison area near Utility Street and the railroad tracks. The tanks were used to hold cutback asphalt for use on the Installation. The history of operations for these tanks is unknown. Originally there were three ASTs located at the site. Two of the tanks were removed in 1993; the third one, a 20,000-gallon steel AST surrounded by an earthen berm, was removed in 1997. During the 1993 site inspection, a smaller fourth AST (with a capacity of 1,500 gallons) with rust and peeling paint was identified in the bermed area. This AST was used to hold water for the trains that came into the area. There were no visible holes in the smaller AST, and there was no visible staining of soils. The smaller AST was not operational, and was removed during the IRA (SAIC, 1997).

### **3. DEMOLITION ACTIVITIES**

One AST and associated piping, concrete pillars used to support the AST, approximately 20 railroad ties, and an abandoned utility pole located at SWMU 31 were removed. The site map (Figure 2-1) shows the site prior to the IRA. A description of the tank, its location, and method of closure is presented in Table 3.1.

Table 3.1 Description of Tank

Location	UST/AST	Capacity (gallons)	Product Type	Tank Construction	Closure Method	Closure Date
SWMU 31	AST	1,500	Water	single-walled steel	Removed and cut up	4/12/99



#### EXPLANATION

1 INCH = 60 FEET

0      30      60 Feet

○ Phase II RFI Monitoring Well Locations

- Berm
- Direction of Surface Water Flow
- Utility Pole

Structures are approximate  
Site was not surveyed

**Site Map  
Prior to Interim  
Removal Action  
for SWMU 31:  
DEH Asphalt Tanks  
Fort Stewart, Georgia**

Figure 2-1

The tank was cleaned prior to removal. After the tank was removed, it was cut into sections and disposed of at the Fort Stewart Metal Recycling Center. Approximately 60 feet of piping associated with the tank was also removed. Documentation for the disposal of the tank and piping is included in Appendix A of this report. Rinse water from the tank cleaning was disposed of as non-hazardous waste. Disposal information is included in Appendix A.

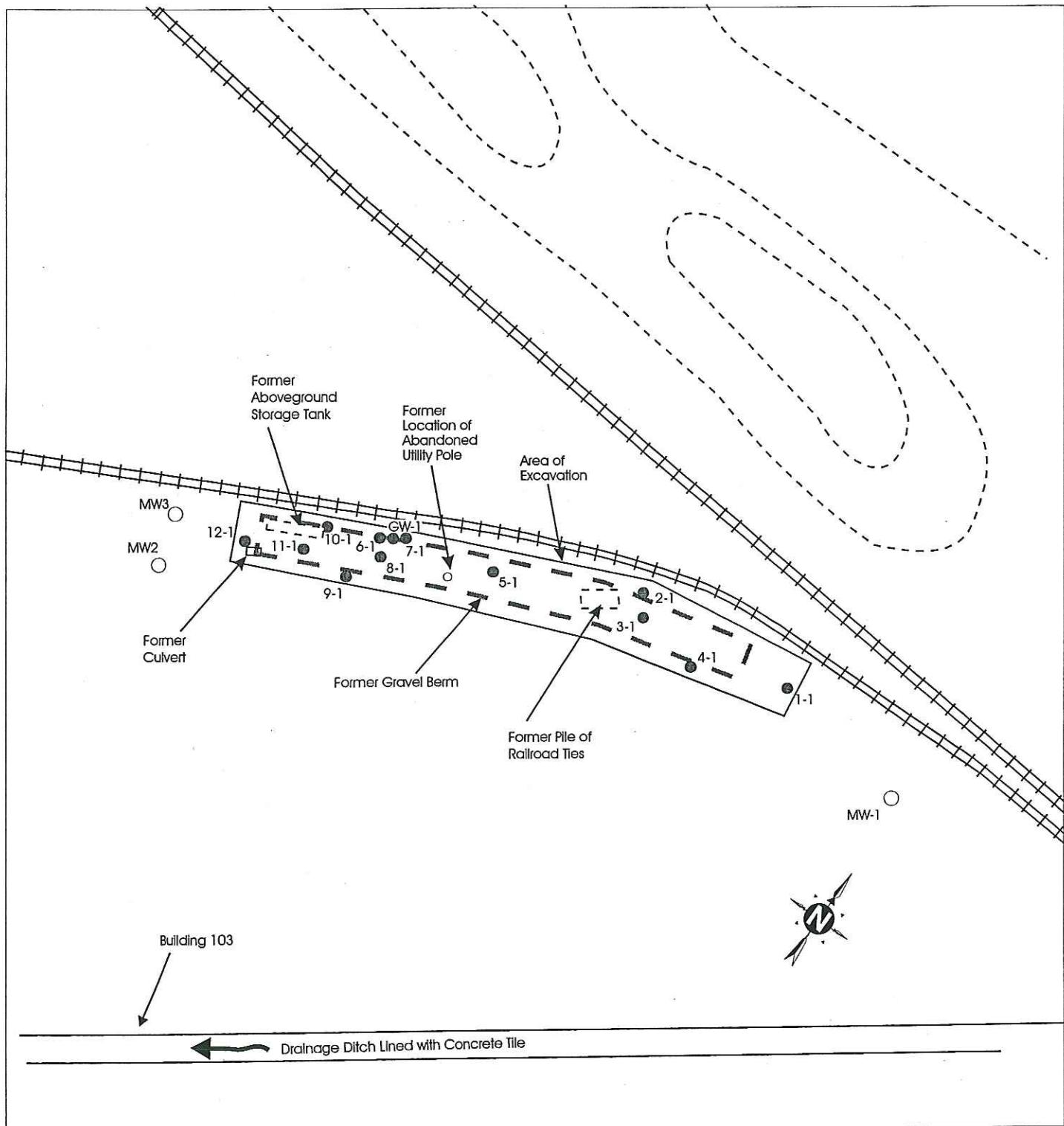
After the tank was removed, an earthen berm surrounding the site was removed and an excavation area of approximately 270 feet long by 30 feet wide was created. The site was undercut to an estimated depth of 3 feet below ground surface (bgs), except for an area approximately 100 square feet, which was undercut to an estimated depth of 11 feet bgs. All excavated soil and concrete were disposed of at the Fort Stewart Subtitle D Landfill as special waste. All railroad ties were transported to the Savannah Regional Industrial Landfill. A copy of the disposal ticket for the railroad ties is located in Appendix A.

Confirmatory samples were taken after the removal of structures and excavation of soil. All samples were analyzed for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs). Twelve soil samples (DG01-1 through DG12-1) (9 at 3 feet bgs and 4 at 7 feet bgs) were collected. Groundwater was encountered at approximately 7 feet bgs during excavation activities in the area excavated to 11 feet. One groundwater sample (DGW1-1) was collected from this portion of the excavation. The sample locations were approved by Fort Stewart personnel, and are indicated on the sample location map (Figure 3-1). Soil duplicate samples were collected from location 1-1 and 12-1. One equipment rinsate, two trip blanks, and one sample of the tank contents were also collected. Analytical data are presented in Section 4.0. Photodocumentation of site activities is located in Appendix B.

The site was backfilled upon completion of overexcavation activities. Approximately 1,670 cubic yards of soil from Fort Stewart's borrow pit and 100 cubic yards of crusher run gravel were used to backfill the excavation. A portion of the aggregate was utilized as backfill material for the portion of the excavation below the water table. This was necessary in order to achieve proper compaction of material. The remaining aggregate was utilized to replace railroad ballast removed during the removal action. The area was then double seeded and mulched with 60 bales of hay.

#### **4. CONFIRMATION SAMPLING**

Samples for SVOCs were collected by using a spoon/trowel to collect the soil from 0 to 0.5-ft bgs at the bottom of the excavation. The removed soil was emptied into a stainless steel or glass dish and thoroughly mixed. Mixed soil was placed directly into the appropriate sampling containers. Samples for VOCs were collected using the EnCore™ sampler.



**Sample Location Map  
Interim Removal Action  
SWMU 31:  
DEH Asphalt Tanks  
Fort Stewart, Georgia**

**Figure 3-1**

Retrieved samples were screened by passing a photoionization detector over the length of the sample. The instruments used to screen samples were calibrated daily using the calibration gas recommended by the instrument manufacturer.

Results from soil screening and information pertaining to the soil and groundwater sampling are presented in Table 4.1. The table includes soil screening results, sample type, sample collection depth, and sample name.

**Table 4.1 Screening Results and Confirmatory Sampling Information**

Screening Results (ppm)	Screening Depth (feet bgs)	Sample Type	Confirmatory Sample Collection Depth (feet bgs)	Confirmatory Sample Name
0.0	3	Soil	3	D01-1
0.0	3	Soil	3	D01-1-DUP
0.0	3	Soil	3	D02-1
0.0	3	Soil	3	D03-1
0.0	3	Soil	3	D04-1
0.0	3	Soil	3	D05-1
0.0	7	Soil	7	D06-1
0.0	7	Soil	7	D07-1
0.0	7	Soil	7	D08-1
0.0	3	Soil	3	D09-1
0.0	3	Soil	3	D10-1
32.0	7	Soil	7	D11-1
0.0	3	Soil	3	D12-1
0.0	3	Soil	3	D12-1-DUP
NA	NA	Water	11	DGW-1

bgs = below ground surface

NA = Not Applicable

ppm = parts per million

Twelve confirmatory soil samples were collected. The results from the soil confirmation samples are summarized in Table 4.2. One groundwater sample was collected from the excavation area (11 feet depth). All compounds were non-detect in the groundwater sample (i.e., DGW-1). The complete validated data set is included in Appendix C.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

All structures and contaminated soil at SWMU 31 were disposed of. The confirmatory samples collected after overexcavation indicated no contamination above the most conservative remedial action levels. Based on the information presented in this report and the soil and groundwater sample analytical data, SWMU 31 located at Fort Stewart is recommended for a "No Further Action Required" status.

**Table 4.2**  
**Summary of Analytes Detected in Soil**  
**SWMU 31, Fort Stewart, Georgia**

Sample ID		D01-1	D01-10 DUP	D02-1	D03-1	D04-1	D05-1	D06-1	D07-1	D08-1	D09-1	D10-1	D11-1	D12-1	D12-IDUP
CompuChem Lab ID		935572	935573	935574	935575	935576	935577	935566	935758	935764	935765	935766	935767	935768	935769
Sample Collection Date		04/22/99	04/22/99	04/22/99	04/22/99	04/23/99	04/23/99	04/22/99	04/23/99	04/23/99	04/23/99	04/23/99	04/23/99	04/23/99	04/23/99
Sample Depth, ft		3	3	3	3	3	3	3	3	3	3	3	3	3	3
Proposed Soil Remedial Levels <sup>(1)</sup> (mg/kg)	Region 3 Residential RBCs <sup>(n)</sup> (mg/kg)														
1,1-Dichloroethene	0.043														
4-Methyl-2-pentanone	630	.002	.001												
Acetone	780	.009	.009												
Benzene	0.02														
Chlorobenzene	0.02														
Chloroform	78 <sup>(2)</sup>														
Ethylbenzene	204400														
Methylene chloride	763,093														
Toluene	408800	.002	.002												
Trichloroethene	0.024														
Xylenes (Total)	4088000														
<i>VOCs (mg/kg), Method 8260B</i>															
2-Methylnaphthalene	160														
Aacenaphthene	470														
Benzo(a)anthracene	7.84														
Benzo(a)pyrene	3.18														
Benzo(b)fluoranthene	0.87														
Benzo(g,h,i)perylene	8.7														
Benzo(k)fluoranthene	8.7														
bis(2-Ethylhexyl)phthalate	46	1.684	.7424												
Chrysene	87														
Di-n-octyl phthalate	160	.1511	.05348	.05224											
Dibenzofuran	31														
Fluoranthene	310														
Fluorene	310														
Indeno[1,2,3-cd]pyrene	0.87														
Naphthalene	160														
Phenanthrene	230														
Pyrene	230														
<i>SVOCs (mg/kg), Method 8270C</i>															
2-Methylnaphthalene	160														
Aacenaphthene	470														
Benzo(a)anthracene	7.84														
Benzo(a)pyrene	3.18														
Benzo(b)fluoranthene	0.87														
Benzo(g,h,i)perylene	8.7														
Benzo(k)fluoranthene	8.7														
bis(2-Ethylhexyl)phthalate	46	1.684	.7424												
Chrysene	87														
Di-n-octyl phthalate	160	.1511	.05348	.05224											
Dibenzofuran	31														
Fluoranthene	310														
Fluorene	310														
Indeno[1,2,3-cd]pyrene	0.87														
Naphthalene	160														
Phenanthrene	230														
Pyrene	230														

<sup>(1)</sup> Remedial levels proposed in the Final RFI for 16 SWMUs, currently under review by the GA EPD, RCRA Compliance Group (SAIC, 1999).

<sup>(2)</sup> Qualifiers:  
mg/kg = micrograms per kilogram  
VOC = volatile organic compound  
SVOC = semivolatile organic compound

J - value is estimated

## **6. REFERENCES**

Science Applications International Corporation (SAIC), 1997. Sampling and Analysis Plan for Phase II RCRA Facility Investigation of 16 Solid Waste Management Units at Fort Stewart, Georgia.

SAIC, 1999. Phase II RCRA Facility Investigation of 16 Solid Waste Management Units at Fort Stewart, Georgia.

**APPENDIX A**

**DISPOSAL TICKET**  
**AND**  
**CERTIFICATE OF TANK DESTRUCTION**

~~Net: 13430  
Customer: 10-2278~~

Savannah Regional Landfill  
84-~~84~~ Gifton Blvd.  
Port Wentworth, GA 31408

Time In: 1:26:50 PM  
Time Out: SL#5:01442

Truck: T1  
Customer: 10-2278

COASTAL GRADING AND R Container: NONE

Carrier: 10-2424 SHUMAN  
Origin SA SAVANNAH

Vehicle Number:

P.D#M71C

Gross: 60580  
Tare: 38260 P

Net: 22320 Tons: 11.16

aterial Id Name

IND INDUSTRIAL

Units

11.16 Tons

~~32.00 after~~  
Material Cost:

Driver's Signature:



Scale Hours  
Mon-Fri 7AM-5PM  
Sat 7AM-12PM

ighmaster's Signature:

For Savannah Regional Industrial Landfill, Inc.



A **tyco** INTERNATIONAL LTD. COMPANY

800 Oak Ridge Turnpike  
Suite C-100  
Oak Ridge, Tennessee 37830  
(423)483-9404 FAX (423)481-3834

# Certificate of Tank Destruction

This certificate is issued by Earth Tech to:

Fort Stewart Department of Public Works

For the documentation of tank destruction as identified below:

Water Tank, SWMU 31, Fort Stewart, Georgia

Building 1191

Tank Type:  Aboveground Storage Tank \_\_\_\_\_ Underground Storage Tank

Tank Capacity/Size: 1,500 gallons Tank Registration (if known) \_\_\_\_\_

Tank was:

- Cleaned and decontaminated on (date): April 12, 1999
- Removed from site on (date): April 12, 1999
- Received by (company and/or person's name) Fort Stewart Recycling Center

Procedures for tank destruction were performed in accordance with all federal, state, and local requirements.

*Jean McKee*  
Jean McKee  
Earth Tech, Inc.

35402  
Earth Tech's job number

FROM :

FAX NO. :

Nov. 02 1999 11:10PM P3

OCT 19 '99 08:55AM EARTH TECH OAK RIDGE

P.2

## NON-HAZARDOUS WASTE MANIFEST

22213037

Printed Name or Type		(Name as printed for use on site license documents)		Manufacturer Document No.	Z. EPA ID or
<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator US EPA ID No.			
2. Generator's Name and Mailing Address  OPEN 1557 FRANK COCHEN DRIVE ST. STEWART GEORGIA 31314					
3. Generator's Phone ( )					
4. Transporter 1 Company Name:  TRANSIT DOCTOR TRANSIT INC		5. US EPA ID Number MO0395038998	6. US EPA ID Number	A. State Transporter's ID B. Transporter 1 Phone C. State Transporter's ID D. Transporter 2 Phone E. Base Facility ID F. Facility's Phone	
7. Transporter 2 Company Name					
8. Discharged Facility Name and Site Address  MEI / AQUATREAT		10. US EPA ID Number			
11. WASTE DESCRIPTION		11. Containers No.	12. Type	13. Total Quantity	14. Unit of Measure
DRUM 1 NON-HAZ WASTE		1	REG Drum	40665	SL
DRUM 2 NON-HAZ WASTE		1	REG Open	25	SL
DRUM 3 non-haz		1	REG	50	SL
G. Additional Descriptions for Materials Listed Above  99% WATER, SOME DIRT FROM TANKS CONTAINED RAIN WATER		H. Handling Codes for Waste Listed Above			
16. Special Handling Instructions and Additional Information  N/A					
18. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this manifest are fully and accurately described and are in accordance with proper handling and transport. The materials described on this manifest are not subject to federal hazardous waste regulations.					
Printed/Typed Name MARK AUGUSTYN, JR (ET)		Signature Mark Augustyn		Date Month Day Year 10/19/99	
17. Transporter 1 Acknowledgment of Receipt of Manifest  LENZIE R SUMMERS		Signature Lenzie R Summers		Date Month Day Year 10/19/99	
Printed/Typed Name LENZIE R SUMMERS		Signature Lenzie R Summers		Date Month Day Year 10/19/99	
18. Transporter 2 Acknowledgment of Receipt of Manifest  Printed/Typed Name		Signature		Date Month Day Year	
19. Emergency Information Boxes					
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in Item 18.					
Printed/Typed Name MARK AUGUSTYN, JR		Signature Mark Augustyn		Date Month Day Year 10/19/99	
GENERAL FOR SIGN ON PROFILE					

814 Printed by Labmaster, An American Laboratory Co., Chicago, IL 60648 (312) 621-4568



Rev. 9/93

P. 28

8099424987

INRAC NO 62160 66-67-100  
OCT-19-99

FROM : OCT 15 '99 03:26PM EARTH TECH F/T READING USI  
804 246 6061 FAX NO. 1

Nov. 02 1999 11:09PM P2  
Oct. 12 1999 10:14PM P2

**MEI/AquaTreat**

NAME OF WASTE STREAM

MATERIAL PROFILE NO.

New  Abandonment  
 CTRP ENVIRONMENTAL BRANCH  
**A. GENERAL** DIRECTORATE OF PUBLIC WORKS  
 GOMBERG, HQ3 SO IN DIAW DABER AND FOUL FIEV ART  
 PO BOX 1557 FRANK COCHLEN DRIVE  
 PORT ELIZABETH, SOUTH AFRICA 6000

OFFICIAL BUSINESS

CITY/COUNTY: PORT ELIZABETH

STATE: KWAZULU-NATAL  
CITY: PORT ELIZABETH  
PHONE: 031-4210022753  
FAX: 031-4210022783

LOS  SOD  SSOD  Expiration / /  
 Technical Contact: BLACK THOMAS KELLY  
 Telephone: (704) 523-1713 Ext: \_\_\_\_\_  
 Fax: (704) 523-1775  
 Billing Name: EARTH TEC LTD  
 Billing Address: 1001 MARKET ST.  
 CITY: MOREHEAD CITY  
 STATE: NC ZIP CODE: 27857

B. DATA ENCLASING NUMBER

Techn. Cont. \_\_\_\_\_  
 Hazard Class: \_\_\_\_\_ Rating: United Nations  
 UN/NA No.: \_\_\_\_\_ Packing Group: PG

C. RCRA HAZARDOUS/EXAMPLE: OTCs CTCs Process Generating

State Waste Codes:

EPA Waste Codes:

D. ANNUAL REPORT CODES

SIC Code: \_\_\_\_\_  
 SIC Revision: \_\_\_\_\_  
 Form Code: S \_\_\_\_\_  
 Origin Code: \_\_\_\_\_  
 System Type: M \_\_\_\_\_

E. OTHER COMPOUNDS

ACB's	No	Yes	Total ppm
Cyanides	<input type="checkbox"/>	<input type="checkbox"/>	_____
Fluorides	<input type="checkbox"/>	<input type="checkbox"/>	_____
Phosphates	<input type="checkbox"/>	<input type="checkbox"/>	_____
Peroxides	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chlorine	<input type="checkbox"/>	<input type="checkbox"/>	_____
Halogens	<input type="checkbox"/>	<input type="checkbox"/>	_____

F. PHYSICAL/QUAHLITATIONAL ATTRIBUTES

1. Infectious or Biologics Waste?  Yes  No  
 2. NRC Regulated Radioactive?  Yes  No  
 3. Reactivity  None  Water Reactive  
 Pyrophoric  Shock Sensitive  
 Oxidizers  DOT Explosive  
 Corrosives  Other \_\_\_\_\_

Gas (Cylinder)  Solid  Sludge  
 Liquid  Paste  Gel  
 Lub-Paste  Free Liquids  Part Solid  
 Part Liquid  Part Solid & Part Liquid  
 Part Solid & Part Liquid

Weight Density:  1.00 (US/LB)  
 Dry Weight:  1.00  
 1.05  
 1.10  
 pH:  N/A  
 0.0  
 0.5  
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Flash Point (Liquid only):  
 <73°F (23°C)  
 73-107°F (23-40°C)  
 107-207°F (40-93°C)  
 207-230°F (93-105°C)  
 230-257°F (105-125°C)  
 257-284°F (125-140°C)  
 284-311°F (140-155°C)  
 311-338°F (155-175°C)  
 338-365°F (175-195°C)  
 365-392°F (195-215°C)  
 392-419°F (215-225°C)  
 419-446°F (225-240°C)  
 446-473°F (240-250°C)  
 473-500°F (250-265°C)  
 500-527°F (265-280°C)  
 527-554°F (280-300°C)  
 554-580°F (300-320°C)  
 580-607°F (320-340°C)  
 607-634°F (340-360°C)  
 634-661°F (360-380°C)  
 661-688°F (380-400°C)  
 688-715°F (400-420°C)  
 715-742°F (420-440°C)  
 742-769°F (440-460°C)  
 769-796°F (460-480°C)  
 796-823°F (480-500°C)  
 823-850°F (500-520°C)  
 850-877°F (520-540°C)  
 877-904°F (540-560°C)  
 904-931°F (560-580°C)  
 931-958°F (580-600°C)  
 958-985°F (600-620°C)  
 985-1012°F (620-640°C)  
 1012-1039°F (640-660°C)  
 1039-1066°F (660-680°C)  
 1066-1093°F (680-700°C)  
 1093-1120°F (700-720°C)  
 1120-1147°F (720-740°C)  
 1147-1174°F (740-760°C)  
 1174-1201°F (760-780°C)  
 1201-1228°F (780-800°C)  
 1228-1255°F (800-820°C)  
 1255-1282°F (820-840°C)  
 1282-1309°F (840-860°C)  
 1309-1336°F (860-880°C)  
 1336-1363°F (880-900°C)  
 1363-1390°F (900-920°C)  
 1390-1417°F (920-940°C)  
 1417-1444°F (940-960°C)  
 1444-1471°F (960-980°C)  
 1471-1500°F (980-1000°C)  
 1500-1527°F (1000-1020°C)  
 1527-1554°F (1020-1040°C)  
 1554-1581°F (1040-1060°C)  
 1581-1608°F (1060-1080°C)  
 1608-1635°F (1080-1100°C)  
 1635-1662°F (1100-1120°C)  
 1662-1689°F (1120-1140°C)  
 1689-1716°F (1140-1160°C)  
 1716-1743°F (1160-1180°C)  
 1743-1770°F (1180-1200°C)  
 1770-1797°F (1200-1220°C)  
 1797-1824°F (1220-1240°C)  
 1824-1851°F (1240-1260°C)  
 1851-1878°F (1260-1280°C)  
 1878-1905°F (1280-1300°C)  
 1905-1932°F (1300-1320°C)  
 1932-1959°F (1320-1340°C)  
 1959-1986°F (1340-1360°C)  
 1986-2013°F (1360-1380°C)  
 2013-2040°F (1380-1400°C)  
 2040-2067°F (1400-1420°C)  
 2067-2094°F (1420-1440°C)  
 2094-2121°F (1440-1460°C)  
 2121-2148°F (1460-1480°C)  
 2148-2175°F (1480-1500°C)  
 2175-2202°F (1500-1520°C)  
 2202-2229°F (1520-1540°C)  
 2229-2256°F (1540-1560°C)  
 2256-2283°F (1560-1580°C)  
 2283-2310°F (1580-1600°C)  
 2310-2337°F (1600-1620°C)  
 2337-2364°F (1620-1640°C)  
 2364-2391°F (1640-1660°C)  
 2391-2418°F (1660-1680°C)  
 2418-2445°F (1680-1700°C)  
 2445-2472°F (1700-1720°C)  
 2472-2500°F (1720-1740°C)  
 2500-2527°F (1740-1760°C)  
 2527-2554°F (1760-1780°C)  
 2554-2581°F (1780-1800°C)  
 2581-2608°F (1800-1820°C)  
 2608-2635°F (1820-1840°C)  
 2635-2662°F (1840-1860°C)  
 2662-2689°F (1860-1880°C)  
 2689-2716°F (1880-1900°C)  
 2716-2743°F (1900-1920°C)  
 2743-2770°F (1920-1940°C)  
 2770-2807°F (1940-1960°C)  
 2807-2834°F (1960-1980°C)  
 2834-2861°F (1980-2000°C)  
 2861-2888°F (2000-2020°C)  
 2888-2915°F (2020-2040°C)  
 2915-2942°F (2040-2060°C)  
 2942-2969°F (2060-2080°C)  
 2969-2996°F (2080-2100°C)  
 2996-3023°F (2100-2120°C)  
 3023-3050°F (2120-2140°C)  
 3050-3077°F (2140-2160°C)  
 3077-3104°F (2160-2180°C)  
 3104-3131°F (2180-2200°C)  
 3131-3158°F (2200-2220°C)  
 3158-3185°F (2220-2240°C)  
 3185-3212°F (2240-2260°C)  
 3212-3239°F (2260-2280°C)  
 3239-3266°F (2280-2300°C)  
 3266-3293°F (2300-2320°C)  
 3293-3320°F (2320-2340°C)  
 3320-3347°F (2340-2360°C)  
 3347-3374°F (2360-2380°C)  
 3374-3401°F (2380-2400°C)  
 3401-3428°F (2400-2420°C)  
 3428-3455°F (2420-2440°C)  
 3455-3482°F (2440-2460°C)  
 3482-3509°F (2460-2480°C)  
 3509-3536°F (2480-2500°C)  
 3536-3563°F (2500-2520°C)  
 3563-3590°F (2520-2540°C)  
 3590-3617°F (2540-2560°C)  
 3617-3644°F (2560-2580°C)  
 3644-3671°F (2580-2600°C)  
 3671-3708°F (2600-2620°C)  
 3708-3735°F (2620-2640°C)  
 3735-3762°F (2640-2660°C)  
 3762-3789°F (2660-2680°C)  
 3789-3816°F (2680-2700°C)  
 3816-3843°F (2700-2720°C)  
 3843-3870°F (2720-2740°C)  
 3870-3897°F (2740-2760°C)  
 3897-3924°F (2760-2780°C)  
 3924-3951°F (2780-2800°C)  
 3951-3978°F (2800-2820°C)  
 3978-3995°F (2820-2840°C)  
 3995-4022°F (2840-2860°C)  
 4022-4049°F (2860-2880°C)  
 4049-4076°F (2880-2900°C)  
 4076-4103°F (2900-2920°C)  
 4103-4130°F (2920-2940°C)  
 4130-4157°F (2940-2960°C)  
 4157-4184°F (2960-2980°C)  
 4184-4211°F (2980-3000°C)  
 4211-4238°F (3000-3020°C)  
 4238-4265°F (3020-3040°C)  
 4265-4292°F (3040-3060°C)  
 4292-4319°F (3060-3080°C)  
 4319-4346°F (3080-3100°C)  
 4346-4373°F (3100-3120°C)  
 4373-4400°F (3120-3140°C)  
 4400-4427°F (3140-3160°C)  
 4427-4454°F (3160-3180°C)  
 4454-4481°F (3180-3200°C)  
 4481-4508°F (3200-3220°C)  
 4508-4535°F (3220-3240°C)  
 4535-4562°F (3240-3260°C)  
 4562-4589°F (3260-3280°C)  
 4589-4616°F (3280-3300°C)  
 4616-4643°F (3300-3320°C)  
 4643-4670°F (3320-3340°C)  
 4670-4697°F (3340-3360°C)  
 4697-4724°F (3360-3380°C)  
 4724-4751°F (3380-3400°C)  
 4751-4778°F (3400-3420°C)  
 4778-4805°F (3420-3440°C)  
 4805-4832°F (3440-3460°C)  
 4832-4859°F (3460-3480°C)  
 4859-4886°F (3480-3500°C)  
 4886-4913°F (3500-3520°C)  
 4913-4940°F (3520-3540°C)  
 4940-4967°F (3540-3560°C)  
 4967-4994°F (3560-3580°C)  
 4994-5021°F (3580-3600°C)  
 5021-5048°F (3600-3620°C)  
 5048-5075°F (3620-3640°C)  
 5075-5102°F (3640-3660°C)  
 5102-5129°F (3660-3680°C)  
 5129-5156°F (3680-3700°C)  
 5156-5183°F (3700-3720°C)  
 5183-5210°F (3720-3740°C)  
 5210-5237°F (3740-3760°C)  
 5237-5264°F (3760-3780°C)  
 5264-5291°F (3780-3800°C)  
 5291-5318°F (3800-3820°C)  
 5318-5345°F (3820-3840°C)  
 5345-5372°F (3840-3860°C)  
 5372-5400°F (3860-3880°C)  
 5400-5427°F (3880-3900°C)  
 5427-5454°F (3900-3920°C)  
 5454-5481°F (3920-3940°C)  
 5481-5508°F (3940-3960°C)  
 5508-5535°F (3960-3980°C)  
 5535-5562°F (3980-4000°C)  
 5562-5589°F (4000-4020°C)  
 5589-5616°F (4020-4040°C)  
 5616-5643°F (4040-4060°C)  
 5643-5670°F (4060-4080°C)  
 5670-5707°F (4080-4100°C)  
 5707-5734°F (4100-4120°C)  
 5734-5761°F (4120-4140°C)  
 5761-5788°F (4140-4160°C)  
 5788-5815°F (4160-4180°C)  
 5815-5842°F (4180-4200°C)  
 5842-5869°F (4200-4220°C)  
 5869-5896°F (4220-4240°C)  
 5896-5923°F (4240-4260°C)  
 5923-5950°F (4260-4280°C)  
 5950-5977°F (4280-4300°C)  
 5977-5994°F (4300-4320°C)  
 5994-6021°F (4320-4340°C)  
 6021-6048°F (4340-4360°C)  
 6048-6075°F (4360-4380°C)  
 6075-6102°F (4380-4400°C)  
 6102-6129°F (4400-4420°C)  
 6129-6156°F (4420-4440°C)  
 6156-6183°F (4440-4460°C)  
 6183-6210°F (4460-4480°C)  
 6210-6237°F (4480-4500°C)  
 6237-6264°F (4500-4520°C)  
 6264-6291°F (4520-4540°C)  
 6291-6318°F (4540-4560°C)  
 6318-6345°F (4560-4580°C)  
 6345-6372°F (4580-4600°C)  
 6372-6400°F (4600-4620°C)  
 6400-6427°F (4620-4640°C)  
 6427-6454°F (4640-4660°C)  
 6454-6481°F (4660-4680°C)  
 6481-6508°F (4680-4700°C)  
 6508-6535°F (4700-4720°C)  
 6535-6562°F (4720-4740°C)  
 6562-6589°F (4740-4760°C)  
 6589-6616°F (4760-4780°C)  
 6616-6643°F (4780-4800°C)  
 6643-6670°F (4800-4820°C)  
 6670-6

**APPENDIX B**

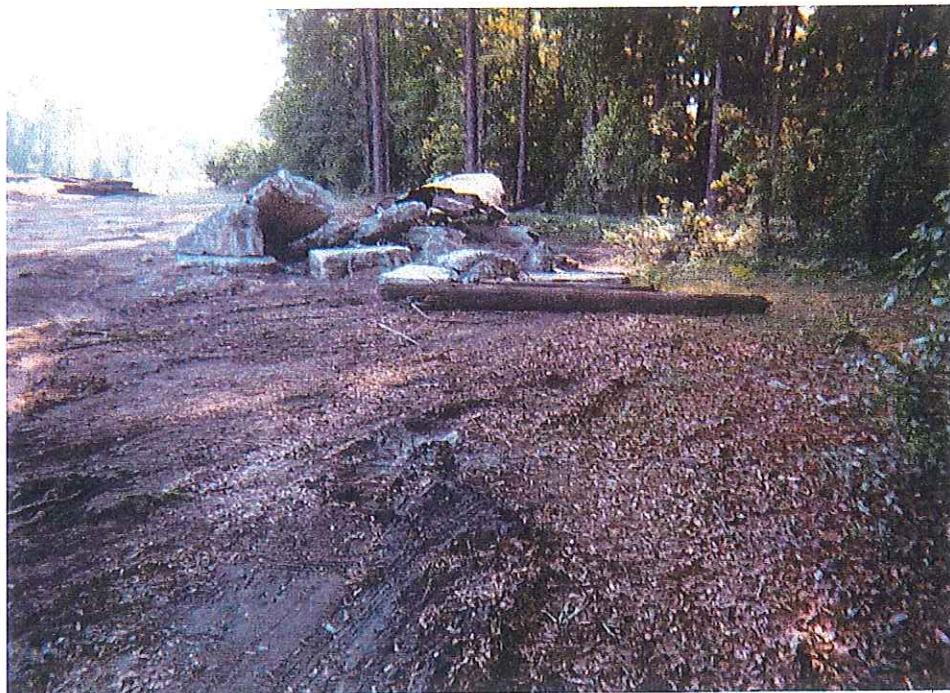
**PHOTODOCUMENTATION**



**SWMU 31:** SWMU 31 prior to Interim Removal Action.



**SWMU 31:** Removal of 1500-gallon AST at SWMU 31.



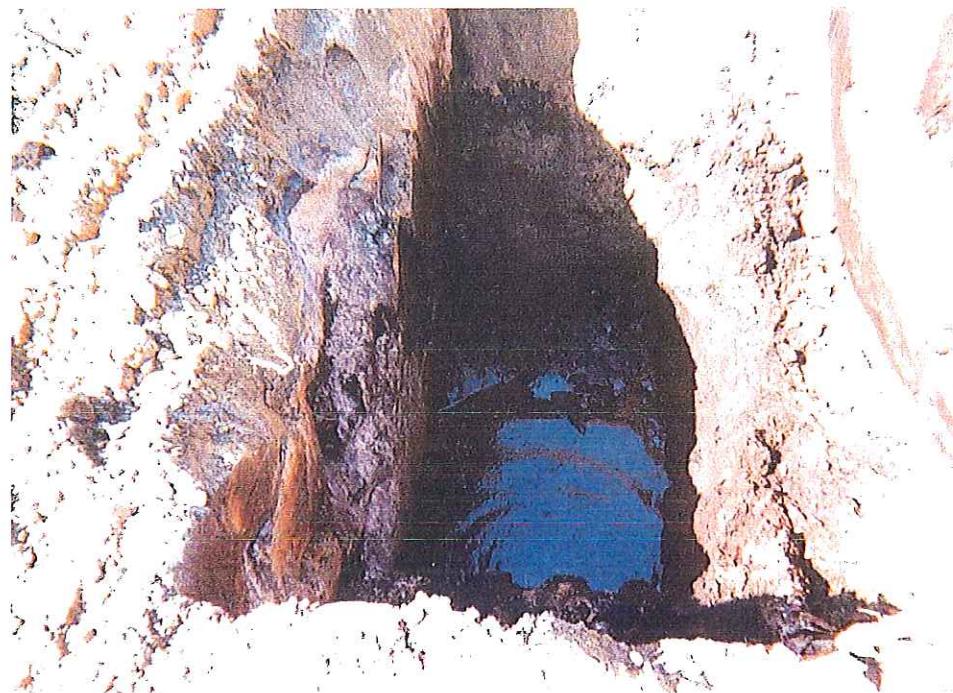
**SWMU 31:** Concrete from tank supports and power pole at SWMU 31 stockpiled for disposal.



**SWMU 31:** Removal of contaminated soil at SWMU 31.



**SWMU 31:** Part of excavation area at SWMU 31.



**SWMU 31:** Groundwater which was encountered during the excavation of SWMU 31.



**SWMU 31:** Borrow pit used for backfill material at SWMU 31.



**SWMU 31:** SWMU 31 area after backfilling.



**SWMU 31:** SWMU 31 area after seeding.

**APPENDIX C**

**ANALYTICAL DATA**

**Site: SWMU 31 Hunter Army Airfield****Sample D01-1****Collection Date: 19990422****Method: SW846 8260B UG/KG**

Compound	Result	Qualifier	Lab Data	Data Validation Code
1,1,1-Trichloroethane	12	U		
1,1,2,2-Tetrachloroethane	12	U		
1,1,2-Trichloroethane	12	U		
1,1-Dichloroethane	12	U		
1,1-Dichloroethene	12	U		
1,2-Dichloroethane	12	U		
1,2-Dichloropropane	12	U		
2-Butanone	12	U	UJ	C01,C04,C14
2-Hexanone	12	U		
4-Methyl-2-pentanone	2	J		
Acetone	9	J		
Benzene	12	U		
Bromodichloromethane	12	U		
Bromoform	12	U		
Bromomethane	12	U		
Carbon disulfide	12	U		
Carbon tetrachloride	12	U		
Chlorobenzene	12	U		
Chloroethane	12	U		
Chloroform	12	U		
Chloromethane	12	U		
Cis-1,2-Dichloroethene	12	U		
Cis-1,3-Dichloropropene	12	U		
Dibromochloromethane	12	U		
Ethylbenzene	12	U		
Methylene chloride	41	B	U	F01
Styrene	12	U		
Tetrachloroethene	12	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	12	U		
Trans-1,3-Dichloropropene	12	U		
Trichloroethene	12	U		
Vinyl chloride	12	U		
Xylenes (Total)	12	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier	Lab Data	Data Validation Code
1,2,4-Trichlorobenzene	347.4	U		
1,2-Dichlorobenzene	347.4	U		
1,3-Dichlorobenzene	347.4	U		
1,4-Dichlorobenzene	347.4	U		
2,2'-Oxybis(1-chloropropane)	347.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D01-1**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
2,4,5-Trichlorophenol	347.4	U		
2,4,6-Trichlorophenol	347.4	U		
2,4-Dichlorophenol	347.4	U		
2,4-Dimethylphenol	347.4	U		
2,4-Dinitrophenol	694.7	U		
2,4-Dinitrotoluene	347.4	U		
2,6-Dinitrotoluene	347.4	U		
2-Chloronaphthalene	347.4	U		
2-Chlorophenol	347.4	U		
2-Methylnaphthalene	347.4	U		
2-Methylphenol	347.4	U		
2-Nitroaniline	694.7	U		
2-Nitrophenol	347.4	U		
3,3'-Dichlorobenzidine	347.4	U		
3-Nitroaniline	694.7	U		
4,6-Dinitro-2-methylphenol	694.7	U		
4-Bromophenyl phenyl ether	347.4	U		
4-Chloro-3-methylphenol	347.4	U		
4-Chloroaniline	347.4	U		
4-Chlorophenyl phenyl ether	347.4	U		
4-Methylphenol	347.4	U		
4-Nitroaniline	694.7	U		
4-Nitrophenol	694.7	U		
Acenaphthene	694.7	U		
Acenaphthylene	347.4	U		
Anthracene	347.4	U		
Benzo(a)anthracene	347.4	U		
Benzo(a)pyrene	347.4	U		
Benzo(b)fluoranthene	347.4	U		
Benzo(g,h,i)perylene	347.4	U		
Benzo(k)fluoranthene	347.4	U		
bis(2-Chloroethoxy)methane	347.4	U		
bis(2-Chloroethyl)ether	347.4	U		
bis(2-Ethylhexyl)phthalate	143.3	JB	U	F01
Butyl benzyl phthalate	347.4	U		
Carbazole	347.4	U		
Chrysene	347.4	U		
Di-n-butyl phthalate	347.4	U		
Di-n-octyl phthalate	151.1	J		
Dibenzo(a,h)anthracene	347.4	U		
Dibenzofuran	347.4	U		
Diethyl phthalate	347.4	U		
Dimethyl phthalate	347.4	U		
Fluoranthene	347.4	U		
Fluorene	347.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D01-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Hexachlorobenzene	347.4	U		
Hexachlorobutadiene	347.4	U		
Hexachlorocyclopentadiene	347.4	U		
Hexachloroethane	347.4	U		
Indeno(1,2,3-cd)pyrene	347.4	U		
Isophorone	347.4	U		
N-Nitroso-di-n-propylamine	347.4	U		
N-Nitrosodiphenylamine(1)	347.4	U		
Naphthalene	347.4	U		
Nitrobenzene	347.4	U		
Pentachlorophenol	694.7	U		
Phenanthrene	347.4	U		
Phenol	347.4	U		
Pyrene	347.4	U		

**Sample D01-1DUP**

Collection Date: 19990422

Method: SW846 8260B UG/KG

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	11	U		
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	11	U	UJ	C01,C04,C14
2-Hexanone	11	U		
4-Methyl-2-pentanone	1	J		
Acetone	9	J		
Benzene	11	U		
Bromodichloromethane	11	U		
Bromoform	11	U		
Bromomethane	11	U		
Carbon disulfide	11	U		
Carbon tetrachloride	11	U		
Chlorobenzene	11	U		
Chloroethane	11	U		
Chloroform	11	U		
Chloromethane	11	U		
Cis-1,2-Dichloroethene	11	U		
Cis-1,3-Dichloropropene	11	U		
Dibromochloromethane	11	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D01-1DUP**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Ethylbenzene	11	U		
Methylene chloride	32	B	U	F01
Styrene	11	U		
Tetrachloroethene	11	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	11	U		
Trans-1,3-Dichloropropene	11	U		
Trichloroethene	11	U		
Vinyl chloride	11	U		
Xylenes (Total)	11	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	347.4	U		
1,2-Dichlorobenzene	347.4	U		
1,3-Dichlorobenzene	347.4	U		
1,4-Dichlorobenzene	347.4	U		
2,2'-Oxybis(1-chloropropane)	347.4	U		
2,4,5-Trichlorophenol	347.4	U		
2,4,6-Trichlorophenol	347.4	U		
2,4-Dichlorophenol	347.4	U		
2,4-Dimethylphenol	347.4	U		
2,4-Dinitrophenol	694.7	U		
2,4-Dinitrotoluene	347.4	U		
2,6-Dinitrotoluene	347.4	U		
2-Chloronaphthalene	347.4	U		
2-Chlorophenol	347.4	U		
2-Methylnaphthalene	347.4	U		
2-Methylphenol	347.4	U		
2-Nitroaniline	694.7	U		
2-Nitrophenol	347.4	U		
3,3'-Dichlorobenzidine	347.4	U		
3-Nitroaniline	694.7	U		
4,6-Dinitro-2-methylphenol	694.7	U		
4-Bromophenyl phenyl ether	347.4	U		
4-Chloro-3-methylphenol	347.4	U		
4-Chloroaniline	347.4	U		
4-Chlorophenyl phenyl ether	347.4	U		
4-Methylphenol	347.4	U		
4-Nitroaniline	694.7	U		
4-Nitrophenol	694.7	U		
Acenaphthene	694.7	U		
Acenaphthylene	347.4	U		
Anthracene	347.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D01-1DUP**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Benzo(a)anthracene	347.4	U		
Benzo(a)pyrene	347.4	U		
Benzo(b)fluoranthene	347.4	U		
Benzo(g,h,i)perylene	347.4	U		
Benzo(k)fluoranthene	347.4	U		
bis(2-Chloroethoxy)methane	347.4	U		
bis(2-Chloroethyl)ether	347.4	U		
bis(2-Ethylhexyl)phthalate	1684	B	detected in the metho	
Butyl benzyl phthalate	347.4	U		
Carbazole	347.4	U		
Chrysene	347.4	U		
Di-n-butyl phthalate	347.4	U		
Di-n-octyl phthalate	53.48	J		
Dibenz(a,h)anthracene	347.4	U		
Dibenzofuran	347.4	U		
Diethyl phthalate	347.4	U		
Dimethyl phthalate	347.4	U		
Fluoranthene	347.4	U		
Fluorene	347.4	U		
Hexachlorobenzene	347.4	U		
Hexachlorobutadiene	347.4	U		
Hexachlorocyclopentadiene	347.4	U		
Hexachloroethane	347.4	U		
Indeno(1,2,3-cd)pyrene	347.4	U		
Isophorone	347.4	U		
N-Nitroso-di-n-propylamine	347.4	U		
N-Nitrosodiphenylamine(1)	347.4	U		
Naphthalene	347.4	U		
Nitrobenzene	347.4	U		
Pentachlorophenol	694.7	U		
Phenanthrene	347.4	U		
Phenol	347.4	U		
Pyrene	347.4	U		

**Sample D02-1**

Collection Date: 19990422

Method: SW846 8260B UG/KG

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	10	U		
1,1,2,2-Tetrachloroethane	10	U		
1,1,2-Trichloroethane	10	U		
1,1-Dichloroethane	10	U		
1,1-Dichloroethene	10	U		

**Site: SWMU 31 Hunter Army Airfield****Sample D02-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2-Dichloroethane	10	U		
1,2-Dichloropropane	10	U		
2-Butanone	10	U	UJ	C01,C04,C14
2-Hexanone	10	U		
4-Methyl-2-pentanone	10	U		
Acetone	8	J		
Benzene	10	U		
Bromodichloromethane	10	U		
Bromoform	10	U		
Bromomethane	10	U		
Carbon disulfide	10	U		
Carbon tetrachloride	10	U		
Chlorobenzene	10	U		
Chloroethane	10	U		
Chloroform	10	U		
Chloromethane	10	U		
Cis-1,2-Dichloroethene	10	U		
Cis-1,3-Dichloropropene	10	U		
Dibromochloromethane	10	U		
Ethylbenzene	10	U		
Methylene chloride	33	B	U	F01
Styrene	10	U		
Tetrachloroethene	10	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	10	U		
Trans-1,3-Dichloropropene	10	U		
Trichloroethene	10	U		
Vinyl chloride	10	U		
Xylenes (Total)	10	U		

Method: SW846 8270C UG/KG

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	375	U		
1,2-Dichlorobenzene	375	U		
1,3-Dichlorobenzene	375	U		
1,4-Dichlorobenzene	375	U		
2,2'-Oxybis(1-chloropropane)	375	U		
2,4,5-Trichlorophenol	375	U		
2,4,6-Trichlorophenol	375	U		
2,4-Dichlorophenol	375	U		
2,4-Dimethylphenol	375	U		
2,4-Dinitrophenol	750	U		
2,4-Dinitrotoluene	375	U		
2,6-Dinitrotoluene	375	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D02-1**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
2-Chloronaphthalene	375	U		
2-Chlorophenol	375	U		
2-Methylnaphthalene	375	U		
2-Methylphenol	375	U		
2-Nitroaniline	750	U		
2-Nitrophenol	375	U		
3,3'-Dichlorobenzidine	375	U		
3-Nitroaniline	750	U		
4,6-Dinitro-2-methylphenol	750	U		
4-Bromophenyl phenyl ether	375	U		
4-Chloro-3-methylphenol	375	U		
4-Chloroaniline	375	U		
4-Chlorophenyl phenyl ether	375	U		
4-Methylphenol	375	U		
4-Nitroaniline	750	U		
4-Nitrophenol	750	U		
Acenaphthene	750	U		
Acenaphthylene	375	U		
Anthracene	375	U		
Benzo(a)anthracene	60.38	J		
Benzo(a)pyrene	86.09	J		
Benzo(b)fluoranthene	111.6	J		
Benzo(g,h,i)perylene	53.95	J		
Benzo(k)fluoranthene	57.32	J		
bis(2-Chloroethoxy)methane	375	U		
bis(2-Chloroethyl)ether	375	U		
bis(2-Ethylhexyl)phthalate	742.4	B		
Butyl benzyl phthalate	375	U		
Carbazole	375	U		
Chrysene	88.92	J		
Di-n-butyl phthalate	375	U		
Di-n-octyl phthalate	52.24	J		
Dibenzo(a,h)anthracene	375	U		
Dibenzofuran	375	U		
Diethyl phthalate	375	U		
Dimethyl phthalate	375	U		
Fluoranthene	375	U		
Fluorene	375	U		
Hexachlorobenzene	375	U		
Hexachlorobutadiene	375	U		
Hexachlorocyclopentadiene	375	U		
Hexachloroethane	375	U		
Indeno(1,2,3-cd)pyrene	375	U		
Isophorone	375	U		
N-Nitroso-di-n-propylamine	375	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D02-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
N-Nitrosodiphenylamine(1)	375	U		
Naphthalene	375	U		
Nitrobenzene	375	U		
Pentachlorophenol	750	U		
Phenanthrene	375	U		
Phenol	375	U		
Pyrene	84.55	J		

**Sample D03-1**

Collection Date: 19990422

Method: SW846 8260B UG/KG

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	10	U		
1,1,2,2-Tetrachloroethane	10	U		
1,1,2-Trichloroethane	10	U		
1,1-Dichloroethane	10	U		
1,1-Dichloroethene	10	U		
1,2-Dichloroethane	10	U		
1,2-Dichloropropane	10	U		
2-Butanone	10	U	UJ	C01,C04,C14
2-Hexanone	10	U		
4-Methyl-2-pentanone	10	U		
Acetone	9	J		
Benzene	10	U		
Bromodichloromethane	10	U		
Bromoform	10	U		
Bromomethane	10	U		
Carbon disulfide	10	U		
Carbon tetrachloride	10	U		
Chlorobenzene	10	U		
Chloroethane	10	U		
Chloroform	10	U		
Chloromethane	10	U		
Cis-1,2-Dichloroethene	10	U		
Cis-1,3-Dichloropropene	10	U		
Dibromochloromethane	10	U		
Ethylbenzene	10	U		
Methylene chloride	37	B	U	F01
Styrene	10	U		
Tetrachloroethene	10	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	10	U		
Trans-1,3-Dichloropropene	10	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D03-1**

**Collection Date: 19990422**

Compound	Result	Qualifier	Lab	Data	Data Validation Code
Trichloroethene	10	U			
Vinyl chloride	10	U			
Xylenes (Total)	10	U			

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier	Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	343.8	U			
1,2-Dichlorobenzene	343.8	U			
1,3-Dichlorobenzene	343.8	U			
1,4-Dichlorobenzene	343.8	U			
2,2'-Oxybis(1-chloropropane)	343.8	U			
2,4,5-Trichlorophenol	343.8	U			
2,4,6-Trichlorophenol	343.8	U			
2,4-Dichlorophenol	343.8	U			
2,4-Dimethylphenol	343.8	U			
2,4-Dinitrophenol	687.5	U			
2,4-Dinitrotoluene	343.8	U			
2,6-Dinitrotoluene	343.8	U			
2-Chloronaphthalene	343.8	U			
2-Chlorophenol	343.8	U			
2-Methylnaphthalene	343.8	U			
2-Methylphenol	343.8	U			
2-Nitroaniline	687.5	U			
2-Nitrophenol	343.8	U			
3,3'-Dichlorobenzidine	343.8	U			
3-Nitroaniline	687.5	U			
4,6-Dinitro-2-methylphenol	687.5	U			
4-Bromophenyl phenyl ether	343.8	U			
4-Chloro-3-methylphenol	343.8	U			
4-Chloroaniline	343.8	U			
4-Chlorophenyl phenyl ether	343.8	U			
4-Methylphenol	343.8	U			
4-Nitroaniline	687.5	U			
4-Nitrophenol	687.5	U			
Acenaphthene	687.5	U			
Acenaphthylene	343.8	U			
Anthracene	343.8	U			
Benzo(a)anthracene	343.8	U			
Benzo(a)pyrene	343.8	U			
Benzo(b)fluoranthene	343.8	U			
Benzo(g,h,i)perylene	343.8	U			
Benzo(k)fluoranthene	343.8	U			
bis(2-Chloroethoxy)methane	343.8	U			
bis(2-Chloroethyl)ether	343.8	U			

**Site: SWMU 31 Hunter Army Airfield**

**Sample D03-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
bis(2-Ethylhexyl)phthalate	41.99	JB	U	F01
Butyl benzyl phthalate	343.8	U		
Carbazole	343.8	U		
Chrysene	343.8	U		
Di-n-butyl phthalate	343.8	U		
Di-n-octyl phthalate	343.8	U		
Dibenzo(a,h)anthracene	343.8	U		
Dibenzofuran	343.8	U		
Diethyl phthalate	343.8	U		
Dimethyl phthalate	343.8	U		
Fluoranthene	343.8	U		
Fluorene	343.8	U		
Hexachlorobenzene	343.8	U		
Hexachlorobutadiene	343.8	U		
Hexachlorocyclopentadiene	343.8	U		
Hexachloroethane	343.8	U		
Indeno(1,2,3-cd)pyrene	343.8	U		
Isophorone	343.8	U		
N-Nitroso-di-n-propylamine	343.8	U		
N-Nitrosodiphenylamine(1)	343.8	U		
Naphthalene	343.8	U		
Nitrobenzene	343.8	U		
Pentachlorophenol	687.5	U		
Phenanthrene	343.8	U		
Phenol	343.8	U		
Pyrene	343.8	U		

**Sample D04-1**

Collection Date: 19990423

Method: SW846 8260B UG/KG	Result	Qualifier		
Compound		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	12	U		
1,1,2,2-Tetrachloroethane	12	U		
1,1,2-Trichloroethane	12	U		
1,1-Dichloroethane	12	U		
1,1-Dichloroethene	12	U		
1,2-Dichloroethane	12	U		
1,2-Dichloropropane	12	U		
2-Butanone	12	U	UJ	C01,C04,C14
2-Hexanone	12	U		
4-Methyl-2-pentanone	12	U		
Acetone	12			
Benzene	12	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D04-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Bromodichloromethane	12	U		
Bromoform	12	U		
Bromomethane	12	U		
Carbon disulfide	12	U		
Carbon tetrachloride	12	U		
Chlorobenzene	12	U		
Chloroethane	12	U		
Chloroform	12	U		
Chloromethane	12	U		
Cis-1,2-Dichloroethene	12	U		
Cis-1,3-Dichloropropene	12	U		
Dibromochloromethane	12	U		
Ethylbenzene	12	U		
Methylene chloride	44	B	U	F01
Styrene	12	U		
Tetrachloroethene	12	U		
Toluene	3	J		
Trans-1,2-Dichloroethene	12	U		
Trans-1,3-Dichloropropene	12	U		
Trichloroethene	12	U		
Vinyl chloride	12	U		
Xylenes (Total)	12	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	343.8	U		
1,2-Dichlorobenzene	343.8	U		
1,3-Dichlorobenzene	343.8	U		
1,4-Dichlorobenzene	343.8	U		
2,2'-Oxybis(1-chloropropane)	343.8	U		
2,4,5-Trichlorophenol	343.8	U		
2,4,6-Trichlorophenol	343.8	U		
2,4-Dichlorophenol	343.8	U		
2,4-Dimethylphenol	343.8	U		
2,4-Dinitrophenol	687.5	U		
2,4-Dinitrotoluene	343.8	U		
2,6-Dinitrotoluene	343.8	U		
2-Chloronaphthalene	343.8	U		
2-Chlorophenol	343.8	U		
2-Methylnaphthalene	83.32	J		
2-Methylphenol	343.8	U		
2-Nitroaniline	687.5	U		
2-Nitrophenol	343.8	U		
3,3'-Dichlorobenzidine	343.8	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D04-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
3-Nitroaniline	687.5	U		
4,6-Dinitro-2-methylphenol	687.5	U		
4-Bromophenyl phenyl ether	343.8	U		
4-Chloro-3-methylphenol	343.8	U		
4-Chloroaniline	343.8	U		
4-Chlorophenyl phenyl ether	343.8	U		
4-Methylphenol	343.8	U		
4-Nitroaniline	687.5	U		
4-Nitrophenol	687.5	U		
Acenaphthene	687.5	U		
Acenaphthylene	343.8	U		
Anthracene	343.8	U		
Benzo(a)anthracene	110.8	J		
Benzo(a)pyrene	75.9	J		
Benzo(b)fluoranthene	156.9	J		
Benzo(g,h,i)perylene	71.76	J		
Benzo(k)fluoranthene	76.68	J		
bis(2-Chloroethoxy)methane	343.8	U		
bis(2-Chloroethyl)ether	343.8	U		
bis(2-Ethylhexyl)phthalate	796.7	B	detected in the metho	
Butyl benzyl phthalate	343.8	U		
Carbazole	343.8	U		
Chrysene	154.3	J		
Di-n-butyl phthalate	343.8	U		
Di-n-octyl phthalate	343.8	U		
Dibenzo(a,h)anthracene	343.8	U		
Dibenzofuran	35.48	J		
Diethyl phthalate	343.8	U		
Dimethyl phthalate	343.8	U		
Fluoranthene	176	J		
Fluorene	343.8	U		
Hexachlorobenzene	343.8	U		
Hexachlorobutadiene	343.8	U		
Hexachlorocyclopentadiene	343.8	U		
Hexachloroethane	343.8	U		
Indeno(1,2,3-cd)pyrene	343.8	U		
Isophorone	343.8	U		
N-Nitroso-di-n-propylamine	343.8	U		
N-Nitrosodiphenylamine(1)	343.8	U		
Naphthalene	76.04	J		
Nitrobenzene	343.8	U		
Pentachlorophenol	687.5	U		
Phenanthrene	179.6	J		
Phenol	343.8	U		
Pyrene	178.8	J		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D04-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code

**Sample D05-1**

Collection Date: 19990422

Method: SW846 8260B UG/KG

Qualifier

Compound	Result	Lab	Data	Data Validation Code
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1,1,1-Trichloroethane	11	U		
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	11	U	UJ	C14
2-Hexanone	11	U		
4-Methyl-2-pentanone	11	U		
Acetone	9	J		
Benzene	11	U		
Bromodichloromethane	11	U		
Bromoform	11	U		
Bromomethane	11	U		
Carbon disulfide	11	U		
Carbon tetrachloride	11	U		
Chlorobenzene	11	U		
Chloroethane	11	U		
Chloroform	11	U		
Chloromethane	11	U		
Cis-1,2-Dichloroethene	11	U		
Cis-1,3-Dichloropropene	11	U		
Dibromochloromethane	11	U		
Ethylbenzene	11	U		
Methylene chloride	22	B	U	F01
Styrene	11	U		
Tetrachloroethene	11	U		
Toluene	11	U		
Trans-1,2-Dichloroethene	11	U		
Trans-1,3-Dichloropropene	11	U		
Trichloroethene	11	U		
Vinyl chloride	11	U		
Xylenes (Total)	11	U		

Method: SW846 8270C UG/KG

Qualifier

Compound	Result	Lab	Data	Data Validation Code
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**Site: SWMU 31 Hunter Army Airfield**

**Sample D05-1**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	362.6	U		
1,2-Dichlorobenzene	362.6	U		
1,3-Dichlorobenzene	362.6	U		
1,4-Dichlorobenzene	362.6	U		
2,2'-Oxybis(1-chloropropane)	362.6	U		
2,4,5-Trichlorophenol	362.6	U		
2,4,6-Trichlorophenol	362.6	U		
2,4-Dichlorophenol	362.6	U		
2,4-Dimethylphenol	362.6	U		
2,4-Dinitrophenol	725.3	U		
2,4-Dinitrotoluene	362.6	U		
2,6-Dinitrotoluene	362.6	U		
2-Chloronaphthalene	362.6	U		
2-Chlorophenol	362.6	U		
2-Methylnaphthalene	362.6	U		
2-Methylphenol	362.6	U		
2-Nitroaniline	725.3	U		
2-Nitrophenol	362.6	U		
3,3'-Dichlorobenzidine	362.6	U		
3-Nitroaniline	725.3	U		
4,6-Dinitro-2-methylphenol	725.3	U		
4-Bromophenyl phenyl ether	362.6	U		
4-Chloro-3-methylphenol	362.6	U		
4-Chloroaniline	362.6	U		
4-Chlorophenyl phenyl ether	362.6	U		
4-Methylphenol	362.6	U		
4-Nitroaniline	725.3	U		
4-Nitrophenol	725.3	U		
Acenaphthene	725.3	U		
Acenaphthylene	362.6	U		
Anthracene	362.6	U		
Benzo(a)anthracene	362.6	U		
Benzo(a)pyrene	362.6	U		
Benzo(b)fluoranthene	362.6	U		
Benzo(g,h,i)perylene	362.6	U		
Benzo(k)fluoranthene	362.6	U		
bis(2-Chloroethoxy)methane	362.6	U		
bis(2-Chloroethyl)ether	362.6	U		
bis(2-Ethylhexyl)phthalate	362.6	U		
Butyl benzyl phthalate	362.6	U		
Carbazole	362.6	U		
Chrysene	362.6	U		
Di-n-butyl phthalate	362.6	U		
Di-n-octyl phthalate	362.6	U		
Dibenzo(a,h)anthracene	362.6	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D05-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Dibenzofuran	362.6	U		
Diethyl phthalate	362.6	U		
Dimethyl phthalate	362.6	U		
Fluoranthene	362.6	U		
Fluorene	362.6	U		
Hexachlorobenzene	362.6	U		
Hexachlorobutadiene	362.6	U		
Hexachlorocyclopentadiene	362.6	U		
Hexachloroethane	362.6	U		
Indeno(1,2,3-cd)pyrene	362.6	U		
Isophorone	362.6	U		
N-Nitroso-di-n-propylamine	362.6	U		
N-Nitrosodiphenylamine(1)	362.6	U		
Naphthalene	362.6	U		
Nitrobenzene	362.6	U		
Pentachlorophenol	725.3	U		
Phenanthrene	362.6	U		
Phenol	362.6	U		
Pyrene	362.6	U		

**Sample D06-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	11	U		
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	11	U	UJ	C01,C04,C14
2-Hexanone	11	U		
4-Methyl-2-pentanone	11	U		
Acetone	10	J		
Benzene	11	U		
Bromodichloromethane	11	U		
Bromoform	11	U		
Bromomethane	11	U		
Carbon disulfide	11	U		
Carbon tetrachloride	11	U		
Chlorobenzene	11	U		
Chloroethane	11	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D06-1**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Chloroform	11	U		
Chloromethane	11	U		
Cis-1,2-Dichloroethene	11	U		
Cis-1,3-Dichloropropene	11	U		
Dibromochloromethane	11	U		
Ethylbenzene	11	U		
Methylene chloride	45	B	U	F01
Styrene	11	U		
Tetrachloroethene	11	U		
Toluene	3	J		
Trans-1,2-Dichloroethene	11	U		
Trans-1,3-Dichloropropene	11	U		
Trichloroethene	11	U		
Vinyl chloride	11	U		
Xylenes (Total)	11	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	407.4	U		
1,2-Dichlorobenzene	407.4	U		
1,3-Dichlorobenzene	407.4	U		
1,4-Dichlorobenzene	407.4	U		
2,2'-Oxybis(1-chloropropane)	407.4	U		
2,4,5-Trichlorophenol	407.4	U		
2,4,6-Trichlorophenol	407.4	U		
2,4-Dichlorophenol	407.4	U		
2,4-Dimethylphenol	407.4	U		
2,4-Dinitrophenol	814.8	U		
2,4-Dinitrotoluene	407.4	U		
2,6-Dinitrotoluene	407.4	U		
2-Chloronaphthalene	407.4	U		
2-Chlorophenol	407.4	U		
2-Methylnaphthalene	407.4	U		
2-Methylphenol	407.4	U		
2-Nitroaniline	814.8	U		
2-Nitrophenol	407.4	U		
3,3'-Dichlorobenzidine	407.4	U		
3-Nitroaniline	814.8	U		
4,6-Dinitro-2-methylphenol	814.8	U		
4-Bromophenyl phenyl ether	407.4	U		
4-Chloro-3-methylphenol	407.4	U		
4-Chloroaniline	407.4	U		
4-Chlorophenyl phenyl ether	407.4	U		
4-Methylphenol	407.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D06-1**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
4-Nitroaniline	814.8	U		
4-Nitrophenol	814.8	U		
Acenaphthene	814.8	U		
Acenaphthylene	407.4	U		
Anthracene	407.4	U		
Benzo(a)anthracene	407.4	U		
Benzo(a)pyrene	407.4	U		
Benzo(b)fluoranthene	407.4	U		
Benzo(g,h,i)perylene	407.4	U		
Benzo(k)fluoranthene	407.4	U		
bis(2-Chloroethoxy)methane	407.4	U		
bis(2-Chloroethyl)ether	407.4	U		
bis(2-Ethylhexyl)phthalate	242.7	JB	U	F01
Butyl benzyl phthalate	407.4	U		
Carbazole	407.4	U		
Chrysene	407.4	U		
Di-n-butyl phthalate	407.4	U		
Di-n-octyl phthalate	407.4	U		
Dibenzo(a,h)anthracene	407.4	U		
Dibenzofuran	407.4	U		
Diethyl phthalate	407.4	U		
Dimethyl phthalate	407.4	U		
Fluoranthene	407.4	U		
Fluorene	407.4	U		
Hexachlorobenzene	407.4	U		
Hexachlorobutadiene	407.4	U		
Hexachlorocyclopentadiene	407.4	U		
Hexachloroethane	407.4	U		
Indeno(1,2,3-cd)pyrene	407.4	U		
Isophorone	407.4	U		
N-Nitroso-di-n-propylamine	407.4	U		
N-Nitrosodiphenylamine(1)	407.4	U		
Naphthalene	407.4	U		
Nitrobenzene	407.4	U		
Pentachlorophenol	814.8	U		
Phenanthrene	407.4	U		
Phenol	407.4	U		
Pyrene	407.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D07-1**

Collection Date: 19990423

Compound	Result	Qualifier	Lab	Data	Data Validation Code
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**Sample D07-1**

Collection Date: 19990423

Method: SW846 8260B UG/KG

Compound	Result	Qualifier	Lab	Data	Data Validation Code
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1,1,1-Trichloroethane	11	U			
1,1,2,2-Tetrachloroethane	11	U			
1,1,2-Trichloroethane	11	U			
1,1-Dichloroethane	11	U			
1,1-Dichloroethene	11	U			
1,2-Dichloroethane	11	U			
1,2-Dichloropropane	11	U			
2-Butanone	11	U	UJ		C01,C04,C14
2-Hexanone	11	U			
4-Methyl-2-pentanone	11	U			
Acetone	7	J			
Benzene	11	U			
Bromodichloromethane	11	U			
Bromoform	11	U			
Bromomethane	11	U			
Carbon disulfide	11	U			
Carbon tetrachloride	11	U			
Chlorobenzene	11	U			
Chloroethane	11	U			
Chloroform	11	U			
Chloromethane	11	U			
Cis-1,2-Dichloroethene	11	U			
Cis-1,3-Dichloropropene	11	U			
Dibromochloromethane	11	U			
Ethylbenzene	11	U			
Methylene chloride	39	B	U		F01
Styrene	11	U			
Tetrachloroethene	11	U			
Toluene	2	J			
Trans-1,2-Dichloroethene	11	U			
Trans-1,3-Dichloropropene	11	U			
Trichloroethene	11	U			
Vinyl chloride	11	U			
Xylenes (Total)	11	U			

Method: SW846 8270C UG/KG

Compound	Result	Qualifier	Lab	Data	Data Validation Code
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1,2,4-Trichlorobenzene	392.8	U			
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**Site: SWMU 31 Hunter Army Airfield**

**Sample D07-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2-Dichlorobenzene	392.8	U		
1,3-Dichlorobenzene	392.8	U		
1,4-Dichlorobenzene	392.8	U		
2,2'-Oxybis(1-chloropropane)	392.8	U		
2,4,5-Trichlorophenol	392.8	U		
2,4,6-Trichlorophenol	392.8	U		
2,4-Dichlorophenol	392.8	U		
2,4-Dimethylphenol	392.8	U		
2,4-Dinitrophenol	785.7	U	UJ	C02,C14
2,4-Dinitrotoluene	392.8	U		
2,6-Dinitrotoluene	392.8	U		
2-Chloronaphthalene	392.8	U		
2-Chlorophenol	392.8	U		
2-Methylnaphthalene	392.8	U		
2-Methylphenol	392.8	U		
2-Nitroaniline	785.7	U		
2-Nitrophenol	392.8	U		
3,3'-Dichlorobenzidine	392.8	U		
3-Nitroaniline	785.7	U		
4,6-Dinitro-2-methylphenol	785.7	U		
4-Bromophenyl phenyl ether	392.8	U		
4-Chloro-3-methylphenol	392.8	U		
4-Chloroaniline	392.8	U		
4-Chlorophenyl phenyl ether	392.8	U		
4-Methylphenol	392.8	U		
4-Nitroaniline	785.7	U		
4-Nitrophenol	785.7	U	UJ	C05,C14
Acenaphthene	785.7	U		
Acenaphthylene	392.8	U		
Anthracene	392.8	U		
Benzo(a)anthracene	392.8	U		
Benzo(a)pyrene	392.8	U		
Benzo(b)fluoranthene	392.8	U		
Benzo(g,h,i)perylene	392.8	U		
Benzo(k)fluoranthene	392.8	U		
bis(2-Chloroethoxy)methane	392.8	U		
bis(2-Chloroethyl)ether	392.8	U		
bis(2-Ethylhexyl)phthalate	51.77	J		
Butyl benzyl phthalate	392.8	U		
Carbazole	392.8	U		
Chrysene	392.8	U		
Di-n-butyl phthalate	392.8	U		
Di-n-octyl phthalate	392.8	U		
Dibenzo(a,h)anthracene	392.8	U		
Dibenzofuran	392.8	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D07-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Diethyl phthalate	392.8	U		
Dimethyl phthalate	392.8	U		
Fluoranthene	392.8	U		
Fluorene	392.8	U		
Hexachlorobenzene	392.8	U	UJ	C05,C14
Hexachlorobutadiene	392.8	U		
Hexachlorocyclopentadiene	392.8	U	UJ	C02,C14
Hexachloroethane	392.8	U		
Indeno(1,2,3-cd)pyrene	392.8	U		
Isophorone	392.8	U		
N-Nitroso-di-n-propylamine	392.8	U		
N-Nitrosodiphenylamine(1)	392.8	U		
Naphthalene	392.8	U		
Nitrobenzene	392.8	U		
Pentachlorophenol	785.7	U		
Phenanthrene	392.8	U		
Phenol	392.8	U		
Pyrene	392.8	U		

**Sample D08-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	12	U		
1,1,2,2-Tetrachloroethane	12	U		
1,1,2-Trichloroethane	12	U		
1,1-Dichloroethane	12	U		
1,1-Dichloroethene	12	U		
1,2-Dichloroethane	12	U		
1,2-Dichloropropane	12	U		
2-Butanone	12	U	UJ	C01,C04,C14
2-Hexanone	12	U		
4-Methyl-2-pentanone	12	U		
Acetone	7	J		
Benzene	12	U		
Bromodichloromethane	12	U		
Bromoform	12	U		
Bromomethane	12	U		
Carbon disulfide	12	U		
Carbon tetrachloride	12	U		
Chlorobenzene	12	U		
Chloroethane	12	U		
Chloroform	1	J		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D08-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Chloromethane	12	U		
Cis-1,2-Dichloroethene	12	U		
Cis-1,3-Dichloropropene	12	U		
Dibromochloromethane	12	U		
Ethylbenzene	12	U		
Methylene chloride	45	B	U	F01
Styrene	12	U		
Tetrachloroethene	12	U		
Toluene	3	J		
Trans-1,2-Dichloroethene	12	U		
Trans-1,3-Dichloropropene	12	U		
Trichloroethene	12	U		
Vinyl chloride	12	U		
Xylenes (Total)	12	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	347.4	U		
1,2-Dichlorobenzene	347.4	U		
1,3-Dichlorobenzene	347.4	U		
1,4-Dichlorobenzene	347.4	U		
2,2'-Oxybis(1-chloropropane)	347.4	U		
2,4,5-Trichlorophenol	347.4	U		
2,4,6-Trichlorophenol	347.4	U		
2,4-Dichlorophenol	347.4	U		
2,4-Dimethylphenol	347.4	U		
2,4-Dinitrophenol	694.7	U	UJ	C02,C14
2,4-Dinitrotoluene	347.4	U		
2,6-Dinitrotoluene	347.4	U		
2-Chloronaphthalene	347.4	U		
2-Chlorophenol	347.4	U		
2-Methylnaphthalene	347.4	U		
2-Methylphenol	347.4	U		
2-Nitroaniline	694.7	U		
2-Nitrophenol	347.4	U		
3,3'-Dichlorobenzidine	347.4	U		
3-Nitroaniline	694.7	U		
4,6-Dinitro-2-methylphenol	694.7	U		
4-Bromophenyl phenyl ether	347.4	U		
4-Chloro-3-methylphenol	347.4	U		
4-Chloroaniline	347.4	U		
4-Chlorophenyl phenyl ether	347.4	U		
4-Methylphenol	347.4	U		
4-Nitroaniline	694.7	U		

**Site: SWMU 31 Hunter Army Airfield****Sample D08-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
4-Nitrophenol	694.7	U	UJ	C05,C14
Acenaphthene	694.7	U		
Acenaphthylene	347.4	U		
Anthracene	347.4	U		
Benzo(a)anthracene	347.4	U		
Benzo(a)pyrene	347.4	U		
Benzo(b)fluoranthene	347.4	U		
Benzo(g,h,i)perylene	347.4	U		
Benzo(k)fluoranthene	347.4	U		
bis(2-Chloroethoxy)methane	347.4	U		
bis(2-Chloroethyl)ether	347.4	U		
bis(2-Ethylhexyl)phthalate	56.03	J		
Butyl benzyl phthalate	347.4	U		
Carbazole	347.4	U		
Chrysene	347.4	U		
Di-n-butyl phthalate	347.4	U		
Di-n-octyl phthalate	347.4	U		
Dibenzo(a,h)anthracene	347.4	U		
Dibenzofuran	347.4	U		
Diethyl phthalate	347.4	U		
Dimethyl phthalate	347.4	U		
Fluoranthene	347.4	U		
Fluorene	347.4	U		
Hexachlorobenzene	347.4	U	UJ	C05,C14
Hexachlorobutadiene	347.4	U		
Hexachlorocyclopentadiene	347.4	U	UJ	C02,C14
Hexachloroethane	347.4	U		
Indeno(1,2,3-cd)pyrene	347.4	U		
Isophorone	347.4	U		
N-Nitroso-di-n-propylamine	347.4	U		
N-Nitrosodiphenylamine(1)	347.4	U		
Naphthalene	347.4	U		
Nitrobenzene	347.4	U		
Pentachlorophenol	694.7	U		
Phenanthrene	347.4	U		
Phenol	347.4	U		
Pyrene	347.4	U		

**Sample D09-1**

Collection Date: 19990423

Method: SW846 8260B UG/KG

Qualifier

**Compound****Result****Lab****Data****Data Validation Code**

1,1,1-Trichloroethane

11 U

**Site: SWMU 31 Hunter Army Airfield**

**Sample D09-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	11	U	UJ	C01,C04,C14
2-Hexanone	11	U		
4-Methyl-2-pentanone	11	U		
Acetone	8	J		
Benzene	11	U		
Bromodichloromethane	11	U		
Bromoform	11	U		
Bromomethane	11	U		
Carbon disulfide	11	U		
Carbon tetrachloride	11	U		
Chlorobenzene	11	U		
Chloroethane	11	U		
Chloroform	11	U		
Chloromethane	11	U		
Cis-1,2-Dichloroethene	11	U		
Cis-1,3-Dichloropropene	11	U		
Dibromochloromethane	11	U		
Ethylbenzene	11	U		
Methylene chloride	43	B	U	F01
Styrene	11	U		
Tetrachloroethene	11	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	11	U		
Trans-1,3-Dichloropropene	11	U		
Trichloroethene	11	U		
Vinyl chloride	11	U		
Xylenes (Total)	11	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	347.4	U		
1,2-Dichlorobenzene	347.4	U		
1,3-Dichlorobenzene	347.4	U		
1,4-Dichlorobenzene	347.4	U		
2,2'-Oxybis(1-chloropropane)	347.4	U		
2,4,5-Trichlorophenol	347.4	U		
2,4,6-Trichlorophenol	347.4	U		
2,4-Dichlorophenol	347.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D09-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
2,4-Dimethylphenol	347.4	U		
2,4-Dinitrophenol	694.7	U	UJ	C02C14
2,4-Dinitrotoluene	347.4	U		
2,6-Dinitrotoluene	347.4	U		
2-Chloronaphthalene	347.4	U		
2-Chlorophenol	347.4	U		
2-Methylnaphthalene	542			
2-Methylphenol	347.4	U		
2-Nitroaniline	694.7	U		
2-Nitrophenol	347.4	U		
3,3'-Dichlorobenzidine	347.4	U		
3-Nitroaniline	694.7	U		
4,6-Dinitro-2-methylphenol	694.7	U		
4-Bromophenyl phenyl ether	347.4	U		
4-Chloro-3-methylphenol	347.4	U		
4-Chloroaniline	347.4	U		
4-Chlorophenyl phenyl ether	347.4	U		
4-Methylphenol	347.4	U		
4-Nitroaniline	694.7	U		
4-Nitrophenol	694.7	U	UJ	C05,C14
Acenaphthene	40.92	J		
Acenaphthylene	347.4	U		
Anthracene	347.4	U		
Benzo(a)anthracene	59.31	J		
Benzo(a)pyrene	38.45	J		
Benzo(b)fluoranthene	59.44	J		
Benzo(g,h,i)perylene	347.4	U		
Benzo(k)fluoranthene	347.4	U		
bis(2-Chloroethoxy)methane	347.4	U		
bis(2-Chloroethyl)ether	347.4	U		
bis(2-Ethylhexyl)phthalate	54.97	J		
Butyl benzyl phthalate	347.4	U		
Carbazole	347.4	U		
Chrysene	69.1	J		
Di-n-butyl phthalate	347.4	U		
Di-n-octyl phthalate	347.4	U		
Dibenzo(a,h)anthracene	347.4	U		
Dibenzofuran	347.4	U		
Diethyl phthalate	347.4	U		
Dimethyl phthalate	347.4	U		
Fluoranthene	80.94	J		
Fluorene	84.85	J		
Hexachlorobenzene	347.4	U	UJ	C05,C14
Hexachlorobutadiene	347.4	U		
Hexachlorocyclopentadiene	347.4	U	UJ	C02,C14

**Site: SWMU 31 Hunter Army Airfield**

**Sample D09-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Hexachloroethane	347.4	U		
Indeno(1,2,3-cd)pyrene	347.4	U		
Isophorone	347.4	U		
N-Nitroso-di-n-propylamine	347.4	U		
N-Nitrosodiphenylamine(1)	347.4	U		
Naphthalene	118	J		
Nitrobenzene	347.4	U		
Pentachlorophenol	694.7	U		
Phenanthrene	182.1	J		
Phenol	347.4	U		
Pyrene	102	J		

**Sample D10-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	11	U		
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	11	U	UJ	C01,C04,C14
2-Hexanone	11	U		
4-Methyl-2-pentanone	11	U		
Acetone	25			
Benzene	11	U		
Bromodichloromethane	11	U		
Bromoform	11	U		
Bromomethane	11	U		
Carbon disulfide	11	U		
Carbon tetrachloride	11	U		
Chlorobenzene	11	U		
Chloroethane	11	U		
Chloroform	11	U		
Chloromethane	11	U		
Cis-1,2-Dichloroethene	11	U		
Cis-1,3-Dichloropropene	11	U		
Dibromochloromethane	11	U		
Ethylbenzene	11	U		
Methylene chloride	44	B	U	F01
Styrene	11	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D10-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Tetrachloroethene	11	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	11	U		
Trans-1,3-Dichloropropene	11	U		
Trichloroethene	11	U		
Vinyl chloride	11	U		
Xylenes (Total)	11	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	347.4	U		
1,2-Dichlorobenzene	347.4	U		
1,3-Dichlorobenzene	347.4	U		
1,4-Dichlorobenzene	347.4	U		
2,2'-Oxybis(1-chloropropane)	347.4	U		
2,4,5-Trichlorophenol	347.4	U		
2,4,6-Trichlorophenol	347.4	U		
2,4-Dichlorophenol	347.4	U		
2,4-Dimethylphenol	347.4	U		
2,4-Dinitrophenol	694.7	U	UJ	C02,C14
2,4-Dinitrotoluene	347.4	U		
2,6-Dinitrotoluene	347.4	U		
2-Chloronaphthalene	347.4	U		
2-Chlorophenol	347.4	U		
2-Methylnaphthalene	347.4	U		
2-Methylphenol	347.4	U		
2-Nitroaniline	694.7	U		
2-Nitrophenol	347.4	U		
3,3'-Dichlorobenzidine	347.4	U		
3-Nitroaniline	694.7	U		
4,6-Dinitro-2-methylphenol	694.7	U		
4-Bromophenyl phenyl ether	347.4	U		
4-Chloro-3-methylphenol	347.4	U		
4-Chloroaniline	347.4	U		
4-Chlorophenyl phenyl ether	347.4	U		
4-Methylphenol	347.4	U		
4-Nitroaniline	694.7	U		
4-Nitrophenol	694.7	U	UJ	C05,C14
Acenaphthene	694.7	U		
Acenaphthylene	347.4	U		
Anthracene	347.4	U		
Benzo(a)anthracene	347.4	U		
Benzo(a)pyrene	347.4	U		
Benzo(b)fluoranthene	347.4	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D10-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Benzo(g,h,i)perylene	347.4	U		
Benzo(k)fluoranthene	347.4	U		
bis(2-Chloroethoxy)methane	347.4	U		
bis(2-Chloroethyl)ether	347.4	U		
bis(2-Ethylhexyl)phthalate	38.06	J		
Butyl benzyl phthalate	347.4	U		
Carbazole	347.4	U		
Chrysene	347.4	U		
Di-n-butyl phthalate	347.4	U		
Di-n-octyl phthalate	347.4	U		
Dibenzo(a,h)anthracene	347.4	U		
Dibenzofuran	347.4	U		
Diethyl phthalate	347.4	U		
Dimethyl phthalate	347.4	U		
Fluoranthene	347.4	U		
Fluorene	347.4	U		
Hexachlorobenzene	347.4	U	UJ	C05,C14
Hexachlorobutadiene	347.4	U		
Hexachlorocyclopentadiene	347.4	U	UJ	C02,C14
Hexachloroethane	347.4	U		
Indeno(1,2,3-cd)pyrene	347.4	U		
Isophorone	347.4	U		
N-Nitroso-di-n-propylamine	347.4	U		
N-Nitrosodiphenylamine(1)	347.4	U		
Naphthalene	347.4	U		
Nitrobenzene	347.4	U		
Pentachlorophenol	694.7	U		
Phenanthrene	347.4	U		
Phenol	347.4	U		
Pyrene	347.4	U		

**Sample D11-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	12	U	UJ	G01,K01
1,1,2,2-Tetrachloroethane	12	U	UJ	G01
1,1,2-Trichloroethane	12	U	UJ	G01
1,1-Dichloroethane	12	U	UJ	G01
1,1-Dichloroethene	12	U	UJ	G01
1,2-Dichloroethane	12	U	UJ	G01
1,2-Dichloropropane	12	U	UJ	G01,K01
2-Butanone	12	U	UJ	C01,C04,C14

**Site: SWMU 31 Hunter Army Airfield**

**Sample D11-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
2-Hexanone	12	U	UJ	G01
4-Methyl-2-pentanone	12	U	UJ	G01
Acetone	25	J		G01
Benzene	12	U	UJ	G01,K01
Bromodichloromethane	12	U	UJ	G01
Bromoform	12	U	UJ	G01,K01
Bromomethane	12	U	UJ	G01
Carbon disulfide	12	U	UJ	G01
Carbon tetrachloride	12	U	UJ	G01,K01
Chlorobenzene	12	U	UJ	G01
Chloroethane	12	U	UJ	G01
Chloroform	1	J	UJ	G01
Chloromethane	12	U	UJ	G01
Cis-1,2-Dichloroethene	12	U	UJ	G01
Cis-1,3-Dichloropropene	12	U	UJ	G01,K01
Dibromochloromethane	12	U	UJ	G01,K01
Ethylbenzene	20		UJ	G01
Methylene chloride	55	B	U	F01,G01
Styrene	12	U	UJ	G01
Tetrachloroethene	12	U	UJ	G01
Toluene	4	J	J	G01
Trans-1,2-Dichloroethene	12	U	UJ	G01
Trans-1,3-Dichloropropene	12	U	UJ	G01,K01
Trichloroethene	12	U	UJ	G01
Vinyl chloride	12	U	UJ	G01
Xylenes (Total)	76		J	G01

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	3882	U		
1,2-Dichlorobenzene	3882	U		
1,3-Dichlorobenzene	3882	U		
1,4-Dichlorobenzene	3882	U		
2,2'-Oxybis(1-chloropropane)	3882	U		
2,4,5-Trichlorophenol	3882	U		
2,4,6-Trichlorophenol	3882	U		
2,4-Dichlorophenol	3882	U		
2,4-Dimethylphenol	3882	U		
2,4-Dinitrophenol	7765	U	UJ	C02,C14
2,4-Dinitrotoluene	3882	U		
2,6-Dinitrotoluene	3882	U		
2-Chloronaphthalene	3882	U		
2-Chlorophenol	3882	U		
2-Methylnaphthalene	29890			

**Site: SWMU 31 Hunter Army Airfield**

**Sample D11-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
2-Methylphenol	3882	U		
2-Nitroaniline	7765	U		
2-Nitrophenol	3882	U		
3,3'-Dichlorobenzidine	3882	U		
3-Nitroaniline	7765	U		
4,6-Dinitro-2-methylphenol	7765	U		
4-Bromophenyl phenyl ether	3882	U		
4-Chloro-3-methylphenol	3882	U		
4-Chloroaniline	3882	U		
4-Chlorophenyl phenyl ether	3882	U		
4-Methylphenol	3882	U		
4-Nitroaniline	7765	U		
4-Nitrophenol	7765	U	UJ	C05,C14
Acenaphthene	1149	J		
Acenaphthylene	3882	U		
Anthracene	3882	U		
Benzo(a)anthracene	3882	U		
Benzo(a)pyrene	3882	U		
Benzo(b)fluoranthene	3882	U		
Benzo(g,h,i)perylene	3882	U		
Benzo(k)fluoranthene	3882	U		
bis(2-Chloroethoxy)methane	3882	U		
bis(2-Chloroethyl)ether	3882	U		
bis(2-Ethylhexyl)phthalate	3882	U		
Butyl benzyl phthalate	3882	U		
Carbazole	3882	U		
Chrysene	3882	U		
Di-n-butyl phthalate	3882	U		
Di-n-octyl phthalate	3882	U		
Dibenzo(a,h)anthracene	3882	U		
Dibenzofuran	3882	U		
Diethyl phthalate	3882	U		
Dimethyl phthalate	3882	U		
Fluoranthene	3882	U		
Fluorene	2421	J		
Hexachlorobenzene	3882	U	UJ	C02,C14
Hexachlorobutadiene	3882	U		
Hexachlorocyclopentadiene	3882	U	UJ	C02,C14
Hexachloroethane	3882	U		
Indeno(1,2,3-cd)pyrene	3882	U		
Isophorone	3882	U		
N-Nitroso-di-n-propylamine	3882	U		
N-Nitrosodiphenylamine(1)	3882	U		
Naphthalene	7265			
Nitrobenzene	3882	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D11-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Pentachlorophenol	7765	U		
Phenanthrene	5282			
Phenol	3882	U		
Pyrene	3882	U		

**Sample D11-1RE**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	11	U		
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	3	J	J	C01,C04 Initial run sel
2-Hexanone	11	U		Initial run selected
4-Methyl-2-pentanone	11	U		Initial run selected
Acetone	39			Initial run selected
Benzene	11	U		Initial run selected
Bromodichloromethane	11	U		Initial run selected
Bromoform	11	U		Initial run selected
Bromomethane	11	U		Initial run selected
Carbon disulfide	11	U		Initial run selected
Carbon tetrachloride	11	U		Initial run selected
Chlorobenzene	11	U		Initial run selected
Chloroethane	11	U		Initial run selected
Chloroform	1	J		Initial run selected
Chloromethane	11	U		Initial run selected
Cis-1,2-Dichloroethene	11	U		Initial run selected
Cis-1,3-Dichloropropene	11	U		Initial run selected
Dibromochloromethane	11	U		Initial run selected
Ethylbenzene	48			Initial run selected
Methylene chloride	48	B	U	F01 Initial run selecte
Styrene	11	U		Initial run selected
Tetrachloroethene	11	U		Initial run selected
Toluene	4	J		Initial run selected
Trans-1,2-Dichloroethene	11	U		Initial run selected
Trans-1,3-Dichloropropene	11	U		Initial run selected
Trichloroethene	11	U		Initial run selected
Vinyl chloride	11	U		Initial run selected
Xylenes (Total)	190			Initial run selected

**Site: SWMU 31 Hunter Army Airfield**

**Sample D11-1RE**

Collection Date: 19990423

Compound

Result

Qualifier

Lab Data Data Validation Code

**Sample D12-1**

Collection Date: 19990423

**Method: SW846 8260B UG/KG**

Qualifier

Compound

Result

Lab Data

Data Validation Code

1,1,1-Trichloroethane	11	U
1,1,2,2-Tetrachloroethane	11	U
1,1,2-Trichloroethane	11	U
1,1-Dichloroethane	11	U
1,1-Dichloroethene	11	U
1,2-Dichloroethane	11	U
1,2-Dichloropropane	11	U
2-Butanone	11	U
2-Hexanone	11	U
4-Methyl-2-pentanone	11	U
Acetone	10	J
Benzene	11	U
Bromodichloromethane	11	U
Bromoform	11	U
Bromomethane	11	U
Carbon disulfide	11	U
Carbon tetrachloride	11	U
Chlorobenzene	11	U
Chloroethane	11	U
Chloroform	11	U
Chloromethane	11	U
Cis-1,2-Dichloroethene	11	U
Cis-1,3-Dichloropropene	11	U
Dibromochloromethane	11	U
Ethylbenzene	11	U
Methylene chloride	35	B
Styrene	11	U
Tetrachloroethene	11	U
Toluene	1	J
Trans-1,2-Dichloroethene	11	U
Trans-1,3-Dichloropropene	11	U
Trichloroethene	11	U
Vinyl chloride	11	U
Xylenes (Total)	11	U

**Method: SW846 8270C UG/KG**

Qualifier

Compound

Result

Lab Data

Data Validation Code

**Site: SWMU 31 Hunter Army Airfield**

**Sample D12-1**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	343.8	U		
1,2-Dichlorobenzene	343.8	U		
1,3-Dichlorobenzene	343.8	U		
1,4-Dichlorobenzene	343.8	U		
2,2'-Oxybis(1-chloropropane)	343.8	U		
2,4,5-Trichlorophenol	343.8	U		
2,4,6-Trichlorophenol	343.8	U		
2,4-Dichlorophenol	343.8	U		
2,4-Dimethylphenol	343.8	U		
2,4-Dinitrophenol	687.5	U	UJ	C02,C14
2,4-Dinitrotoluene	343.8	U		
2,6-Dinitrotoluene	343.8	U		
2-Chloronaphthalene	343.8	U		
2-Chlorophenol	343.8	U		
2-Methylnaphthalene	343.8	U		
2-Methylphenol	343.8	U		
2-Nitroaniline	687.5	U		
2-Nitrophenol	343.8	U		
3,3'-Dichlorobenzidine	343.8	U		
3-Nitroaniline	687.5	U		
4,6-Dinitro-2-methylphenol	687.5	U		
4-Bromophenyl phenyl ether	343.8	U		
4-Chloro-3-methylphenol	343.8	U		
4-Chloroaniline	343.8	U		
4-Chlorophenyl phenyl ether	343.8	U		
4-Methylphenol	343.8	U		
4-Nitroaniline	687.5	U		
4-Nitrophenol	687.5	U	UJ	C05,C14
Acenaphthene	687.5	U		
Acenaphthylene	343.8	U		
Anthracene	343.8	U		
Benzo(a)anthracene	110	J		
Benzo(a)pyrene	75.64	J		
Benzo(b)fluoranthene	103.4	J		
Benzo(g,h,i)perylene	53.69	J		
Benzo(k)fluoranthene	35.24	J		
bis(2-Chloroethoxy)methane	343.8	U		
bis(2-Chloroethyl)ether	343.8	U		
bis(2-Ethylhexyl)phthalate	84.58	J		
Butyl benzyl phthalate	343.8	U		
Carbazole	343.8	U		
Chrysene	142.2	J		
Di-n-butyl phthalate	343.8	U		
Di-n-octyl phthalate	343.8	U		
Dibenzo(a,h)anthracene	343.8	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D12-1**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Dibenzofuran	343.8	U		
Diethyl phthalate	343.8	U		
Dimethyl phthalate	343.8	U		
Fluoranthene	244.8	J		
Fluorene	38.21	J		
Hexachlorobenzene	343.8	U	UJ	C05,C14
Hexachlorobutadiene	343.8	U		
Hexachlorocyclopentadiene	343.8	U	UJ	C02,C14
Hexachloroethane	343.8	U		
Indeno(1,2,3-cd)pyrene	43.43	J		
Isophorone	343.8	U		
N-Nitroso-di-n-propylamine	343.8	U		
N-Nitrosodiphenylamine(1)	343.8	U		
Naphthalene	343.8	U		
Nitrobenzene	343.8	U		
Pentachlorophenol	687.5	U		
Phenanthrene	203.6	J		
Phenol	343.8	U		
Pyrene	291.8	J		

**Sample D12-1DUP**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	11	U		
1,1,2,2-Tetrachloroethane	11	U		
1,1,2-Trichloroethane	11	U		
1,1-Dichloroethane	11	U		
1,1-Dichloroethene	11	U		
1,2-Dichloroethane	11	U		
1,2-Dichloropropane	11	U		
2-Butanone	11	U		
2-Hexanone	11	U		
4-Methyl-2-pentanone	11	U		
Acetone	14			
Benzene	11	U		
Bromodichloromethane	11	U		
Bromoform	11	U		
Bromomethane	11	U		
Carbon disulfide	11	U		
Carbon tetrachloride	11	U		
Chlorobenzene	11	U		
Chloroethane	11	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D12-1DUP**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Chloroform	11	U		
Chloromethane	11	U		
Cis-1,2-Dichloroethene	11	U		
Cis-1,3-Dichloropropene	11	U		
Dibromochloromethane	11	U		
Ethylbenzene	11	U		
Methylene chloride	42	B		
Styrene	11	U		
Tetrachloroethene	11	U		
Toluene	2	J		
Trans-1,2-Dichloroethene	11	U		
Trans-1,3-Dichloropropene	11	U		
Trichloroethene	11	U		
Vinyl chloride	11	U		
Xylenes (Total)	11	U		

**Method: SW846 8270C UG/KG**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	343.8	U		
1,2-Dichlorobenzene	343.8	U		
1,3-Dichlorobenzene	343.8	U		
1,4-Dichlorobenzene	343.8	U		
2,2'-Oxybis(1-chloropropane)	343.8	U		
2,4,5-Trichlorophenol	343.8	U		
2,4,6-Trichlorophenol	343.8	U		
2,4-Dichlorophenol	343.8	U		
2,4-Dimethylphenol	343.8	U		
2,4-Dinitrophenol	687.5	U	UJ	C14
2,4-Dinitrotoluene	343.8	U		
2,6-Dinitrotoluene	343.8	U		
2-Chloronaphthalene	343.8	U		
2-Chlorophenol	343.8	U		
2-Methylnaphthalene	343.8	U		
2-Methylphenol	343.8	U		
2-Nitroaniline	687.5	U		
2-Nitrophenol	343.8	U		
3,3'-Dichlorobenzidine	343.8	U		
3-Nitroaniline	687.5	U		
4,6-Dinitro-2-methylphenol	687.5	U		
4-Bromophenyl phenyl ether	343.8	U		
4-Chloro-3-methylphenol	343.8	U		
4-Chloroaniline	343.8	U		
4-Chlorophenyl phenyl ether	343.8	U		
4-Methylphenol	343.8	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample D12-1DUP**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
4-Nitroaniline	687.5	U		
4-Nitrophenol	687.5	U	UJ	C05
Acenaphthene	687.5	U		
Acenaphthylene	343.8	U		
Anthracene	343.8	U		
Benzo(a)anthracene	79.86	J		
Benzo(a)pyrene	59.31	J		
Benzo(b)fluoranthene	75.42	J		
Benzo(g,h,i)perylene	46.87	J		
Benzo(k)fluoranthene	343.8	U		
bis(2-Chloroethoxy)methane	343.8	U		
bis(2-Chloroethyl)ether	343.8	U		
bis(2-Ethylhexyl)phthalate	88.12	J		
Butyl benzyl phthalate	343.8	U		
Carbazole	343.8	U		
Chrysene	94.32	J		
Di-n-butyl phthalate	343.8	U		
Di-n-octyl phthalate	343.8	U		
Dibenzo(a,h)anthracene	343.8	U		
Dibenzofuran	343.8	U		
Diethyl phthalate	343.8	U		
Dimethyl phthalate	343.8	U		
Fluoranthene	130.4	J		
Fluorene	343.8	U		
Hexachlorobenzene	343.8	U		
Hexachlorobutadiene	343.8	U		
Hexachlorocyclopentadiene	343.8	U	UJ	C14
Hexachloroethane	343.8	U		
Indeno(1,2,3-cd)pyrene	35.98	J		
Isophorone	343.8	U		
N-Nitroso-di-n-propylamine	343.8	U		
N-Nitrosodiphenylamine(1)	343.8	U		
Naphthalene	343.8	U		
Nitrobenzene	343.8	U		
Pentachlorophenol	687.5	U		
Phenanthrene	89.45	J		
Phenol	343.8	U		
Pyrene	174.5	J		

**Site: SWMU 31 Hunter Army Airfield**

**Sample DER-1**

Collection Date: 19990422

**Compound**

**Result**

**Qualifier**

Lab Data Data Validation Code

**Sample DER-1**

Collection Date: 19990422

**Method: SW846 8260B UG/L**

**Compound**

**Result**

**Qualifier**

Lab Data Data Validation Code

1,1,1-Trichloroethane

0.5

**U**

1,1,2,2-Tetrachloroethane

0.5

**U**

1,1,2-Trichloroethane

0.5

**U**

1,1-Dichloroethane

0.5

**U**

1,1-Dichloroethene

0.5

**U**

1,2-Dichloroethane

0.5

**U**

1,2-Dichloropropane

0.5

**U**

2-Butanone

2

**UJ**

**C14**

2-Hexanone

2

**U**

4-Methyl-2-pentanone

2

**U**

Acetone

2

**UJ**

**C14**

Benzene

0.5

**U**

Bromodichloromethane

0.5

**U**

Bromoform

0.5

**U**

Bromomethane

0.5

**U**

Carbon disulfide

0.5

**U**

Carbon tetrachloride

0.5

**U**

Chlorobenzene

0.5

**U**

Chloroethane

0.5

**U**

Chloroform

0.5

**U**

Chloromethane

0.5

**U**

Cis-1,2-Dichloroethene

0.5

**U**

Cis-1,3-Dichloropropene

0.5

**U**

Dibromochloromethane

0.5

**U**

Ethylbenzene

0.5

**U**

Methylene chloride

0.5

**B** **UJ**

**C02**

Styrene

0.5

**U**

Tetrachloroethene

0.5

**U**

Toluene

0.5

**U**

Trans-1,2-Dichloroethene

0.5

**U**

Trans-1,3-Dichloropropene

0.5

**U**

Trichloroethene

0.5

**U**

Vinyl chloride

0.5

**U**

Xylenes (Total)

0.5

**U**

**Method: SW846 8270C UG/L**

**Qualifier**

**Compound**

**Result**

Lab Data

Data Validation Code

1,2,4-Trichlorobenzene

9.8

**U**

**Site: SWMU 31 Hunter Army Airfield**

**Sample DER-1**

**Collection Date: 19990422**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2-Dichlorobenzene	9.8	U		
1,3-Dichlorobenzene	9.8	U		
1,4-Dichlorobenzene	9.8	U		
2,2'-Oxybis(1-chloropropane)	9.8	U		
2,4,5-Trichlorophenol	9.8	U		
2,4,6-Trichlorophenol	9.8	U		
2,4-Dichlorophenol	9.8	U		
2,4-Dimethylphenol	9.8	U		
2,4-Dinitrophenol	19.61	U	UJ	C14
2,4-Dinitrotoluene	9.8	U		
2,6-Dinitrotoluene	9.8	U		
2-Chloronaphthalene	9.8	U		
2-Chlorophenol	9.8	U		
2-Methylnaphthalene	9.8	U		
2-Methylphenol	9.8	U		
2-Nitroaniline	19.61	U		
2-Nitrophenol	9.8	U		
3,3'-Dichlorobenzidine	9.8	U		
3-Nitroaniline	19.61	U		
4,6-Dinitro-2-methylphenol	19.61	U		
4-Bromophenyl phenyl ether	9.8	U		
4-Chloro-3-methylphenol	9.8	U		
4-Chloroaniline	9.8	U		
4-Chlorophenyl phenyl ether	9.8	U		
4-Methylphenol	9.8	U		
4-Nitroaniline	19.61	U		
4-Nitrophenol	19.61	U		
Acenaphthene	19.61	U		
Acenaphthylene	9.8	U		
Anthracene	9.8	U		
Benzo(a)anthracene	9.8	U		
Benzo(a)pyrene	9.8	U		
Benzo(b)fluoranthene	9.8	U		
Benzo(g,h,i)perylene	9.8	U		
Benzo(k)fluoranthene	9.8	U		
bis(2-Chloroethoxy)methane	9.8	U		
bis(2-Chloroethyl)ether	9.8	U		
bis(2-Ethylhexyl)phthalate	2.16	J		
Butyl benzyl phthalate	9.8	U		
Carbazole	9.8	U		
Chrysene	9.8	U		
Di-n-butyl phthalate	9.8	U		
Di-n-octyl phthalate	9.8	U		
Dibenzo(a,h)anthracene	9.8	U		
Dibenzofuran	9.8	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample DER-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Diethyl phthalate	9.8	U		
Dimethyl phthalate	9.8	U		
Fluoranthene	9.8	U		
Fluorene	9.8	U		
Hexachlorobenzene	9.8	U		
Hexachlorobutadiene	9.8	U		
Hexachlorocyclopentadiene	9.8	U	UJ	C14
Hexachloroethane	9.8	U		
Indeno(1,2,3-cd)pyrene	9.8	U		
Isophorone	9.8	U		
N-Nitroso-di-n-propylamine	9.8	U		
N-Nitrosodiphenylamine(1)	9.8	U		
Naphthalene	9.8	U		
Nitrobenzene	9.8	U		
Pentachlorophenol	19.61	U		
Phenanthrene	9.8	U		
Phenol	9.8	U		
Pyrene	9.8	U		

**Sample DGW-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	0.5	U		
1,1,2,2-Tetrachloroethane	0.5	U		
1,1,2-Trichloroethane	0.5	U		
1,1-Dichloroethane	0.5	U		
1,1-Dichloroethene	0.5	U		
1,2-Dichloroethane	0.5	U		
1,2-Dichloropropane	0.5	U		
2-Butanone	2	U	UJ	C01,C02,C14
2-Hexanone	2	U		
4-Methyl-2-pentanone	2	U		
Acetone	2	U	UJ	C01,C14
Benzene	0.5	U		
Bromodichloromethane	0.5	U		
Bromoform	0.5	U		
Bromomethane	0.5	U		
Carbon disulfide	0.5	U		
Carbon tetrachloride	0.5	U		
Chlorobenzene	0.5	U		
Chloroethane	0.5	U		
Chloroform	0.5	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample DGW-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
Chloromethane	0.5	U		
Cis-1,2-Dichloroethene	0.5	U		
Cis-1,3-Dichloropropene	0.5	U		
Dibromochloromethane	0.5	U		
Ethylbenzene	0.5	U		
Methylene chloride	0.8	B	UJ	F01,C02
Styrene	0.5	U		
Tetrachloroethene	0.5	U		
Toluene	0.5	U		
Trans-1,2-Dichloroethene	0.5	U		
Trans-1,3-Dichloropropene	0.5	U		
Trichloroethene	0.5	U		
Vinyl chloride	0.5	U		
Xylenes (Total)	0.5	U		

**Method: SW846 8270C UGL**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2,4-Trichlorobenzene	9.52	U		
1,2-Dichlorobenzene	9.52	U		
1,3-Dichlorobenzene	9.52	U		
1,4-Dichlorobenzene	9.52	U		
2,2'-Oxybis(1-chloropropane)	9.52	U		
2,4,5-Trichlorophenol	9.52	U		
2,4,6-Trichlorophenol	9.52	U		
2,4-Dichlorophenol	9.52	U		
2,4-Dimethylphenol	9.52	U		
2,4-Dinitrophenol	19.05	U	UJ	C14
2,4-Dinitrotoluene	9.52	U		
2,6-Dinitrotoluene	9.52	U		
2-Chloronaphthalene	9.52	U		
2-Chlorophenol	9.52	U		
2-Methylnaphthalene	9.52	U		
2-Methylphenol	9.52	U		
2-Nitroaniline	19.05	U		
2-Nitrophenol	9.52	U		
3,3'-Dichlorobenzidine	9.52	U		
3-Nitroaniline	19.05	U		
4,6-Dinitro-2-methylphenol	19.05	U		
4-Bromophenyl phenyl ether	9.52	U		
4-Chloro-3-methylphenol	9.52	U		
4-Chloroaniline	9.52	U		
4-Chlorophenyl phenyl ether	9.52	U		
4-Methylphenol	9.52	U		
4-Nitroaniline	19.05	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample DGW-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
4-Nitrophenol	19.05	U		
Acenaphthene	19.05	U		
Acenaphthylene	9.52	U		
Anthracene	9.52	U		
Benzo(a)anthracene	9.52	U		
Benzo(a)pyrene	9.52	U		
Benzo(b)fluoranthene	9.52	U		
Benzo(g,h,i)perylene	9.52	U		
Benzo(k)fluoranthene	9.52	U		
bis(2-Chloroethoxy)methane	9.52	U		
bis(2-Chloroethyl)ether	9.52	U		
bis(2-Ethylhexyl)phthalate	9.52	U		
Butyl benzyl phthalate	9.52	U		
Carbazole	9.52	U		
Chrysene	9.52	U		
Di-n-butyl phthalate	9.52	U		
Di-n-octyl phthalate	9.52	U		
Dibenzo(a,h)anthracene	9.52	U		
Dibenzofuran	9.52	U		
Diethyl phthalate	9.52	U		
Dimethyl phthalate	9.52	U		
Fluoranthene	9.52	U		
Fluorene	9.52	U		
Hexachlorobenzene	9.52	U		
Hexachlorobutadiene	9.52	U		
Hexachlorocyclopentadiene	9.52	UJ		C14
Hexachloroethane	9.52	U		
Indeno(1,2,3-cd)pyrene	9.52	U		
Isophorone	9.52	U		
N-Nitroso-di-n-propylamine	9.52	U		
N-Nitrosodiphenylamine(1)	9.52	U		
Naphthalene	9.52	U		
Nitrobenzene	9.52	U		
Pentachlorophenol	19.05	U		
Phenanthrene	9.52	U		
Phenol	9.52	U		
Pyrene	9.52	U		

**Sample DTB-1**

Collection Date: 19990422

Method: SW846 8260B UG/L

Qualifier

**Compound**

**Result**

Lab Data

Data Validation Code

1,1,1-Trichloroethane

0.5 U

**Site: SWMU 31 Hunter Army Airfield**

**Sample DTB-1**

Collection Date: 19990422

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,2,2-Tetrachloroethane	0.5	U		
1,1,2-Trichloroethane	0.5	U		
1,1-Dichloroethane	0.5	U		
1,1-Dichloroethene	0.5	U		
1,2-Dichloroethane	0.5	U		
1,2-Dichloropropane	0.5	U		
2-Butanone	2	U	UJ	C14
2-Hexanone	3			
4-Methyl-2-pentanone	2	J		
Acetone	2	U	UJ	C14
Benzene	0.5	U		
Bromodichloromethane	0.5	U		
Bromoform	0.5	U		
Bromomethane	0.5	U		
Carbon disulfide	0.5	U		
Carbon tetrachloride	0.5	U		
Chlorobenzene	0.5	U		
Chloroethane	0.5	U		
Chloroform	0.5	U		
Chloromethane	0.5	U		
Cis-1,2-Dichloroethene	0.5	U		
Cis-1,3-Dichloropropene	0.5	U		
Dibromochloromethane	0.5	U		
Ethylbenzene	0.5	U		
Methylene chloride	0.9	B	UJ	C02
Styrene	0.5	U		
Tetrachloroethene	0.5	U		
Toluene	0.5	U		
Trans-1,2-Dichloroethene	0.5	U		
Trans-1,3-Dichloropropene	0.5	U		
Trichloroethene	0.5	U		
Vinyl chloride	0.5	U		
Xylenes (Total)	0.5	U		

**Sample DTB-2**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	0.5	U		
1,1,2,2-Tetrachloroethane	0.5	U		
1,1,2-Trichloroethane	0.5	U		
1,1-Dichloroethane	0.5	U		
1,1-Dichloroethene	0.5	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample DTB-2**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,2-Dichloroethane	0.5	U		
1,2-Dichloropropane	0.5	U		
2-Butanone	2	U	UJ	C14
2-Hexanone	2	U		
4-Methyl-2-pentanone	2	U		
Acetone	2	U	UJ	C14
Benzene	0.5	U		
Bromodichloromethane	0.5	U		
Bromoform	0.5	U		
Bromomethane	0.5	U		
Carbon disulfide	0.5	U		
Carbon tetrachloride	0.5	U		
Chlorobenzene	0.5	U		
Chloroethane	0.5	U		
Chloroform	0.5	U		
Chloromethane	0.5	U		
Cis-1,2-Dichloroethene	0.5	U		
Cis-1,3-Dichloropropene	0.5	U		
Dibromochloromethane	0.5	U		
Ethylbenzene	0.5	U		
Methylene chloride	0.9	B	J	C02
Styrene	0.5	U		
Tetrachloroethene	0.5	U		
Toluene	0.5	U		
Trans-1,2-Dichloroethene	0.5	U		
Trans-1,3-Dichloropropene	0.5	U		
Trichloroethene	0.5	U		
Vinyl chloride	0.5	U		
Xylenes (Total)	0.5	U		

**Sample DWATER-TNK**

Collection Date: 19990423

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
1,1,1-Trichloroethane	25	U		
1,1,2,2-Tetrachloroethane	25	U		
1,1,2-Trichloroethane	25	U		
1,1-Dichloroethane	25	U		
1,1-Dichloroethene	25	U		
1,2-Dichloroethane	25	U		
1,2-Dichloropropane	25	U		
2-Butanone	120	U	UJ	C14
2-Hexanone	120	U		

**Site: SWMU 31 Hunter Army Airfield**

**Sample DWATER-TNK**

**Collection Date: 19990423**

Compound	Result	Qualifier		
		Lab	Data	Data Validation Code
4-Methyl-2-pentanone	120	U		
Acetone	120	U	UJ	C14
Benzene	25	U		
Bromodichloromethane	25	U		
Bromoform	25	U		
Bromomethane	25	U		
Carbon disulfide	25	U		
Carbon tetrachloride	25	U		
Chlorobenzene	25	U		
Chloroethane	25	U		
Chloroform	25	U		
Chloromethane	25	U		
Cis-1,2-Dichloroethene	25	U		
Cis-1,3-Dichloropropene	25	U		
Dibromochloromethane	25	U		
Ethylbenzene	25	U		
Methylene chloride	24	JB	J	C02
Styrene	25	U		
Tetrachloroethene	25	U		
Toluene	25	U		
Trans-1,2-Dichloroethene	25	U		
Trans-1,3-Dichloropropene	25	U		
Trichloroethene	25	U		
Vinyl chloride	25	U		
Xylenes (Total)	110			

## DATA VALIDATION REASON CODES

### Organic, Inorganic, and Radiological Analytical Data

#### Holding Times

- A01 Extraction holding times were exceeded.
- A02 Extraction holding times were grossly exceeded.
- A03 Analysis holding times were exceeded.
- A04 Analysis holding times were grossly exceeded.
- A05 Samples were not preserved properly.
- A06 Professional judgement was used to qualify the data.

#### GC/MS Tuning

- B01 Mass calibration was in error, even after applying expanded criteria.
- B02 Mass calibration was not performed every 12 hours.
- B03 Mass calibration did not meet ion abundance criteria.
- B04 Professional judgement was used to qualify the data.

#### Initial/Continuing Calibration - Organics

- C01 Initial calibration RRF was < 0.05.
- C02 Initial calibration RSD was > 30%.
- C03 Initial calibration sequence was not followed as required.
- C04 Continuing calibration RRF was < 0.05.
- C05 Continuing calibration %D was > 25%.
- C06 Continuing calibration was not performed at the required frequency.
- C07 Resolution criteria were not met.
- C08 RPD criteria were not met.
- C09 RSD criteria were not met.
- C10 Retention time of compounds was outside windows.
- C11 Compounds were not adequately resolved.
- C12 Breakdown of endrin or DDT was > 20%.
- C13 Combined breakdown of endrin/DDT was > 30%.
- C14 Professional judgement was used to qualify the data.

### Initial/Continuing Calibration - Inorganics

- D01 ICV or CCV were not performed for every analyte.
- D02 ICV recovery was above the upper control limit.
- D03 ICV recovery was below the lower control limit.
- D04 CCV recovery was above the upper control limit.
- D05 CCV recovery was below the lower control limit.
- D06 Standard curve was not established with the minimum number of standards.
- D07 Instrument was not calibrated daily or each time the instrument was set up.
- D08 Correlation coefficient was <0.995.
- D09 Mid range cyanide standard was not distilled.
- D10 Professional judgement was used to qualify the data.

### ICP and Furnace Requirements

- E01 Interference check sample recovery was outside the control limit.
- E02 Duplicate injections were outside the control limit.
- E03 Post digestion spike recovery was outside the control limit.
- E04 MSA was required but not performed.
- E05 MSA correlation coefficient was <0.995.
- E06 MSA spikes were not at the correct concentration.
- E07 Serial dilution criteria were not met.
- E08 Professional judgement was used to qualify the data.

### Blanks

- F01 Sample data were qualified as a result of the method blank.
- F02 Sample data were qualified as a result of the field blank.
- F03 Sample data were qualified as a result of the equipment rinsate.
- F04 Sample data were qualified as a result of the trip blank.
- F05 Gross contamination exists.
- F06 Concentration of the contaminant was detected at a level below the CRQL.
- F07 Concentration of the contaminant was detected at a level less than the action limit, but greater than the CRQL.
- F08 Concentration of the contaminant was detected at a level that exceeds the action level.
- F09 No laboratory blanks were analyzed.
- F10 Blank had a negative value >2×'s the IDL.
- F11 Blanks were not analyzed at required frequency.
- F12 Professional judgement was used to qualify the data.

### Surrogate/Radiological Chemical Recovery

- G01 Surrogate/radiological chemical recovery was above the upper control limit.
- G02 Surrogate/radiological chemical recovery was below the lower control limit.
- G03 Surrogate recovery was < 10%.
- G04 Surrogate recovery was zero.
- G05 Surrogate/radiological chemical recovery data was not present.
- G06 Professional judgement was used to qualify the data.
- G07 Radiological chemical recovery was < 20%.
- G08 Radiological chemical recovery was > 150%.

### Matrix Spike/Matrix Spike Duplicate (MS/MSD)

- H01 MS/MSD recovery was above the upper control limit.
- H02 MS/MSD recovery was below the lower control limit.
- H03 MS/MSD recovery was < 10%.
- H04 MS/MSD pairs exceed the RPD limit.
- H05 No action was taken on MS/MSD results.
- H06 Professional judgement was used to qualify the data.
- H07 Radiological MS/MSD recovery was < 20%.
- H08 Radiological MS/MSD recovery was > 160%.
- H09 Radiological MS/MSD samples were not analyzed at the required frequency.

### Matrix Spike

- I01 MS recovery was above the upper control limit.
- I02 MS recovery was below the lower control limit.
- I03 MS recovery was < 30%.
- I04 No action was taken on MS data.
- I05 Professional judgement was used to qualify the data.

### Laboratory Duplicate

- J01 Duplicate RPD/radiological duplicate error ratio (DER) was outside the control limit.
- J02 Duplicate sample results were > 5 × the CRDL.
- J03 Duplicate sample results were < 5 × the CRDL.
- J04 Professional judgement was used to qualify the data.
- J05 Duplicate was not analyzed at the required frequency.

### Internal Area Summary

- K01 Area counts were outside the control limits.
- K02 Extremely low area counts or performance was exhibited by a major drop off.
- K03 IS retention time varied by more than 30 seconds.
- K04 Professional judgement was used to qualify the data.

### Pesticide Cleanup Checks

- L01 10% recovery was obtained during either check.
- L02 Recoveries during either check were > 120%.
- L03 GPC Cleanup recoveries were outside the control limits.
- L04 Florisil cartridge cleanup recoveries were outside the control limits.
- L05 Professional judgement was used to qualify the data.

### Target Compound Identification

- M01 Incorrect identifications were made.
- M02 Qualitative criteria were not met.
- M03 Cross contamination occurred.
- M04 Confirmatory analysis was not performed.
- M05 No results were provided.
- M06 Analysis occurred outside 12 hr GC/MS window.
- M07 Professional judgement was used to qualify the data.
- M08 The %D between the two pesticide/PCB column checks was > 25%.

### Compound Quantitation and Reported CRQLs

- N01 Quantitation limits were affected by large off-scale peaks.
- N02 MDLs reported by the laboratory exceeded corresponding CRQLs.
- N03 Professional judgement used to qualify the data.

### Tentatively Identified Compounds (TICs)

- O01 Compound was suspected laboratory contaminant and was not detected in the blank.
- O02 TIC result was not above 10× the level found in the blank.
- O03 Professional judgement was used to qualify analytical data.

### Laboratory Control Samples (LCSs)

- P01 LCS recovery was above upper control limit.
- P02 LCS recovery was below lower control limit.
- P03 LCS recovery was < 50%.
- P04 No action was taken on the LCS data.
- P05 LCS was not analyzed at required frequency.
- P06 Radiological LCS recovery was < 50% for aqueous samples; < 40% for solid samples.
- P07 Radiological LCS recovery was > 150% for aqueous samples; > 160% for solid samples.
- P08 Professional judgement was used to qualify the data.

### Field Duplicate

- Q01 Field duplicate RPDs were > 30% for waters and/or > 50% for soils.
- Q02 Radiological field duplicate error ratio (DER) was outside the control limit.
- Q03 Duplicate sample results were > 5 × the CRDL.
- Q04 Duplicate sample results were < 5 × the CRDL.

### Radiological Calibration

- R01 Efficiency calibration criteria were not met.
- R02 Energy calibration criteria were not met.
- R03 Resolution calibration criteria were not met.
- R04 Background determination criteria were not met.
- R05 Quench curve criteria were not met.
- R06 Absorption curve criteria were not met.
- R07 Plateau curve criteria were not met.
- R08 Professional judgement was used to qualify the data.

### Radiological Calibration Verification

- S01 Efficiency verification criteria were not met.
- S02 Energy verification criteria were not met.
- S03 Resolution verification criteria were not met.
- S04 Background verification criteria were not met.
- S05 Cross-talk verification criteria were not met.
- S06 Professional judgement was used to qualify the data.

### Radionuclide Quantitation

- T01 Detection limits were not met.
- T02 Analytical uncertainties were not met and/or not reported.
- T03 Inappropriate aliquot sizes were used.
- T04 Professional judgement was used to qualify the data.

### System Performance

- V01 High background levels or a shift in the energy calibration were observed.
- V02 Extraneous peaks were observed.
- V03 Loss of resolution was observed.
- V04 Peak-tailing or peak splitting that may result in inaccurate quantitation were observed.
- V05 Professional judgement was used to qualify the data.

## Data Qualifiers for Organic Analytical Data

### Laboratory Qualifiers

- U —** Indicates that the compound was analyzed for but not detected. The sample quantitation limit (SQL) must be corrected for dilution. For a soil/sediment sample, the value must also be corrected for percent moisture.
- J —** Indicates an estimated value. This qualifier is used either when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the SQL but greater than zero.
- N —** Indicates presumptive evidence of a compound. This qualifier is used only for TICs, where the identification is based on a mass spectral library search.
- P —** Used for pesticide/PCB target analytes when there is greater than 25% difference for detected concentrations between the two GC columns.
- C —** Applies to pesticide results where the identification has been confirmed by gas chromatography/mass spectrometry (GC/MS). If GC/MS confirmation was attempted but was unsuccessful, this qualifier is not applied; instead a laboratory-defined qualifier is used.
- B —** Used when the compound is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and alerts the data user to take appropriate action. This qualifier is used for TICs as well as for positively identified target compounds.
- E —** Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D —** Identifies all compounds identified in an analysis at a secondary dilution factor. This qualifier alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.
- A —** Indicates that a TIC was a suspected aldol-condensation product.
- X —** Indicates that other specific qualifiers were required to properly define the results. If used, the qualifier must be fully described and such description must be included in the Sample Data Summary Package and SDG narrative.

## Data Qualifiers for Organic Analytical Data (continued)

### Validation Qualifiers

- U — Indicates that the compound was analyzed for but was not detected above the reported SQL.
- UJ — Indicates that the compound was not detected above the reported SQL. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the compound in the sample.
- J — Indicates that the compound was positively identified. The associated numerical value is the approximate concentration of the compound in the sample.
- N — The analysis indicates the presence of a compound for which there is presumptive evidence to make a "tentative identification."
- NJ — Indicates that the analysis indicates the presence of a compound that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- R — Indicates that the sample results for the compound are unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the compound cannot be verified.
- = — Indicates that the value has been validated and that the compound has been positively identified and the associated concentration value is accurate.

## Data Qualifiers for Inorganic Analytical Data

### Laboratory Qualifiers

- B — Indicates that the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
- U — Indicates that the analyte was analyzed for but not detected.
- E — Used when the reported value was estimated because of the presence of interference.
- M — Indicates that the duplicate injection precision was not met.
- N — Indicates that the spiked sample recovery was not within control limits.
- S — Indicates that the reported value was determined by the method of standard additions (MSA).
- W — Used when the post-digestion spike for furnace atomic absorption analysis was not within control limits (85 - 115%), while sample absorbance was less than 50% of spike absorbance.
- \* — Indicates that the duplicate analysis was not within control limits.
- + — Indicates that the correlation coefficient for the MSA was less than 0.995.

### Validation Qualifiers

- U — Indicates that the analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ — Indicates that the analyte was not detected above the reported SQL. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- J — Indicates that the analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- R — Indicates that the sample results for the analyte are unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- = — Indicates that the value has been validated and that the analyte has been positively identified and the associated concentration value is accurate.

## Data Qualifiers for Radiochemical Analytical Data

### Laboratory Qualifiers

- < — The numerical value reported was less than the MDA.
- N — The sample results were qualified to denote poor spike recovery.
- \* — The sample results were qualified to denote poor duplicate results.

### Validation Qualifiers

- U — Indicates that the radionuclide was analyzed for but was not detected above the reported sample quantitation limit.
- J — Indicates that the radionuclide was positively identified. The associated numerical value is the approximate concentration of the radionuclide in the sample.
- N — The analysis indicates the presence of a radionuclide for which there was presumptive evidence to make a "tentative identification."
- DL — The detection limit requirements were not met. The data quality objectives may not be met.
- UI — Indicates that there was uncertain identification for gamma spectroscopy. The radionuclide peaks are detected but fail to meet the positive identification criteria.
- R — Indicates that the sample results for the radionuclide are unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the radionuclide cannot be verified.
- = — Indicates that the value has been validated and that the radionuclide has been positively identified and the associated concentration value is accurate.

## Data Qualifiers for Wet Chemistry Analytical Data

### Laboratory Qualifiers

- U —** Indicates that the analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J —** Indicates that the analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

### Validation Qualifiers

- U —** Indicates that the analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ —** Indicates that the analyte was not detected above the reported SQL. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- J —** Indicates that the analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- R —** Indicates that the sample results for the analyte are unusable due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- —** Indicates that the value has been validated and that the analyte has been positively identified and the associated concentration value is accurate.

## **Laboratory Sample Type Abbreviations**

REG – Regular analysis with no dilution

TIC REG – Tentatively identified compound in a regular analysis

DIL – Sample analyzed at secondary dilution factor

REA – Reanalysis