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42231

Site:
Break: 3.12
Other:

FINAL
Ecological Risk Assessment
Steps 1, 2, and 3
Brown's Dump Site
Jacksonville, Duval County, Florida

U.S. EPA Work Assignment No. 007-RSBD-A496
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INTRODUCTION

This screening-level ecological risk assessment (SERA) presents an evaluation of the analytical data generated during investigations performed between July 1997 and December 1999, as it relates to ecological risk at the Brown's Dump Site, Jacksonville, Duval County, Florida. The methodology used in this assessment will be based on and will comply with the guidance available from USEPA Region 4 for conducting ecological risk assessments (USEPA 1998). This SERA also follows the latest guidance described in the *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (USEPA 1997). The guidance outlines eight steps to complete the ecological risk assessment process at Superfund sites. This SERA completes Steps 1 and 2 of the Process Document:

- Step 1 - Screening - Level Problem Formulation and Ecological Effects Evaluation
- Step 2 - Screening - Level Exposure Estimate and Risk Calculation
- Step 3 - Baseline Risk Assessment Problem Formulation

When the conclusions of the initial two steps of the process, the SERA, conclude that further action is warranted, Step 3 of the process, Baseline Risk Assessment Problem Formulation, is initiated. Step 3 lays the groundwork for conducting a Final ERA (FERA). This document also presents Step 3 of the process since Steps 1 and 2 indicated a need for further investigation.

SERAs are simplified risk assessments that can be conducted with limited data by assuming values for parameters which are lacking. At the screening-level, it is important to minimize the chances of concluding that there is no risk when, in fact, a risk may exist. Therefore, for exposure and toxicity parameters for which site-specific information may be lacking, assumed values should always be biased toward overestimating risk. This ensures that sites that have an ecological risk are further evaluated and provides a defensible conclusion for the elimination of contaminants and exposure pathways based on negligible risk.

The SERA will provide the risk manager with information sufficient to make one of the following three determinations:

1. There is adequate information to conclude that ecological risks are negligible and therefore, there is no need for remedial activities on the basis of ecological risk.

2. The information is not adequate to fully evaluate potential ecological risks and more data are needed before a decision concerning the need for remedial activities can be made. At this point, the next step in the ecological risk assessment process would be to continue on to Steps 4 through 8.

3. Ecological risks determined through Steps 1 and 2 can be managed by implementation of a specified control mechanism (a remedy) and continuation of the ecological risk assessment process would not provide any additional value.

1. SCREENING-LEVEL PROBLEM FORMULATION AND ECOLOGICAL EFFECTS EVALUATION (STEP 1)

1.1 Introduction

The screening-level problem formulation and ecological effects evaluation is part of the initial ecological risk screening assessment. For this initial step, it is likely that site-specific information for determining the nature and extent of contamination and the characterization of ecological receptors is limited. This step includes all the functions of problem formulation (more fully defined in Step 3 of the process) and ecological effects evaluation; however, these functions are performed at a screening-level. The results of this step are used in conjunction with the exposure estimates in the preliminary risk calculation in Step 2.

1.2 Screening-Level Problem Formulation

For the screening-level problem formulation, the SERA develops an understanding of the site based on the environmental setting of the site, suspected contaminants present, the fate and transport mechanisms of these contaminants, mechanisms of ecotoxicity for these chemicals, potential ecological receptors, and exposure pathways. Based on the information gathered to describe these elements, assessment and measurement endpoints are selected as a basis for defining risk.

1.2.1 Environmental Setting and Contaminants at the Site

To begin the screening-level problem formulation, a rudimentary understanding of the environmental setting of the site and potential chemical contamination is required.

1.2.1.1 Environmental Setting

The Brown's Dump Site is the site of a former dumping area located on a 50-acre tract of land north of West 33rd Street and south of Moncrief Creek in the City of Jacksonville, Florida. The geographical coordinates at the center of the site are 30°22′00″ north latitude and 81°41′10″ west longitude (Figure 1-1). Situated on the site are an elementary school and several single and multi-family residences.

The school is covered by grasses, pavement, three buildings and a parking lot. The parking lot on the eastern portion of the school property is unpaved and ash was observed at the surface. A garden is located between two school buildings. The playground is intended to be grassed; however, the grass is absent or dead in many locations. Bare areas of the playground were covered with topsoil and seeded but the grass has not been re-established in these areas.

Figure 1-1
Site Location Map

Brown's Dump Site
Ecological Risk Assessment
City of Jacksonville, Duval County, Florida

Scale: 1" = 2,000'
Source: USGS 7.5 Minute Topographical Map, Jacksonville, Fl. Quad (1994)

A site visit to characterize the site ecology was conducted by Black & Veatch's subcontractor, Khafra, on December 16, 1999. An aerial photograph, presented in Figure 1-2, shows the location of ecological habitats, streams, and other key ecological features observed on the site. The ecological assessment field data sheets completed during the field visit are presented in Appendix C.

There are three areas of potentially viable ecological habitat on the site and an offsite area that could be impacted by site-related contaminants:

- Developed areas associated with the school
- Open field north of the school
- Forested area north and west of the open field
- Moncrief Creek (off-site)

Species of wildlife that are potentially present (or observed) and dominant species of vegetation in these habitat at the site are presented in Table 1-1.

Developed Areas Associated with the School

The majority of the site is developed with buildings, parking areas, lawns, playgrounds, and residences. These areas are heavily impacted by human activity. These areas are shown in Photographs 1 and 2.

Several songbirds were seen and heard during the site investigation in the vicinity of this area. No other wildlife or their sign were observed in the developed areas of the site.

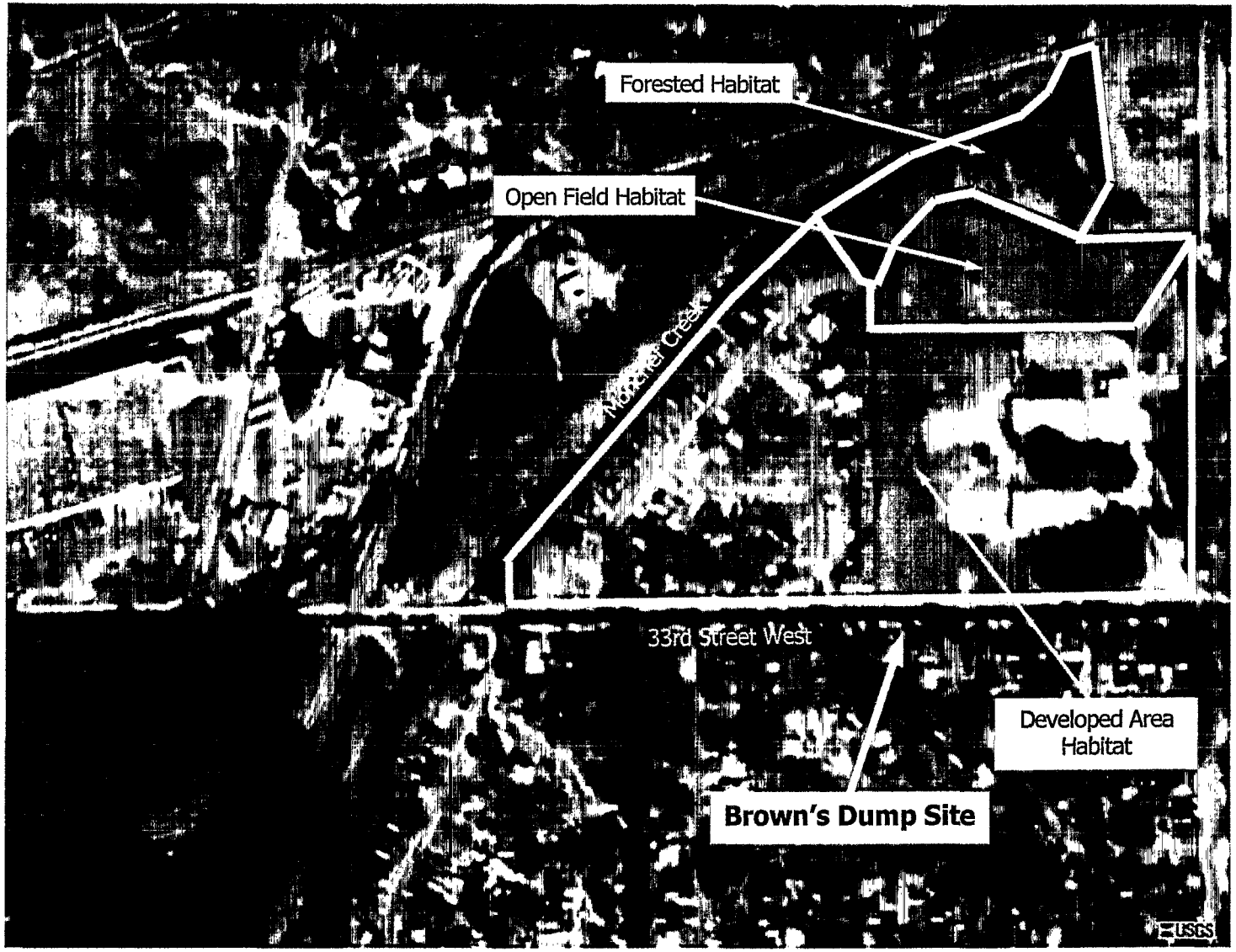
Open Field

The open field area is located north of the elementary school between Pearce Street and the cul-de-sac on Bessie Circle West. This is an area of maintained lawn enclosed within a 6-foot high chain-link fence. While the fence restricts human traffic, dogs and cats observed in this area suggest that wildlife could enter the area. The topography of this portion of the site is generally flat; however, a broad shallow swale runs from east to west across the center of this area and directs surface water runoff through a forested area and into Moncrief Creek. The field and swale are shown in Photograph 3, Appendix A.

During the field investigation, it was also noted that the open field habitats provided little usable habitat for wildlife. This habitat is dominated entirely by maintained lawn grasses and provides no cover or foraging area for wildlife communities. Several songbirds were heard during the site investigation and domestic pets (a dog and a cat) were observed in the open field area. No other wildlife or their sign were observed in the open field area.

Forested Area

A forested area ranging in thickness from 1 to 300 feet was located between the open field and Moncrief Creek. This forested area was dominated by mature trees and a



	Screening-Level Ecological Risk Assessment
Brown's Dump Site Ecological Risk Assessment City of Jacksonville, Duval County, Florida	Figure 1-2 Aerial Photograph Showing Ecological Habitats

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Table 1-1
Wildlife Species Potentially Present or Observed at the Site, by Habitat

Species	Trophic Level	Developed Areas	Open Field	Forested Area	Moncrief Creek
Dominant Vegetation					
Various grasses	Producer	O	O	O	
Duck potato	Producer				O
Pickerelweed	Producer				O
Saw palmetto	Producer			O	
Longleaf pine	Producer			O	
Myrtle oak	Producer			O	
Spanish moss	Producer			O	
Slash pine	Producer			O	
Various oaks	Producer			O	
Wiregrasses	Producer			O	
Bristly starbur	Producer		O	O	
Partridge pea	Producer		O	O	
Amphibians					
Two-toed Amphiuma	Insectivore/Piscivore				P
Florida Cricket Frog	Insectivore				P
Southern Toad	Insectivore/Piscivore			P	P
Eastern Narrowmouth Toad	Insectivore/Piscivore			P	P
Green Treefrog	Insectivore			P	P
Squirrel Treefrog	Insectivore			P	P
Southern Spring Peeper	Insectivore			P	
Little Grass Frog	Insectivore				P
Upland Chorus Frog	Insectivore				P
Bullfrog	Insectivore/Piscivore				P
Bronze Frog	Insectivore/Piscivore				P
River Frog	Insectivore/Piscivore				P
Southern Leopard Frog	Insectivore/Piscivore				P
Eastern Spadefoot Toad	Insectivore/Piscivore			P	
Reptiles					
Green Anole	Insectivore/Carnivore	P	P	P	P
Six-lined Racerunner	Insectivore/Carnivore	P	P	P	
Northern Mole Skink	Insectivore/Carnivore			P	
Southeastern Five-lined Skink	Insectivore/Carnivore			P	P
Broadhead Skink	Insectivore/Carnivore	P	P	P	P
Eastern Slender Glass Lizard	Insectivore/Carnivore	P	P	P	
Southern Fence Lizard	Insectivore/Carnivore			P	
Ground Skink	Insectivore/Carnivore	P	P	P	P
Florida Cottonmouth	Insectivore/Carnivore/Piscivore				P
Southern Racer	Carnivore	P	P	P	
Southern Ringneck Snake	Insectivore/Carnivore/Piscivore			P	P
Corn Snake	Carnivore			P	
Yellow Rat Snake	Carnivore			P	
Kingsnake	Insectivore/Carnivore/Piscivore			P	P
Eastern Coral Snake	Insectivore/Carnivore/Piscivore			P	P
Florida Watersnake	Insectivore/Carnivore/Piscivore				P
Rough Green Snake	Insectivore/Carnivore/Piscivore			P	P
Florida Brown Snake	Insectivore/Carnivore/Piscivore			P	P
Eastern Garter Snake	Insectivore/Carnivore/Piscivore			P	P
Florida Snapping Turtle	Carnivore/Piscivore				P
Florida Mud Turtle	Carnivore/Piscivore				P
Florida Cooter	Carnivore/Piscivore				P
Stinkpot	Carnivore/Piscivore				P
Florida Box Turtle	Carnivore/Piscivore			P	P
Eastern Box Turtle	Carnivore/Piscivore			P	P
American Alligator	Insectivore/Carnivore/Piscivore				P
Birds					
Anhinga	Piscivore				P
Great Blue Heron	Piscivore				P

Table 1-1
Wildlife Species Potentially Present or Observed at the Site, by Habitat

Species	Trophic Level	Developed Areas	Open Field	Forested Area	Moncrief Creek
Great Egret	Piscivore				P
Snowy Egret	Piscivore				P
Little Blue Heron	Piscivore				P
Cattle Egret	Insectivore	P	P		
Green Heron	Piscivore				P
Black-crowned Night-Heron	Piscivore				P
Yellow-crowned Night-Heron	Piscivore				P
Black Vulture	Carnivore	P	P	P	
Turkey Vulture	Carnivore	P	P	P	
Osprey	Piscivore				P
Mississippi Kite	Carnivore/piscivore			P	P
Bald Eagle	Piscivore				P
Sharp-shinned Hawk	Carnivore	P	P	P	P
Cooper's Hawk	Carnivore	P	P	P	P
Red-shouldered Hawk	Carnivore	P	P	P	P
Red-tailed Hawk	Carnivore	P	P	P	P
American Kestrel	Carnivore	P	P	P	
Wild Turkey	Insectivore/herbivore			P	
Killdeer	Insectivore	P	P	P	
American Woodcock	Insectivore	P	P	P	
Laughing Gull	Omnivore				P
Ring-billed Gull	Omnivore				P
Herring Gull	Omnivore				P
Caspian Tern	Omnivore				P
Royal Tern	Omnivore				P
Rock Dove	Insectivore/herbivore	P	P	P	
Mourning Dove	Insectivore/herbivore	P	P	P	
Common Ground-Dove	Insectivore/herbivore	P	P	P	
Yellow-billed Cuckoo	Insectivore	P	P	P	
Eastern Screech-Owl	Carnivore	P	P	P	
Barred Owl	Carnivore	P	P	P	
Common Nighthawk	Insectivore	P	P	P	
Belted Kingfisher	Piscivore			P	P
Red-bellied Woodpecker	Insectivore			P	
Yellow-bellied Sapsucker	Insectivore			P	
Downy Woodpecker	Insectivore			P	
Pileated Woodpecker	Insectivore			P	
Eastern Wood-Pewee	Insectivore			P	
Great Crested Flycatcher	Insectivore			P	
Blue Jay	Omnivore	P	P	P	
American Crow	Omnivore	P	P	P	
Fish Crow	Omnivore	P	P	P	P
Carolina Chickadee	Insectivore/herbivore	P	P	P	
Tufted Titmouse	Insectivore/herbivore	P	P	P	
Carolina Wren	Insectivore	P	P	P	
Blue-gray Gnatchatcher	Insectivore	P	P	P	
Eastern Bluebird	Insectivore/herbivore	P	P	P	
American Robin	Insectivore/herbivore	P	P	P	
Gray Catbird	Insectivore/herbivore	P	P	P	
Northern Mockingbird	Insectivore/herbivore	P	P	P	
Brown thrasher	Insectivore/herbivore			P	
European Starling	Insectivore/herbivore	P	P	P	
Loggerhead Shrike	Insectivore/carnivore	P	P	P	
Northern Parula	Insectivore			P	
Yellow-rumped Warbler	Insectivore			P	
Palm Warbler	Insectivore			P	
Ovenbird	Insectivore			P	
Northern Waterthrush	Insectivore			P	P

Table 1-1
Wildlife Species Potentially Present or Observed at the Site, by Habitat

Species	Trophic Level	Developed Areas	Open Field	Forested Area	Moncrief Creek
Louisiana Waterthrush	Insectivore			P	P
Summer Tanager	Insectivore/herbivore			P	
Northern Cardinal	Insectivore/herbivore			P	
Rufous-sided Towhee	Insectivore/herbivore			P	
Chipping Sparrow	Insectivore/herbivore	P	P	P	
Savannah Sparrow	Insectivore/herbivore	P	P	P	
Song Sparrow	Insectivore/herbivore	P	P	P	
Swamp Sparrow	Insectivore/herbivore				P
White-throated Sparrow	Insectivore/herbivore			P	
White-crowned Sparrow	Insectivore/herbivore	P	P	P	
Red-winged Blackbird	Insectivore				P
Eastern Meadowlark	Insectivore/herbivore	P	P		
Boat-tailed Grackle	Insectivore/herbivore	P	P	P	
Common Grackle	Insectivore/herbivore	P	P	P	
American Goldfinch	Insectivore/herbivore	P	P	P	
House Sparrow	Insectivore/herbivore	P	P	P	
Mammals					
Opossum	Omnivore			P	P
Southeastern Shrew	Insectivore	P	P	P	
Least Shrew	Insectivore	P	P	P	
Shorttail Shrew	Insectivore	P	P	P	
Eastern Mole	Insectivore	P	P		
Raccoon	Omnivore			P	P
River Otter	Piscivore			P	P
Mink	Piscivore			P	P
Striped Skunk	Omnivore			P	
Gray Fox	Omnivore			P	
Bobcat	Carnivore			P	
Eastern Gray Squirrel	Herbivore	P	P	P	
Southern Flying Squirrel	Herbivore			P	
Eastern Harvest Mouse	Herbivore	P	P	P	
Cotton Mouse	Herbivore	P	P	P	
Hispid Cotton Rat	Herbivore	P	P	P	
Eastern Cottontail	Herbivore	P	P	P	
Whitetail Deer	Herbivore			P	
Fish					
Ladyfish	Insectivore			P	
Mosquitofish	Insectivore			P	
Killifish Species	Insectivore			P	
Bluegill	Insectivore			P	
Inland Silverside	Insectivore			P	
Largemouth Bass	Insectivore/Piscivore			P	
Sailfin Molly	Insectivore			P	
Longnose Gar	Insectivore/Piscivore			P	
Yellow Bullhead	Insectivore/Piscivore			P	
Channel Catfish	Insectivore/Piscivore			P	
Black Crappie	Insectivore			P	
Warmouth	Insectivore			P	
Spotted Sunfish	Insectivore			P	
Redear Sunfish	Insectivore			P	
Redbreast Sunfish	Insectivore			P	
Tilapia Species	Insectivore			P	

O - Observed at site
P - Potentially present at site

dense understory in most areas. Adjacent to the JEA Electrical Substation, a 15-foot area had been cleared of trees and shrubs with the stumps/stems left in place. This area is shown in Photograph 4, Appendix A. The forested area to the west of the open field has a more open understory and also supports an herbaceous community. The broad swale from the open field areas runs through this forested area before cascading

down the bank of Moncrief Creek. This area is shown in Photograph 5, Appendix A. The forested area provides a fairly dense canopy over the section of Moncrief Creek flowing along the northern boundary of the site. The forested area is a relatively small area surrounded entirely by industrial and residential uses and is physically separated from larger areas by roads, railroads, parking lots, and buildings. Several songbirds were heard during the site investigation. No other wildlife or their sign were observed in the open field area.

Moncrief Creek

Moncrief Creek is a non-tidal stream that marks the northern extent of the site and flows from southwest to northeast past the site. On the opposite bank of the creek are railroad tracks of the Seaboard Coastline Railroad, approximately 15 feet up a shrub-covered bank. This Creek has a partial cover of overhanging trees along the southern bank; however, the northern bank, along the railroad, is generally exposed. The banks of this creek are steep, range in height from 5 to 15 feet, and show signs of erosion including scouring and undercutting. Areas at the base of the slope support emergent wetland vegetation. These areas are shown in Photograph 6, Appendix A. The creek is approximately 12 feet wide and has areas of sandy and gravelly substrate under 1 foot of slow-moving water. At the northern boundary of the site the stream exits the site through a large culvert under the railroad tracks. A small pool has formed at the entrance to this culvert. This pool is approximately 2 feet deep. This area is shown in Photograph 7, Appendix A After exiting the site, Moncrief Creek flows 2 miles to the northeast where it discharges into Trout River. From this point, Trout River flows east 2 miles where it discharges into St. John's River.

During the field investigation, it was noted that there was significant streambank erosion, embeddedness of stream sediments, lack of significant overhanging vegetation, and low water flow in Moncrief Creek. Fish and some benthic invertebrates were observed in the stream. Given the relatively short distance between the site and Trout River (2 miles) and the lack of any significant obstructions in the area, anadromous fish could utilize Moncrief Creek during their life cycles. No specific information was available to confirm or rule out this possibility. No other wildlife species were observed using this area.

Threatened and Endangered Species

Threatened or endangered species were not observed during previous site visits. The Florida manatee (*Trichechus manatus*), a state and federally protected endangered species, are known to be present at several locations in the St. John's River, approximately four miles downstream from the site. No records of any other threatened or endangered species were found on or near the site based on an inquiry to the Florida

Natural Areas Inventory (FNAI). Threatened or endangered species that may potentially be present at the site are presented in Table 1-2.

Table 1-2
Potentially Present Species of Threatened or Endangered Wildlife
Brown's Dump Site

Mammals	Birds	Reptiles	Fish
Grey bat Indiana bat Florida manatee Florida panther	Bald eagle Peregrine falcon Florida scrub jay Wood stork Bachman's warbler Kirtland's warbler Ivory-billed woodpecker Red-cockaded woodpecker	American alligator Eastern indigo snake	Shortnose sturgeon

1.2.1.2 Contaminants at the Site

From 1949 to 1953, the site operated as a landfill that accepted ash from the City of Jacksonville municipal solid waste incinerator. When the incinerator was not functioning, the landfill accepted municipal wastes. The site was operated as a hog farm before and after the site was used for dumping until the elementary school was built in 1953. A 2-acre section at the northeast corner of the site was also acquired by the Jacksonville Electric Authority for a substation.

A preliminary assessment (PA) was conducted at the site in 1985 and the PA concluded that further action was necessary. In November 1985, a site screening investigation (SSI) was conducted which included samples of surface and subsurface soil, sediment, groundwater, and surface water. Elevated levels of lead were detected in soil and sediment samples.

USEPA's Technical Assistance Team collected samples of surface soil and surface water in 1995. Elevated levels of lead were detected in these samples. In November of 1995, a Contamination Assessment Report (CAR) was prepared for the City of Jacksonville by EMCON Corporation. The CAR included collection of 62 soil borings, groundwater samples from 8 shallow monitoring wells, and sediment and surface water samples. Based on the CAR, several interim measures were recommended to limit human health risk at the site.

Historical data of ash produced at other incinerator sites indicate the presence of arsenic, mercury, and lead. Inadequate burn temperatures may have also produced dioxins. Waste incinerators typically generate lead, arsenic, dioxins, benzo(a)pyrene, beryllium, and furans.

EPA/START personnel collected 16 surface soil samples, 4 groundwater samples, 4 sediment samples, and 4 surface water samples, including background samples at the site during the week of July 7, 1997. These samples were analyzed for Target Analyte List (TAL) inorganics, and Target Compound List (TCL) organic compounds including volatile organics, semivolatile organics, pesticides, polychlorinated biphenyls (PCBs), dioxins, and furans by an EPA-approved laboratory under the EPA Contract Laboratory Program (CLP). This sampling event was part of an Expanded Site Investigation (ESI).

The findings of this SERA are based solely on the data presented in the ESI. Analytical data results are included in Appendix B of this report. Locations for all of these samples are shown on Figure 1-3.

Surface Soils

Surface soil samples (16) were collected at various locations throughout the site. In general, metals, polynuclear aromatic hydrocarbons (PAHs), pesticides, PCBs, dioxins, and furans were detected in these surface soil samples. The metals, PAHs, dioxins, and furans are expected to be present based on the history of the waste disposed of at the site. Pesticides and PCBs could be from waste materials disposed of at the site or from maintenance activities in the area. Presumptive evidence of lead, 4,4-DDD, beta-BHC, dieldrin, and total hexachlorodibenzodioxin was noted in several surface soil samples. A detailed list of the detected contaminants and concentrations are presented in Table 1-3.

Subsurface Soils

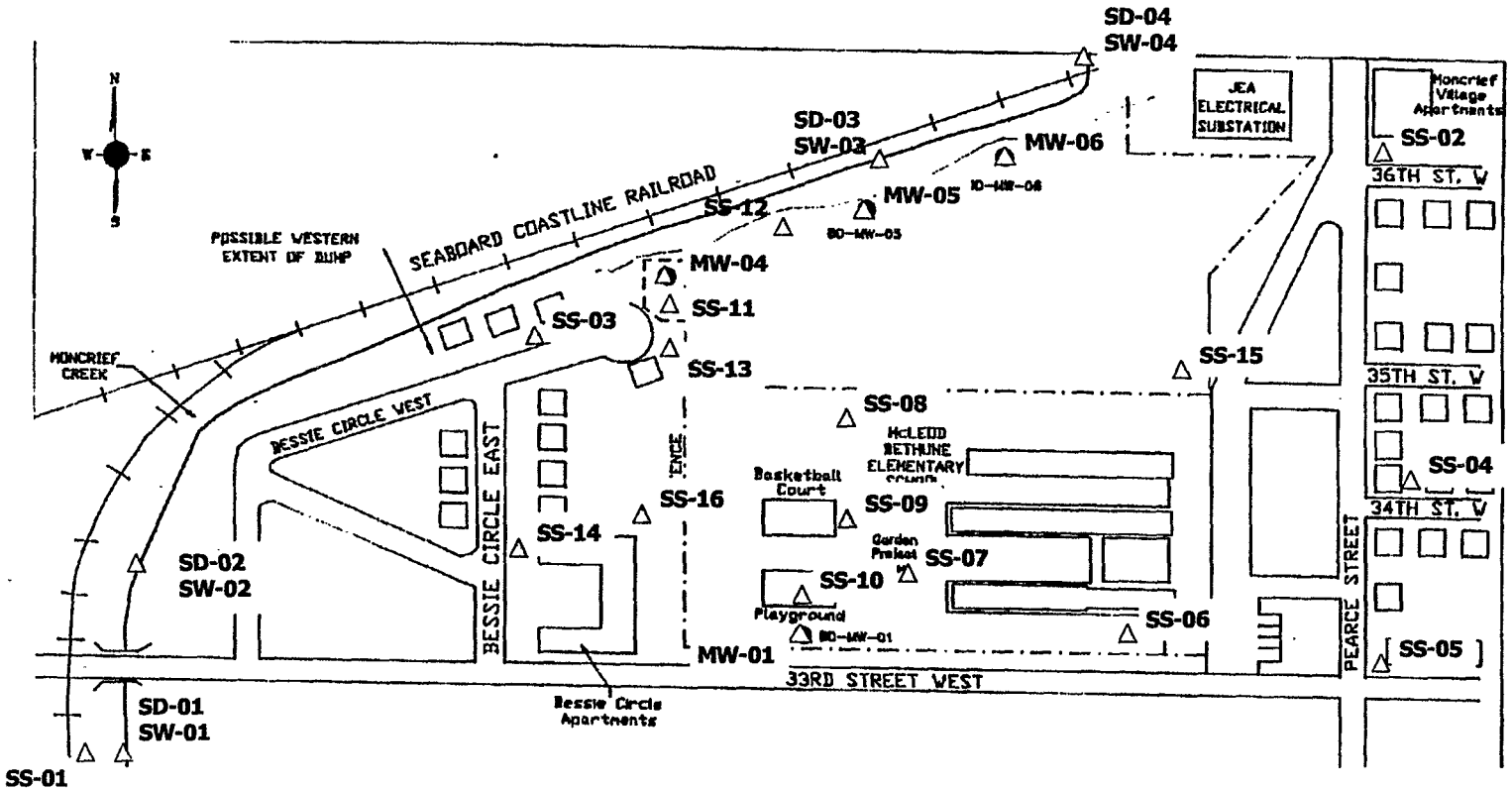
Subsurface soils are those soils deeper than 2 feet. In general, there is little exposure risk for ecological receptors to subsurface soils; however, contamination in subsurface soils can impact groundwater which, in turn, can recharge and contaminate surface waters. Subsurface soils were not collected during the ESI and are not necessary for assessing ecological risks.

Sediment

Sediment samples (4) were collected from the substrate in Moncrief Creek. Sediment samples collected from Moncrief Creek indicated the presence of metals, cyanide, pesticides, and PAHs. The metals and PAHs are expected to be present based on the history of the waste disposed of at the site. Pesticides and cyanide could be from waste materials disposed of at the site as well. Presumptive evidence of lead and dieldrin was noted in two sediment samples. A detailed list of detected contaminants and concentrations from sediments along Moncrief Creek are presented in Table 1-4.

Surface Water

Surface water samples were collected in four locations along Moncrief Creek. Metals were detected in surface water; no organic compounds were detected. Metals are expected to be present based on the history of the waste disposed of at the site. A detailed list of detected contaminants and concentrations from surface water from Moncrief Creek are presented in Table 1-5.



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Screening-Level Ecological Risk Assessment

Brown's Dump Site
Ecological Risk Assessment
City of Jacksonville, Duval County, Florida

Figure 1-3
Sample Location Map

Table 1-3
Ecological Screening Values for Contaminants Detected in Surface Soils
Brown's Dump Site

Analyte	BDSS-01	BDSS-02	BDSS-03	BDSS-04	BDSS-05	BDSS-06	BDSS-07	BDSS-08	BDSS-09	BDSS-10	BDSS-11 (FA)	BDSS-12 (FA)	BDSS-13 (FA)	BDSS-14	BDSS-15 (OF)	BDSS-16	MAX	EPA Region IV Ecological Screening Values for Soil	Hazard Quotient	Further Evaluation?
Inorganics (mg/KG)																				
Aluminum	1100	2300	2400	1800	1200	830	1300	2100	1100	990	4500	5000	3300	1900	5500	1600	5500	50	110.0	Yes
Antimony	ND	11J	2.9J	ND	ND	1.4J	ND	3.3J	ND	2J	21J	19J	32J	6.8J	11J	ND	32	3.5	9.1	Yes
Arsenic	3J	5.6J	4.1J	2.4J	ND	ND	ND	5.1J	ND	ND	18	35	11	ND	15	ND	35	10	3.5	Yes
Barium	28	160	140	56	24	18	36	110	4.1	10	590	1200	400	84	550	93	1200	165	7.3	Yes
Cadmium	ND	2.1	2	1.4	0.45J	0.27J	0.68J	1.9	ND	0.14J	8.8	7.9	5.3	1.1	8.1	1.5	8.8	1.6	5.5	Yes
Calcium	5200	4300	13000	4200	2400	1300	630	1200	650	4600	18000	6800	9000	2200	8400	3600	18000	NA	-	Yes
Chromium	3.5J	11J	14J	15J	4.7J	3.8J	6.6J	15J	1.7J	3.7J	58J	79J	140J	11J	57J	15J	140	0.4	350.0	Yes
Cobalt	0.69J	1.8J	1.9J	0.77J	0.52J	0.5J	0.83J	2.1J	ND	ND	7.5J	14	5J	1J	9.1J	1.5J	14	20	0.7	No
Copper	12	83	67	46	40	29	33	120	2.4J	9.9	360	4100	240	38	420	52	4100	40	102.5	Yes
Cyanide	ND	0.56	0.74	0.57	ND	ND	1.3	2.8	0.61	ND	1.1	0.68	2.6	ND	14	2.8	14	5	2.8	Yes
Iron	9800J	13000J	8300J	5500J	3500J	4100J	9100J	17000J	420J	1800J	56000	110000J	29000J	8800J	79000J	11000J	110000	200	550.0	Yes
Lead	22J	950J	370J	200J	100J	130J	150J	380J	5J	51J	1800JN	9100JN	1900JN	460J	1200JN	180J	9100	50	182.0	Yes
Manganese	43J	140J	89	110J	57J	67J	65J	150J	4.7J	22J	470	790J	260J	98J	590J	110J	790	100	7.9	Yes
Magnesium	220J	580J	740J	240J	200J	120J	200J	220J	ND	220J	1700	4900	1100	210	720	340	4900	NA	-	Yes
Mercury (Total)	ND	0.12	0.21	0.17	0.33	ND	ND	0.22	ND	ND	5.6	0.24	0.41	0.24	0.95	0.36	5.6	0.1	56.0	Yes
Nickel	1.4J	9.7	8.3J	4.4J	3.7J	5.1J	4.2J	12	ND	2.6J	41	100	24	4J	44	7.2J	100	30	3.3	Yes
Potassium	130J	130J	290J	86J	80J	76J	96J	140J	ND	ND	560	530	320J	150J	210J	160J	560	NA	-	Yes
Silver	0.37J	0.97J	0.9J	0.45J	0.3J	ND	ND	1.1J	ND	ND	4.3	4.4	2.7	0.47J	4.6	ND	4.6	2	2.3	Yes
Sodium	75J	34	70	36J	36J	ND	52	35J	46J	30	76	330	86	41J	120	50J	330	NA	-	Yes
Vanadium	5.4J	8.6J	8.4J	6.7J	4J	6.8J	5.4J	5.2J	1.8J	2.5J	30	16	18	52	21	6.5J	52	2	26.0	Yes
Zinc	37	1700	690	390	130	100	200	630	17	76	3800	2800	2700	230	2200	340	3800	50	76.0	Yes
Semi-Volatiles/Extractables (ug/KG)																				
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	500J	ND	ND	ND	ND	49J	ND	500	20000	0.03	No
Carbazole	ND	50J	ND	ND	ND	ND	48J	ND	ND	810J	ND	ND	ND	ND	110J	ND	810	NA	-	Yes
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	470J	ND	ND	ND	ND	ND	ND	470	NA	-	Yes
Phenanthrene	ND	370	ND	40J	ND	ND	320J	45J	160J	5600J	100J	310J	ND	39J	900	ND	5600	100	56.0	Yes
Anthracene	ND	67J	ND	ND	ND	ND	38J	48J	ND	800J	ND	55	ND	ND	71J	ND	800	100	8.0	Yes
Fluoranthene	ND	1200	57J	78J	41J	ND	540	72J	260J	7200J	240J	380	92J	88J	2000	ND	7200	100	72.0	Yes
Pyrene	ND	850J	85J	94J	44J	ND	440J	82J	170J	4100J	240J	470J	95J	70J	2000J	ND	4100	100	41.0	Yes
Benzo(a)anthracene	ND	540	ND	56J	ND	ND	260J	46J	120J	2100J	180J	250J	ND	ND	690	ND	2100	NA	-	Yes
Chrysene	ND	470	49J	51J	ND	ND	220J	44J	97J	2300J	140J	190J	57J	43J	730	ND	2300	NA	-	Yes
Bis(2-ethylhexyl)pthalate	ND	ND	ND	ND	ND	470J	ND	ND	ND	1200J	ND	ND	ND	ND	500	670	1200	100	12.0	Yes
Benzo(b/k)fluoranthene	ND	830J	120J	77J	39J	ND	370J	60J	170J	3500J	270J	290J	110J	87J	1300J	ND	3500	NA	-	Yes
Benzo(a)pyrene	ND	450	64J	41J	ND	ND	210J	ND	83J	1900J	160J	170J	62J	ND	740	ND	1900	100	19.0	Yes
Indeno(1,2,3-cd)pyrene	ND	220J	ND	ND	ND	ND	110J	ND	ND	1100J	77J	110J	ND	ND	380J	ND	1100	NA	-	Yes
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	150J	ND	150	NA	-	Yes
Benzo(g,h,i)perylene	ND	230	57	ND	ND	ND	110	ND	ND	1000	98	120	43	ND	440	ND	1000	NA	-	Yes
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	40	ND	ND	ND	ND	ND	ND	ND	40	50	0.8	No
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	120	ND	ND	ND	ND	ND	ND	120	100	1.2	Yes
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	320	ND	ND	ND	ND	ND	ND	320	NA	-	Yes
Acenapthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47	ND	47	NA	-	Yes
Pesticides/PCBs (ug/KG)																				
4,4-DDE	ND	9.4	20	110	ND	ND	ND	ND	ND	ND	270	ND	ND	ND	ND	ND	270	2.5	108.0	Yes
4,4-DDD	ND	ND	ND	24	ND	ND	ND	ND	ND	ND	41	ND	ND	ND	ND	2.7JN	41	2.5	16.4	Yes
4,4-DDT	ND	ND	ND	73	ND	ND	ND	ND	ND	ND	99	ND	ND	ND	ND	ND	99	2.5	39.6	Yes
Alpha-chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	ND	ND	ND	13	100	0.1	No
beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.81JN	0.81	1	0.8	No
Dieldrin	ND	ND	ND	ND	8.9	1.8J	5.4	ND	ND	ND	ND	2.2J	ND	ND	59	4.4	59	0.5	118.0	Yes
Endrin	ND	7.9JN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.9	1	7.9	Yes
Endrin Aldehyde	ND	ND	ND	ND	0.87J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.87	1	0.9	No
Gamma-chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	8.4	ND	4	ND	14	100	0.1	No
Heptachlor	ND	ND	ND	ND	ND	ND	1.1J	ND	ND	ND	ND	1.6J	ND	ND	ND	0.44	1.6	100	0.016	No
PCB 1254	58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	58	20	2.9	Yes
PCB 1260	ND	ND	ND	ND	ND	84	280	120	ND	350	500	33J	800	ND	1400	ND	1400	20	70.0	Yes
Dioxin/Furan (ng/KG)																				
Tetrachlorodibenzodioxin (total)	4.8J	9J	57J	4.3J	2.9J	1.4J	9.7J	14J	ND	12J	260J	20J	300J	8.9J	58J	14J	300	NA	-	Yes
Pentachlorodibenzodioxin (total)	ND	11J	82J	ND	1.3J	ND	9.5J	11J	ND	ND	260J	19J	350J	6.1J	11J	9.1J	350	NA	-	Yes
Hexachlorodibenzodioxin (total)	15J	150J	580J	140J	49J	21J	28J	150J	ND	ND	2300J	130J	1900JN	63J	290J	100J	2300	NA	-	Yes
Heptachlorodibenzodioxin (total)	33J	580J	2200J	540J	1200J	100J	200J	710J	11J	54J	4600J	350J	6000J	390J	1800J	770J	6000	NA	-	Yes
Octachlorodibenzodioxin	130	1600	7300J	1700	11000J	490	530	2500J	24	170	17000	980	23000	1500	6200	3500J	23000	NA	-	Yes
Tetrachlorodibenzofuran (total)	11J	80J	130J	38J	16J	24J	38J	51J	1.2J	51J	410J	160J	650J	13J	410J	32J	650	NA	-	Yes
Pentachlorodibenzofuran (total)	3.6J	240J	240J	170J	84J	79J	99J	230J	13J	160J	1100J	210J	1200J	85J	1400J	95J	1400	NA	-	Yes
Hexachlorodibenzofuran (total)	4.6J	220J	130J	110J	48J	36J	49J	89J	5.3J	57J	780J	97J	930J	99J	200J	120J	930	NA	-	Yes
Heptachlorodibenzofuran (total)	ND	110J	360J	98J	380J	34J	68J	190J	3.5J	ND	810J	61J	1100J	220J	340J	290J	1100	NA	-	Yes
Octachlorodibenzofuran	5J	120	390	100	180	21	40	76	3.1J	9.1J	2800	78	2900	130	360	200	2900	NA	-	Yes

NA - Not available
JN - Presumptive evidence of material, estimated value
ND - Not detected
HQ - Hazard quotient
Shaded cells indicated exceedances of screening values.

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Table 1-3
Ecological Screening Values for Contaminants Detected in Surface Soils
Brown's Dump Site

Analyte	Rationale
Inorganics (mg/KG)	
Aluminum	HQ > 1
Antimony	HQ > 1
Arsenic	HQ > 1
Barium	HQ > 1
Cadmium	HQ > 1
Calcium	No screening value available
Chromium	HQ > 1
Cobalt	HQ < 1
Copper	HQ > 1
Cyanide	HQ > 1
Iron	HQ > 1
Lead	HQ > 1
Manganese	HQ > 1
Magnesium	No screening value available
Mercury (Total)	HQ > 1
Nickel	HQ > 1
Potassium	No screening value available
Silver	HQ > 1
Sodium	No screening value available
Vanadium	HQ > 1
Zinc	HQ > 1
Semi-Volatiles/Extractables (ug/KG)	
Acenaphthene	HQ < 1
Carbazole	No screening value available
Fluorene	No screening value available
Phenanthrene	HQ > 1
Anthracene	HQ > 1
Fluoranthene	HQ > 1
Pyrene	HQ > 1
Benzo(a)anthracene	No screening value available
Chrysene	No screening value available
Bis(2-ethylhexyl)pthalate	HQ > 1
Benzo(b/k)fluoranthene	No screening value available
Benzo(a)pyrene	HQ > 1
Indeno(1,2,3-cd)pyrene	No screening value available
Dibenzo(a,h)anthracene	No screening value available
Benzo(g,h,i)perylene	No screening value available
Phenol	HQ < 1
Naphthalene	HQ > 1
Dibenzofuran	No screening value available
Acenapthylene	No screening value available
Pesticides/PCBs (ug/KG)	
4,4-DDE	HQ > 1
4,4-DDD	HQ > 1
4,4-DDT	HQ > 1
Alpha-chlordane	HQ < 1
beta-BHC	Presumptive presence of material below screening value
Dieldrin	HQ > 1
Endrin	Presumptive presence of material above screening value.
Endrin Aldehyde	HQ < 1
Gamma-chlordane	HQ < 1
Heptachlor	HQ < 1
PCB 1254	HQ > 1
PCB 1260	HQ > 1
Dioxin/Furan (ng/KG)	
Tetrachlorodibenzodioxin (total)	No screening values available but chemical is a known bioaccumulator
Pentachlorodibenzodioxin (total)	No screening values available but chemical is a known bioaccumulator
Hexachlorodibenzodioxin (total)	No screening values available but chemical is a known bioaccumulator
Heptachlorodibenzodioxin (total)	No screening values available but chemical is a known bioaccumulator
Octachlorodibenzodioxin	No screening values available but chemical is a known bioaccumulator
Tetrachlorodibenzofuran (total)	No screening values available but chemical is a known bioaccumulator
Pentachlorodibenzofuran (total)	No screening values available but chemical is a known bioaccumulator
Hexachlorodibenzofuran (total)	No screening values available but chemical is a known bioaccumulator
Heptachlorodibenzofuran (total)	No screening values available but chemical is a known bioaccumulator
Octachlorodibenzofuran	No screening values available but chemical is a known bioaccumulator

NA - Not available
JN - Presumptive evidence of material, estimated value
ND - Not detected
HQ - Hazard quotient
Shaded cells indicated exceedances of screening values.

Table 1-4
Ecological Screening Values for Contaminants Detected in Sediment
Brown's Dump Site

Analyte	BDSD-01	BDSD-02	BDSD-03	BDSD-04	MAX	EPA Region IV Ecological Screening Values for Sediment	Hazard Quotient	Further Evaluation?	Rationale
Inorganics (mg/KG)									
Aluminum	420	200	730	3300	3300	NA	-	Yes	No screening value available
Antimony	ND	ND	ND	6.8J	6.8	12	0.6	No	HQ < 1
Arsenic	ND	ND	ND	5.8	5.8	7.24	0.8	No	HQ < 1
Barium	5.9	3.9	10	180	180	NA	-	Yes	No screening value available
Cadmium	ND	ND	0.3J	3.7	3.7	1	3.7	Yes	HQ > 1
Calcium	1800	1500	2900	4200	4200	NA	-	Yes	No screening value available
Chromium	2J	2.2J	14J	28J	28	52.3	0.5	No	HQ < 1
Cobalt	ND	ND	ND	4.1J	4.1	NA	-	Yes	No screening value available
Copper	7	9	19.0	190.0	190	18.7	10.2	Yes	HQ > 1
Cyanide	ND	ND	ND	1.4	1.4	NA	-	Yes	No screening value available
Iron	940J	410J	1700J	49000J	49000	NA	-	Yes	No screening value available
Lead	10J	11J	30J	760JN	760	30.2	25.2	Yes	Contaminant detected HQ > 1
Magnesium	ND	ND	190	1100	1100	NA	-	Yes	No screening value available
Manganese	4.9J	4.2J	10J	30J	30	NA	-	Yes	No screening value available
Mercury	ND	ND	ND	0.62	0.62	0.13	4.8	Yes	HQ > 1
Nickel	ND	ND	ND	25	25	15.9	1.6	Yes	HQ > 1
Potassium	ND	ND	170J	330J	330	NA	-	Yes	No screening value available
Silver	ND	ND	ND	1.8J	1.8	2	0.9	No	HQ < 1
Sodium	ND	ND	49J	160J	160	NA	-	Yes	No screening value available
Vanadium	1.6J	1.1J	3J	7.7J	7.7	NA	-	Yes	No screening value available
Zinc	17	17	69	810	810	124	6.5	Yes	HQ > 1
Pesticides/PCBs (ug/KG)									
Endosulfan	0.68J	ND	ND	ND	0.68	NA	-	Yes	No screening value available
Gamma-BHC (Lindane)	ND	ND	10	ND	10	3.3	3.0	Yes	HQ > 1
Heptachlor	ND	ND	11	ND	11	NA	-	Yes	No screening value available
Aldrin	ND	ND	9.7	ND	9.7	NA	-	Yes	No screening value available
Dieldrin	0.45JN	ND	9.7	ND	9.7	3.3	2.9	Yes	HQ > 1
Endrin	ND	ND	7.3J	0.96J	7.3	3.3	2.2	Yes	HQ > 1
4,4-DDD	ND	ND	12	ND	12	3.3	3.6	Yes	HQ > 1
Semi-Volatiles/Extractables (ug/KG)									
Phenanthrene	59J	ND	ND	1200	1200	330	3.6	Yes	HQ > 1
Fluoranthene	300J	ND	ND	2000	2000	330	6.1	Yes	HQ > 1
Benzo(b/k)fluoranthene	170J	ND	ND	780J	780	NA	-	Yes	No screening value available
Benzo(a)anthracene	170J	ND	ND	790	790	330	2.4	Yes	HQ > 1
Benzo(a)pyrene	91J	ND	ND	400J	400	330	1.2	Yes	HQ > 1
Indeno(1,2,3-cd)pyrene	44J	ND	ND	230J	230	NA	-	Yes	No screening value available
Pyrene	240J	ND	ND	1500J	1500	330	4.5	Yes	HQ > 1
Carbazole	ND	ND	ND	100J	100	NA	-	Yes	No screening value available
Anthracene	ND	ND	ND	200J	200	330	0.6	No	HQ < 1
Dibenzo(a,h)anthracene	ND	ND	ND	93J	93	330	0.3	No	HQ < 1
Benzo(g,h,i)perylene	ND	ND	ND	230J	230	NA	-	Yes	No screening value available
Chrysene	150J	ND	ND	680	680	330	2.1	Yes	HQ > 1

JN - Presumptive evidence of material, estimated value.
NA - Not available
ND - Not detected.
HQ - Hazard quotient
Shaded cells indicate that that particular sample exceeded the screening value.

Table 1-5
Ecological Screening Values for Contaminants Detected in Surface Water
Brown's Dump Site

Analyte	BDSW-01	BDSW-02	BDSW-03	BDSW-04	MAX	EPA Region IV Ecological Screening Values for Freshwater Surface Water	Hazard Quotient	Further Evaluation?	Rationale
Inorganics (ug/L)									
Aluminum	36	28	70	57	70	87	0.80	No	HQ < 1
Arsenic	16	12	11	ND	16	190	0.08	No	HQ < 1
Barium	43	37	42	50	50	NA	-	Yes	No screening value available
Calcium	53000	45000	50000	54000	54000	NA	-	Yes	No screening value available
Chromium	6J	4J	4J	3J	6	11	0.55	No	HQ < 1
Iron	650J	540	640J	520J	650	1000	0.65	No	HQ < 1
Lead	3	4	ND	3	4	1.32	3.03	Yes	HQ > 1
Magnesium	12000	9900	9200	9000	12000	NA	-	Yes	No screening value available
Manganese	27	25	25	27	27	NA	-	Yes	No screening value available
Potassium	2900J	3100J	3300J	3400J	3400	NA	-	Yes	No screening value available
Sodium	14000	170000	13000	12000	170000	NA	-	Yes	No screening value available
Zinc	24	22	20	100	100	58.91	1.70	Yes	HQ > 1

NA - Not available
ND - Not detected
HQ - Hazard quotient
Shaded cells indicate that that particular sample exceeded the screening value.

Groundwater

Three groundwater wells, located in the forested area adjacent to Moncrief Creek and screened in the surficial aquifer, were sampled. Metals were detected at elevated concentrations in these wells. The metals are expected to be present based on the history of the waste disposed of at the site and are consistent with those contaminants observed in surface soils. A detailed list of detected contaminants and concentrations from groundwater is presented in Table 1-6.

1.2.2 Contaminant Fate and Transport

As shown previously, surface soils and sediment at the site are known to contain elevated levels of metals, cyanide, PAHs, pesticides, PCBs, dioxins, and furan. Surface water and groundwater contained elevated levels of metals. The general fate and transport mechanisms of contaminants in each environmental medium is discussed below.

1.2.2.1 Surface Soils

Contaminants in surface soil can migrate to ecological receptors via several transport processes. These processes include:

- Direct volatilization of contaminant to air
- Lateral movement in rainwater runoff when adsorbed onto suspended sediment
- Lateral movement in wind when adsorbed onto suspended sediment
- Vertical movement via infiltrating rainwater into subsurface soil and groundwater with subsequent re-emergence into surface waters
- Biological uptake, ingestion, and/or bio-transfer

1.2.2.2 Sediment

Contaminants in sediment can migrate to ecological receptors via several transport processes. These processes include:

- Lateral movement downstream with flowing surface water while adsorbed to sediments
- Partitioning to surface water
- Biological uptake, ingestion, and/or bio-transfer

1.2.2.3 Surface Water

Contaminants in surface water can migrate to ecological receptors via several transport processes. These processes include:

- Lateral movement downstream with flowing surface water while adsorbed to suspended materials
- Partitioning to sediment
- Biological uptake, ingestion and/or bio-transfer

Table 1-6
Ecological Screening Values for Contaminants Detected in Groundwater
Brown's Dump Site

Analyte	BDMW-01	BDMW-04	BDMW-05	BDMW-06	MAX	EPA Region IV Ecological Screening Values for Surface Water	Hazard Quotient	Further Evaluation?	Rationale
Inorganics (ug/L)									
Aluminum	32	180	370	420	420	87	4.83	Yes	HQ > 1
Arsenic	ND	ND	20	ND	20	190	0.11	No	HQ < 1
Barium	24	75	230	120	230	NA	-	Yes	No screening value available
Cadmium	ND	ND	5	2J	5	0.66	7.58	Yes	HQ > 1
Calcium	2500	38000	87000	79000	87000	NA	-	Yes	No screening value available
Cobalt	ND	ND	7J	ND	7	NA	-	Yes	No screening value available
Copper	ND	17	32	27	32	6.54	4.89	Yes	HQ > 1
Iron	ND	28000J	9300J	12000J	28000	1000	28.00	Yes	HQ > 1
Lead	ND	29	73	64	73	1.32	55.30	Yes	HQ > 1
Magnesium	1200	11000	13000	25000	25000	NA	-	Yes	No screening value available
Manganese	5J	150	2100	75	2100	NA	-	Yes	No screening value available
Nickel	ND	ND	19J	ND	19	87.71	0.22	No	HQ < 1
Potassium	2000J	8400J	16000J	58000J	58000	NA	-	Yes	No screening value available
Sodium	2500	28000	13000	38000	38000	NA	-	Yes	No screening value available
Vanadium	ND	ND	ND	2J	2	NA	-	Yes	No screening value available
Zinc	ND	110	910	330	910	58.91	15.45	Yes	HQ > 1

NA - Not available
ND - Not detected
HQ - Hazard quotient
Shaded cells indicate that that particular sample exceeded the screening value.

1.2.2.4 Groundwater

Depth to groundwater at this site is greater than 2 feet in most locations. Given this depth to groundwater, there is no significant direct exposure potential for ecological receptors. However, it is important to note that groundwater from the site can flow through soils and recharge Moncrief Creek based on known groundwater flow patterns and topography.

1.2.3 Ecotoxicity and Potential Receptors

Understanding the toxic mechanism of a contaminant can help to evaluate the importance of potential exposure pathways and focus the selection of assessment endpoints. Based on the evaluation of contaminant fate and transport conducted previously, ecological receptors could be directly exposed to metals, cyanide, PAHs, pesticides, PCBs, dioxins, and furans directly from surface soils, sediments and surface water or indirectly through food-chain transfer. Contaminants in groundwater may recharge surface waters of the Moncrief Creek, where ecological receptors may be exposed.

1.2.3.1 Ecotoxicity

USEPA Region 4 has developed ecotoxicological screening values for sediment and surface water, which are based on reproductive endpoints with community-wide implications. Groundwater is screened based on the surface water screening values, since the toxicity of groundwater is only realized in the surface water where a receptor would be exposed. In addition, USEPA Region 4 has also developed draft screening levels for surface soils which are based on the most conservative toxicity values for soil organisms, plants, and health-risk studies. The USEPA Region 4 ecotoxicity values for potential contaminants of concern detected at the site are presented in Tables 1-3 through 1-6.

1.2.3.2 Potential Receptors

As stated previously, the developed area, open field and forested habitats located near the school were evaluated to assess their usage and potential to support ecological communities. There is potential aquatic habitat associated with Moncrief Creek, where small fish and some tubificerid worms were observed.

There were no signs of obviously stressed vegetation observed in these areas; however, there were bare areas where vegetation did not grow. The potential causes of the bare areas are presently unknown.

Potential receptors of contaminants in surface soils would include soil organisms, plants, terrestrial wildlife, and predators of these species. Potential receptors of contaminants in sediment would include benthic invertebrates, fishes, and predators of these species. Potential receptors of contaminants in surface water would include fish, other aquatic organisms, and predators of these species. Potential receptors that may be present in the habitats of the site are presented in Table 1-1.

1.2.4 Complete Exposure Pathways

Evaluating potential exposure pathways is one of the primary tasks of the SERA. For an exposure pathway to be complete, a contaminant must be able to travel from the source to ecological receptors and to be taken up by the receptors via one or more exposure routes. If an exposure pathway is not complete for a specific contaminant, that exposure pathway does not require further evaluation. Based on the previous information, there are four potential sources for contamination at the site including:

- Contaminated surface soils in the developed, open field and forested areas of the site
- Contaminated sediments in Moncrief Creek
- Contaminated surface water in Moncrief Creek
- Contaminated groundwater adjacent to Moncrief Creek.

The presence of complete exposure pathways to ecological receptors through direct exposure or food-chain transfer is presented in Table 1-7. For the purposes of the SERA, all potential habitat areas are considered in the development of preliminary complete exposure pathways and assessment endpoints.

1.2.5 Assessment Endpoints

Assessment endpoints are explicit expressions of actual environmental values (e.g., ecological resources) that are to be protected. Valuable ecological resources include those without which ecosystem functions would be significantly impaired. These may include critical resources (e.g., habitat), and those resources perceived as valuable by humans (e.g., endangered species and other issues addressed by legislation). Because assessment endpoints focus on the risk assessment design and analysis, appropriate selection and definition of these endpoints are critical to the utility of a risk assessment.

At the initial-screening stage of the ecological risk assessment process, USEPA Region 4 requires a comparison of the maximum detected concentrations of contaminants to screening-level toxicity data in order to focus subsequent evaluations. The assessment endpoints evaluated by these values are:

- The maintenance of viable aquatic communities/populations in aquatic habitats on the site.
- The maintenance of viable benthic communities/populations in aquatic habitats on the site.
- The maintenance of viable terrestrial communities/populations in terrestrial habitats on the site.

Table 1-7
Preliminary Complete Exposure Pathways
Brown's Dump Site

Source Area	Key Contaminants	Exposure Route	Potential Receptors	Complete Pathway
Surface soils	Metals, PAHs, pesticides, PCBs, dioxins, and furans	Direct exposure	Plants, soil organisms	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Soil insectivores, terrestrial carnivores	Yes (Cd, Hg, Pb, As, pesticides, PCBs, dioxins & furans)
Moncrief Creek Sediments	Metals, cyanide, pesticides, & PAHs	Direct exposure	Aquatic plants & macroinvertebrates	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Probing insectivores & piscivores	Yes (Hg, Pb & pesticides)
Moncrief Creek Surface Water	Metals	Direct exposure	Aquatic plants, fish, & other wildlife	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Piscivores	Yes (Pb)
Groundwater (to surface water)	Metals	Direct exposure	Aquatic plants, fish, & other wildlife	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Piscivores	Yes (Pb)

1.2.6 Preferred Toxicity Data

As stated previously, the assessment endpoints that will be evaluated in the SERA are based on direct exposure routes from surface soil, sediment, and surface water. These assessment endpoints will be measured (measurement endpoints) based on the USEPA Region 4 ecotoxicological screening values for soil, sediment, and surface water. These values are based on reproductive endpoints with community-wide implications. The draft screening levels for surface soils are based on the most conservative toxicity values for soil organisms, plants, and health-risk studies.

1.2.7 Toxicological Uncertainty Assessment

Many contaminants observed at the site do not have Region 4 ecological screening values. These contaminants include essential nutrients as well as other contaminants that have screening values for one or more media or none at all. These essential nutrients that lacked screening values include:

- Calcium
- Magnesium

- Potassium
- Sodium

Other contaminants lacking ecological screening values were detected at the site. The relative importance of these contaminants must be considered when determining the needs for future evaluation at the site. All of these contaminants, broken down into their respective media of concern are presented in Table 1-8:

Table 1-8
Contaminants Detected at the Site That Lack Screening Values
Brown's Dump Site

Surface Soil	Sediment	Surface/Groundwater
Carbazole	Carbazole	Barium
Dibenzofuran	Endosulfan	Cobalt
Fluorene	Heptachlor	Manganese
Benzo(a)anthracene	Aldrin	Vanadium
Chrysene	Benzo(b/k)fluoranthene	
Bis(2-ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene	
Benzo(b/k)fluoranthene	Benzo(g,h,i)perylene	
Indeno(1,2,3-cd)pyrene	Aluminum	
Dibenzo(a,h)anthracene	Barium	
Benzo(g,h,i)perylene	Cobalt	
Tetrachlorodibenzodioxin (total)	Cyanide	
Pentachlorodibenzodioxin (total)	Iron	
Hexachlorodibenzodioxin (total)	Manganese	
Heptachlorodibenzodioxin (total)	Vanadium	
Octachlorodibenzodioxin (total)		
Tetrachlorodibenzofuran (total)		
Pentachlorodibenzofuran (total)		
Hexachlorodibenzofuran (total)		
Heptachlorodibenzofuran (total)		
Octachlorodibenzofuran (total)		

All of these contaminants are retained for future consideration in Step 2 of the SERA and will be addressed in subsequent discussions of uncertainty.

2. SCREENING-LEVEL EXPOSURE ESTIMATE AND RISK CALCULATION (STEP 2)

2.1 Introduction

This step of the SERA includes estimating the exposure levels and screening for ecological risks. This process will conclude with a scientific-management decision point (SMDP) that makes one of the following determinations:

- Ecological threats are negligible.
- An ecological risk assessment should continue to determine if a risk exists.
- There is a potential for adverse effects and a more detailed risk assessment should be performed.

2.2 Screening-Level Exposure Estimates

To estimate exposures for the SERA, on-site contaminant levels and general information on biological receptors were evaluated where complete exposure pathways exist. For the purposes of the SERA, the highest measured or estimated on-site contaminant concentrations in each medium of concern were considered to be the exposure point concentration. The maximum detected contaminant concentrations in surface soil, sediment, surface water, and groundwater are presented in Tables 1-3 through 1-6.

2.3 Screening Level Risk Calculation

A hazard quotient approach will be used to estimate and express risk for the purposes of this SERA. For each measurement endpoint (surface soil, sediment, and surface water) the hazard quotient (HQ) will be expressed as the ratio of a maximum potential exposure level to the screening criterion:

HQ = Estimated Environmental Concentration ÷ Screening Criterion

A HQ less than one (unity) indicate that the contaminant is unlikely to cause adverse ecological effects. This SERA presents a conservative estimate to ensure that potential ecological effects have not been overlooked. When the results from this estimate do not indicate a potential risk, these calculations can be used to eliminate the negligible risk combinations of contaminants and exposure pathways from future consideration. Risk to each assessment endpoint, based on the HQs of their respective measurement endpoints is discussed below.

2.3.1 The Maintenance of Viable Aquatic Communities/Populations in Aquatic Habitats on the Site.

The maximum surface water concentrations detected in Moncrief Creek were compared to the surface water ecotoxicity screening values (Table 1-5). The maximum

concentrations of concentrations in groundwater were also compared to the surface water ecotoxicity screening values to evaluate the possibility for future impact to this endpoint based on the presence of a complete potential migration pathway (Table 1-6).

This comparison indicates that lead and zinc are present in surface water at levels that could further impact the limited aquatic communities and populations in Moncrief Creek. It is important to note that concentrations of aluminum, cadmium, copper, iron, lead, and zinc are present at concentrations in groundwater that could impact this endpoint if they migrated to surface water at these concentrations.

These metals were detected at levels that present a potential risk to the aquatic communities of Moncrief Creek and are consistent with those contaminants that are potentially present based on the site history and those observed in soil contamination.

In addition, those contaminants detected in surface water (barium, calcium, magnesium, manganese, potassium, and sodium) and in groundwater (barium, calcium, cobalt, magnesium, manganese, potassium, sodium, and vanadium) that lacked screening values should be retained for further evaluation.

2.3.2 The Maintenance of Viable Benthic Communities/Populations in Aquatic Habitats on the Site.

The maximum sediment concentrations detected in Moncrief Creek were compared to the sediment ecotoxicity screening values (Table 1-4). This comparison indicates that maximum detected concentrations of the following contaminants in sediments presents a potential ecological risk to the viability of benthic communities and populations in Moncrief Creek:

- Cadmium
- Copper
- Lead
- Mercury
- Nickel
- Zinc
- Gamma-BHC (Lindane)
- Dieldrin
- Endrin
- 4,4'-DDD
- Phenanthrene
- Fluoranthene
- Pyrene
- Benzo(a)anthracene
- Chrysene
- Benzo(a)pyrene

The metals and PAHs detected in sediment that are at levels which present a potential risk to the benthic communities of Moncrief Creek are consistent with those contaminants at the site based on its history and soil investigations. The pesticides observed in the sediment could be related to unknown wastes disposed of at the site or may be a result of past uses of pesticides within the watershed.

In addition, those contaminants detected in sediment that lacked screening values (see Table 1-8) should be retained for further evaluation.

2.3.3 The Maintenance of Viable Producer, Detritivore, and Soil Microbial Activity as it Relates to Soil Function and Nutrient Cycling.

The maximum surface soil concentrations detected in the open field and forested habitats on the site were compared to the draft surface soil ecotoxicity screening values (Table 1-3). This comparison indicates that maximum detected concentrations of the following contaminants in surface soils present a potential to adversely effect normal soil activity and cycling of nutrients:

- Aluminum
- Antimony
- Arsenic
- Barium
- Cadmium
- Chromium
- Copper
- Cyanide
- Iron
- Lead
- Manganese
- Mercury
- Nickel
- Silver
- Vanadium
- Zinc
- Phenanthrene
- Anthracene
- Fluoranthene
- Pyrene
- Benzo(a)pyrene
- Naphthalene
- Dieldrin
- 4,4'-DDD
- 4,4'-DDE
- 4,4'-DDT
- Endrin
- PCB 1254
- PCB 1260

The metals and PAHs detected in surface soil that are at levels which present a potential risk to the terrestrial communities of the site are consistent with those contaminants at the site based on its history. The PCBs and pesticides observed at the site could be related to unknown wastes disposed of at the site or ongoing maintenance operations at the properties in question.

In addition, those contaminants detected in surface soil that lacked screening values (see Table 1-8) should be retained for further evaluation.

2.4 Scientific/Management Decision Point

Based on the SERA, there are significant potential risks to ecological receptors from contamination of surface soil, sediment, surface water, and groundwater associated with the site.

Surface soil investigations have indicated the presence of metals, PAHs, PCBs, and pesticides at levels that exceed ecological screening criteria and therefore present a potential risk to terrestrial communities. The detected contaminants are consistent with those likely to be in incinerator ash, which was historically disposed of at the site. Therefore, it is a likely conclusion that ecological risks to terrestrial receptors based on metals, PAHs, and pesticides in surface soil are resulting from site-related contaminants historically disposed of at the site. The ability of these on-site habitats to support fully

functional ecological communities will impact the relative importance of these potential risks and are addressed in subsequent discussions of uncertainty.

Investigations of surface water and sediment have indicated the presence of metals, pesticides (in sediment only) and PAHs (in sediment only) that exceed the ecological screening criteria for risks to aquatic and benthic communities. The metals and PAHs that were detected in surface soil are consistent with the operational history of the site. Based on this information it is likely that the on-site contamination is a source of risk to the aquatic habitats of Moncrief Creek.

Based on these factors and the evaluation conducted in Steps 1 and 2 of this process, this ecological risk assessment process should proceed to Step 3.

3. BASELINE RISK ASSESSMENT PROBLEM FORMULATION (STEP 3)

3.1 The Problem Formulation Process

In Step 3, problem formulation establishes the goals, breadth, and focus of the baseline ecological risk assessment (BERA). Through this step, the questions and issues that need to be addressed in the BERA are defined based on potentially complete exposure pathways and ecological effects. The conceptual model of the site developed previously is evaluated to assess data gaps and variables that could better define impacts to the assessment endpoints and the relationships between exposure and effects. Step 3 of the process culminates in a SMDP where the final assessment endpoints, exposure pathways, and conceptual site model questions are agreed upon by all stakeholders.

3.2 Refinement of Preliminary Contaminants of Concern

The SERA identifies those contaminants for which maximum concentrations exceeded screening values. The following are key issues that should be understood in refining the contaminants and pathways of concern in the ecological risk assessment process:

1. Contaminants with low potential for toxicological effects such as the essential nutrients (calcium, magnesium, sodium, and potassium) probably do not present significant ecological risk and should not drive future investigations on the site since they are not overtly related to suspected source contaminants.

2. The distribution of contamination relative to the location of the suspected source areas and potential ecological habitats should be considered.

3.2.1 Essential Nutrients

Several of the identified contaminants are essential nutrients and are bioregulated by most organisms. As a result, ecological toxicity data for these nutrients (calcium, magnesium, sodium, and potassium) are lacking due to a general lack of significant concern. Based on this information and the lack of a suspected source of these contaminants, these compounds should not be further evaluated in future ecological evaluations.

3.2.2 Sample Distribution

There were three key ecological habitats observed on or near the site which include the two terrestrial habitats (open field and forested area) and one aquatic habitat (Moncrief Creek).

3.2.2.1 Terrestrial Habitat Soil Sampling

Twelve surface soil samples (SS-02 through SS-10, SS-14, and SS-16) were collected in the residential, playground, and developed areas of the site. Only one surface soil

sample (SS-15) would be representative of the open field habitat. Three surface soil samples (SS-11, SS-12, and SS-13) would be representative of the forested habitat.

The surface soil sample collected in the developed and open field habitat contained metals (including bioaccumulative metals), cyanide, PAHs, pesticides, and PCBs at levels that were significantly over ecological screening values. Maximum site-wide concentrations of aluminum, cyanide, silver, dieldrin and PCB 1260 were detected in the open field habitat. Lead was also detected in the open field at concentrations approximately two orders of magnitude higher than the screening values; however, the accuracy of this data is questionable based on a "JN" laboratory qualifiers. The "JN" qualifier for lead indicates that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis.

The surface soil samples collected in the forested habitat contained metals (including bioaccumulative metals), PAHs, pesticides, and PCBs at levels that were significantly over ecological screening values. Maximum site-wide concentrations of antimony, arsenic, barium, cadmium, chromium, copper, iron, lead, mercury, nickel, zinc, DDD, DDE, and DDT were detected in this area. The detected lead was present at concentrations almost three orders of magnitude higher than the screening values; however, the accuracy of this data is questionable based on a "JN" laboratory qualifiers. The "JN" qualifier for lead indicates that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis.

3.2.2.2 Aquatic Habitat Sampling

Surface water and sediment samples were collected from the aquatic habitats of Moncrief Creek; however, information describing the substrate and the microhabitat of the stream where the samples were collected were not available. Based on this lack of detail, all sediment and surface water samples were considered to be representative of all aquatic habitats in Moncrief Creek.

Sediment samples SD-01 and SD-02 did not contain contamination at levels exceeding ecological screening values. Detected levels of five pesticides and copper exceeding ecological levels were associated with sample SD-03, located just downstream of the site. The highest levels of pesticides were observed in this sample. Cadmium, copper, lead, mercury, nickel, zinc, and PAHs were detected at concentrations exceeding ecological screening levels in SD-04. SD-04 had the highest concentrations of all detected metals and PAHs. It is important to note that pesticides were not detected above ecological screening values in SD-04. The lead detected in SD-04 was present at a concentration significantly exceeding its screening value; however, the accuracy of this result is questionable based on a "JN" laboratory qualifier indicating that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis.

In surface water, lead was present in all samples (except SW-03) at consistent concentrations that exceeded ecological screening levels. Zinc was only present in one downstream sample (SW-04) at concentrations exceeding the ecological screening values. Lead and zinc were also present in groundwater samples collected immediately adjacent to and upgradient of the stream (MW-04, MW-05, and MW-06) at levels exceeding ecological screening criteria. This could indicate that groundwater may represent a continuing source of contamination to Moncrief Creek. Groundwater also contained significant levels of aluminum, cadmium, copper, and iron that could present a risk to aquatic receptors in Moncrief Creek; however, these contaminants were not observed in surface water at significant concentrations.

3.3 Literature Search on Known Ecological Effects

The screening-level values used in the SERA are based on direct exposures and may not be representative of food-chain exposures. Potential sources of ecological effects data are discussed for direct exposures and food-chain exposures are discussed below. Given the large number of potential contaminants of concern, individual ecological effects data was not developed for each contaminant, instead, annotated bibliographies and other sources of this data are provided.

Individual studies of the ecological effects of direct exposures to contaminants in surface soils are cited in "*Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants, 1997 Revision*" prepared by Lockheed Martin Energy Systems, Inc. for the U.S. Department of Energy (Efroymson et al. 1997a) and "*Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Processes, 1997 Revision*" prepared by Lockheed Martin Energy Systems, Inc. for the U.S. Department of Energy (Efroymson et al. 1997b).

Studies of sediment toxicity to benthic invertebrates via direct exposure in freshwater systems are available from several sources including those used in the USEPA Region 4 sediment screening values. An alternate source of sediment toxicity data that may be applicable to the site would be the Ontario (Canada) Ministry of the Environment (OMOE) sediment toxicity values developed by Persaud et al. (1996) for sediments in the Great Lakes system.

The food-chain exposure ecological effects should be determined by a comparison of estimated exposure doses to effects that could have ecosystem-wide implications (such as reproductive effects). Individual studies of ecological effects for many contaminants are cited in "*Toxicological Benchmarks for Wildlife, 1996 Revision*" prepared by Lockheed Martin Energy Systems, Inc. for the U.S. Department of Energy (Sample et al. 1996).

3.4 Contaminant Fate and Transport, Ecosystems Potentially at Risk, and Complete Exposure Pathways

In this step, the exposure pathways and ecosystems associated with the site are evaluated in more detail. In many cases this may require the collection of additional

information on the fate and transport properties of the contaminants of concern, the ecological setting and ecosystems at risk, and the magnitude, extent, spatial, and temporal variability of contamination relative to the proposed assessment endpoints.

3.4.1 Contaminant Fate and Transport

The fate and transport of all key ecological contaminants of concern as described during the refinement process is discussed below. This information is presented for each of the key contaminant groups.

3.4.1.1 PAHs

Within the group of chemicals identified as PAHs, the fate and transport mechanisms are generally similar. Volatilization of these chemicals from soils has been demonstrated to be substantial and may account for over 20 percent of the loss of contaminant from surface soils (ATSDR 1993-1998). PAHs have moderately high K_{oc} values ranging from 10^3 to 10^4 indicating that they tend to strongly adsorb to organic material in soil and sediment. In soils and sediment with a low organic material content, PAHs have been shown to move into groundwater and migrate both laterally and vertically (ATSDR 1993a). Invertebrates and crustaceans readily assimilate these PAHs from sediment and water; however, mollusks, polychaete worms and most vertebrates can effectively metabolize and eliminate these compounds. As a result of these processes, biomagnification of these chemicals is not significant with respect to predatory terrestrial or aquatic wildlife; however, bioaccumulation of PAHs may be significant in benthic invertebrates and soil invertebrates.

3.4.1.2 Pesticides, PCBs, Dioxins and Furans

Within the group of compounds identified as pesticides, PCBs, dioxins, and furans, the fate and transport mechanisms are very similar (ATSDR 1993-1998). These chemicals are large, complex chlorinated organic molecules that tend to have limited potential for atmospheric volatilization from soils due to their low very low vapor pressures. Pesticides, PCBs, dioxins, and furans have very high K_{oc} values indicating that they tend to strongly adsorb to organic material in soil and sediment. As a result, these compounds are usually found in sediments and not in the surface waters of aquatic systems. These compounds are also not very mobile in groundwater; therefore, groundwater migration is not a significant migration pathway. Due to their high K_{ow} values, these compounds are lipophilic and are easily absorbed in lipid tissue in plants and animals. These chemicals tend to bioconcentrate in aquatic organisms, especially at the level of invertebrates and aquatic organisms that ingest sediments. Some of these compounds (PCBs and some pesticides) may significantly biomagnify with increasing trophic level; however, all of these compounds are known to undergo bio-transfer to some degree. In the terrestrial system, these compounds are not likely to be taken up by plants due to their low solubility and high soil affinity; however, underground roots may contain significant concentrations. Bio-transfer in terrestrial systems was also observed and indicates a potential for biomagnification of these compounds.

3.4.1.3 Metals

The fate and transport properties of metals are highly variable (ATSDR 1993-1998). One metal, mercury, may be slightly volatile at normal atmospheric conditions; although this is usually insignificant, while all other metals are non-volatile. Metal adsorption to soils is very complex and is related to physical and chemical properties of the soils themselves. Some metals are strongly adsorbed to inorganic materials while others adsorb to organic matter. Some metals do not adsorb to soils at all while others do so significantly. The tendency to adsorb to soils dramatically affects the movement of metals from surface soils downward into subsurface soil/groundwater and offsite carried in runoff. Of all the metals detected in surface soils, only mercury, cadmium, and selenium have been shown to move through bioaccumulation and may biomagnify significantly in both terrestrial and aquatic food-chains. Lead and arsenic may bioaccumulate in terrestrial organisms; however, they do not typically biomagnify in food chains.

3.4.1.4 Cyanide

Volatilization and biodegradation are the most significant removal processes for cyanide in soils. Cyanide has a low soil sorption capability and is not usually mobile in groundwater because of fixation by trace minerals through complexation or transformation by soil organisms. Metal cyanides and hydrogen cyanide do not bioconcentrate in aquatic organisms and there is no evidence suggesting cyanide biomagnifies in the food chain (ATSDR 1993-1998).

3.4.2 Ecosystems Potentially at Risk

Based on the data evaluated for the site and field observations, the three terrestrial (developed, open field and forested) habitats and the one aquatic habitat (Moncrief Creek) are at potential risk. Contaminants suspected to be present in the incinerator ash, specifically metals and PAHs, have been detected at elevations exceeding ecological screening values in each of these habitats. Several metals, pesticides, and PAHs detected at concentrations exceeding ecological screening levels are known to bioaccumulate. These metals and pesticides biomagnify in terrestrial food chains.

3.4.3 Complete Exposure Pathways

The complete exposure pathways identified in the SERA (Section 1.2.4) were re-evaluated based on the problem formulation of Step 3. This re-evaluation does not result in the elimination of any exposure pathway; however, it does further focus subsequent ecological activities on those key contaminants of ecological concern. The exposure pathways considered in the Problem Formulation are presented in Table 3-1.

3.5 Selection of Assessment Endpoints

An assessment endpoint is an explicit expression of the environmental value that is to be protected. Ecological risk assessments involve multiple species that are to be exposed to different degrees and respond differently to the same contaminant. However, it is not practical or possible to directly evaluate risks to every component of the ecosystem.

Table 3-1
Final Complete Exposure Pathways
Brown's Dump Site

Habitat and Media	Key Contaminants	Exposure Route	Potential Receptors	Complete Pathway
Developed Area Surface Soils	Metals, cyanide, PAHs, pesticides, PCBs, dioxins, and furans	Direct exposure	Plants, soil organisms	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Soil insectivores, terrestrial carnivores	Yes (Cd, Hg, Pb, As, pesticides, PCBs, dioxins & furans)
Open Field Surface Soils	Metals, cyanide, PAHs, pesticides, PCBs, dioxins, and furans	Direct exposure	Plants, soil organisms	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Soil insectivores, terrestrial carnivores	Yes (Cd, Hg, Pb, As, pesticides, PCBs, dioxins & furans)
Forested Surface Soils	Metals, PAHs, pesticides, PCBs, dioxins, and furans	Direct exposure	Plants, soil organisms	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Soil insectivores, terrestrial carnivores	Yes (Cd, Hg, Pb, As, pesticides, PCBs, dioxins & furans)
Moncrief Creek Sediments	Metals, cyanide, pesticides, & PAHs	Direct exposure	Aquatic plants & macroinvertebrates	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Probing insectivores & piscivores	Yes (Hg, Pb, & pesticides)
Moncrief Creek Surface Water	Metals	Direct exposure	Aquatic plants, fish, & other wildlife	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Piscivores	Yes (Pb)
Groundwater (to surface water)	Metals	Direct exposure	Aquatic plants, fish, & other wildlife	Yes (all contaminants)
		Food chain exposure (bio-transfer)	Piscivores	Yes (Pb)

Instead, assessment endpoints focus the risk assessment on particular components of the ecosystem that could be adversely affected by contaminants at the site. Based on the SERA and refinement of contaminants in this Problem Formulation, we recommend the following seven assessment endpoints are recommended for this ecological risk assessment:

- The maintenance of viable aquatic communities/populations in aquatic habitats on the site.
- The maintenance of viable benthic communities/populations in aquatic habitats on the site.
- The maintenance of viable producer, detritivore, and soil microbial activity as it relates to soil function and nutrient cycling.
- The maintenance of viable terrestrial insectivore communities in the region based on bio-transfer of arsenic, cadmium, mercury, lead, pesticides, PCBs, dioxins & furans in surface soils.
- The maintenance of viable terrestrial carnivore communities in the region based on bio-transfer of arsenic, cadmium, mercury, lead, pesticides, PCBs, dioxins & furans in surface soils.
- The maintenance of aquatic insectivore communities in the region based on bio-transfer of mercury, lead, and pesticides in sediments and surface water.
- The maintenance of piscivore communities in the region based on bio-transfer of mercury, lead, and pesticides in sediments and surface water.

3.6 The Conceptual Model and Risk Questions

The conceptual model establishes the complete exposure pathways that will be evaluated in the ecological risk assessment and the relationship of the measurement endpoints to the assessment endpoints. The risk questions are presented to guide future evaluations at the site.

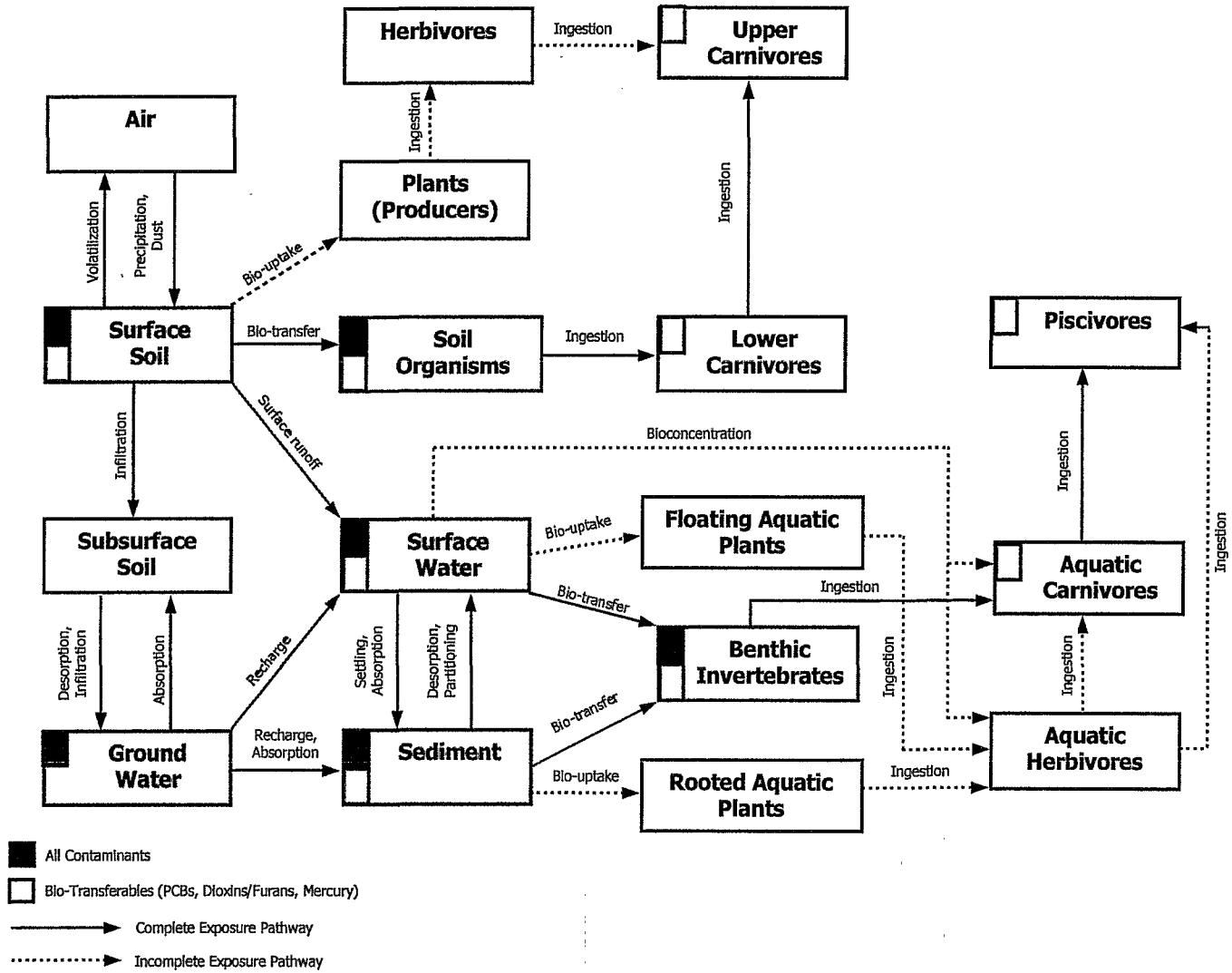
3.6.1 Conceptual Model

Based on all the previous information obtained, an integrated conceptual model is developed that includes a contaminant fate and transport diagram tracing the movement of contaminants from sources, through the ecosystem, to receptors that include the assessment endpoint. Contaminant exposure pathways that do not lead to a species or group of species associated with the proposed assessment endpoint indicate an incomplete pathway or a need for additional data. In addition, this conceptual model also indicates areas where additional data would be helpful. The conceptual model developed for this site is presented in Figure 3-1.

3.6.2 Risk Questions and Uncertainty

The risk questions and uncertainty are presented to understand the relationships of proposed assessment endpoints to the predicted responses when exposed to contaminants. These questions provide the basis for developing the study design (Step 4) and for evaluating the results of the site investigation (Step 6) and risk characterization (Step 7). The risk questions generally pose the question:

"Does (or could) each contaminant of concern cause adverse effects on the assessment endpoint?"



	Screening-Level Ecological Risk Assessment
Brown's Dump Site Ecological Risk Assessment City of Jacksonville, Duval County, Florida	Figure 3-1 Ecological Conceptual Exposure Model

3 12 0038

Answering this question for each assessment endpoint will focus subsequent investigations on particular exposure pathways, variables, data gaps, and uncertainty that are most significant in determining the actual risks at the site.

Assessment Endpoint No. 1: The maintenance of viable aquatic communities and populations in aquatic habitats on the site.

Surface water analytical data collected from Moncrief Creek indicate lead and zinc are at levels that exceed USEPA Region 4 ecological screening values. In addition, barium and manganese were also detected; however, there were no screening values for these metals. Groundwater analytical data collected adjacent to Moncrief Creek also indicated concentrations of lead and zinc above ecological screening levels. Based in this information, groundwater at the site may represent a continuing source of contamination to Moncrief Creek.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate ecological risks to this endpoint:

- Based on existing information, it cannot be determined if risks to this endpoint are site-related. Additional work to define the background water quality of Moncrief Creek in areas upgradient of the subject site may be required to determine if risks to Moncrief Creek are site-related.

- The conclusion that there are potential risks to this endpoint are based on contamination observed in three widely spaced samples (only one of which is downgradient of known areas of waste disposal). These samples may not represent worst case conditions (in groundwater recharge areas) or may not have been collected in areas where fine-grained sediments have been deposited (where contaminant concentrations would be highest). Based on the potential risks and this uncertainty, additional surface water sampling may be required in areas where groundwater concentrations were high and in depositional areas.

- The calculated hazard quotients for this endpoint are relatively low (lead = 1.7, zinc = 3.0). Based on these low HQs, it is recommended that this endpoint be considered in light of the risks calculated for sediment data and the Moncrief Creek habitat as a whole before selecting an appropriate remedial action.

Assessment Endpoint No. 2: The maintenance of viable benthic communities and populations in aquatic habitats on the site.

Sediment analytical data collected from Moncrief Creek indicates metals, pesticides, and PAHs are at concentrations that exceed USEPA Region 4 ecological screening values. Nearby surface soil data also detected concentrations of the same contaminants at ecologically significant levels.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate ecological risks to this endpoint:

- Based on existing information, it cannot be determined if risks to this endpoint are site-related. Additional work to define the background sediment quality of Moncrief Creek in areas upgradient of the subject site may be required to determine if risks to Moncrief Creek are site-related.

- Historical file information has indicated that the sediment in Moncrief Creek was periodically dredged as recently as December 1999. Data collected during the ESI to characterize sediments may not be representative of current conditions since dredging has been known to occur between the ESI in 1997 and December 1999. Additional sediment samples should be collected to determine if a potential risk still exists.

- The conclusion that there are potential risks to this endpoint are based on contamination observed in two widely spaced samples. There is some evidence that sediment samples collected from Moncrief Creek were not located in depositional areas. As a result, the sediment samples may not be biased toward those depositional areas that could contain the highest contaminant concentrations. Based on the potential risks and this uncertainty, additional sediment sampling may be required in depositional areas.

- Lead in sample SD-04 was reported with "JN" qualifiers in the data package. The "JN" qualifier for lead in this sample indicates that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis. The "JN"-qualified data for lead was an order of magnitude higher than the maximum unqualified data point and drives the risk for lead to this endpoint.

- Dieldrin in sample SD-01 was reported with "JN" qualifiers in the data package indicating that the estimated concentration reported was based on presumptive evidence of the contaminant. The "JN"-qualified data for dieldrin was collected in a sample collected in an area of known ash disposal. The estimated concentration of this contaminant was below both the maximum unqualified data point and the ecological screening value; therefore, this data uncertainty does not affect the conclusions of the SERA.

- The calculated hazard quotients are below 10 for all contaminants detected in sediment with the exception of lead (HQ=25.2) and copper (HQ = 10.2). Based on these low HQs, it is recommended that this endpoint be considered in light of the risks calculated for surface water data and the Moncrief Creek habitat as a whole before selecting an appropriate remedial action.

Assessment Endpoint No. 3: The maintenance of viable producer, detritivore, and soil microbial activity as it relates to soil function and nutrient cycling.

Surface soil data was collected from the terrestrial ecological habitats on the site. This data indicates that metals, cyanide (open field only), PAHs, pesticides, PCBs, are present at concentrations that exceed USEPA Region 4 ecological screening values. Dioxins and

furans were present at high concentrations throughout both terrestrial habitats; however, due to the absence of ecological screening values for these contaminants, their associated ecological risks to this endpoint are unknown.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate ecological risks to this endpoint:

- Historical file information has indicated that the some areas of surface soils containing high contaminant levels have been excavated and removed since the ESI sampling was completed in 1997. These contaminated materials were removed from the site and disposed of as hazardous waste. The excavated areas have been backfilled with topsoil and trees were planted. As a result, data collected during the ESI to characterize surface soils in this area may not be representative of current conditions. Additional surface soil samples should be collected to determine if a potential risk still exists.

- The conclusion that there are potential risks to this endpoint for two of the terrestrial habitats (open field and forested areas) is based on an extremely limited data set. Only one surface soil sample was collected in the open field area (SS-15) and three soil samples were collected in the same general area within the forested area (SS-11, SS-12, and SS-13). Historical file information indicates that ash was disposed of throughout areas that include the two terrestrial habitats. In addition, dredged material from Moncrief Creek is suspected to have been disposed of along its banks in areas that would include the forested habitat. Based on this information, additional surface soil sampling in these two terrestrial habitats may be required to define the nature and extent of ecological risk to this endpoint.

- The lead detected in soil samples from the open field and forested habitats was reported with "JN" qualifiers in the data package. The "JN" qualifier for lead indicates that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis. The "JN"-qualified data for lead was an order of magnitude higher than the maximum unqualified data point; however, both values were above the ecological screening criteria.

- Dioxins and furans were detected at high concentrations throughout the two terrestrial habitats. These contaminants are known to have toxic effects on ecological receptors; however, they have no corresponding ecological screening levels. An evaluation of the effects of these contaminants on this endpoint could require testing of the toxicity of site soils to these types of organisms; however, the evaluation of food-chain exposure for these contaminants for other endpoints can address the terrestrial risks.

Assessment Endpoint No. 4: The maintenance of viable terrestrial insectivore communities in the region based on bio-transfer of arsenic, cadmium, mercury, lead, pesticides, PCBs, dioxins and furans in surface soils.

Hazard quotients for these contaminants of concern were not calculated since USEPA Region 4 does not require dose-exposure modeling in the first two steps of the ecological risk assessment process; however, these bioaccumulative contaminants were detected above ecological screening values.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate of ecological risks to this endpoint:

- Historical file information has indicated that the some areas of surface soils containing high contaminant levels have been excavated and removed since the ESI sampling was completed in 1997. These contaminated materials were removed from the site and disposed of as hazardous waste. The excavated areas have been backfilled with topsoil and trees were planted. As a result, data collected during the ESI to characterize surface soils in this area may not be representative of current conditions. This may require the acquisition of additional surface soil samples in this area to determine if a potential risk still exists.

- The lead detected in soil samples from the open field and forested habitats was reported with "JN" qualifiers in the data package. The "JN" qualifier for lead indicates that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis. The "JN"-qualified data for lead was an order of magnitude higher than the maximum unqualified data point; however, both values were above the ecological screening criteria.

- The SERA considered the maximum detected concentrations of each contaminant in each of the evaluated media. The dose and exposure calculations required to evaluate this assessment endpoint should be based on a representative exposure point concentration. The exposure point concentration should consider the life histories of the respective receptor organisms and may require the use of a site-wide average, a habitat-biased average, the 95 percent upper confidence limit, or other methods of establishing realistic exposure point concentrations. Thorough assessment of this endpoint may also require additional data to measure or estimate concentrations of contaminants in common food items such as earthworms and/or insects.

- The ability to accurately estimate realistic exposure point concentrations is adversely effected by the small data set available for two of the terrestrial habitats. Only one surface soil sample was collected in the open field area (SS-15) and three soil samples were collected in the same general area within the forested area (SS-11, SS-12, and SS-13). Historical file information indicates that ash was disposed of throughout areas that include the two terrestrial habitats. In addition, dredged material from Moncrief Creek is suspected to have been disposed of along its banks in areas that would include the forested habitat. Based on this information, additional surface soil sampling in these two terrestrial

habitats may be required to define the nature and extent of ecological risk to this endpoint.

Assessment Endpoint No. 5: The maintenance of viable terrestrial carnivore communities in the region based on bio-transfer of arsenic, cadmium, mercury, lead, pesticides, PCBs, dioxins and furans in surface soils.

Hazard quotients for these contaminants of concern were not calculated since USEPA Region 4 does not require dose-exposure modeling in the first two steps of the ecological risk assessment process; however, these bioaccumulative contaminants were detected above ecological screening values.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate ecological risks to this endpoint:

- Historical file information has indicated that the some areas of surface soils containing high contaminant levels have been excavated and removed since the ESI sampling was completed in 1997. These contaminated materials were removed from the site and disposed of as hazardous waste. The excavated areas have been backfilled with topsoil and trees were planted. As a result, data collected during the ESI to characterize surface soils in this area may not be representative of current conditions. This may require the acquisition of additional surface soil samples in this area to determine if a potential risk still exists.

- The lead detected in soil samples from the open field and forested habitats was reported with "JN" qualifiers in the data package. The "JN" qualifier for lead indicates that the laboratory reported an estimated concentration based on presumptive evidence that this inorganic compound was present in the sample. This type of qualifier is very unusual for inorganic compounds and may suggest a problem in the laboratory analysis. The "JN"-qualified data for lead was an order of magnitude higher than the maximum unqualified data point; however, both values were above the ecological screening criteria.

- The SERA considered the maximum detected concentrations of each contaminant in each of the evaluated media. The dose and exposure calculations required to evaluate this assessment endpoint should be based on a representative exposure point concentration. The exposure point concentration should consider the life histories of the respective receptor organisms and may require the use of a site-wide average, a habitat-biased average, the 95 percent upper confidence limit, or other methods of establishing realistic exposure point concentrations.

- The ability to accurately estimate realistic exposure point concentrations is adversely effected by the small data set available for the two of the terrestrial habitats. Only one surface soil sample was collected in the open field area (SS-15) and three soil samples were collected in the same general area within the forested area (SS-11, SS-12, and SS-13). Historical file information indicates that ash was disposed of throughout areas that include the two terrestrial habitats.

In addition, dredged material from Moncrief Creek is suspected to have been disposed of along its banks in areas that would include the forested habitat. Based on this information, additional surface soil sampling in these two terrestrial habitats may be required to define the nature and extent of ecological risk to this endpoint.

Assessment Endpoint No. 6: The maintenance of aquatic insectivore communities in the region based on bio-transfer of mercury, lead, and pesticides in sediments and surface water.

Hazard quotients for these contaminants of concern were not calculated since USEPA Region 4 does not require dose-exposure modeling in the first two steps of the ecological risk assessment process; however, these bioaccumulative contaminants were detected above ecological screening values.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate ecological risks to this endpoint:

- Historical file information has indicated that the sediments in Moncrief Creek were periodically dredged as recently as December 1999. Data collected during the ESI to characterize sediments may not be representative of current conditions since dredging has been known to occur between the ESI in 1997 and December 1999. This may require the acquisition of additional sediment samples to determine if a potential risk still exists.

- The conclusion that there are potential risks to this endpoint are based on contamination observed in two widely spaced sediment samples. There is some evidence that sediment samples collected from Moncrief Creek were not located in depositional areas. As a result, the sediment samples may not be biased toward those areas that could contain the highest contaminant concentrations. In addition, the habitat types in the sediment sample locations were not recorded; therefore, optimal benthic habitats may not be represented. Based on the potential risks and this uncertainty, additional sediment sampling may be required in depositional areas.

- The conclusion that there are potential risks to this endpoint are based on contamination observed in three widely spaced surface water samples (only one of which is downgradient of known areas of waste disposal). These samples may not represent worst case conditions (in groundwater recharge areas) or may not have been collected in areas where fine-grained sediments have been deposited (where contaminant concentrations would be highest). Based on the potential risks and this uncertainty, additional surface water sampling may be required in areas where groundwater concentrations were high and in depositional areas.

- Dieldrin in SD-01 was reported with "JN" qualifiers in the data package indicating that the estimated concentration reported was based on presumptive evidence of the contaminant. The "JN"-qualified data for dieldrin was collected in a sample

collected upgradient of known areas of ash disposal. The estimated concentration of this contaminant was below both the maximum unqualified data point and the ecological screening value; however, the true magnitude of the "JN" qualified data is unknown. This uncertainty does not affect the conclusions of the SERA.

- The SERA considered the maximum detected concentrations of each contaminant in each of the evaluated media. The dose and exposure calculations required to evaluate this assessment endpoint should be based on a representative exposure point concentration. The exposure point concentration should consider the life histories of the respective receptor organisms and may require the use of a site-wide average, a habitat-biased average, the 95 percent upper confidence limit, or other methods of establishing realistic exposure point concentrations. Thorough assessment of this endpoint may also require additional data to measure or estimate concentrations of contaminants in common food items such as benthic invertebrates.

- The ability to accurately estimate realistic exposure point concentrations is adversely effected by the small data set available for aquatic habitat. Only two sediment samples (SD-03 and SD-04) were collected in areas of known ash contamination. Based on this information, additional sediment sampling may be required to define the nature and extent of ecological risk to this endpoint.

Assessment Endpoint No. 7: The maintenance of piscivore communities in the region based on bio-transfer of mercury, lead, and pesticides in sediments and surface water.

Hazard quotients for these contaminants of concern were not calculated since USEPA Region 4 does not require dose-exposure modeling in the first two steps of the ecological risk assessment process; however, these bioaccumulative contaminants were detected above ecological screening values.

There are some key areas of uncertainty that can be considered when developing workplans to further investigate ecological risks to this endpoint:

- Historical file information has indicated that the sediments in Moncrief Creek were periodically dredged as recently as December 1999. Data collected during the ESI to characterize sediments may not be representative of current conditions since dredging has been known to occur between the ESI in 1997 and December 1999. This may require the acquisition of additional sediment samples to determine if a potential risk still exists.

- The conclusion that there are potential risks to this endpoint are based on contamination observed in two widely spaced samples. There is some evidence that sediment samples collected from Moncrief Creek were not located in depositional areas. As a result, the sediment samples may not be biased toward those areas that could contain the highest contaminant concentrations. In addition, the habitat types in the sediment sample locations were not recorded;

therefore, optimal benthic habitats may not be represented. Based on the potential risks and this uncertainty, additional sediment sampling may be required in depositional areas.

- The conclusion that there are potential risks to this endpoint are based on contamination observed in three widely spaced surface water samples (only one of which is downgradient of known areas of waste disposal). These samples may not represent worst case conditions (in groundwater recharge areas) or may not have been collected in areas where fine-grained sediments have been deposited (where contaminant concentrations would be highest). Based on the potential risks and this uncertainty, additional surface water sampling may be required in areas where groundwater concentrations were high and in depositional areas.

- Dieldrin in SD-01 was reported with "JN" qualifiers in the data package indicating that the estimated concentration reported was based on presumptive evidence of the contaminant. The estimated concentration of this contaminant was below both the maximum unqualified data point and the ecological screening value; however, the true magnitude of the concentration of the "JN" qualified data is unknown. This uncertainty does not affect the conclusions of the SERA.

- The SERA considered the maximum detected concentrations of each contaminant in each of the evaluated media. The dose and exposure calculations required to evaluate this assessment endpoint should be based on a representative exposure point concentration. The exposure point concentration should consider the life histories of the respective receptor organisms and may require the use of a site-wide average, a habitat-biased average, the 95 percent upper confidence limit, or other methods of establishing realistic exposure point concentrations. Thorough assessment of this endpoint may also require additional data to measure or estimate concentrations of contaminants in common food items such as fish.

- The ability to accurately estimate realistic exposure point concentrations is adversely effected by the small data set available for aquatic habitat. Only two sediment samples (SD-03 and SD-04) were collected in areas of known ash contamination. Based on this information, additional sediment sampling may be required to define the nature and extent of ecological risk to this endpoint.

3.6.3 Other Sources of Uncertainty

There are other factors in the ecological risk assessment process that may add uncertainty to the conclusions and should be considered when developing ecological workplans. This section will summarize those uncertainties.

- Site Characterization and Habitat - The ecological setting of the site was developed primarily through a one-day site visit and review of supporting information by previous investigators. The result was a cursory review of the habitat and communities likely to be supported by the various habitats on the

site. Observations of wildlife or their sign (or the lack of) are limited due to seasonal fluctuations, daily fluctuations, life histories, and significant human activity in these areas.

- Bioavailability - The presence of a contaminant in environmental media at significant levels does not always indicate that a toxicological effect is inevitable. Other factors may impact a contaminant's bioavailability, that is, its ability to impact a receptor. These factors include the affinity for the contaminant to the media to which it is absorbed, its ability to be absorbed across the gastrointestinal tract, its metabolism once absorbed into the body, its dermal absorption characteristics, and its ability to be absorbed and translocated in plants. For the purposes of the SERA, it was assumed that all of the contaminants in each contaminated media were 100 percent bioavailable. As a result, the actual risks are probably over-represented.

- Tentatively Identified Compounds (TICs) - The presumptive evidence of several extractable organic compounds was noted in the analytical data package. The actual presence and reported concentrations of these contaminants is suspect due to the "JN" qualifier attributed to them. Theses contaminants are not included as part of the target compound list and lack ecological screening values. These contaminants, if present, may add additional uncertainty to the SERA as a whole that should be considered prior to the development of work plans for further activities. In soils, these TICs included alkanes, anthracenedione, cyclopentaphenantherone, benzanthrecenone, benzanaphthothiophene, benzopyrene (not A), and methylenebis(chiloro)benzenamine. In sediments, these TICs included methylanthracene (2 isomers), dimethylphenanthrene, and benzopyrene (not A).

3.7 Scientific/Management Decision Point

Based on the information presented in of Steps 1, 2, and 3 of the ERA process, there are potential ecological risks at the site and the risk assessment should proceed with Steps 4 through 8. Further evaluations conducted at the site to address ecological risks should include an assessment of the risks presented by each contaminant of potential concern (COPC) as indicated in Table 3-2. This list of COPCs is based on the screening and refinement conducted in Steps 1, 2, and 3 of the ERA process. Based on the conclusions of Steps 1, 2, and 3 of the ERA process, several recommendations can be made:

1. Conservative dose-exposure modeling of bio-accumulative contaminants in surface soil and sediment may be helpful. This modeling may rule out the need to evaluate one or more of the food-chain exposure assessment endpoints and eliminate tissue collection and sampling as discussed in several recommendations below.

2. Collection of additional surface water samples in areas where groundwater concentrations were high and in areas of optimal aquatic habitat. This sampling could also include samples collected far enough upstream to represent

background conditions and care should be taken to ensure that data quality objectives will be maintained for site-related contaminants.

3. Collection of additional sediment samples in areas of optimal benthic habitat. Samples could also be obtained in depositional areas such as pools and sandbars. Analysis of the sediment samples could also include a determination of the physical characteristics of the sample for metrics such as total organic carbon (TOC) and grain size.

4. Collection of additional surface soil samples in the open field and forested habitats to allow the calculation of a statistically valid exposure point concentration and determine the nature and extent of site-related contamination in these areas. The excavated and backfilled area could also re-sampled to verify that all surficial contamination was removed by the excavation. Care should be taken to ensure that data quality objectives will be maintained for site-related contaminants.

3.8 Summary

Based on the development of the Problem Formulation and the SMDP presented above, it can be concluded that there is a potential for ecological risks at the site based on the information presently available. Further investigations, as described previously, should be conducted to determine the extent of contamination and risks at the site.

Table 3-2
List of Final Contaminants of Potential Concern for Further Evaluation
Brown's Dump Site

Analyte	Surface Soil COPC?	Sediment COPC?	Surface Water COPC?	Groundwater COPC
Inorganics				
Aluminum	Yes	Yes	No	Yes
Antimony	Yes	No	No	No
Arsenic	Yes	No	No	No
Barium	Yes	Yes	Yes	Yes
Cadmium	Yes	Yes	No	Yes
Chromium	Yes	No	No	No
Cobalt	No	Yes	No	Yes
Copper	Yes	Yes	No	Yes
Cyanide	Yes	Yes	No	No
Iron	Yes	Yes	No	Yes
Lead	Yes	Yes	Yes	Yes
Manganese	Yes	Yes	Yes	Yes
Mercury (Total)	Yes	Yes	No	No
Nickel	Yes	Yes	No	No
Silver	Yes	No	No	No
Vanadium	Yes	Yes	No	Yes
Zinc	Yes	Yes	Yes	Yes
Semi-Volatiles/Extractables				
Carbazole	Yes	Yes	No	No
Fluorene	Yes	No	No	No
Phenanthrene	Yes	Yes	No	No
Anthracene	Yes	No	No	No
Fluoranthene	Yes	Yes	No	No
Pyrene	Yes	No	No	No
Benzo(a)anthracene	Yes	Yes	No	No
Chrysene	Yes	Yes	No	No
Bis(2-ethylhexyl)pthalate	Yes	No	No	No
Benzo(b/k)fluoranthene	Yes	Yes	No	No
Benzo(a)pyrene	Yes	Yes	No	No
Indeno(1,2,3-cd)pyrene	Yes	Yes	No	No
Dibenzo(a,h)anthracene	Yes	No	No	No
Benzo(g,h,i)perylene	Yes	Yes	No	No
Naphthalene	Yes	No	No	No
Dibenzofuran	Yes	No	No	No
Acenapthylene	Yes	No	No	No
Pesticides/PCBs				
4,4-DDE	Yes	No	No	No
4,4-DDD	Yes	Yes	No	No
4,4-DDT	Yes	No	No	No
Gamma-BHC	No	Yes	No	No
Dieldrin	Yes	Yes	No	No
Endrin	Yes	Yes	No	No
Heptaclor	No	Yes	No	No
PCB 1254	Yes	No	No	No
PCB 1260	Yes	No	No	No
Dioxin/Furan				
Tetrachlorodibenzodioxin (total)	Yes	No	No	No
Pentachlorodibenzodioxin (total)	Yes	No	No	No
Hexachlorodibenzodioxin (total)	Yes	No	No	No
Heptachlorodibenzodioxin (total)	Yes	No	No	No
Octachlorodibenzodioxin	Yes	No	No	No
Tetrachlorodibenzofuran (total)	Yes	No	No	No
Pentachlorodibenzofuran (total)	Yes	No	No	No
Hexachlorodibenzofuran (total)	Yes	No	No	No
Heptachlorodibenzofuran (total)	Yes	No	No	No
Octachlorodibenzofuran	Yes	No	No	No

4. REFERENCES

ATSDR (Agency for Toxic Substances and Disease Control). 1992-1999. Various toxicological profiles available from the U.S. Department of Health and Human Services, Atlanta, Georgia.

Efroymson, R.A., M.E, Suter, G.W., and Wooten A.C. 1997a. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants: 1997 Revision. Prepared by Lockheed Martin Energy Systems Inc.

Efroymson, R.A., Will, M.E, and Suter, G.W. 1997b. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision. Prepared by Lockheed Martin Energy Systems Inc.

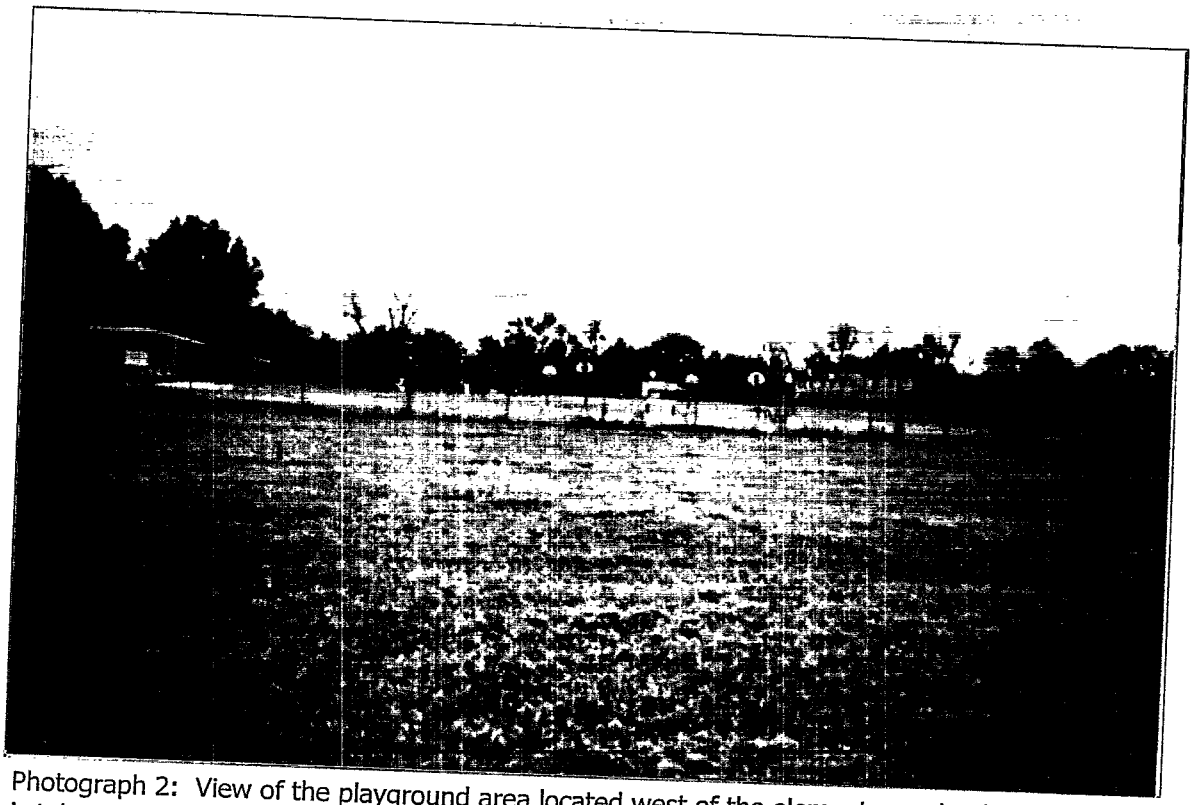
Sample et al. 1996. B.E. Sample, D. M. Opresko, and G.W. Suter, *Toxicological Benchmarks for Wildlife*, Lockheed Martin Energy Systems, Inc. prepared for U.S. Department of Energy, ES/ER/TM-86/R3, 1996.

USEPA 1995. Supplemental Guidance to RAGS: Region 4 Bulletins. Ecological Screening Values - Ecological Risk Assessment, Bulletin No. 2, December 1998.

USEPA 1997. U.S. Environmental Protection Agency Environmental Response Team, Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments - Interim Final. EPA 540-R-97-006. June 5, 1997.

USEPA 1999. U.S. Environmental Protection Agency Region 4 Ecological Risk Assessment Bulletins – Supplemental to RAGS – Draft. August 11, 1999.

Photograph 1: View of the elementary school from the open field area of the site. The broad swale is located in front of the school.

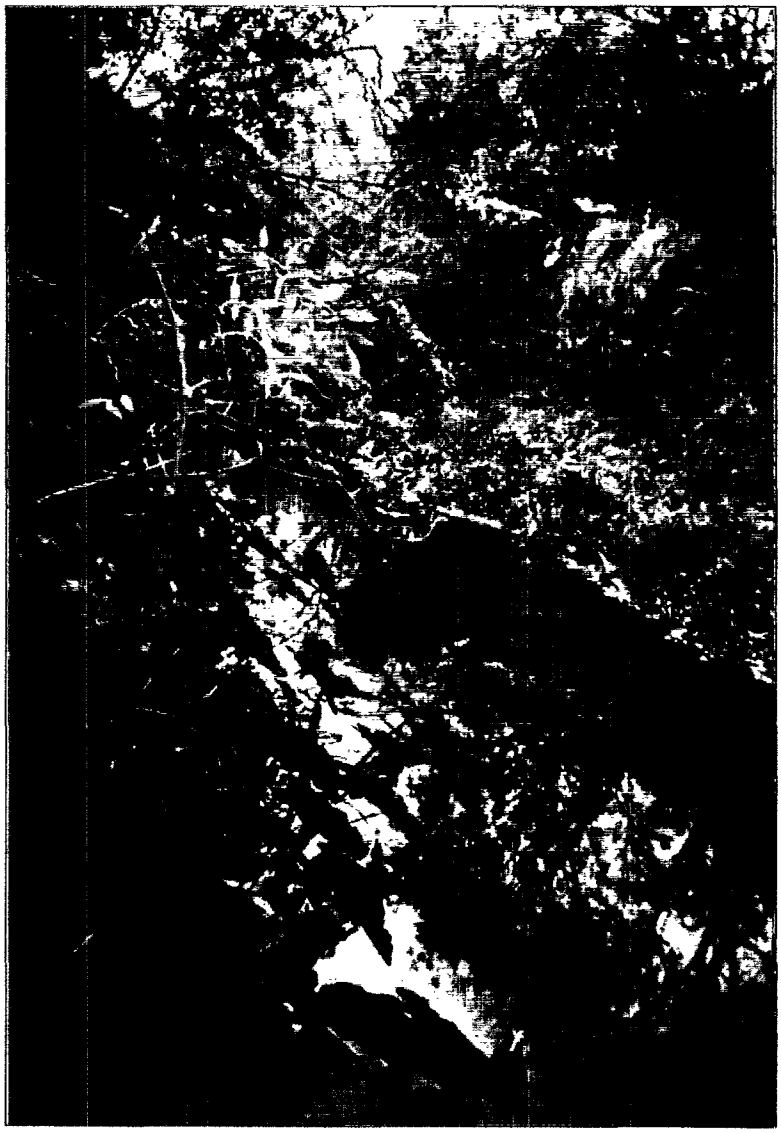


Photograph 2: View of the playground area located west of the elementary school. Photograph is taken from the open field area of the site.

Photograph 5: View of the open field area through the edge of the forest area near the areas of the broad swale. The school is visible in the background on the right.

Photograph 3: View of the broad swale looking westward on the open field area of the site. The forested area is in the background.

Photograph 4: View of cleared portion of the forested area of the site. The JEA substation is located in the right portion of the photograph



Photograph 6: View of Moncrief Creek standing onsite on the south bank near the broad swale's point of entry. Emergent wetland vegetation is visible on the left in the foreground. The sandy substrate in this section of the stream is also apparent.

Photograph 7: View of Moncrief Creek near the culvert under the railroad tracks. The site is located on the left hand side of this photograph and the pool upstream of the culvert is seen in the foreground.

3 12 0058

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 08/22/97

Subject: Results of METALS INORGANIC Sample Analysis
97-0292 BROWN'S DUMP
JACKSONVILLE, FL

From: Gary Bennett RP for

To: PAULA MACLAREN

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions. please contact me.

ATTACHMENT

INORGANIC DATA REVIEW DOCUMENT

United States Environmental Protection Agency
Region IV
Environmental Services Division
960 College Station Road, Athens, GA 30613

DATE: August 20, 1997

SUBJECT: Review of Inorganic Contract Data
Case No. 25558 SAS No. _____
Contract Lab Name: Sentinel Inc SOW No. IIM04.0
Region IV Project No. : 97-0292
SMO Traffic Nos.: MDMN04-N05, MDMN07-N19, MDMN21-N22, MDMN29-N37, MDMN39-N42
Region IV SAD Nos.: 10154 - 10183, 11018, 11760

Matrix types: Water 10 Soil/Sed. 20 Waste 0

Review performed by: James H. Chandler, ESAT Work Team

Review Codes

A - Acceptable: All QC criteria met. No data qualified based on theses items.

P - Provisional: Some QC criteria were exceeded resulting in data qualifiers being assigned based on these items.

U - Unacceptable: The QC criteria were exceeded to such an extent that the associated data was rejected based upon these items.

N/A - Not Applicable: This item does not apply to the case being reviewed.

I. Sample Holding Times and Preservation (Technical holding times; waters only)

Metals (6 mos.): A
Mercury (28 days): A
Cyanide (14 days): A

Remarks: All 40 CFR 136 mandated holding times were met.

II. Calibration

	ICP	Furnace	Mercury	CN
Initial Calib.	A	N/A	A	A
Init. Cal. Verif.	A	N/A	A	A
Cont. Cal. Verif.	A	N/A	A	A

Remarks: All 40 CFR 136 mandated holding times were met.

III. Blanks

Calib. Blanks (CB) P
Preparation Blanks (PB) P
Blind Blanks (BB) N/A

Remarks: The following positives were reported in the blanks (ug/L unless noted).

CB Water	CB Soil
Mg 27.3 K 33.9	As 2.6 Ba .7 Be .1 Fe 29.5 Pb 2 Mg 50.9 K 33.8 Tl 5.6 CN 3.4
PB Water	**PB Soil (mg/kg)**
Mg 12.11	Fe 3.98 Pb .676 Mg 7.889 K 6.499

The positives for As, Be, Pb, and Tl are due top baseline instability and reporting levels will be adjusted accordingly. The rest of the above positives are due to contamination and the 10X rule will be applied.

IV. ICP Interference Check Sample

False Positives Y
False Negatives N

Remarks: Positives > CRDL were reported for Pb in the soil contractor ICS for SDG MDMN17. The above positive was suspected of being due to interference from Al and/or Fe.

V. Spiked Sample Results

	Water	Soil
Matrix Spike	P	P
Blind Spike	P	P

Remarks: Water matrix spike recoveries for Sb (20.5%) and Se (137%) were outside control limits.
Soil matrix spike recoveries for Sb (8.2%), As (21.0% , Pb 126.7%), and Se (43.3%) were outside control limits.
Water blind spike recoveries were acceptable for all elements except CN (> warning limit)
Soil blind spike recoveries were acceptable for all elements except Cr (> action limit), Mn (> warning limit), and K (> action limit).

VI. Other QC

Matrix Duplicate P
LCS A
Serial Dilution Results P
Linear Range Check (2XCRDL) A

Remarks: Soil matrix duplicate RPDs for Fe (138.4%), Pb (39.3% , and Mn 100.6%) were outside control limits.
Water serial dilution percent differences for Fe (19.7%, and K 14.9%) were outside control limits.
Soil serial dilution percent difference for Mg (50.9% was outside control limits.
% RSD > 20% for ICP multiple exposures and reported results > IDL, but < CRDL for Sb in samples 10157 and 10178, Cd in samples 10168 and 10174, Cr in sample 10164, Co in sample 10154, Ni in samples 10156 and 10165, and Ag in samples 10155, 10157, and 10178.

% RSD > 20% for ICP multiple exposures for Na in samples 10156, 10159, 10163, 10169, 10170, 10174, 10178, 10180, and 11760.
Positives > IDL, but < CRDL were reported for Cd in samples 10154, 10155, 10163, and 10164, Cr in samples 10160, 10162, 10165, and 10166, Co in samples 10155, 10156, 10157, 10159, 10161, 10169, 10170, 10172, 10173, 10174, 10176, 10177, 10178, 10179, 10180, and 11760, Cu in samples 10156 and 10180, Mn in samples 10158 and 11018, Ni in samples 10154, 10155, 10157, 10161, 10169, 10174, 10176, 10178, 10180, and 11760, Ag in samples 10159, 10169, 10170, 10174, 10176, 10179, 10180, and 11760, and V in samples 10155, 10156, 10157, 10159, 10163, 10164, 10167, 10168, 10169, 10170, 10174, 10176, 10179, 10180, and 11760.

VII. Deliverables

Cover Page	A
Form I	A
QC Summaries	A
Raw Data	A
Traffic Reports	A
Digestion Logs	A
Preparation Logs	A
Run Logs	A

Remarks:

VIII. Contact with Contract Lab required during data review?

Yes_____ No____X____

Remarks:

IX. Data Qualifiers Summary

Element	Flag	Samples Affected	Reason
A. Waters			
As, Be, Pb, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Mg, K	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Sb	J R	All positives All negatives	Matrix spike recovery = 20.5%
Se	J	All positives	Matrix spike recovery = 137%
Fe	J	All	Serial dilution Percent difference = 19.7%
K	J	All	Serial dilution percent difference = 14.9%
CN	J	All positives	Blind spike recovery > warning limit
As	U	10160, 10164, 10175	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Cr	U	10164	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Ni	U	10165	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Cd	J	10164	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Cr	J	10160, 10162, 10165, 10166	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Co	J	10161	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Mn	J	10158, 11018	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Ni	J	10161	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
V	J	10164	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis

IX. Data Qualifiers Summary (continued)

Element	Flag	Samples Affected	Reason
B. Soils			
As, Be, Pb, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Ba, Fe, Mg, K	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Pb	JN	All positives in SDG MDMN17 with Al and/or Fe concentrations in solution > 120,000 ug/L	Suspected positive interference as in the contractor ICS
Sb	J R	All positives in SDG MDMN05 All negatives in SDG MDMN05	Matrix spike recovery = 8.2%
Sb	J R	All positives in SDG MDMN17 All negatives in SDG MDMN17	Matrix spike recovery = 14.5%
As	J R	All positives in SDG MDMN05 All negatives in SDG MDMN05	Matrix spike recovery = 21.2%
Pb	J	All positives in SDG MDMN17	Matrix spike recovery = 126.7%
Se	J	All in SDG MDMN17	Matrix spike recovery = 43.3%
Fe	J	All in SDG MDMN05	Matrix duplicate RPD = 35.7%
Fe	J	All in SDG MDMN17	Matrix duplicate RPD = 133.4%
Pb	J	All in SDG MDMN05	Matrix duplicate RPD = 39.3%
Mn	J	All in SDG MDMN05	Matrix duplicate RPD = 120.6%
Mg	J	All in SDG MDMN05	Serial dilution percent difference = 50.4%
Cr	J	All positives	Blind spike recovery > action limit
Mn	J	All positives	Blind spike recovery > warning limit
K	J	All positives	Blind spike recovery > action limit
Sb	U	10157, 10178	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Cd	U	10174, 10168	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Co	U	10154	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Ni	U	10156	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL

IX. Data Qualifiers Summary continued.

Element	Flag	Samples Affected	Reason
Ag	U	10155, 10157, 10178	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Na	J	10156, 10159, 10160, 10163, 10169, 10170, 10174	% RSD > 20% for ICP multiple exposures
Cd	J	10154, 10155, 10163	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Co	J	10155, 10156, 10157, 10159, 10169, 10170, 10173, 10174, 10176, 10177, 10178, 10179, 10180, 11760	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Cu	J	10156, 10180	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Ni	J	10154, 10155, 10157, 10169, 10174, 10176, 10178, 10180, 11760	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Ag	J	10156, 10157, 10159, 10169, 10170, 10174, 10176, 10180 11760	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
V	J	10155, 10156, 10157, 10159, 10160, 10163, 10167, 10168, 10169, 10170, 10174, 10176, 10179, 10180	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis

INORGANIC DATA QUALIFIERS REPORT

Case Number: 25558
Project Number: 97-0292
Site: Brown's Dump, Jacksonville, FL

Element	Flag	Samples Affected	Reason
A. Waters			
As, Be, Pb, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Mg, K	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Sb	R	10158, 10160, 10161, 10162, 10164, 10165, 10166, 10175, 11018	Matrix spike recovery = 20.5%
Fe	J	10158, 10160, 10161, 10162, 10164, 10165, 10166, 10175, 11018	Serial dilution Percent difference = 19.7%
K	J	10158, 10160, 10161, 10162, 10164, 10165, 10166, 10175, 11018	Serial dilution Percent difference = 14.9%
CN	J	10160, 10162, 10165, 10175	Blind spike recovery > warning limit
As	U	10160, 10164, 10175	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Cr	U	10164	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Ni	U	10165	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Cd	J	10164	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Cr	J	10160, 10162, 10165, 10166	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Co	J	10161	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Mn	J	10158, 11018	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Ni	J	10161	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis

INORGANIC DATA QUALIFIERS REPORT (continued)

Case Number: 25558
Project Number: 97-0292
Site: Brown's Dump, Jacksonville, FL

Element	Flag	Samples Affected	Reason
V	J	10164	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
B. Soils			
As, Be, Pb, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Ba, Fe, Mg, K	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Pb	JN	10159, 10171, 10172, 10173	Suspected positive interference as in the contractor ICS
Sb	J	10155, 10157, 10176, 10179, 10179	Matrix spike recovery = 8.2%
	R	10156, 10169, 10174, 10180	
Sb	J	10159, 10171, 10172, 10173, 10177, 10178, 11760	Matrix spike recovery = 14.5%
	R	10163, 10167, 10168	
As	J	10155, 10157, 10169, 10170, 10174, 10176, 10179	Matrix spike recovery = 21.2%
	R	10156, 10180	
Pb	J	10159, 10163, 10167, 10168 10171, 10172, 10173, 10177 10178, 11760	Matrix spike recovery = 126.7%
Se	J	10155, 10156, 10157, 10169, 10170, 10174, 10176, 10179, 10180	Matrix spike recovery = 43.3%
Fe	J	10155, 10156, 10157, 10169, 10170, 10174, 10176, 10179, 10180	Matrix duplicate RPD = 35.7%
Fe	J	10159, 10163, 10167, 10168, 10171, 10172, 10173, 10177, 10178, 11760	Matrix duplicate RPD = 138.4%
Pb	J	10155, 10156, 10157, 10169, 10170, 10174, 10176, 10179, 10180	Matrix duplicate RPD = 39.3%
Mn	J	10155, 10156, 10157, 10169, 10170, 10174, 10176, 10179, 10180	Matrix duplicate RPD = 120.6%
Mg	J	10155, 10156, 10157, 10169, 10170, 10174, 10176, 10179, 10180	Serial dilution percent difference = 50.4%

INORGANIC DATA QUALIFIERS REPORT (continued)

Case Number: 25558
Project Number: 97-0292
Site: Brown's Dump, Jacksonville, FL

Element	Flag	Samples Affected	Reason
Cr	J	10155, 10156, 10157, 10169 10170, 10174, 10176, 10179, 10180	Blind spike recovery > action limit
Mn	J	10155, 10156, 10157, 10169 10170, 10174, 10176, 10179, 10180	Blind spike recovery > action limit
K	J	10155, 10156, 10157, 10169 10170, 10174, 10176, 10179, 10180	Blind spike recovery > action limit
Sb	U	10157 , 10178	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Cd	U	10174, 10168	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Co	U	10154	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Ni	U	10156	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Ag	U	10155, 10157, 10178	% RSD > 20% for ICP multiple exposures and results > IDL, but < CRDL
Na	J	10156, 10159, 10160, 10163, 10169, 10170, 10174	% RSD > 20% for ICP multiple exposures
Cd	J	10154, 10155, 10163	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Co	J	10155, 10156, 10157, 10159, 10169, 10170, 10173, 10174, 10176, 10177, 10178, 10179, 10180, 11760	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Cu	J	10156, 10180	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
Ni	J	10154, 10155, 10157, 10169, 10174, 10176, 10178, 10180, 11760	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis

INORGANIC DATA QUALIFIERS REPORT (continued)

Case Number: 25558
Project Number: 97-0292
Site: Brown's Dump, Jacksonville, FL

Element	Flag	Samples Affected	Reason
Ag	J	10156, 10157, 10159, 10169, 10170, 10174, 10176, 10180 11760	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis
V	J	10155, 10156, 10157, 10159, 10160, 10163, 10167, 10168, 10169, 10170, 10174, 10176, 10179, 10180	Only analysis of 2X CRDL standard required by contract SOW for ICP analysis

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10174 FY 1997 Project 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS01 MD Number: MN07 Inorg Contractor: SENTIN
Media: SOIL D Number: MN07 Org Contractor: COMPU

Printed by Ron Phelps
Collected By
Beginning: 07/09/97 11 35
Ending:

RESULTS	UNITS	ANALYTE
1100	MG/KG	ALUMINUM
1 1UR	MG/KG	ANTIMONY
3J	MG/KG	ARSENIC
28	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
1U	MG/KG	CADMIUM
5200	MG/KG	CALCIUM
3.5J	MG/KG	CHROMIUM
0.69J	MG/KG	COBALT
12	MG/KG	COPPER
9800J	MG/KG	IRON
22J	MG/KG	LEAD
220J	MG/KG	MAGNESIUM
43J	MG/KG	MANGANESE
0 1U	MG/KG	TOTAL MERCURY
1 .4J	MG/KG	NICKEL
130J	MG/KG	POTASSIUM
0 58UJ	MG/KG	SELENIUM
0.37J	MG/KG	SILVER
75J	MG/KG	SODIUM
0.82U	MG/KG	THALLIUM
5.4J	MG/KG	VANADIUM
37	MG/KG	ZINC
17	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value N presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0064

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10179 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number 25558

Id/Station BDSS02 MD Number. MN08 Inorg Contractor: SENTIN

Media: SOIL D Number: MN08 Org Contractor: COMPU

Printed by Ron Phelps

Collected By

Beginning: 07/09/97 16 40

Ending:

RESULTS	UNITS	ANALYTE
2300	MG/KG	ALUMINUM
11J	MG/KG	ANTIMONY
5.6J	MG/KG	ARSENIC
160	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
2 1	MG/KG	CADMIUM
4300	MG/KG	CALCIUM
11J	MG/KG	CHROMIUM
1.8J	MG/KG	COBALT
83	MG/KG	COPPER
13000J	MG/KG	IRON
950J	MG/KG	LEAD
580J	MG/KG	MAGNESIUM
140J	MG/KG	MANGANESE
0.12	MG/KG	TOTAL MERCURY
9.7	MG/KG	NICKEL
130J	MG/KG	POTASSIUM
0.51UJ	MG/KG	SELENIUM
0 97J	MG/KG	SILVER
34	MG/KG	SODIUM
0.73U	MG/KG	THALLIUM
8.6J	MG/KG	VANADIUM
1700	MG/KG	ZINC
11	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U[illegible]terial was analyzed for but not detected the [illegible]er is t[illegible]imum[illegible]tation[illegible]
R-qc indicates t[illegible]data unusable compound [illegible] may [illegible] pres[illegible]samp[illegible] rea[illegible]s ne[illegible] for v[illegible]on [illegible]
[illegible]ontirm[illegible]s[illegible]en no[illegible]s rep[illegible], see chlordane constituents 2 constituents or metabolites of [illegible]

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10176 FY 1997 Project 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number 25558
Id/Station: BDSS03 MD Number: MN09 Inorg Contractor: SENTIN
Media: SOIL D Number: MN09 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning. 07/09/97 15:50
Ending:

RESULTS	UNITS	ANALYTE
2400	MG/KG	ALUMINUM
2.9J	MG/KG	ANTIMONY
4.1J	MG/KG	ARSENIC
140	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
2	MG/KG	CADMIUM
13000	MG/KG	CALCIUM
14J	MG/KG	CHROMIUM
1.9J	MG/KG	COBALT
67	MG/KG	COPPER
8300J	MG/KG	IRON
370J	MG/KG	LEAD
740J	MG/KG	MAGNESIUM
89	MG/KG	MANGANESE
0.21	MG/KG	TOTAL MERCURY
8.3J	MG/KG	NICKEL
290J	MG/KG	POTASSIUM
0.59UJ	MG/KG	SELENIUM
0.90J	MG/KG	SILVER
70	MG/KG	SODIUM
0.84U	MG/KG	THALLIUM
8.4J	MG/KG	VANADIUM
690	MG/KG	ZINC
21	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0065

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10169 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS04 MD Number: MN10 Inorg Contractor: SENTIN

Media: SOIL D Number: MN10 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning: 07/09/97 10.45

Ending.

RESULTS	UNITS	ANALYTE
1800	MG/KG	ALUMINUM
1UR	MG/KG	ANTIMONY
2.4J	MG/KG	ARSENIC
56	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
1.4	MG/KG	CADMIUM
4200	MG/KG	CALCIUM
15J	MG/KG	CHROMIUM
0.77J	MG/KG	COBALT
46	MG/KG	COPPER
5500J	MG/KG	IRON
200J	MG/KG	LEAD
240J	MG/KG	MAGNESIUM
110J	MG/KG	MANGANESE
0 17	MG/KG	TOTAL MERCURY
4 4J	MG/KG	NICKEL
86J	MG/KG	POTASSIUM
0.52UJ	MG/KG	SELENIUM
0.45J	MG/KG	SILVER
36J	MG/KG	SODIUM
0.73U	MG/KG	THALLIUM
6.7J	MG/KG	VANADIUM
390	MG/KG	ZINC
10	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J estimated value N presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit [redacted]
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is n[redacted]ry for [redacted]ation. [redacted]
[redacted] confi[redacted]hen [redacted]e is r[redacted], see [redacted]ne c[redacted]nts [redacted]tuent[redacted]tabo[redacted] technical chlordane

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10180 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS05 MD Number: MN11 Inorg Contractor: SENTIN

Media: SOIL D Number: MN11 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning: 07/09/97 17:00

Ending:

RESULTS	UNITS	ANALYTE
1200	MG/KG	ALUMINUM
1UR	MG/KG	ANTIMONY
2UJ	MG/KG	ARSENIC
24	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
0.45J	MG/KG	CADMIUM
2400	MG/KG	CALCIUM
4.7J	MG/KG	CHROMIUM
0.52J	MG/KG	COBALT
40	MG/KG	COPPER
3500J	MG/KG	IRON
100J	MG/KG	LEAD
200J	MG/KG	MAGNESIUM
57J	MG/KG	MANGANESE
0.33	MG/KG	TOTAL MERCURY
3.7J	MG/KG	NICKEL
80J	MG/KG	POTASSIUM
0.51UJ	MG/KG	SELENIUM
0.30J	MG/KG	SILVER
36J	MG/KG	SODIUM
0.73U	MG/KG	THALLIUM
4J	MG/KG	VANADIUM
130	MG/KG	ZINC
8	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0066

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10155 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS06 MD Number: MN12 Inorg Contractor: SENTIN
Media: SOIL D Number: MN12 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:
Beginning: 07/08/97 11:10
Ending:

RESULTS	UNITS	ANALYTE
830	MG/KG	ALUMINUM
1.4J	MG/KG	ANTIMONY
2UJ	MG/KG	ARSENIC
18	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
0.27J	MG/KG	CADMIUM
1300	MG/KG	CALCIUM
3.8J	MG/KG	CHROMIUM
0.50J	MG/KG	COBALT
29	MG/KG	COPPER
4100J	MG/KG	IRON
130J	MG/KG	LEAD
120J	MG/KG	MAGNESIUM
67J	MG/KG	MANGANESE
0.1U	MG/KG	TOTAL MERCURY
5.1J	MG/KG	NICKEL
76J	MG/KG	POTASSIUM
0.51UJ	MG/KG	SELENIUM
1U	MG/KG	SILVER
30U	MG/KG	SODIUM
0.72U	MG/KG	THALLIUM
6.8J	MG/KG	VANADIUM
100	MG/KG	ZINC
7	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given [redacted]-material was analyzed for but not detected [redacted]
R-qc indicat[redacted]hat data unusable compound may or may not be p[redacted] resa[redacted] and [redacted]sis is [redacted]sary f[redacted]cation[redacted]
[redacted] co[redacted] whe[redacted]ue is [redacted]d, se[redacted]dane [redacted]ents [redacted] constituents of metabolites of technical chlord[redacted]

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10157 FY 1997 Project: 97-0292

METALS SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS07 MD Number: MN13 Inorg Contractor: SENTIN

Media: SOIL D Number: MN13 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning: 07/08/97 12.30

Ending:

RESULTS	UNITS	ANALYTE
1300	MG/KG	ALUMINUM
2UJ	MG/KG	ANTIMONY
2UJ	MG/KG	ARSENIC
36	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
0.68J	MG/KG	CADMIUM
630	MG/KG	CALCIUM
6.6J	MG/KG	CHROMIUM
0.83J	MG/KG	COBALT
33	MG/KG	COPPER
9100J	MG/KG	IRON
150J	MG/KG	LEAD
200J	MG/KG	MAGNESIUM
65J	MG/KG	MANGANESE
0.1U	MG/KG	TOTAL MERCURY
4.2J	MG/KG	NICKEL
96J	MG/KG	POTASSIUM
0.51UJ	MG/KG	SELENIUM
1U	MG/KG	SILVER
52	MG/KG	SODIUM
0.73U	MG/KG	THALLIUM
5.4J	MG/KG	VANADIUM
200	MG/KG	ZINC
9	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0067

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10170 FY 1997 Project 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS08 MD Number: MN14 Inorg Contractor: SENTIN

Media: SOIL D Number: MN14 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning: 07/09/97 11:00

Ending:

RESULTS	UNITS	ANALYTE
2100	MG/KG	ALUMINUM
3.3J	MG/KG	ANTIMONY
5.1J	MG/KG	ARSENIC
110	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
1.9	MG/KG	CADMIUM
1200	MG/KG	CALCIUM
15J	MG/KG	CHROMIUM
2.1J	MG/KG	COBALT
120	MG/KG	COPPER
17000J	MG/KG	IRON
380J	MG/KG	LEAD
220J	MG/KG	MAGNESIUM
150J	MG/KG	MANGANESE
0.22	MG/KG	TOTAL MERCURY
12	MG/KG	NICKEL
140J	MG/KG	POTASSIUM
0.57UJ	MG/KG	SELENIUM
1.1J	MG/KG	SILVER
35J	MG/KG	SODIUM
0.80U	MG/KG	THALLIUM
5.2J	MG/KG	VANADIUM
630	MG/KG	ZINC
17	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given [illegible] material was analyzed for but not detected [illegible] number [illegible] minimum [illegible] antita[illegible]
R-qc indicat[illegible] that data unusable compound may or [illegible] be p[illegible] resa[illegible] and [illegible]sis is [illegible]sary f[illegible]cation[illegible]
[illegible] C co[illegible] [illegible] when [illegible]ue is [illegible]ed, see chlordane constituents 2 constituents or metabolites of [illegible]

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10156 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS09 MD Number: MN15 Inorg Contractor: SENTIN
Media: SOIL D Number: MN15 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 12:10
Ending:

RESULTS	UNITS	ANALYTE
1100	MG/KG	ALUMINUM
1UR	MG/KG	ANTIMONY
0.44UR	MG/KG	ARSENIC
4.1	MG/KG	BARIUM
0.02U	MG/KG	BERYLLIUM
0.07U	MG/KG	CADMIUM
650	MG/KG	CALCIUM
1.7J	MG/KG	CHROMIUM
0.31U	MG/KG	COBALT
2.4J	MG/KG	COPPER
420J	MG/KG	IRON
5J	MG/KG	LEAD
50UJ	MG/KG	MAGNESIUM
4.7J	MG/KG	MANGANESE
0.06U	MG/KG	TOTAL MERCURY
2U	MG/KG	NICKEL
40UJ	MG/KG	POTASSIUM
0.53UJ	MG/KG	SELENIUM
0.18U	MG/KG	SILVER
46J	MG/KG	SODIUM
0.75U	MG/KG	THALLIUM
1.8J	MG/KG	VANADIUM
17	MG/KG	ZINC
12	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10154 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS10 MD Number: MN16 Inorg Contractor: SENTIN

Media: SOIL D Number: MN16 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning: 07/08/97 11:40

Ending:

3 12 0068

RESULTS	UNITS	ANALYTE
990	MG/KG	ALUMINUM
2J	MG/KG	ANTIMONY
2UJ	MG/KG	ARSENIC
10	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
0.14J	MG/KG	CADMIUM
4600	MG/KG	CALCIUM
3.7J	MG/KG	CHROMIUM
1U	MG/KG	COBALT
9.9	MG/KG	COPPER
1800J	MG/KG	IRON
51J	MG/KG	LEAD
220J	MG/KG	MAGNESIUM
22J	MG/KG	MANGANESE
0.05U	MG/KG	TOTAL MERCURY
2.6J	MG/KG	NICKEL
50U	MG/KG	POTASSIUM
0.50UJ	MG/KG	SELENIUM
0.17U	MG/KG	SILVER
30U	MG/KG	SODIUM
0.71U	MG/KG	THALLIUM
2.5J	MG/KG	VANADIUM
76	MG/KG	ZINC
7	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is [illegible]
R-qc indicates [illegible] data unusable. compound [illegible] or may [illegible] pre[illegible] [illegible] is [illegible] for [illegible]tion. [illegible]
[illegible] confi[illegible] [illegible] is re[illegible] see [illegible] constituents 2.constituents of metabolites of technical chlord[illegible]

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10173 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS11 MD Number: MN17 Inorg Contractor: SENTIN
Media: SOIL D Number: MN17 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By
Beginning: 07/09/97 11 45
Ending:

RESULTS	UNITS	ANALYTE
4500	MG/KG	ALUMINUM
21J	MG/KG	ANTIMONY
18	MG/KG	ARSENIC
590	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
8.8	MG/KG	CADMIUM
18000	MG/KG	CALCIUM
58J	MG/KG	CHROMIUM
7.5J	MG/KG	COBALT
360	MG/KG	COPPER
56000	MG/KG	IRON
1800JN	MG/KG	LEAD
1700	MG/KG	MAGNESIUM
470J	MG/KG	MANGANESE
5.6	MG/KG	TOTAL MERCURY
41	MG/KG	NICKEL
560	MG/KG	POTASSIUM
0.63U	MG/KG	SELENIUM
4 3	MG/KG	SILVER
76	MG/KG	SODIUM
0.90U	MG/KG	THALLIUM
30	MG/KG	VANADIUM
3800	MG/KG	ZINC
25	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0069

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10171 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS12 MD Number: MN18 Inorg Contractor: SENTIN
Media: SOIL D Number: MN18 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 12 00
Ending:

RESULTS	UNITS	ANALYTE
5000	MG/KG	ALUMINUM
19J	MG/KG	ANTIMONY
35	MG/KG	ARSENIC
1200	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
7.9	MG/KG	CADMIUM
6800	MG/KG	CALCIUM
79J	MG/KG	CHROMIUM
14	MG/KG	COBALT
4100	MG/KG	COPPER
110000J	MG/KG	IRON
9100JN	MG/KG	LEAD
4900	MG/KG	MAGNESIUM
790J	MG/KG	MANGANESE
0.24	MG/KG	TOTAL MERCURY
100	MG/KG	NICKEL
530	MG/KG	POTASSIUM
0.52U	MG/KG	SELENIUM
4.4	MG/KG	SILVER
330	MG/KG	SODIUM
0.74U	MG/KG	THALLIUM
16	MG/KG	VANADIUM
2800	MG/KG	ZINC
15	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. [illegible]-material was analyzed for but not detected [illegible]umber [illegible]minin[illegible]antita[illegible]
R-qc indicat[illegible]hat data unusable. compound may or [illegible] be p[illegible] resa[illegible] and [illegible]sis is [illegible]sary f[illegible]cation[illegible]
[illegible]-co[illegible] [illegible] when [illegible]ue is [illegible]ed, see chlordane constituents 2 constituents or metabolites of [illegible]

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10177 FY 1997 Project: 97-0292

METALS SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS13 MD Number: MN19 Inorg Contractor: SENTIN
Media: SOIL D Number: MN19 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 15 15
Ending:

RESULTS	UNITS	ANALYTE
3300	MG/KG	ALUMINUM
32J	MG/KG	ANTIMONY
11	MG/KG	ARSENIC
400	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
5.3	MG/KG	CADMIUM
9000	MG/KG	CALCIUM
140J	MG/KG	CHROMIUM
5J	MG/KG	COBALT
240	MG/KG	COPPER
29000J	MG/KG	IRON
1900JN	MG/KG	LEAD
1100	MG/KG	MAGNESIUM
260J	MG/KG	MANGANESE
0.41	MG/KG	TOTAL MERCURY
24	MG/KG	NICKEL
320J	MG/KG	POTASSIUM
0.58U	MG/KG	SELENIUM
2.7	MG/KG	SILVER
86	MG/KG	SODIUM
0.82U	MG/KG	THALLIUM
18	MG/KG	VANADIUM
2700	MG/KG	ZINC
21	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0070

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 11760 FY 1997 Project: 97-0292

METALS SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS14 MD Number: MN20 Inorg Contractor: SENTIN

Media: SOIL D Number: MN20 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning 07/09/97 14 15

Ending

RESULTS	UNITS	ANALYTE
1900	MG/KG	ALUMINUM
6 8J	MG/KG	ANTIMONY
2U	MG/KG	ARSENIC
84	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
1.1	MG/KG	CADMIUM
2200	MG/KG	CALCIUM
11J	MG/KG	CHROMIUM
1J	MG/KG	COBALT
38	MG/KG	COPPER
8800J	MG/KG	IRON
460J	MG/KG	LEAD
210	MG/KG	MAGNESIUM
98J	MG/KG	MANGANESE
0.24	MG/KG	TOTAL MERCURY
4J	MG/KG	NICKEL
150J	MG/KG	POTASSIUM
0.51U	MG/KG	SELENIUM
0.47J	MG/KG	SILVER
41J	MG/KG	SODIUM
0.73U	MG/KG	THALLIUM
5.2J	MG/KG	VANADIUM
230	MG/KG	ZINC
13	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected The number is the minimum quantitation lim
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is [redacted]sary f[redacted]catio[redacted]
[redacted]C-co[redacted] wher[redacted]ue is [redacted]ed, se[redacted]dane [redacted]ents [redacted]stitue[redacted] metab[redacted] of technical chlordane

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10172 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSI Case Number: 25558
Id/Station: BDSS15 MD Number: MN21 Inorg Contractor: SENTIN
Media: SOIL D Number: MN21 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
5500	MG/KG	ALUMINUM
11J	MG/KG	ANTIMONY
15	MG/KG	ARSENIC
550	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
8.1	MG/KG	CADMIUM
8400	MG/KG	CALCIUM
57J	MG/KG	CHROMIUM
9.1J	MG/KG	COBALT
420	MG/KG	COPPER
79000J	MG/KG	IRON
1200JN	MG/KG	LEAD
720	MG/KG	MAGNESIUM
590J	MG/KG	MANGANESE
0 95	MG/KG	TOTAL MERCURY
44	MG/KG	NICKEL
210J	MG/KG	POTASSIUM
0.64U	MG/KG	SELENIUM
4.6	MG/KG	SILVER
120	MG/KG	SODIUM
0.91U	MG/KG	THALLIUM
21	MG/KG	VANADIUM
2200	MG/KG	ZINC
26	%	% MOISTURE

A-average value. NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0071

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10178 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS16 MD Number: MN22 Inorg Contractor: SENTIN
Media: SOIL D Number: MN22 Org Contractor: COMPU

Printed by Ron Phelps

Collected By
Beginning 07/09/97 16 10
Ending

RESULTS	UNITS	ANALYTE
1600	MG/KG	ALUMINUM
2UJ	MG/KG	ANTIMONY
2U	MG/KG	ARSENIC
93	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
1.5	MG/KG	CADMIUM
3600	MG/KG	CALCIUM
15J	MG/KG	CHROMIUM
1.5J	MG/KG	COBALT
52	MG/KG	COPPER
11000J	MG/KG	IRON
180J	MG/KG	LEAD
340	MG/KG	MAGNESIUM
110J	MG/KG	MANGANESE
0.36	MG/KG	TOTAL MERCURY
7.2J	MG/KG	NICKEL
160J	MG/KG	POTASSIUM
0.59U	MG/KG	SELENIUM
1U	MG/KG	SILVER
50J	MG/KG	SODIUM
0.84U	MG/KG	THALLIUM
6.5J	MG/KG	VANADIUM
340	MG/KG	ZINC
20	%	% MOISTURE

A average value NA not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation [illegible]
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is [illegible]sary f[illegible]cation[illegible]
[illegible] co[illegible] whe[illegible]ue is [illegible]d, se[illegible]dane [illegible]ents [illegible]stitue[illegible] metab[illegible] of technical chlordane

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | REPRINTED 08/22/97 08:13

Sample 10158 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL.
Program: NSF Case Number: 25558
Id/Station: BDMW01 MD Number: MN37 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN37 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
32	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
2U	UG/L	ARSENIC
24	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
2500	UG/L	CALCIUM
1U	UG/L	CHROMIUM
2U	UG/L	COBALT
4U	UG/L	COPPER
12UJ	UG/L	IRON
3U	UG/L	LEAD
1200	UG/L	MAGNESIUM
5J	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
2000J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
2500	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
20U	UG/L	ZINC

A-average value. NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0072

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10175 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW04 MD Number: MN40 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN40' Org Contractor: COMPU

Printed by: Ron Phelps

Collected By.
Beginning: 07/09/97 14 00
Ending.

RESULTS	UNITS	ANALYTE
180	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
4U	UG/L	ARSENIC
75	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
38000	UG/L	CALCIUM
1U	UG/L	CHROMIUM
2U	UG/L	COBALT
17	UG/L	COPPER
28000J	UG/L	IRON
29	UG/L	LEAD
11000	UG/L	MAGNESIUM
150	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
8400J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
28000	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
110	UG/L	ZINC

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K-actual val[illegible] known to be less than value given L-actual value [illegible] known to [illegible] ter th[illegible] e giv[illegible] mater[illegible] analy[illegible] but [illegible] ected [illegible] umber[illegible] minimum quantitation limit
R-qc [illegible] unusa[illegible] ompo[illegible] y or [illegible] be present resampling and reanalysis is necessary for verification
C confirmed by gcms L when no value is reported [illegible]

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10161 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW05 MD Number: MN41 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN41 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
370	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
20	UG/L	ARSENIC
230	UG/L	BARIUM
1U	UG/L	BERYLLIUM
5	UG/L	CADMIUM
87000	UG/L	CALCIUM
1U	UG/L	CHROMIUM
7J	UG/L	COBALT
32	UG/L	COPPER
9300J	UG/L	IRON
73	UG/L	LEAD
13000	UG/L	MAGNESIUM
2100	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
19J	UG/L	NICKEL
16000J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
13000	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
910	UG/L	ZINC

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0073

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10164 FY 1997 Project 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station BDMW06 MD Number: MN39 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN39 Org Contractor: COMPU

Printed by. Ron Phelps

Collected By.
Beginning: 07/08/97 17 15
Ending.

RESULTS	UNITS	ANALYTE
420	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
3U	UG/L	ARSENIC
120	UG/L	BARIUM
1U	UG/L	BERYLLIUM
2J	UG/L	CADMIUM
79000	UG/L	CALCIUM
2U	UG/L	CHROMIUM
2U	UG/L	COBALT
27	UG/L	COPPER
12000J	UG/L	IRON
64	UG/L	LEAD
25000	UG/L	MAGNESIUM
75	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
58000J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
38000	UG/L	SODIUM
4U	UG/L	THALLIUM
2J	UG/L	VANADIUM
330	UG/L	ZINC

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantit[illegible]
R-qc indicat[illegible] that data unusable compound may or may not be present res[illegible]g and [illegible]lysis [illegible]ssary [illegible]ficati[illegible]
C-c[illegible]1.whe[illegible]alue i[illegible]ted, s[illegible]rdane[illegible]tuents [illegible] constitu[illegible] of meta[illegible]s of technical chlordane

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10165 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW01 MD Number: MN33 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN33 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 09:25
Ending:

RESULTS	UNITS	ANALYTE
36	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
16	UG/L	ARSENIC
43	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
53000	UG/L	CALCIUM
6J	UG/L	CHROMIUM
2U	UG/L	COBALT
4U	UG/L	COPPER
650J	UG/L	IRON
3	UG/L	LEAD
12000	UG/L	MAGNESIUM
27	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
8U	UG/L	NICKEL
2900J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
14000	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
24	UG/L	ZINC

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0074

METALS SAMPLE ANALYSIS — EPA - REGION IV SESD, ATHENS, GA — PRINTED 08/22/97 07:49

Sample 10166 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station BDSW02 MD Number: MN34 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN34 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By.
Beginning. 07/09/97 09.00
Ending

RESULTS	UNITS	ANALYTE
28	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
12	UG/L	ARSENIC
37	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
45000	UG/L	CALCIUM
4J	UG/L	CHROMIUM
2U	UG/L	COBALT
4U	UG/L	COPPER
540J	UG/L	IRON
4	UG/L	LEAD
9900	UG/L	MAGNESIUM
25	UG/L	MANGANESE
0 10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
3100J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
170000	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
22	UG/L	ZINC

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see Chlordane constituents 2 constituents or metabol[illegible] technical chlordan[illegible]

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10162 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW03 MD Number: MN35 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN35 Org Contractor: COMPU

Printed by Ron Phelps

Collected By
Beginning: 07/08/97 16.10
Ending:

RESULTS	UNITS	ANALYTE
70	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
11	UG/L	ARSENIC
42	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
50000	UG/L	CALCIUM
4J	UG/L	CHROMIUM
2U	UG/L	COBALT
4U	UG/L	COPPER
640J	UG/L	IRON
3U	UG/L	LEAD
9200	UG/L	MAGNESIUM
25	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
3300J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
13000	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
20	UG/L	ZINC

A-average value NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0075

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10160 FY 1997 Project 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW04 MD Number: MN36 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN36 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 15.00
Ending:

RESULTS	UNITS	ANALYTE
57	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
8U	UG/L	ARSENIC
50	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
54000	UG/L	CALCIUM
3J	UG/L	CHROMIUM
2U	UG/L	COBALT
4U	UG/L	COPPER
520J	UG/L	IRON
3	UG/L	LEAD
9000	UG/L	MAGNESIUM
27	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
3400J	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
12000	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
100	UG/L	ZINC

A-average value NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. [illegible]terial [illegible]alyzed [illegible] not [illegible]d th[illegible]er is [illegible]imum[illegible]ilation [illegible]
[illegible]c ind[illegible] [illegible]sable[illegible]ound[illegible] may[illegible] pres[illegible]samp[illegible]d rea[illegible]is nec[illegible]ry for verification
[illegible]confirmed by [illegible] I when no value is reported, see chlordane constituents [illegible]

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10167 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD01 MD Number: MN29 Inorg Contractor: SENTIN
Media: SOIL D Number: MN29 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 09:30
Ending:

RESULTS	UNITS	ANALYTE
420	MG/KG	ALUMINUM
1.2UR	MG/KG	ANTIMONY
1U	MG/KG	ARSENIC
5.9	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
0.08U	MG/KG	CADMIUM
1800	MG/KG	CALCIUM
2J	MG/KG	CHROMIUM
0.37U	MG/KG	COBALT
7	MG/KG	COPPER
940J	MG/KG	IRON
10J	MG/KG	LEAD
100U	MG/KG	MAGNESIUM
4.9J	MG/KG	MANGANESE
0.07U	MG/KG	TOTAL MERCURY
0.94U	MG/KG	NICKEL
70UJ	MG/KG	POTASSIUM
0.63U	MG/KG	SELENIUM
0.21U	MG/KG	SILVER
40U	MG/KG	SODIUM
0.89U	MG/KG	THALLIUM
1.6J	MG/KG	VANADIUM
17	MG/KG	ZINC
26	%	% MOISTURE

A-average value. NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0076

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10168 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD02 MD Number: MN30 Inorg Contractor: SENTIN
Media: SOIL D Number: MN30 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 09 00
Ending:

RESULTS	UNITS	ANALYTE
200	MG/KG	ALUMINUM
1.1UR	MG/KG	ANTIMONY
0.48U	MG/KG	ARSENIC
3.9	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
1U	MG/KG	CADMIUM
1500	MG/KG	CALCIUM
2.2J	MG/KG	CHROMIUM
0.33U	MG/KG	COBALT
9	MG/KG	COPPER
410J	MG/KG	IRON
11J	MG/KG	LEAD
90U	MG/KG	MAGNESIUM
4.2J	MG/KG	MANGANESE
0.06U	MG/KG	TOTAL MERCURY
0.86U	MG/KG	NICKEL
60UJ	MG/KG	POTASSIUM
0.57U	MG/KG	SELENIUM
0.19U	MG/KG	SILVER
40U	MG/KG	SODIUM
0.81U	MG/KG	THALLIUM
1.1J	MG/KG	VANADIUM
17	MG/KG	ZINC
26	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation [illegible]
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is [illegible]sary f[illegible]cation [illegible]
C-con[illegible] wher[illegible]ue is [illegible]d, se[illegible]dane [illegible]uents [illegible]stituents or metabolites of technical chlordane

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10163 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD03 MD Number: MN31 Inorg Contractor: SENTIN
Media: SOIL D Number: MN31 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 16:25
Ending:

RESULTS	UNITS	ANALYTE
730	MG/KG	ALUMINUM
1.4UR	MG/KG	ANTIMONY
2U	MG/KG	ARSENIC
10	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
0.30J	MG/KG	CADMIUM
2900	MG/KG	CALCIUM
14J	MG/KG	CHROMIUM
0.41U	MG/KG	COBALT
19	MG/KG	COPPER
1700J	MG/KG	IRON
30J	MG/KG	LEAD
190	MG/KG	MAGNESIUM
10J	MG/KG	MANGANESE
0 08U	MG/KG	TOTAL MERCURY
1.1U	MG/KG	NICKEL
170J	MG/KG	POTASSIUM
0.71U	MG/KG	SELENIUM
0.24U	MG/KG	SILVER
49J	MG/KG	SODIUM
1U	MG/KG	THALLIUM
3J	MG/KG	VANADIUM
69	MG/KG	ZINC
37	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0077

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | REPRINTED 08/22/97 08:13

Sample 10159 FY 1997 Project: 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32
Media: SOIL D Number: MN32

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
3300	MG/KG	ALUMINUM
6.8J	MG/KG	ANTIMONY
5.8	MG/KG	ARSENIC
180	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
3.7	MG/KG	CADMIUM
4200	MG/KG	CALCIUM
28J	MG/KG	CHROMIUM
4.1J	MG/KG	COBALT
190	MG/KG	COPPER
49000J	MG/KG	IRON
760JN	MG/KG	LEAD
1100	MG/KG	MAGNESIUM
30J	MG/KG	MANGANESE
0.62	MG/KG	TOTAL MERCURY
25	MG/KG	NICKEL
330J	MG/KG	POTASSIUM
0.85U	MG/KG	SELENIUM
1.8J	MG/KG	SILVER
160J	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
7.7J	MG/KG	VANADIUM
810	MG/KG	ZINC
45	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation lim[illegible]
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is r[illegible]sary for verification
C-confirme[illegible]gcms 1 when [illegible]ue is [illegible]d, se[illegible]lane [illegible]ents [illegible]stitue[illegible]netab[illegible]f tech[illegible]hlorda[illegible]

METALS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10159 FY 1997 Project. 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32 Inorg Contractor: SENTIN
Media: SOIL D Number: MN32 Org Contractor: COMPU

Printed by. Ron Phelps
Collected By.
Beginning. 07/08/97 15.05
Ending:

RESULTS	UNITS	ANALYTE
3300	MG/KG	ALUMINUM
6.8J	MG/KG	ANTIMONY
5.8	MG/KG	ARSENIC
180	MG/KG	BARIUM
1U	MG/KG	BERYLLIUM
3.7	MG/KG	CADMIUM
4200	MG/KG	CALCIUM
28J	MG/KG	CHROMIUM
4.1J	MG/KG	COBALT
190	MG/KG	COPPER
49000J	MG/KG	IRON
760JN	MG/KG	LEAD
1100	MG/KG	MAGNESIUM
30J	MG/KG	MANGANESE
0.62	MG/KG	TOTAL MERCURY
25	MG/KG	NICKEL
330J	MG/KG	POTASSIUM
0.85U	MG/KG	SELENIUM
1.8J	MG/KG	SILVER
160J	MG/KG	SODIUM
1.2U	MG/KG	THALLIUM
7.7J	MG/KG	VANADIUM
810	MG/KG	ZINC
45	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0078

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10181 FY 1997 Project. 97-0292

METALS SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL

Program NSF Case Number. 25558

Id/Station BDTB01

Media WATER D Number: MNO6 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:

Beginning: 07/08/97 09 25

Ending:

RESULTS	UNITS	ANALYTE
NA	UG/L	ALUMINUM
NA	UG/L	ANTIMONY
NA	UG/L	ARSENIC
NA	UG/L	BARIUM
NA	UG/L	BERYLLIUM
NA	UG/L	CADMIUM
NA	UG/L	CALCIUM
NA	UG/L	CHROMIUM
NA	UG/L	COBALT
NA	UG/L	COPPER
NA	UG/L	IRON
NA	UG/L	LEAD
NA	UG/L	MAGNESIUM
NA	UG/L	MANGANESE
NA	UG/L	TOTAL MERCURY
NA	UG/L	NICKEL
NA	UG/L	POTASSIUM
NA	UG/L	SELENIUM
NA	UG/L	SILVER
NA	UG/L	SODIUM
NA	UG/L	THALLIUM
NA	UG/L	VANADIUM
NA	UG/L	ZINC

NO SAMPLE CONTAINER RECEIVED

A average value NA-not analyzed NAI-interferences J-estimated value. N presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation [illegible]
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is [illegible]cessary for verification
C [illegible] 1 wh[illegible] value [illegible]ted, [illegible]ordan[illegible]tituen[illegible]onstit[illegible]r met[illegible]s of te[illegible] chlo[illegible]

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10182 FY 1997 Project: 97-0292

METALS SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL

Program NSF Case Number: 25558

Id/Station: BD009QA MD Number: MN04 Inorg Contractor: SENTIN

Media WATSPK D Number: MN04 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By.

Beginning. 07/09/97 12 05

Ending

0011574V,0010083E,0002264P,0018056M,0026873CN

RESULTS	UNITS	ANALYTE
10U	UG/L	ALUMINUM
5U	UG/L	ANTIMONY
2U	UG/L	ARSENIC
1U	UG/L	BARIUM
9	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
9U	UG/L	CALCIUM
21	UG/L	CHROMIUM
2U	UG/L	COBALT
57	UG/L	COPPER
12U	UG/L	IRON
6	UG/L	LEAD
10U	UG/L	MAGNESIUM
150	UG/L	MANGANESE
7 5	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
77	UG/L	POTASSIUM
3U	UG/L	SELENIUM
41	UG/L	SILVER
820	UG/L	SODIUM
12	UG/L	THALLIUM
2U	UG/L	VANADIUM
20U	UG/L	ZINC

A average value NA not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0079

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10183 FY 1997 Project 97-0292

METALS SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BD005QA MD Number: MN05 Inorg Contractor: SENTIN
Media SEDIMSPK Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 12.05
Ending:
ICC00346

RESULTS	UNITS	ANALYTE
1400	MG/KG	ALUMINUM
4.5	MG/KG	ANTIMONY
110	MG/KG	ARSENIC
300	MG/KG	BARIUM
0.08	MG/KG	BERYLLIUM
1.9	MG/KG	CADMIUM
35000	MG/KG	CALCIUM
6.2	MG/KG	CHROMIUM
13	MG/KG	COBALT
1200	MG/KG	COPPER
3900	MG/KG	IRON
1100	MG/KG	LEAD
14000	MG/KG	MAGNESIUM
760	MG/KG	MANGANESE
0.19	MG/KG	TOTAL MERCURY
8.3	MG/KG	NICKEL
590	MG/KG	POTASSIUM
0.47U	MG/KG	SELENIUM
0.82	MG/KG	SILVER
57	MG/KG	SODIUM
0.67U	MG/KG	THALLIUM
250	MG/KG	VANADIUM
1700	MG/KG	ZINC
0	%	% MOISTURE

A average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis [redacted]
[redacted]

METALS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 11018 FY 1997 Project 97-0292

Printed by Ron Phelps

METALS SCAN

Collected By
Beginning
Ending

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program NSF Case Number: 25558
Id/Station BDFB01 MD Number: MN42 Inorg Contractor: SENTIN
Media WATER D Number: MN42 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
25	UG/L	ALUMINUM
5UR	UG/L	ANTIMONY
2U	UG/L	ARSENIC
1U	UG/L	BARIUM
1U	UG/L	BERYLLIUM
1U	UG/L	CADMIUM
9U	UG/L	CALCIUM
1U	UG/L	CHROMIUM
2U	UG/L	COBALT
4U	UG/L	COPPER
12UJ	UG/L	IRON
6	UG/L	LEAD
60U	UG/L	MAGNESIUM
1J	UG/L	MANGANESE
0.10U	UG/L	TOTAL MERCURY
4U	UG/L	NICKEL
100UJ	UG/L	POTASSIUM
3U	UG/L	SELENIUM
1U	UG/L	SILVER
650	UG/L	SODIUM
4U	UG/L	THALLIUM
2U	UG/L	VANADIUM
20U	UG/L	ZINC

A-average value NA not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
Y confirmed by gc/ms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4
Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 08/22/97

Subject: Results of CLASSICALS/NUTRIENTS INORGANIC Sample Analysis
97-0292 BROWN'S DUMP
JACKSONVILLE, FL

From: Gary Bennett

To: PAULA MACLAREN

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me.

ATTACHMENT

Sample 10174 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS01 MD Number: MN07 Inorg Contractor: SENTIN
Media: SOIL D Number: MN07 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 11:35
Ending:

RESULTS	UNITS	ANALYTE
0.5U	MG/KG	CYANIDE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification.
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10179 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number 25558
Id/Station: BDSS02 MD Number: MN08 Inorg Contractor: SENTIN
Media: SOIL D Number: MN08 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 16:40
Ending:

3 12 0081

RESULTS	UNITS	ANALYTE
0 56	MG/KG	CYANIDE

A average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum [illegible]
[illegible] indicates [illegible] data unusable [illegible] compound [illegible] or ma[illegible] pres[illegible] sam[illegible] nd re[illegible] is n[illegible] for [illegible] tion [illegible]
[illegible] confi[illegible] when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10176 FY 1997 Project 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS03 MD Number: MN09 Inorg Contractor: SENTIN
Media: SOIL D Number: MN09 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 15:50
Ending:

RESULTS	UNITS	ANALYTE
0.74	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given L actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0082

CLASSICALS/NUTRIENTS SAMPLE ANA | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:45

Sample 10169 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF
Id/Station: BDSS04
Media: SOIL

Case Number: 25558
MD Number: MN10
D Number: MN10

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:
Beginning: 07/09/97 10:45
Ending:

RESULTS	UNITS	ANALYTE
0.57	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C-ca[redacted] wh[redacted]alue is [redacted]ed, s[redacted]rdane[redacted]uent[redacted]stitu[redacted] meta[redacted]of te[redacted]chlor[redacted]

Sample 10180 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS05 MD Number: MN11 Inorg Contractor: SENTIN
Media: SOIL D Number: MN11 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By.
Beginning: 07/09/97 17.00
Ending.

RESULTS	UNITS	ANALYTE
0.3U	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0083

Sample 10155 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS06 MD Number: MN12 Inorg Contractor: SENTIN
Media: SOIL D Number: MN12 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 11:10
Ending:

RESULTS	UNITS	ANALYTE
0.4U	MG/KG	CYANIDE

A-average value. NA-not analyzed. NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is ne[redacted]ary for verification
[redacted]

Sample 10157 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station BDSS07 MD Number: MN13 Inorg Contractor: SENTIN
Media: SOIL D Number: MN13 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By
Beginning: 07/08/97 12:30
Ending:

RESULTS	UNITS	ANALYTE
1.3	MG/KG	CYANIDE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

3 12 0084

Sample 10170 FY 1997 Project 97-0292

SPECIFIED TESTS

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station BDSS08 MD Number: MN14 Inorg Contractor: SENTIN
Media: SOIL D Number: MN14 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By
Beginning: 07/09/97 11:00
Ending:

RESULTS	UNITS	ANALYTE
2.8	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences J estimated value N presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation [illegible]
R qc indic[illegible] that data unusable compound may or may not be p[illegible] res[illegible] and [illegible]sis is [illegible]ary [illegible]cation [illegible]
[illegible] co[illegible] whe[illegible]lue is [illegible]ed, se[illegible]dane [illegible]tuents [illegible] constituents of metabo[illegible] of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10165 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station BDSW01 MD Number: MN33 Inorg Contractor: SENTIN
Media SURI-ACEWA D Number: MN33 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 09:25
Ending:

RESULTS	UNITS	ANALYTE
10UJ	UG/L	CYANIDE

A-average value. NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms 1-when no value is reported, see chlordane constituents 2-constituents or metabolites of technical chlordane

3 12 0085

Sample 10164 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW06 MD Number: MN39 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN39 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning 07/08/97 17:15
Ending:

RESULTS	UNITS	ANALYTE
10UJ	UG/L	CYANIDE

A average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is nec[redacted]ary for verification
[redacted]

Sample 10161 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW05 MD Number: MN41 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN41 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CYANIDE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0086

CLASSICALS/NUTRIENTS SAMPLE ANA | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10175 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW04 MD Number: MN40 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN40 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By.
Beginning: 07/09/97 14:00
Ending:

RESULTS	UNITS	ANALYTE
10UJ	UG/L	CYANIDE

A average value NA-not analyzed NAI interferences. J-estimated value N-presumptive evidence of presence of material
K actual value is known to be less than value given L actual value is known to be greater than value given [redacted] material was analyzed for but not detected [redacted]
[redacted] when no value is reported, see chlordane constituents 2 constituents of metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10158 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW01 MD Number: MN37 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN37 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CYANIDE

A-average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample **10178** FY **1997** Project: **97-0292**

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS16 MD Number: MN22 Inorg Contractor: SENTIN
Media: SOIL D Number: MN22 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 16:10
Ending:

RESULTS	UNITS	ANALYTE
2.8	MG/KG	CYANIDE

3 12 0087

A-average value NA not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U [illegible] was analyzed for but not [illegible] the [illegible] is the [illegible] [illegible]
[illegible] no value is reported; see chlordane constituents 2 constituents or metabolites [illegible]

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10172 FY 1997 Project. 97-0292

SPECIFIED TESTS

Facility. BROWNS DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS15 MD Number: MN21 Inorg Contractor: SENTIN
Media: SOIL D Number: MN21 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
14	MG/KG	CYANIDE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 11760 FY 1997 Project: 97-0292

Printed by: Ron Phelps

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS14 MD Number: MN20 Inorg Contractor: SENTIN

Media: SOIL D Number: MN20 Org Contractor: COMPU

Collected By:

Beginning: 07/09/97 14:15

Ending:

RESULTS	UNITS	ANALYTE
0.5U	MG/KG	CYANIDE

3 12 0088

A-average value. NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material

K-actual value is known to be less than value given L-actual value is known to be greater than value given U-[illegible]erial was analyzed for but not detected the [illegible]r is th[illegible]num[illegible]ation [illegible]

R-cc indicates th[illegible]able [illegible]ound[illegible] may [illegible]prese[illegible]mp[illegible]rean[illegible]s nec[illegible]for v[illegible]n [illegible]

[illegible]ntirm[illegible] when no value is reported, see chlordane constituents 2 constituents or metabolites [illegible]

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10177 FY 1997 Project 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS13 MD Number: MN19 Inorg Contractor: SENTIN
Media: SOIL D Number: MN19 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 15.15
Ending:

RESULTS	UNITS	ANALYTE
2.6	MG/KG	CYANIDE

A average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10171 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program NSF Case Number: 25558
Id/Station: BDSS12 MD Number: MN18 Inorg Contractor: SENTIN
Media: SOIL D Number: MN18 Org Contractor: COMPU

Printed by. Ron Phelps
Collected By:
Beginning: 07/09/97 12.00
Ending.

RESULTS	UNITS	ANALYTE
0 68	MG/KG	CYANIDE

3 12 0089

A average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
[redacted]

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10173 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS11 MD Number: MN17 Inorg Contractor: SENTIN
Media: SOIL D Number: MN17 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 11:45
Ending:

RESULTS	UNITS	ANALYTE
1.1	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:4[illegible]

Sample 10154 FY 1997 Project: 97-0292

Printed by: Ron Phelps

SPECIFIED TESTS

Collected By:
Beginning: 07/08/97 11:40
Ending.

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS10 MD Number: MN16 Inorg Contractor: SENTIN
Media: SOIL D Number: MN16 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
0.3U	MG/KG	CYANIDE

3 12 0090

A average value NA not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minim[illegible]antit[illegible]
R-qc [illegible] unusa[illegible]ompo[illegible]y or [illegible] be p[illegible] res[illegible] and [illegible]sis is [illegible]sary f[illegible]icatio[illegible]
C co[illegible] when no value is reported, see chlordane constituents 2 constituents of metabolites of technical chlord[illegible]

Sample 10156 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS09 MD Number: MN15 Inorg Contractor: SENTIN
Media: SOIL D Number: MN15 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 12:10
Ending:

RESULTS	UNITS	ANALYTE
0.61	MG/KG	CYANIDE

A average value. NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10166 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW02 MD Number: MN34 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN34 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:
Beginning: 07/09/97 09.00
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CYANIDE

3 12 0091

A-average value NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K actual value [illegible] known to be less than value given L-actual value is known to be greater than value given [illegible] material was analyzed for but not [illegible]ed. [illegible]ber [illegible] minimu[illegible]ntitati[illegible]
[illegible]qc in[illegible] [illegible]usab[illegible]mpour[illegible] or ma[illegible]e pre[illegible]esan[illegible]d re[illegible]s is n[illegible]ry for [illegible]ation
C confirmed by [illegible] 1 when no value is reported [illegible]

Sample 10162 FY 1997 Project 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW03 MD Number: MN35 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN35 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 16:10
Ending:

RESULTS	UNITS	ANALYTE
10UJ	UG/L	CYANIDE

A-average value NA-not analyzed NAI-interferences J estimated value. N presumptive evidence of presence of material
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10160 FY 1997 Project: 97-0292

Printed by: Ron Phelps

SPECIFIED TESTS

Collected By:
Beginning: 07/08/97 15:00
Ending:

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program. NSF Case Number. 25558
Id/Station BDSW04 MD Number: MN36 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN36 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
10UJ	UG/L	CYANIDE

A average value. NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given [illegible] material was analyzed for but not detected the number is the minimum [illegible]
[illegible] confirmed by [illegible] When no value is reported, see Chlordane constituents 2 constituents of metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10167 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD01 MD Number: MN29 Inorg Contractor: SENTIN
Media: SOIL D Number: MN29 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 09:30
Ending:

RESULTS	UNITS	ANALYTE
0.16U	MG/KG	CYANIDE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification.
C confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10168 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD02 MD Number: MN30 Inorg Contractor: SENTIN
Media: SOIL D Number: MN30 Org Contractor: COMPU

Printed by: Ron Phelps

Collected By:
Beginning: 07/09/97 09 00
Ending.

3 12 0093

RESULTS	UNITS	ANALYTE
0.2U	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
[illegible] is reported, see chlordane constituents 2 constituents of metabolites of technical chlordane

Sample 10163 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD03 MD Number: MN31 Inorg Contractor: SENTIN
Media: SOIL D Number: MN31 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 16:25
Ending:

RESULTS	UNITS	ANALYTE
0.18U	MG/KG	CYANIDE

A-average value NA not analyzed NAI-Interferences. J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10159 FY 1997 Project: 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32 Inorg Contractor: SENTIN
Media: SOIL D Number: MN32 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 15:05
Ending:

3 12 0094

RESULTS	UNITS	ANALYTE
1.4	MG/KG	CYANIDE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
[redacted]

CLASSICALS/NUTRIENTS SAMPLE ANA EPA - REGION IV SESD, ATHENS, GA PRINTED 08/22/97 07:49

Sample 10181 FY 1997 Project 97-0292

SPECIFIED TESTS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program NSF Case Number: 25558
Id/Station: BDTB01
Media WATER D Number: MN06 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/08/97 09 25
Ending:

RESULTS	UNITS	ANALYTE
NA	UG/L	CYANIDE

NO SAMPLE CONTAINER RECEIVED

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

CLASSICALS/NUTRIENTS SAMPLE ANA | EPA - REGION IV SESD, ATHENS, GA | PRINTED 08/22/97 07:49

Sample 10182 FY 1997 Project 97-0292

SPECIFIED TESTS

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BD009QA MD Number: MN04 Inorg Contractor: SENTIN
Media: WATSPK D Number: MN04 Org Contractor: COMPU

Printed by: Ron Phelps
Collected By:
Beginning: 07/09/97 12:05
Ending:
0011574V,0010083E,0002264P,0018056M,0026873CN

3 12 0095

RESULTS	UNITS	ANALYTE
38	UG/L	CYANIDE

A average value NA-not analyzed NAI-interferences J-estimated value. N presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum [illegible]
R qc indicates [illegible] data unusable compound may or may not be pre[illegible] resam[illegible] and r[illegible] is [illegible] ry for [illegible] ation [illegible]
[illegible] when [illegible] is [illegible], see [illegible] constituents 2 constituents of metabolites [illegible]

Sample 11018 FY 1997 Project: 97-0292

Printed by: Ron Phelps

SPECIFIED TESTS

Collected By:
Beginning:
Ending:

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDFB01 MD Number: MN42 Inorg Contractor: SENTIN
Media: WATER D Number: MN42 Org Contractor: COMPU

3 12 0096

RESULTS	UNITS	ANALYTE
10U	UG/L	CYANIDE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit [redacted]
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is ne[redacted]ary for verification [redacted]
[redacted]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 09/08/97

Subject: Results of EXTRACTABLES ORGANIC Sample Analysis
97-0292 BROWN'S DUMP
JACKSONVILLE, FL

From: Gary Bennett

To: PAULA MACLAREN

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 25553 Project Number 97-0292 SAS Number

Site ID.Brown's Dump, Jacksonville, FL

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
10162	2-butanone	J	erratic response factor
10181	all compounds	J	exceeded holding times
11018	chloroform	J	< quantitation limit
Extractables			
all samples	bis(2-chloroethyl)ether	J	warning low on PE sample
	2,4,6-trichlorophenol	J	warning low on PE sample
	4-bromophenyl-phenylether	J	warning low on PE sample
	hexachlorobenzene	J	warning low on PE sample
except 10154-10156, 10167,10174, 11760	all compounds	J	exceeded extraction holding times
10157	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10159	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(b/k)fluoranthene	J	isomers not separated
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	dibenzo(a,h)anthracene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10169	phenanthrene	J	< quantitation limit
	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
10170	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit

ORGANIC DATA QUALIFIER REPORT
Case Number 25558

Affected Samples	Compound or Fraction	Flag Used	Reason
10172	acenaphthylene	J	< quantitation limit
	acenaphthene	J	< quantitation limit
	anthracene	J	< quantitation limit
	carbazole	J	< qunatitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	dibenzo(a,h)anthracene	J	< quantitation limit
10173	phenanthrene	J	< quantitation limit
	fluroanthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10176	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10177	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10179	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(b/k)fluoranthene	J	isomers not separated
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10180	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
Pesticides			
all samples	endosulfan II	R	missed on PE sample
10154	dieldrin	N	column differences
10155	dieldrin	J	< quantitation limit
10157	heptachlor	J	< quantitation limit
10159	4,4'-DDD	N	column differences
10163	endrin	J	warning high on PE sample
	4,4'-DDT	N	column differences

ORGANIC DATA QUALIFIER REPORT
Case Number 25558

Affected Samples	Compound or Fraction	Flag Used	Reason
10167	endosulfan I	J	< quantitation limit
	dieldrin	J	< quantitation limit
		N	column differences
10171	heptachlor	J	< quantitation limit
	dieldrin	J	< quantitation limit
	aroclor-1260	J	< quantitation limit
10172,10173, 10177	aroclor-1260	C	GC/MS confirmed
10173	4,4'-DDE	C	GC/MS confirmed
	4,4'-DDD	C	GC/MS confirmed
	4,4'-DDT	C	GC/MS confirmed
10178	beta-BHC	J	< quantitation limit
		N	column differences
	heptachlor	J	< quantitation limit
	4,4'-DDD	J	< quantitation limit
		N	column differences
	4,4'-DDT	N	column differences
10179	endrin	J	warning high on PE sample
		N	column differences
10180	endrin aldehyde	J	< quantitation limit

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 11018 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL
Program NSF Case Number: 25558
Id/Station BDFB01 MD Number: MN42 Inorg Contractor: SENTIN
Media: WATER D Number: MN42 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning:
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0099

EXTRACTABLES SAMPLE ANALYSIS — EPA - REGION IV SESD, ATHENS, GA — PRINTED 09/08/97 13:21

Sample 10154 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS10 MD Number: MN16 Inorg Contractor: SENTIN
Media: SOIL D Number: MN16 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:40
Ending:

RESULTS	UNITS	ANALYTE
1000UJ	UG/KG	PHENOL
1000UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
1000UJ	UG/KG	2-CHLOROPHENOL
1000UJ	UG/KG	1,3-DICHLOROBENZENE
1000UJ	UG/KG	1,4-DICHLOROBENZENE
1000UJ	UG/KG	1,2-DICHLOROBENZENE
1000UJ	UG/KG	2-METHYLPHENOL
1000UJ	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
1000UJ	UG/KG	(3-AND/OR 4-)METHYLPHENOL
1000UJ	UG/KG	N-NITROSODI-N-PROPYLAMINE
1000UJ	UG/KG	HEXACHLOROETHANE
1000UJ	UG/KG	NITROBENZENE
1000UJ	UG/KG	ISOPHORONE
1000UJ	UG/KG	2-NITROPHENOL
1000UJ	UG/KG	2,4-DIMETHYLPHENOL
1000UJ	UG/KG	BIS(2-CHLOROETHOXY)METHANE
1000UJ	UG/KG	2,4-DICHLOROPHENOL
1000UJ	UG/KG	1,2,4-TRICHLOROBENZENE
120J	UG/KG	NAPHTHALENE
1000UJ	UG/KG	4-CHLOROANILINE
1000UJ	UG/KG	HEXACHLOROBUTADIENE
1000UJ	UG/KG	4-CHLORO-3-METHYLPHENOL
1000UJ	UG/KG	2-METHYLNAPHTHALENE
1000UJ	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
1000UJ	UG/KG	2,4,6-TRICHLOROPHENOL
2600UJ	UG/KG	2,4,5-TRICHLOROPHENOL
1000UJ	UG/KG	2-CHLORONAPHTHALENE
2600UJ	UG/KG	2-NITROANILINE
1000UJ	UG/KG	DIMETHYL PHTHALATE
1000UJ	UG/KG	ACENAPHTHYLENE
1000UJ	UG/KG	2,6-DINITROTOLUENE
2600UJ	UG/KG	3-NITROANILINE
500J	UG/KG	ACENAPHTHENE
2600UJ	UG/KG	2,4-DINITROPHENOL
2600UJ	UG/KG	4-NITROPHENOL
320J	UG/KG	DIBENZOFURAN
1000UJ	UG/KG	2,4-DINITROTOLUENE
1000UJ	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
1000UJ	UG/KG	4-CHLOROPHENYL PHENYL ETHER
470J	UG/KG	FLUORENE
2600UJ	UG/KG	4-NITROANILINE
2600UJ	UG/KG	2-METHYL-4,6-DINITROPHENOL
1000UJ	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
1000UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
1000UJ	UG/KG	HEXACHLOROBENZENE (HCB)
2600UJ	UG/KG	PENTACHLOROPHENOL
5600J	UG/KG	PHENANTHRENE
800J	UG/KG	ANTHRACENE
810J	UG/KG	CARBAZOLE
1000UJ	UG/KG	DI-N-BUTYLPHTHALATE
7200J	UG/KG	FLUORANTHENE
4100J	UG/KG	PYRENE
1000UJ	UG/KG	BENZYL BUTYL PHTHALATE
1000UJ	UG/KG	3,3'-DICHLOROBENZIDINE
2100J	UG/KG	BENZO(A)ANTHRACENE
2300J	UG/KG	CHRYSENE
1200J	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
1000UJ	UG/KG	DI-N-OCTYLPHTHALATE
3500J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
1900J	UG/KG	BENZO-A-PYRENE
1100J	UG/KG	INDENO (1,2,3-CD) PYRENE
1000UJ	UG/KG	DIBENZO(A,H)ANTHRACENE
1000J	UG/KG	BENZO(GHI)PERYLENE
6	%	% MOISTURE

EXCESSIVE HOLDING TIME

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification
[redacted]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10154 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS10 MD Number: MN16 Inorg Contractor: SENTIN
Media: SOIL D Number: MN16 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:40
Ending:

RESULTS	UNITS	ANALYTE
200JN	UG/KG	FLUORENONE
300JN	UG/KG	METHYLPHENANTHRENE
400JN	UG/KG	CYCLOPENTAPHENANTHRENE
600JN	UG/KG	ANTHRACENEDIONE
200JN	UG/KG	BENZONAPHTHOTHIOPHENE
300JN	UG/KG	BENZOFLUORANTHENE (NOT B OR K)
1000JN	UG/KG	BENZOPYRENE (NOT A)

A average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0100

EXTRACTABLES SAMPLE ANALYSIS — EPA - REGION IV SESD, ATHENS, GA — PRINTED 09/08/97 13:21

Sample 10155 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP — JACKSONVILLE, FL
Program: NSF — Case Number: 25558
Id/Station: BDSS06 — MD Number: MN12 — Inorg Contractor: SENTIN
Media: SOIL — D Number: MN12 — Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:10
Ending:

RESULTS	UNITS	ANALYTE
420UJ	UG/KG	PHENOL
420UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
420UJ	UG/KG	2-CHLOROPHENOL
420UJ	UG/KG	1,3-DICHLOROBENZENE
420UJ	UG/KG	1,4-DICHLOROBENZENE
420UJ	UG/KG	1,2-DICHLOROBENZENE
420UJ	UG/KG	2-METHYLPHENOL
420UJ	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
420UJ	UG/KG	(3-AND/OR 4-)METHYLPHENOL
420UJ	UG/KG	N-NITROSODI-N-PROPYLAMINE
420UJ	UG/KG	HEXACHLOROETHANE
420UJ	UG/KG	NITROBENZENE
420UJ	UG/KG	ISOPHORONE
420UJ	UG/KG	2-NITROPHENOL
420UJ	UG/KG	2,4-DIMETHYLPHENOL
420UJ	UG/KG	BIS(2-CHLOROETHOXY)METHANE
420UJ	UG/KG	2,4-DICHLOROPHENOL
420UJ	UG/KG	1,2,4-TRICHLOROBENZENE
420UJ	UG/KG	NAPHTHALENE
420UJ	UG/KG	4-CHLOROANILINE
420UJ	UG/KG	HEXACHLOROBUTADIENE
420UJ	UG/KG	4-CHLORO-3-METHYLPHENOL
420UJ	UG/KG	2-METHYLNAPHTHALENE
420UJ	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
420UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000UJ	UG/KG	2,4,5-TRICHLOROPHENOL
420UJ	UG/KG	2-CHLORONAPHTHALENE
1000UJ	UG/KG	2-NITROANILINE
420UJ	UG/KG	DIMETHYL PHTHALATE
420UJ	UG/KG	ACENAPHTHYLENE
420UJ	UG/KG	2,6-DINITROTOLUENE
1000UJ	UG/KG	3-NITROANILINE
420UJ	UG/KG	ACENAPHTHENE
1000UJ	UG/KG	2,4-DINITROPHENOL
1000UJ	UG/KG	4-NITROPHENOL
420UJ	UG/KG	DIBENZOFURAN
420UJ	UG/KG	2,4-DINITROTOLUENE
420UJ	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
420UJ	UG/KG	4-CHLOROPHENYL PHENYL ETHER
420UJ	UG/KG	FLUORENE
1000UJ	UG/KG	4-NITROANILINE
1000UJ	UG/KG	2-METHYL-4,6-DINITROPHENOL
420UJ	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
420UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000UJ	UG/KG	PENTACHLOROPHENOL
420UJ	UG/KG	PHENANTHRENE
420UJ	UG/KG	ANTHRACENE
420UJ	UG/KG	CARBAZOLE
420UJ	UG/KG	DI-N-BUTYLPHTHALATE
420UJ	UG/KG	FLUORANTHENE
420UJ	UG/KG	PYRENE
420UJ	UG/KG	BENZYL BUTYL PHTHALATE
420UJ	UG/KG	3,3'-DICHLOROBENZIDINE
420UJ	UG/KG	BENZO(A)ANTHRACENE
420UJ	UG/KG	CHRYSENE
470J	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
420UJ	UG/KG	DI-N-OCTYLPHTHALATE
420UJ	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
420UJ	UG/KG	BENZO-A-PYRENE
420UJ	UG/KG	INDENO (1,2,3-CD) PYRENE
420UJ	UG/KG	DIBENZO(A,H)ANTHRACENE
420UJ	UG/KG	BENZO(GHI)PERYLENE
22	%	% MOISTURE

EXCESSIVE HOLDING TIME

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C [redacted] 1 w[redacted] value [redacted]orted, [redacted]lorda[redacted]stitue[redacted]onsti[redacted]or me[redacted]s of [redacted]al chl[redacted]

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10155 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS06 MD Number: MN12 Inorg Contractor: SENTIN
Media: SOIL D Number: MN12 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:10
Ending:

RESULTS	UNITS	ANALYTE
4000J	UG/KG	2 UNIDENTIFIED COMPOUNDS
400J	UG/KG	ALKANES

A-average value NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given. L-actual value is known to be greater than value given. U material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0101

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10156 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL
Program NSF Case Number: 25558
Id/Station: BDSS09 MD Number: MN15
Media: SOIL D Number: MN15

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:10
Ending:

RESULTS	UNITS	ANALYTE
40J	UG/KG	PHENOL
370UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
370UJ	UG/KG	2-CHLOROPHENOL
370UJ	UG/KG	1,3-DICHLOROBENZENE
370UJ	UG/KG	1,4-DICHLOROBENZENE
370UJ	UG/KG	1,2-DICHLOROBENZENE
370UJ	UG/KG	2-METHYLPHENOL
370UJ	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
370UJ	UG/KG	(3-AND/OR 4-)METHYLPHENOL
370UJ	UG/KG	N-NITROSODI-N-PROPYLAMINE
370UJ	UG/KG	HEXACHLOROETHANE
370UJ	UG/KG	NITROBENZENE
370UJ	UG/KG	ISOPHORONE
370UJ	UG/KG	2-NITROPHENOL
370UJ	UG/KG	2,4-DIMETHYLPHENOL
370UJ	UG/KG	BIS(2-CHLOROETHOXY)METHANE
370UJ	UG/KG	2,4-DICHLOROPHENOL
370UJ	UG/KG	1,2,4-TRICHLOROBENZENE
370UJ	UG/KG	NAPHTHALENE
370UJ	UG/KG	4-CHLOROANILINE
370UJ	UG/KG	HEXACHLOROBUTADIENE
370UJ	UG/KG	4-CHLORO-3-METHYLPHENOL
370UJ	UG/KG	2-METHYLNAPHTHALENE
370UJ	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
370UJ	UG/KG	2,4,6-TRICHLOROPHENOL
930UJ	UG/KG	2,4,5-TRICHLOROPHENOL
370UJ	UG/KG	2-CHLORONAPHTHALENE
930UJ	UG/KG	2-NITROANILINE
370UJ	UG/KG	DIMETHYL PHTHALATE
370UJ	UG/KG	ACENAPHTHYLENE
370UJ	UG/KG	2,6-DINITROTOLUENE
930UJ	UG/KG	3-NITROANILINE
370UJ	UG/KG	ACENAPHTHENE
930UJ	UG/KG	2,4-DINITROPHENOL
930UJ	UG/KG	4-NITROPHENOL
370UJ	UG/KG	DIBENZOFURAN
370UJ	UG/KG	2,4-DINITROTOLUENE
370UJ	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
370UJ	UG/KG	4-CHLOROPHENYL PHENYL ETHER
370UJ	UG/KG	FLUORENE
930UJ	UG/KG	4-NITROANILINE
930UJ	UG/KG	2-METHYL-4,6-DINITROPHENOL
370UJ	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
370UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
370UJ	UG/KG	HEXACHLOROBENZENE (HCB)
930UJ	UG/KG	PENTACHLOROPHENOL
160J	UG/KG	PHENANTHRENE
370UJ	UG/KG	ANTHRACENE
370UJ	UG/KG	CARBAZOLE
370UJ	UG/KG	DI-N-BUTYLPHTHALATE
260J	UG/KG	FLUORANTHENE
170J	UG/KG	PYRENE
370UJ	UG/KG	BENZYL BUTYL PHTHALATE
370UJ	UG/KG	3,3'-DICHLOROBENZIDINE
120J	UG/KG	BENZO(A)ANTHRACENE
97J	UG/KG	CHRYSENE
370UJ	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
370UJ	UG/KG	DI-N-OCTYLPHTHALATE
170J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
83J	UG/KG	BENZO-A-PYRENE
370UJ	UG/KG	INDENO (1,2,3-CD) PYRENE
370UJ	UG/KG	DIBENZO(A,H)ANTHRACENE
370UJ	UG/KG	BENZO(GHI)PERYLENE
12	%	% MOISTURE

EXCESSIVE HOLDING TIME

A-average value. NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation l[illegible]
R-qc indic[illegible] that data unusable. compound may or may not be present. re[illegible]ing and [illegible]alysis [illegible]essary for verificat[illegible]
C-c[illegible] 1 wh[illegible]alue [illegible]ted, [illegible]ordan[illegible]tituen[illegible]onstit[illegible]er meta[illegible]s of technical chlor[illegible]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10156 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS09 MD Number: MN15 Inorg Contractor: SENTIN
Media: SOIL D Number: MN15 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12 10
Ending:

RESULTS	UNITS	ANALYTE
2000J	UG/KG	3 UNIDENTIFIED COMPOUNDS

A average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0102

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10157 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS07 MD Number: MN13
Media: SOIL D Number: MN13

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:30
Ending:

RESULTS	UNITS	ANALYTE
360U	UG/KG	PHENOL
360UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
360U	UG/KG	2-CHLOROPHENOL
360U	UG/KG	1,3-DICHLOROBENZENE
360U	UG/KG	1,4-DICHLOROBENZENE
360U	UG/KG	1,2-DICHLOROBENZENE
360U	UG/KG	2-METHYLPHENOL
360U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
360U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
360U	UG/KG	N-NITROSODI-N-PROPYLAMINE
360U	UG/KG	HEXACHLOROETHANE
360U	UG/KG	NITROBENZENE
360U	UG/KG	ISOPHORONE
360U	UG/KG	2-NITROPHENOL
360U	UG/KG	2,4-DIMETHYLPHENOL
360U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
360U	UG/KG	2,4-DICHLOROPHENOL
360U	UG/KG	1,2,4-TRICHLOROBENZENE
360U	UG/KG	NAPHTHALENE
360U	UG/KG	4-CHLOROANILINE
360U	UG/KG	HEXACHLOROBUTADIENE
360U	UG/KG	4-CHLORO-3-METHYLPHENOL
360U	UG/KG	2-METHYLNAPHTHALENE
360U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
360UJ	UG/KG	2,4,6-TRICHLOROPHENOL
920U	UG/KG	2,4,5-TRICHLOROPHENOL
360U	UG/KG	2-CHLORONAPHTHALENE
920U	UG/KG	2-NITROANILINE
360U	UG/KG	DIMETHYL PHTHALATE
360U	UG/KG	ACENAPHTHYLENE
360U	UG/KG	2,6-DINITROTOLUENE
920U	UG/KG	3-NITROANILINE
360U	UG/KG	ACENAPHTHENE
920U	UG/KG	2,4-DINITROPHENOL
920U	UG/KG	4-NITROPHENOL
360U	UG/KG	DIBENZOFURAN
360U	UG/KG	2,4-DINITROTOLUENE
360U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
360U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
360U	UG/KG	FLUORENE
920U	UG/KG	4-NITROANILINE
920U	UG/KG	2-METHYL-4,6-DINITROPHENOL
360U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
360UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
360UJ	UG/KG	HEXACHLOROBENZENE (HCB)
920U	UG/KG	PENTACHLOROPHENOL
320J	UG/KG	PHENANTHRENE
38J	UG/KG	ANTHRACENE
48J	UG/KG	CARBAZOLE
360U	UG/KG	DI-N-BUTYLPHTHALATE
540	UG/KG	FLUORANTHENE
440J	UG/KG	PYRENE
360U	UG/KG	BENZYL BUTYL PHTHALATE
360U	UG/KG	3,3'-DICHLOROBENZIDINE
260J	UG/KG	BENZO(A)ANTHRACENE
220J	UG/KG	CHRYSENE
360U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
360U	UG/KG	DI-N-OCTYLPHTHALATE
370J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
210J	UG/KG	BENZO-A-PYRENE
110J	UG/KG	INDENO (1,2,3-CD) PYRENE
360U	UG/KG	DIBENZO(A,H)ANTHRACENE
110J	UG/KG	BENZO(GHI)PERYLENE
10	%	% MOISTURE

A average value NA not analyzed NAI-interferences J-estimated value N presumptive evidence of presence of material
K-actual value is known to be less than value given L actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation [illegible]
R qc indic[illegible] that data unusable compound may or may not be present [illegible]
[illegible]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10157 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS07 MD Number: MN13 Inorg Contractor: SENTIN
Media: SOIL D Number: MN13 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:30
Ending:

RESULTS	UNITS	ANALYTE
200JN	UG/KG	BENZOPYRENE (NOT A)

A-average value NA-not analyzed NAI interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0103

EXTRACTABLES SAMPLE ANALYSIS — EPA - REGION IV SESD, ATHENS, GA — PRINTED 09/08/97 13:21

Sample 10158 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP — JACKSONVILLE, FL
Program: NSF — Case Number: 25558
Id/Station: BDMW01 — MD Number: MN37 — Inorg Contractor: SENTIN
Media: GROUNDWA — D Number: MN37 — Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12 25
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value. NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation lim
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
[redacted]

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10159 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32 Inorg Contractor: SENTIN
Media: SOIL D Number: MN32 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15.05
Ending:

RESULTS	UNITS	ANALYTE
500U	UG/KG	PHENOL
500UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
500U	UG/KG	2-CHLOROPHENOL
500U	UG/KG	1,3-DICHLOROBENZENE
500U	UG/KG	1,4-DICHLOROBENZENE
500U	UG/KG	1,2-DICHLOROBENZENE
500U	UG/KG	2-METHYLPHENOL
500U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
500U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
500U	UG/KG	N-NITROSODI-N-PROPYLAMINE
500U	UG/KG	HEXACHLOROETHANE
500U	UG/KG	NITROBENZENE
500U	UG/KG	ISOPHORONE
500U	UG/KG	2-NITROPHENOL
500U	UG/KG	2,4-DIMETHYLPHENOL
500U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
500U	UG/KG	2,4-DICHLOROPHENOL
500U	UG/KG	1,2,4-TRICHLOROBENZENE
500U	UG/KG	NAPHTHALENE
500U	UG/KG	4-CHLOROANILINE
500U	UG/KG	HEXACHLOROBUTADIENE
500U	UG/KG	4-CHLORO-3-METHYLPHENOL
500U	UG/KG	2-METHYLNAPHTHALENE
500U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
500UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1200U	UG/KG	2,4,5-TRICHLOROPHENOL
500U	UG/KG	2-CHLORONAPHTHALENE
1200U	UG/KG	2-NITROANILINE
500U	UG/KG	DIMETHYL PHTHALATE
500U	UG/KG	ACENAPHTHYLENE
500U	UG/KG	2,6-DINITROTOLUENE
1200U	UG/KG	3-NITROANILINE
500U	UG/KG	ACENAPHTHENE
1200U	UG/KG	2,4-DINITROPHENOL
1200U	UG/KG	4-NITROPHENOL
500U	UG/KG	DIBENZOFURAN
500U	UG/KG	2,4-DINITROTOLUENE
500U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
500U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
500U	UG/KG	FLUORENE
1200U	UG/KG	4-NITROANILINE
1200U	UG/KG	2-METHYL-4,6-DINITROPHENOL
500U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
500UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
500UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1200U	UG/KG	PENTACHLOROPHENOL
1200	UG/KG	PHENANTHRENE
200J	UG/KG	ANTHRACENE
100J	UG/KG	CARBAZOLE
500U	UG/KG	DI-N-BUTYLPHTHALATE
2000	UG/KG	FLUORANTHENE
1500J	UG/KG	PYRENE
500U	UG/KG	BENZYL BUTYL PHTHALATE
500U	UG/KG	3,3'-DICHLOROBENZIDINE
790	UG/KG	BENZO(A)ANTHRACENE
680	UG/KG	CHRYSENE
500U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
500U	UG/KG	DI-N-OCTYLPHTHALATE
780J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
400J	UG/KG	BENZO-A-PYRENE
230J	UG/KG	INDENO (1,2,3-CD) PYRENE
93J	UG/KG	DIBENZO(A,H)ANTHRACENE
230J	UG/KG	BENZO(GHI)PERYLENE
34	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gc/ms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0104

Sample 10159 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32 Inorg Contractor: SENTIN
Media: SOIL D Number: MN32 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
300JN	UG/KG	METHYLANTHRACENE (2 ISOMERS)
100JN	UG/KG	DIMETHYLPHENANTHRENE
400JN	UG/KG	BENZOPYRENE (NOT A, 2 ISOMERS)
500J	UG/KG	1 UNIDENTIFIED COMPOUND

A-average value. NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
[redacted]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10160 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW04 MD Number: MN36 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN36 Org Contractor: COMPU

Printed by: John McConney
Collected By.
Beginning: 07/08/97 15:00
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A average value NA-not analyzed. NAI-interferences J-estimated value N-presumptive evidence of presence of material
K actual value is known to be less than value given L actual value is known to be greater than value given. U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0105

Sample 10161 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW05 MD Number: MN41 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN41 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15 05
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A average value. NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is nec[redacted]ry for verification
[redacted]

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10162 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW03 MD Number: MN35 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN35 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 16 10
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2 METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0106

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10163 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD03 MD Number: MN31
Media: SOIL D Number: MN31

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 16:25
Ending:

RESULTS	UNITS	ANALYTE
440U	UG/KG	PHENOL
440UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
440U	UG/KG	2-CHLOROPHENOL
440U	UG/KG	1,3-DICHLOROBENZENE
440U	UG/KG	1,4-DICHLOROBENZENE
440U	UG/KG	1,2-DICHLOROBENZENE
440U	UG/KG	2-METHYLPHENOL
440U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
440U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
440U	UG/KG	N-NITROSODI-N-PROPYLAMINE
440U	UG/KG	HEXACHLOROETHANE
440U	UG/KG	NITROBENZENE
440U	UG/KG	ISOPHORONE
440U	UG/KG	2-NITROPHENOL
440U	UG/KG	2,4-DIMETHYLPHENOL
440U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
440U	UG/KG	2,4-DICHLOROPHENOL
440U	UG/KG	1,2,4-TRICHLOROBENZENE
440U	UG/KG	NAPHTHALENE
440U	UG/KG	4-CHLOROANILINE
440U	UG/KG	HEXACHLOROBUTADIENE
440U	UG/KG	4-CHLORO-3-METHYLPHENOL
440U	UG/KG	2-METHYLNAPHTHALENE
440U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
440UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1100U	UG/KG	2,4,5-TRICHLOROPHENOL
440U	UG/KG	2-CHLORONAPHTHALENE
1100U	UG/KG	2-NITROANILINE
440U	UG/KG	DIMETHYL PHTHALATE
440U	UG/KG	ACENAPHTHYLENE
440U	UG/KG	2,6-DINITROTOLUENE
1100U	UG/KG	3-NITROANILINE
440U	UG/KG	ACENAPHTHENE
1100U	UG/KG	2,4-DINITROPHENOL
1100U	UG/KG	4-NITROPHENOL
440U	UG/KG	DIBENZOFURAN
440U	UG/KG	2,4-DINITROTOLUENE
440U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
440U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
440U	UG/KG	FLUORENE
1100U	UG/KG	4-NITROANILINE
1100U	UG/KG	2-METHYL-4,6-DINITROPHENOL
440U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
440UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
440UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1100U	UG/KG	PENTACHLOROPHENOL
440U	UG/KG	PHENANTHRENE
440U	UG/KG	ANTHRACENE
440U	UG/KG	CARBAZOLE
440U	UG/KG	DI-N-BUTYLPHTHALATE
440U	UG/KG	FLUORANTHENE
440U	UG/KG	PYRENE
440U	UG/KG	BENZYL BUTYL PHTHALATE
440U	UG/KG	3,3'-DICHLOROBENZIDINE
440U	UG/KG	BENZO(A)ANTHRACENE
440U	UG/KG	CHRYSENE
440U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
440U	UG/KG	DI-N-OCTYLPHTHALATE
440U	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
440U	UG/KG	BENZO-A-PYRENE
440U	UG/KG	INDENO (1,2,3-CD) PYRENE
440U	UG/KG	DIBENZO(A,H)ANTHRACENE
440U	UG/KG	BENZO(GHI)PERYLENE
26	%	% MOISTURE

A average value NA not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation l[illegible]
R qc indicates that data unusable compound may or may not be present resampling and reanalysis [illegible]essary for verificati[illegible]
C [illegible] 1 wh[illegible]alue [illegible]ted, s[illegible]ordan[illegible]ituen[illegible]nstit[illegible] met[illegible] of te[illegible] chlor[illegible]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10164 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW06 MD Number: MN39 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN39 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 17:15
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0107

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10165 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW01 MD Number: MN33 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN33 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:25
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
[redacted]

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10166 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW02 MD Number: MN34 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN34 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09.00
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value NA not analyzed. NAI-interferences J-estimated value N presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification.
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0108

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10167 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD01 MD Number: MN29 Inorg Contractor: SENTIN
Media: SOIL D Number: MN29 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:30
Ending:

RESULTS	UNITS	ANALYTE
410UJ	UG/KG	PHENOL
410UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
410UJ	UG/KG	2-CHLOROPHENOL
410UJ	UG/KG	1,3-DICHLOROBENZENE
410UJ	UG/KG	1,4-DICHLOROBENZENE
410UJ	UG/KG	1,2-DICHLOROBENZENE
410UJ	UG/KG	2-METHYLPHENOL
410UJ	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
410UJ	UG/KG	(3-AND/OR 4-)METHYLPHENOL
410UJ	UG/KG	N-NITROSODI-N-PROPYLAMINE
410UJ	UG/KG	HEXACHLOROETHANE
410UJ	UG/KG	NITROBENZENE
410UJ	UG/KG	ISOPHORONE
410UJ	UG/KG	2-NITROPHENOL
410UJ	UG/KG	2,4-DIMETHYLPHENOL
410UJ	UG/KG	BIS(2-CHLOROETHOXY)METHANE
410UJ	UG/KG	2,4-DICHLOROPHENOL
410UJ	UG/KG	1,2,4-TRICHLOROBENZENE
410UJ	UG/KG	NAPHTHALENE
410UJ	UG/KG	4-CHLOROANILINE
410UJ	UG/KG	HEXACHLOROBUTADIENE
410UJ	UG/KG	4-CHLORO-3-METHYLPHENOL
410UJ	UG/KG	2-METHYLNAPHTHALENE
410UJ	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
410UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000UJ	UG/KG	2,4,5-TRICHLOROPHENOL
410UJ	UG/KG	2-CHLORONAPHTHALENE
1000UJ	UG/KG	2-NITROANILINE
410UJ	UG/KG	DIMETHYL PHTHALATE
410UJ	UG/KG	ACENAPHTHYLENE
410UJ	UG/KG	2,6-DINITROTOLUENE
1000UJ	UG/KG	3-NITROANILINE
410UJ	UG/KG	ACENAPHTHENE
1000UJ	UG/KG	2,4-DINITROPHENOL
1000UJ	UG/KG	4-NITROPHENOL
410UJ	UG/KG	DIBENZOFURAN
410UJ	UG/KG	2,4-DINITROTOLUENE
410UJ	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
410UJ	UG/KG	4-CHLOROPHENYL PHENYL ETHER
410UJ	UG/KG	FLUORENE
1000UJ	UG/KG	4-NITROANILINE
1000UJ	UG/KG	2-METHYL-4,6-DINITROPHENOL
410UJ	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
410UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
410UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000UJ	UG/KG	PENTACHLOROPHENOL
59J	UG/KG	PHENANTHRENE
410UJ	UG/KG	ANTHRACENE
410UJ	UG/KG	CARBAZOLE
410UJ	UG/KG	DI-N-BUTYLPHTHALATE
300J	UG/KG	FLUORANTHENE
240J	UG/KG	PYRENE
410UJ	UG/KG	BENZYL BUTYL PHTHALATE
410UJ	UG/KG	3,3'-DICHLOROBENZIDINE
170J	UG/KG	BENZO(A)ANTHRACENE
150J	UG/KG	CHRYSENE
410UJ	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
410UJ	UG/KG	DI-N-OCTYLPHTHALATE
170J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
91J	UG/KG	BENZO-A-PYRENE
44J	UG/KG	INDENO (1,2,3-CD) PYRENE
410UJ	UG/KG	DIBENZO(A,H)ANTHRACENE
410UJ	UG/KG	BENZO(GHI)PERYLENE
20	%	% MOISTURE

EXCESSIVE HOLDING TIME

A average value NA not analyzed NAI interferences J-estimated value N presumptive evidence of presence of material
K actual value is known to be less than value given L actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirm[illegible] by gcms 1 when no value is reported, see chlordane constituent[illegible] constituent[illegible] met[illegible] of te[illegible] chlo[illegible]

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10168 FY 1997 Project; 97-0292

EXTRACTABLES SCAN

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD02 MD Number: MN30 Inorg Contractor: SENTIN
Media: SOIL D Number: MN30 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:00
Ending:

RESULTS	UNITS	ANALYTE
420U	UG/KG	PHENOL
420UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
420U	UG/KG	2-CHLOROPHENOL
420U	UG/KG	1,3-DICHLOROBENZENE
420U	UG/KG	1,4-DICHLOROBENZENE
420U	UG/KG	1,2-DICHLOROBENZENE
420U	UG/KG	2-METHYLPHENOL
420U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
420U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
420U	UG/KG	N-NITROSODI-N-PROPYLAMINE
420U	UG/KG	HEXACHLOROETHANE
420U	UG/KG	NITROBENZENE
420U	UG/KG	ISOPHORONE
420U	UG/KG	2-NITROPHENOL
420U	UG/KG	2,4-DIMETHYLPHENOL
420U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
420U	UG/KG	2,4-DICHLOROPHENOL
420U	UG/KG	1,2,4-TRICHLOROBENZENE
420U	UG/KG	NAPHTHALENE
420U	UG/KG	4-CHLOROANILINE
420U	UG/KG	HEXACHLOROBUTADIENE
420U	UG/KG	4-CHLORO-3-METHYLPHENOL
420U	UG/KG	2-METHYLNAPHTHALENE
420U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
420UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000U	UG/KG	2,4,5-TRICHLOROPHENOL
420U	UG/KG	2-CHLORONAPHTHALENE
1000U	UG/KG	2-NITROANILINE
420U	UG/KG	DIMETHYL PHTHALATE
420U	UG/KG	ACENAPHTHYLENE
420U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	3-NITROANILINE
420U	UG/KG	ACENAPHTHENE
1000U	UG/KG	2,4-DINITROPHENOL
1000U	UG/KG	4-NITROPHENOL
420U	UG/KG	DIBENZOFURAN
420U	UG/KG	2,4-DINITROTOLUENE
420U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
420U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
420U	UG/KG	FLUORENE
1000U	UG/KG	4-NITROANILINE
1000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
420U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
420UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000U	UG/KG	PENTACHLOROPHENOL
420U	UG/KG	PHENANTHRENE
420U	UG/KG	ANTHRACENE
420U	UG/KG	CARBAZOLE
420U	UG/KG	DI-N-BUTYLPHTHALATE
420U	UG/KG	FLUORANTHENE
420U	UG/KG	PYRENE
420U	UG/KG	BENZYL BUTYL PHTHALATE
420U	UG/KG	3,3'-DICHLOROBENZIDINE
420U	UG/KG	BENZO(A)ANTHRACENE
420U	UG/KG	CHRYSENE
420U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
420U	UG/KG	DI-N-OCTYLPHTHALATE
420U	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
420U	UG/KG	BENZO-A-PYRENE
420U	UG/KG	INDENO (1,2,3-CD) PYRENE
420U	UG/KG	DIBENZO(A,H)ANTHRACENE
420U	UG/KG	BENZO(GHI)PERYLENE
21	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

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EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10169 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS04 MD Number: MN10 Inorg Contractor: SENTIN

Media SOIL D Number: MN10 Org Contractor: COMPU

Printed by: John McConney

Collected By.

Beginning: 07/09/97 10 45

Ending:

RESULTS	UNITS	ANALYTE
360U	UG/KG	PHENOL
360UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
360U	UG/KG	2-CHLOROPHENOL
360U	UG/KG	1,3-DICHLOROBENZENE
360U	UG/KG	1,4-DICHLOROBENZENE
360U	UG/KG	1,2-DICHLOROBENZENE
360U	UG/KG	2-METHYLPHENOL
360U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
360U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
360U	UG/KG	N-NITROSODI-N-PROPYLAMINE
360U	UG/KG	HEXACHLOROETHANE
360U	UG/KG	NITROBENZENE
360U	UG/KG	ISOPHORONE
360U	UG/KG	2-NITROPHENOL
360U	UG/KG	2,4-DIMETHYLPHENOL
360U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
360U	UG/KG	2,4-DICHLOROPHENOL
360U	UG/KG	1,2,4-TRICHLOROBENZENE
360U	UG/KG	NAPHTHALENE
360U	UG/KG	4-CHLOROANILINE
360U	UG/KG	HEXACHLOROBUTADIENE
360U	UG/KG	4-CHLORO-3-METHYLPHENOL
360U	UG/KG	2-METHYLNAPHTHALENE
360U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
360UJ	UG/KG	2,4,6-TRICHLOROPHENOL
910U	UG/KG	2,4,5-TRICHLOROPHENOL
360U	UG/KG	2-CHLORONAPHTHALENE
910U	UG/KG	2-NITROANILINE
360U	UG/KG	DIMETHYL PHTHALATE
360U	UG/KG	ACENAPHTHYLENE
360U	UG/KG	2,6-DINITROTOLUENE
910U	UG/KG	3-NITROANILINE
360U	UG/KG	ACENAPHTHENE
910U	UG/KG	2,4-DINITROPHENOL
910U	UG/KG	4-NITROPHENOL
360U	UG/KG	DIBENZOFURAN
360U	UG/KG	2,4-DINITROTOLUENE
360U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
360U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
360U	UG/KG	FLUORENE
910U	UG/KG	4-NITROANILINE
910U	UG/KG	2-METHYL-4,6-DINITROPHENOL
360U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
360UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
360UJ	UG/KG	HEXACHLOROBENZENE (HCB)
910U	UG/KG	PENTACHLOROPHENOL
40J	UG/KG	PHENANTHRENE
360U	UG/KG	ANTHRACENE
360U	UG/KG	CARBAZOLE
360U	UG/KG	DI-N-BUTYLPHTHALATE
78J	UG/KG	FLUORANTHENE
94J	UG/KG	PYRENE
360U	UG/KG	BENZYL BUTYL PHTHALATE
360U	UG/KG	3,3'-DICHLOROBENZIDINE
56J	UG/KG	BENZO(A)ANTHRACENE
51J	UG/KG	CHRYSENE
360U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
360U	UG/KG	DI-N-OCTYLPHTHALATE
77J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
41J	UG/KG	BENZO-A-PYRENE
360U	UG/KG	INDENO (1,2,3-CD) PYRENE
360U	UG/KG	DIBENZO(A,H)ANTHRACENE
360U	UG/KG	BENZO(GHI)PERYLENE
10	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material
K actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation [illegible]
R qc indicat[illegible]hat data unusable compound may or may not be pr[illegible] resa[illegible] and [illegible]sis is [illegible]sary f[illegible]cation[illegible]
[illegible] cor[illegible] wher[illegible]ue is [illegible]d, se[illegible]lane [illegible]ents [illegible] of technical chlordane

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10170 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS08 MD Number: MN14 Inorg Contractor: SENTIN
Media SOIL D Number: MN14 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 11:00
Ending:

RESULTS	UNITS	ANALYTE
350U	UG/KG	PHENOL
350UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
350U	UG/KG	2-CHLOROPHENOL
350U	UG/KG	1,3-DICHLOROBENZENE
350U	UG/KG	1,4-DICHLOROBENZENE
350U	UG/KG	1,2-DICHLOROBENZENE
350U	UG/KG	2-METHYLPHENOL
350U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
350U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
350U	UG/KG	N-NITROSODI-N-PROPYLAMINE
350U	UG/KG	HEXACHLOROETHANE
350U	UG/KG	NITROBENZENE
350U	UG/KG	ISOPHORONE
350U	UG/KG	2-NITROPHENOL
350U	UG/KG	2,4-DIMETHYLPHENOL
350U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
350U	UG/KG	2,4-DICHLOROPHENOL
350U	UG/KG	1,2,4-TRICHLOROBENZENE
350U	UG/KG	NAPHTHALENE
350U	UG/KG	4-CHLOROANILINE
350U	UG/KG	HEXACHLOROBUTADIENE
350U	UG/KG	4-CHLORO-3-METHYLPHENOL
350U	UG/KG	2-METHYLNAPHTHALENE
350U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
350UJ	UG/KG	2,4,6-TRICHLOROPHENOL
880U	UG/KG	2,4,5-TRICHLOROPHENOL
350U	UG/KG	2-CHLORONAPHTHALENE
880U	UG/KG	2-NITROANILINE
350U	UG/KG	DIMETHYL PHTHALATE
350U	UG/KG	ACENAPHTHYLENE
350U	UG/KG	2,6-DINITROTOLUENE
880U	UG/KG	3-NITROANILINE
350U	UG/KG	ACENAPHTHENE
880U	UG/KG	2,4-DINITROPHENOL
880U	UG/KG	4-NITROPHENOL
350U	UG/KG	DIBENZOFURAN
350U	UG/KG	2,4-DINITROTOLUENE
350U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
350U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
350U	UG/KG	FLUORENE
880U	UG/KG	4-NITROANILINE
880U	UG/KG	2-METHYL-4,6-DINITROPHENOL
350U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
350UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
350UJ	UG/KG	HEXACHLOROBENZENE (HCB)
880U	UG/KG	PENTACHLOROPHENOL
45J	UG/KG	PHENANTHRENE
48J	UG/KG	ANTHRACENE
350U	UG/KG	CARBAZOLE
350U	UG/KG	DI-N-BUTYLPHTHALATE
72J	UG/KG	FLUORANTHENE
82J	UG/KG	PYRENE
350U	UG/KG	BENZYL BUTYL PHTHALATE
350U	UG/KG	3,3'-DICHLOROBENZIDINE
46J	UG/KG	BENZO(A)ANTHRACENE
44J	UG/KG	CHRYSENE
350U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
350U	UG/KG	DI-N-OCTYLPHTHALATE
60J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
350U	UG/KG	BENZO-A-PYRENE
350U	UG/KG	INDENO (1,2,3-CD) PYRENE
350U	UG/KG	DIBENZO(A,H)ANTHRACENE
350U	UG/KG	BENZO(GHI)PERYLENE
6	%	% MOISTURE

A average value. NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10171 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS12 MD Number: MN18 Inorg Contractor: SENTIN
Media: SOIL D Number: MN18 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12:00
Ending:

3 12 0110

RESULTS	UNITS	ANALYTE
380U	UG/KG	PHENOL
380UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
380U	UG/KG	2-CHLOROPHENOL
380U	UG/KG	1,3-DICHLOROBENZENE
380U	UG/KG	1,4-DICHLOROBENZENE
380U	UG/KG	1,2-DICHLOROBENZENE
380U	UG/KG	2-METHYLPHENOL
380U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
380U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
380U	UG/KG	N-NITROSODI-N-PROPYLAMINE
380U	UG/KG	HEXACHLOROETHANE
380U	UG/KG	NITROBENZENE
380U	UG/KG	ISOPHORONE
380U	UG/KG	2-NITROPHENOL
380U	UG/KG	2,4-DIMETHYLPHENOL
380U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
380U	UG/KG	2,4-DICHLOROPHENOL
380U	UG/KG	1,2,4-TRICHLOROBENZENE
380U	UG/KG	NAPHTHALENE
380U	UG/KG	4-CHLOROANILINE
380U	UG/KG	HEXACHLOROBUTADIENE
380U	UG/KG	4-CHLORO-3-METHYLPHENOL
380U	UG/KG	2-METHYLNAPHTHALENE
380U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
380UJ	UG/KG	2,4,6-TRICHLOROPHENOL
950U	UG/KG	2,4,5-TRICHLOROPHENOL
380U	UG/KG	2-CHLORONAPHTHALENE
950U	UG/KG	2-NITROANILINE
380U	UG/KG	DIMETHYL PHTHALATE
380U	UG/KG	ACENAPHTHYLENE
380U	UG/KG	2,6-DINITROTOLUENE
950U	UG/KG	3-NITROANILINE
380U	UG/KG	ACENAPHTHENE
950U	UG/KG	2,4-DINITROPHENOL
950U	UG/KG	4-NITROPHENOL
380U	UG/KG	DIBENZOFURAN
380U	UG/KG	2,4-DINITROTOLUENE
380U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
380U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
380U	UG/KG	FLUORENE
950U	UG/KG	4-NITROANILINE
950U	UG/KG	2-METHYL-4,6-DINITROPHENOL
380U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
380UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
380UJ	UG/KG	HEXACHLOROBENZENE (HCB)
950U	UG/KG	PENTACHLOROPHENOL
310J	UG/KG	PHENANTHRENE
55J	UG/KG	ANTHRACENE
380U	UG/KG	CARBAZOLE
380U	UG/KG	DI-N-BUTYLPHTHALATE
380	UG/KG	FLUORANTHENE
470J	UG/KG	PYRENE
380U	UG/KG	BENZYL BUTYL PHTHALATE
380U	UG/KG	3,3'-DICHLOROBENZIDINE
250J	UG/KG	BENZO(A)ANTHRACENE
190J	UG/KG	CHRYSENE
380U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
380U	UG/KG	DI-N-OCTYLPHTHALATE
290J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
170J	UG/KG	BENZO-A-PYRENE
110J	UG/KG	INDENO (1,2,3-CD) PYRENE
380U	UG/KG	DIBENZO(A,H)ANTHRACENE
120J	UG/KG	BENZO(GHI)PERYLENE
14	%	% MOISTURE

A average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification.
C-confirmed by [redacted]ns. L when no value is reported see [redacted] comments 2 [redacted]tment [redacted]abol[redacted]echn[redacted]ordan[redacted]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10171 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS12 MD Number: MN18 Inorg Contractor: SENTIN
Media: SOIL D Number: MN18 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12.00
Ending:

RESULTS	UNITS	ANALYTE
100JN	UG/KG	BENZOPYRENE (NOT A)
400J	UG/KG	1 UNIDENTIFIED COMPOUND

A average value NA-not analyzed. NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gc/ms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0111

Sample 10172 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS15 MD Number: MN21 Inorg Contractor: SENTIN
Media: SOIL D Number: MN21 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12 25
Ending:

RESULTS	UNITS	ANALYTE
430U	UG/KG	PHENOL
430UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
430U	UG/KG	2-CHLOROPHENOL
430U	UG/KG	1,3-DICHLOROBENZENE
430U	UG/KG	1,4-DICHLOROBENZENE
430U	UG/KG	1,2-DICHLOROBENZENE
430U	UG/KG	2-METHYLPHENOL
430U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
430U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
430U	UG/KG	N-NITROSODI-N-PROPYLAMINE
430U	UG/KG	HEXACHLOROETHANE
430U	UG/KG	NITROBENZENE
430U	UG/KG	ISOPHORONE
430U	UG/KG	2-NITROPHENOL
430U	UG/KG	2,4-DIMETHYLPHENOL
430U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
430U	UG/KG	2,4-DICHLOROPHENOL
430U	UG/KG	1,2,4-TRICHLOROBENZENE
430U	UG/KG	NAPHTHALENE
430U	UG/KG	4-CHLOROANILINE
430U	UG/KG	HEXACHLOROBUTADIENE
430U	UG/KG	4-CHLORO-3-METHYLPHENOL
430U	UG/KG	2-METHYLNAPHTHALENE
430U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
430UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1100U	UG/KG	2,4,5-TRICHLOROPHENOL
430U	UG/KG	2-CHLORONAPHTHALENE
1100U	UG/KG	2-NITROANILINE
430U	UG/KG	DIMETHYL PHTHALATE
47J	UG/KG	ACENAPHTHYLENE
430U	UG/KG	2,6-DINITROTOLUENE
1100U	UG/KG	3-NITROANILINE
49J	UG/KG	ACENAPHTHENE
1100U	UG/KG	2,4-DINITROPHENOL
1100U	UG/KG	4-NITROPHENOL
430U	UG/KG	DIBENZOFURAN
430U	UG/KG	2,4-DINITROTOLUENE
430U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
430U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
430U	UG/KG	FLUORENE
1100U	UG/KG	4-NITROANILINE
1100U	UG/KG	2-METHYL-4,6-DINITROPHENOL
430U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
430UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
430UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1100U	UG/KG	PENTACHLOROPHENOL
900	UG/KG	PHENANTHRENE
71J	UG/KG	ANTHRACENE
110J	UG/KG	CARBAZOLE
430U	UG/KG	DI-N-BUTYLPHTHALATE
2000	UG/KG	FLUORANTHENE
2000J	UG/KG	PYRENE
430U	UG/KG	BENZYL BUTYL PHTHALATE
430U	UG/KG	3,3'-DICHLOROBENZIDINE
690	UG/KG	BENZO(A)ANTHRACENE
730	UG/KG	CHRYSENE
500	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
430U	UG/KG	DI-N-OCTYLPHTHALATE
1300J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
740	UG/KG	BENZO-A-PYRENE
380J	UG/KG	INDENO (1,2,3-CD) PYRENE
150J	UG/KG	DIBENZO(A,H)ANTHRACENE
440	UG/KG	BENZO(GHI)PERYLENE
25	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value N presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected. the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is n[redacted]sary for verification
[redacted]

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10172 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS15 MD Number: MN21 Inorg Contractor: SENTIN
Media: SOIL D Number: MN21 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
200JN	UG/KG	ANTHRACENEDIONE
100JN	UG/KG	CYCLOPENTAPHENANTHRENONE
90JN	UG/KG	BENZANTHRACENONE
90JN	UG/KG	BENZONAPHTHOTHIOPHENE
600JN	UG/KG	BENZOPYRENE (NOT A)

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

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EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10173 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS11 MD Number: MN17 Inorg Contractor: SENTIN
Media: SOIL D Number MN17 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning 07/09/97 11:45
Ending:

RESULTS	UNITS	ANALYTE
430U	UG/KG	PHENOL
430UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
430U	UG/KG	2-CHLOROPHENOL
430U	UG/KG	1,3-DICHLOROBENZENE
430U	UG/KG	1,4-DICHLOROBENZENE
430U	UG/KG	1,2-DICHLOROBENZENE
430U	UG/KG	2-METHYLPHENOL
430U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
430U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
430U	UG/KG	N-NITROSODI-N-PROPYLAMINE
430U	UG/KG	HEXACHLOROETHANE
430U	UG/KG	NITROBENZENE
430U	UG/KG	ISOPHORONE
430U	UG/KG	2-NITROPHENOL
430U	UG/KG	2,4-DIMETHYLPHENOL
430U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
430U	UG/KG	2,4-DICHLOROPHENOL
430U	UG/KG	1,2,4-TRICHLOROBENZENE
430U	UG/KG	NAPHTHALENE
430U	UG/KG	4-CHLOROANILINE
430U	UG/KG	HEXACHLOROBUTADIENE
430U	UG/KG	4-CHLORO-3-METHYLPHENOL
430U	UG/KG	2-METHYLNAPHTHALENE
430U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
430UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1100U	UG/KG	2,4,5-TRICHLOROPHENOL
430U	UG/KG	2-CHLORONAPHTHALENE
1100U	UG/KG	2-NITROANILINE
430U	UG/KG	DIMETHYL PHTHALATE
430U	UG/KG	ACENAPHTHYLENE
430U	UG/KG	2,6-DINITROTOLUENE
1100U	UG/KG	3-NITROANILINE
430U	UG/KG	ACENAPHTHENE
1100U	UG/KG	2,4-DINITROPHENOL
1100U	UG/KG	4-NITROPHENOL
430U	UG/KG	DIBENZOFURAN
430U	UG/KG	2,4-DINITROTOLUENE
430U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
430U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
430U	UG/KG	FLUORENE
1100U	UG/KG	4-NITROANILINE
1100U	UG/KG	2-METHYL-4,6-DINITROPHENOL
430U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
430UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
430UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1100U	UG/KG	PENTACHLOROPHENOL
100J	UG/KG	PHENANTHRENE
430U	UG/KG	ANTHRACENE
430U	UG/KG	CARBAZOLE
430U	UG/KG	DI-N-BUTYLPHTHALATE
240J	UG/KG	FLUORANTHENE
240J	UG/KG	PYRENE
430U	UG/KG	BENZYL BUTYL PHTHALATE
430U	UG/KG	3,3'-DICHLOROBENZIDINE
180J	UG/KG	BENZO(A)ANTHRACENE
140J	UG/KG	CHRYSENE
430U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
430U	UG/KG	DI-N-OCTYLPHTHALATE
270J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
160J	UG/KG	BENZO-A-PYRENE
77J	UG/KG	INDENO (1,2,3-CD) PYRENE
430U	UG/KG	DIBENZO(A,H)ANTHRACENE
98J	UG/KG	BENZO(GHI)PERYLENE
25	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates [illegible] data unusable compound may or may not be pre[illegible] resa[illegible] and re[illegible] is is r[illegible]ary fo[illegible]ation [illegible]
[illegible] conf[illegible] when [illegible]e is r[illegible], see [illegible]ane constituents [illegible] constituents of metabolites of technical chlordane

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10174 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS01 MD Number: MN07 Inorg Contractor: SENTIN
Media: SOIL D Number: MN07 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 11:35
Ending:

RESULTS	UNITS	ANALYTE
400UJ	UG/KG	PHENOL
400UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
400UJ	UG/KG	2-CHLOROPHENOL
400UJ	UG/KG	1,3-DICHLOROBENZENE
400UJ	UG/KG	1,4-DICHLOROBENZENE
400UJ	UG/KG	1,2-DICHLOROBENZENE
400UJ	UG/KG	2-METHYLPHENOL
400UJ	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
400UJ	UG/KG	(3-AND/OR 4-)METHYLPHENOL
400UJ	UG/KG	N-NITROSODI-N-PROPYLAMINE
400UJ	UG/KG	HEXACHLOROETHANE
400UJ	UG/KG	NITROBENZENE
400UJ	UG/KG	ISOPHORONE
400UJ	UG/KG	2-NITROPHENOL
400UJ	UG/KG	2,4-DIMETHYLPHENOL
400UJ	UG/KG	BIS(2-CHLOROETHOXY)METHANE
400UJ	UG/KG	2,4-DICHLOROPHENOL
400UJ	UG/KG	1,2,4-TRICHLOROBENZENE
400UJ	UG/KG	NAPHTHALENE
400UJ	UG/KG	4-CHLOROANILINE
400UJ	UG/KG	HEXACHLOROBUTADIENE
400UJ	UG/KG	4-CHLORO-3-METHYLPHENOL
400UJ	UG/KG	2-METHYLNAPHTHALENE
400UJ	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
400UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000UJ	UG/KG	2,4,5-TRICHLOROPHENOL
400UJ	UG/KG	2-CHLORONAPHTHALENE
1000UJ	UG/KG	2-NITROANILINE
400UJ	UG/KG	DIMETHYL PHTHALATE
400UJ	UG/KG	ACENAPHTHYLENE
400UJ	UG/KG	2,6-DINITROTOLUENE
1000UJ	UG/KG	3-NITROANILINE
400UJ	UG/KG	ACENAPHTHENE
1000UJ	UG/KG	2,4-DINITROPHENOL
1000UJ	UG/KG	4-NITROPHENOL
400UJ	UG/KG	DIBENZOFURAN
400UJ	UG/KG	2,4-DINITROTOLUENE
400UJ	UG/KG	DIETHYL PHTHALATE
400UJ	UG/KG	4-CHLOROPHENYL PHENYL ETHER
400UJ	UG/KG	FLUORENE
1000UJ	UG/KG	4-NITROANILINE
1000UJ	UG/KG	2-METHYL-4,6-DINITROPHENOL
400UJ	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
400UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
400UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000UJ	UG/KG	PENTACHLOROPHENOL
400UJ	UG/KG	PHENANTHRENE
400UJ	UG/KG	ANTHRACENE
400UJ	UG/KG	CARBAZOLE
400UJ	UG/KG	DI-N-BUTYLPHTHALATE
400UJ	UG/KG	FLUORANTHENE
400UJ	UG/KG	PYRENE
400UJ	UG/KG	BENZYL BUTYL PHTHALATE
400UJ	UG/KG	3,3'-DICHLOROBENZIDINE
400UJ	UG/KG	BENZO(A)ANTHRACENE
400UJ	UG/KG	CHRYSENE
400UJ	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
400UJ	UG/KG	DI-N-OCTYLPHTHALATE
400UJ	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
400UJ	UG/KG	BENZO-A-PYRENE
400UJ	UG/KG	INDENO (1,2,3-CD) PYRENE
400UJ	UG/KG	DIBENZO(A,H)ANTHRACENE
400UJ	UG/KG	BENZO(GHI)PERYLENE
18	%	% MOISTURE

EXCESSIVE HOLDING TIME

A-average value NA-not analyzed NAI-interferences J-estimated value N presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0113

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10175 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW04 MD Number: MN40 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN40 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 14:00
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	PHENOL
10UJ	UG/L	BIS(2-CHLOROETHYL) ETHER
10U	UG/L	2-CHLOROPHENOL
10U	UG/L	1,3-DICHLOROBENZENE
10U	UG/L	1,4-DICHLOROBENZENE
10U	UG/L	1,2-DICHLOROBENZENE
10U	UG/L	2-METHYLPHENOL
10U	UG/L	BIS(2-CHLOROISOPROPYL) ETHER
10U	UG/L	(3-AND/OR 4-)METHYLPHENOL
10U	UG/L	N-NITROSODI-N-PROPYLAMINE
10U	UG/L	HEXACHLOROETHANE
10U	UG/L	NITROBENZENE
10U	UG/L	ISOPHORONE
10U	UG/L	2-NITROPHENOL
10U	UG/L	2,4-DIMETHYLPHENOL
10U	UG/L	BIS(2-CHLOROETHOXY)METHANE
10U	UG/L	2,4-DICHLOROPHENOL
10U	UG/L	1,2,4-TRICHLOROBENZENE
10U	UG/L	NAPHTHALENE
10U	UG/L	4-CHLOROANILINE
10U	UG/L	HEXACHLOROBUTADIENE
10U	UG/L	4-CHLORO-3-METHYLPHENOL
10U	UG/L	2-METHYLNAPHTHALENE
10U	UG/L	HEXACHLOROCYCLOPENTADIENE (HCCP)
10UJ	UG/L	2,4,6-TRICHLOROPHENOL
25U	UG/L	2,4,5-TRICHLOROPHENOL
10U	UG/L	2-CHLORONAPHTHALENE
25U	UG/L	2-NITROANILINE
10U	UG/L	DIMETHYL PHTHALATE
10U	UG/L	ACENAPHTHYLENE
10U	UG/L	2,6-DINITROTOLUENE
25U	UG/L	3-NITROANILINE
10U	UG/L	ACENAPHTHENE
25U	UG/L	2,4-DINITROPHENOL
25U	UG/L	4-NITROPHENOL
10U	UG/L	DIBENZOFURAN
10U	UG/L	2,4-DINITROTOLUENE
10U	UG/L	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
10U	UG/L	4-CHLOROPHENYL PHENYL ETHER
10U	UG/L	FLUORENE
25U	UG/L	4-NITROANILINE
25U	UG/L	2-METHYL-4,6-DINITROPHENOL
10U	UG/L	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10UJ	UG/L	4-BROMOPHENYL PHENYL ETHER
10UJ	UG/L	HEXACHLOROBENZENE (HCB)
25U	UG/L	PENTACHLOROPHENOL
10U	UG/L	PHENANTHRENE
10U	UG/L	ANTHRACENE
10U	UG/L	CARBAZOLE
10U	UG/L	DI-N-BUTYLPHTHALATE
10U	UG/L	FLUORANTHENE
10U	UG/L	PYRENE
10U	UG/L	BENZYL BUTYL PHTHALATE
10U	UG/L	3,3'-DICHLOROBENZIDINE
10U	UG/L	BENZO(A)ANTHRACENE
10U	UG/L	CHRYSENE
10U	UG/L	BIS(2-ETHYLHEXYL) PHTHALATE
10U	UG/L	DI-N-OCTYLPHTHALATE
10U	UG/L	BENZO(B AND/OR K)FLUORANTHENE
10U	UG/L	BENZO-A-PYRENE
10U	UG/L	INDENO (1,2,3-CD) PYRENE
10U	UG/L	DIBENZO(A,H)ANTHRACENE
10U	UG/L	BENZO(GHI)PERYLENE

A-average value NA-not analyzed NAI-interferences J-estimated value N presumptive evidence of presence of material
K actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for [illegible]
[illegible] contin[illegible] when [illegible] is re[illegible] see [illegible] ne co[illegible]nts [illegible] technical chlordane

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10176 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS03 MD Number: MN09 Inorg Contractor: SENTIN
Media: SOIL D Number: MN09 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 15:50
Ending:

RESULTS	UNITS	ANALYTE
410U	UG/KG	PHENOL
410UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
410U	UG/KG	2-CHLOROPHENOL
410U	UG/KG	1,3-DICHLOROBENZENE
410U	UG/KG	1,4-DICHLOROBENZENE
410U	UG/KG	1,2-DICHLOROBENZENE
410U	UG/KG	2-METHYLPHENOL
410U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
410U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
410U	UG/KG	N-NITROSODI-N-PROPYLAMINE
410U	UG/KG	HEXACHLOROETHANE
410U	UG/KG	NITROBENZENE
410U	UG/KG	ISOPHORONE
410U	UG/KG	2-NITROPHENOL
410U	UG/KG	2,4-DIMETHYLPHENOL
410U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
410U	UG/KG	2,4-DICHLOROPHENOL
410U	UG/KG	1,2,4-TRICHLOROBENZENE
410U	UG/KG	NAPHTHALENE
410U	UG/KG	4-CHLOROANILINE
410U	UG/KG	HEXACHLOROBUTADIENE
410U	UG/KG	4-CHLORO-3-METHYLPHENOL
410U	UG/KG	2-METHYLNAPHTHALENE
410U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
410UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000U	UG/KG	2,4,5-TRICHLOROPHENOL
410U	UG/KG	2-CHLORONAPHTHALENE
1000U	UG/KG	2-NITROANILINE
410U	UG/KG	DIMETHYL PHTHALATE
410U	UG/KG	ACENAPHTHYLENE
410U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	3-NITROANILINE
410U	UG/KG	ACENAPHTHENE
1000U	UG/KG	2,4-DINITROPHENOL
1000U	UG/KG	4-NITROPHENOL
410U	UG/KG	DIBENZOFURAN
410U	UG/KG	2,4-DINITROTOLUENE
410U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
410U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
410U	UG/KG	FLUORENE
1000U	UG/KG	4-NITROANILINE
1000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
410U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
410UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
410UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000U	UG/KG	PENTACHLOROPHENOL
410U	UG/KG	PHENANTHRENE
410U	UG/KG	ANTHRACENE
410U	UG/KG	CARBAZOLE
410U	UG/KG	DI-N-BUTYLPHTHALATE
57J	UG/KG	FLUORANTHENE
85J	UG/KG	PYRENE
410U	UG/KG	BENZYL BUTYL PHTHALATE
410U	UG/KG	3,3'-DICHLOROBENZIDINE
410U	UG/KG	BENZO(A)ANTHRACENE
49J	UG/KG	CHRYSENE
410U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
410U	UG/KG	DI-N-OCTYLPHTHALATE
120J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
64J	UG/KG	BENZO-A-PYRENE
410U	UG/KG	INDENO (1,2,3-CD) PYRENE
410U	UG/KG	DIBENZO(A,H)ANTHRACENE
57J	UG/KG	BENZO(GHI)PERYLENE
20	%	% MOISTURE

A average value NA not analyzed NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C Confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0114

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10176 FY 1997 Project: 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS03 MD Number: MN09 Inorg Contractor: SENTIN

Media: SOIL D Number: MN09 Org Contractor: COMPU

Printed by: John McConney

Collected By:

Beginning 07/09/97 15.50

Ending:

RESULTS	UNITS	ANALYTE
200JN	UG/KG	OCTAHYDROTRIMETHYL (METHYLETHYL) PHENANTHRENOL
10000J	UG/KG	9 UNIDENTIFIED COMPOUNDS
3000J	UG/KG	ALKANES

A average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation lim[illegible]
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is [illegible]sary for verification [illegible]
[illegible] wher[illegible]ue is [illegible]d, se[illegible]dane [illegible]ents [illegible]stitue[illegible] metal [illegible] of tec[illegible] chlordane

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10177 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS13 MD Number: MN19 Inorg Contractor: SENTIN
Media: SOIL D Number: MN19 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 15:15
Ending:

RESULTS	UNITS	ANALYTE
420U	UG/KG	PHENOL
420UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
420U	UG/KG	2-CHLOROPHENOL
420U	UG/KG	1,3-DICHLOROBENZENE
420U	UG/KG	1,4-DICHLOROBENZENE
420U	UG/KG	1,2-DICHLOROBENZENE
420U	UG/KG	2-METHYLPHENOL
420U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
420U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
420U	UG/KG	N-NITROSODI-N-PROPYLAMINE
420U	UG/KG	HEXACHLOROETHANE
420U	UG/KG	NITROBENZENE
420U	UG/KG	ISOPHORONE
420U	UG/KG	2-NITROPHENOL
420U	UG/KG	2,4-DIMETHYLPHENOL
420U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
420U	UG/KG	2,4-DICHLOROPHENOL
420U	UG/KG	1,2,4-TRICHLOROBENZENE
420U	UG/KG	NAPHTHALENE
420U	UG/KG	4-CHLOROANILINE
420U	UG/KG	HEXACHLOROBUTADIENE
420U	UG/KG	4-CHLORO-3-METHYLPHENOL
420U	UG/KG	2-METHYLNAPHTHALENE
420U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
420UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000U	UG/KG	2,4,5-TRICHLOROPHENOL
420U	UG/KG	2-CHLORONAPHTHALENE
1000U	UG/KG	2-NITROANILINE
420U	UG/KG	DIMETHYL PHTHALATE
420U	UG/KG	ACENAPHTHYLENE
420U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	3-NITROANILINE
420U	UG/KG	ACENAPHTHENE
1000U	UG/KG	2,4-DINITROPHENOL
1000U	UG/KG	4-NITROPHENOL
420U	UG/KG	DIBENZOFURAN
420U	UG/KG	2,4-DINITROTOLUENE
420U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
420U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
420U	UG/KG	FLUORENE
1000U	UG/KG	4-NITROANILINE
1000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
420U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
420UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
420UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000U	UG/KG	PENTACHLOROPHENOL
420U	UG/KG	PHENANTHRENE
420U	UG/KG	ANTHRACENE
420U	UG/KG	CARBAZOLE
420U	UG/KG	DI-N-BUTYLPHTHALATE
92J	UG/KG	FLUORANTHENE
95J	UG/KG	PYRENE
420U	UG/KG	BENZYL BUTYL PHTHALATE
420U	UG/KG	3,3'-DICHLOROBENZIDINE
420U	UG/KG	BENZO(A)ANTHRACENE
57J	UG/KG	CHRYSENE
420U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
420U	UG/KG	DI-N-OCTYLPHTHALATE
110J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
62J	UG/KG	BENZO-A-PYRENE
420U	UG/KG	INDENO (1,2,3-CD) PYRENE
420U	UG/KG	DIBENZO(A,H)ANTHRACENE
43J	UG/KG	BENZO(GHI)PERYLENE
21	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gc/ms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0115

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10178 FY 1997 Project 97-0292

EXTRACTABLES SCAN

Facility BROWN'S DUMP JACKSONVILLE, FL
Program. NSF Case Number: 25558
Id/Station: BDSS16 MD Number: MN22 Inorg Contractor: SENTIN
Media SOIL D Number MN22 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16.10
Ending:

RESULTS	UNITS	ANALYTE
410U	UG/KG	PHENOL
410UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
410U	UG/KG	2-CHLOROPHENOL
410U	UG/KG	1,3-DICHLOROBENZENE
410U	UG/KG	1,4-DICHLOROBENZENE
410U	UG/KG	1,2-DICHLOROBENZENE
410U	UG/KG	2-METHYLPHENOL
410U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
410U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
410U	UG/KG	N-NITROSODI-N-PROPYLAMINE
410U	UG/KG	HEXACHLOROETHANE
410U	UG/KG	NITROBENZENE
410U	UG/KG	ISOPHORONE
410U	UG/KG	2-NITROPHENOL
410U	UG/KG	2,4-DIMETHYLPHENOL
410U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
410U	UG/KG	2,4-DICHLOROPHENOL
410U	UG/KG	1,2,4-TRICHLOROBENZENE
410U	UG/KG	NAPHTHALENE
410U	UG/KG	4-CHLOROANILINE
410U	UG/KG	HEXACHLOROBUTADIENE
410U	UG/KG	4-CHLORO-3-METHYLPHENOL
410U	UG/KG	2-METHYLNAPHTHALENE
410U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
410UJ	UG/KG	2,4,6-TRICHLOROPHENOL
1000U	UG/KG	2,4,5-TRICHLOROPHENOL
410U	UG/KG	2-CHLORONAPHTHALENE
1000U	UG/KG	2-NITROANILINE
410U	UG/KG	DIMETHYL PHTHALATE
410U	UG/KG	ACENAPHTHYLENE
410U	UG/KG	2,6-DINITROTOLUENE
1000U	UG/KG	3-NITROANILINE
410U	UG/KG	ACENAPHTHENE
1000U	UG/KG	2,4-DINITROPHENOL
1000U	UG/KG	4-NITROPHENOL
410U	UG/KG	DIBENZOFURAN
410U	UG/KG	2,4-DINITROTOLUENE
410U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
410U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
410U	UG/KG	FLUORENE
1000U	UG/KG	4-NITROANILINE
1000U	UG/KG	2-METHYL-4,6-DINITROPHENOL
410U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
410UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
410UJ	UG/KG	HEXACHLOROBENZENE (HCB)
1000U	UG/KG	PENTACHLOROPHENOL
410U	UG/KG	PHENANTHRENE
410U	UG/KG	ANTHRACENE
410U	UG/KG	CARBAZOLE
410U	UG/KG	DI-N-BUTYLPHTHALATE
410U	UG/KG	FLUORANTHENE
410U	UG/KG	PYRENE
410U	UG/KG	BENZYL BUTYL PHTHALATE
410U	UG/KG	3,3'-DICHLOROBENZIDINE
410U	UG/KG	BENZO(A)ANTHRACENE
410U	UG/KG	CHRYSENE
670	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
410U	UG/KG	DI-N-OCTYLPHTHALATE
410U	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
410U	UG/KG	BENZO-A-PYRENE
410U	UG/KG	INDENO (1,2,3-CD) PYRENE
410U	UG/KG	DIBENZO(A,H)ANTHRACENE
410U	UG/KG	BENZO(GHI)PERYLENE
20	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences J-estimated value N-presumptive evidence of presence of material
K actual value is known to be less than value given. L actual value is known to be greater than value given U material was analyzed for but not detected the number is the minimum quantitation limi[illegible]
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is p[illegible]ary for verification [illegible]
[illegible] con[illegible] when [illegible]e is [illegible]d, se[illegible]lane [illegible]ents [illegible]stituen[illegible]metab[illegible] of technical chlordane

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10178 FY 1997 Project 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS16 MD Number: MN22 Inorg Contractor: SENTIN
Media: SOIL D Number: MN22 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16:10
Ending:

RESULTS	UNITS	ANALYTE
600JN	UG/KG	METHYLENEBIS (CHLORO) BENZENAMINE

A-average value NA-not analyzed. NAI-interferences J-estimated value. N-presumptive evidence of presence of material
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0116

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10179 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS02 MD Number: MN08 Inorg Contractor: SENTIN
Media: SOIL D Number: MN08 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16:40
Ending:

RESULTS	UNITS	ANALYTE
360U	UG/KG	PHENOL
360UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
360U	UG/KG	2-CHLOROPHENOL
360U	UG/KG	1,3-DICHLOROBENZENE
360U	UG/KG	1,4-DICHLOROBENZENE
360U	UG/KG	1,2-DICHLOROBENZENE
360U	UG/KG	2-METHYLPHENOL
360U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
360U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
360U	UG/KG	N-NITROSODI-N-PROPYLAMINE
360U	UG/KG	HEXACHLOROETHANE
360U	UG/KG	NITROBENZENE
360U	UG/KG	ISOPHORONE
360U	UG/KG	2-NITROPHENOL
360U	UG/KG	2,4-DIMETHYLPHENOL
360U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
360U	UG/KG	2,4-DICHLOROPHENOL
360U	UG/KG	1,2,4-TRICHLOROBENZENE
360U	UG/KG	NAPHTHALENE
360U	UG/KG	4-CHLOROANILINE
360U	UG/KG	HEXACHLOROBUTADIENE
360U	UG/KG	4-CHLORO-3-METHYLPHENOL
360U	UG/KG	2-METHYLNAPHTHALENE
360U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
360UJ	UG/KG	2,4,6-TRICHLOROPHENOL
920U	UG/KG	2,4,5-TRICHLOROPHENOL
360U	UG/KG	2-CHLORONAPHTHALENE
920U	UG/KG	2-NITROANILINE
360U	UG/KG	DIMETHYL PHTHALATE
360U	UG/KG	ACENAPHTHYLENE
360U	UG/KG	2,6-DINITROTOLUENE
920U	UG/KG	3-NITROANILINE
360U	UG/KG	ACENAPHTHENE
920U	UG/KG	2,4-DINITROPHENOL
920U	UG/KG	4-NITROPHENOL
360U	UG/KG	DIBENZOFURAN
360U	UG/KG	2,4-DINITROTOLUENE
360U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
360U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
360U	UG/KG	FLUORENE
920U	UG/KG	4-NITROANILINE
920U	UG/KG	2-METHYL-4,6-DINITROPHENOL
360U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
360UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
360UJ	UG/KG	HEXACHLOROBENZENE (HCB)
920U	UG/KG	PENTACHLOROPHENOL
370	UG/KG	PHENANTHRENE
67J	UG/KG	ANTHRACENE
50J	UG/KG	CARBAZOLE
360U	UG/KG	DI-N-BUTYLPHTHALATE
1200	UG/KG	FLUORANTHENE
850J	UG/KG	PYRENE
360U	UG/KG	BENZYL BUTYL PHTHALATE
360U	UG/KG	3,3'-DICHLOROBENZIDINE
540	UG/KG	BENZO(A)ANTHRACENE
470	UG/KG	CHRYSENE
360U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
360U	UG/KG	DI-N-OCTYLPHTHALATE
830J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
450	UG/KG	BENZO-A-PYRENE
220J	UG/KG	INDENO (1,2,3-CD) PYRENE
360U	UG/KG	DIBENZO(A,H)ANTHRACENE
230J	UG/KG	BENZO(GHI)PERYLENE
10	%	% MOISTURE

A-average value NA-not analyzed NAI-interferences. J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present resampling and reanalysis is nec[illegible]y for [illegible]tion
[illegible]onfir[illegible]en n[illegible]s rep[illegible]see c[illegible]e co[illegible]ts 2 [illegible]ents [illegible]abolit[illegible]echnical chlordane

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 10179 FY 1997 Project 97-0292

MISCELLANEOUS COMPOUNDS

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station.BDSS02 MD Number: MN08 Inorg Contractor: SENTIN
Media: SOIL D Number: MN08 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16 40
Ending:

RESULTS	UNITS	ANALYTE
80JN	UG/KG	BENZOFLUORANTHENE (NOT B OR K)
500JN	UG/KG	BENZOPYRENE (NOT A, 2 ISOMERS)

A average value NA-not analyzed NAI-interferences J-estimated value N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation limit
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is necessary for verification
C Confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0117

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 10180 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS05 MD Number: MN11
Media: SOIL D Number: MN11

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 17:00
Ending:

RESULTS	UNITS	ANALYTE
360U	UG/KG	PHENOL
360UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
360U	UG/KG	2-CHLOROPHENOL
360U	UG/KG	1,3-DICHLOROBENZENE
360U	UG/KG	1,4-DICHLOROBENZENE
360U	UG/KG	1,2-DICHLOROBENZENE
360U	UG/KG	2-METHYLPHENOL
360U	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
360U	UG/KG	(3-AND/OR 4-)METHYLPHENOL
360U	UG/KG	N-NITROSODI-N-PROPYLAMINE
360U	UG/KG	HEXACHLOROETHANE
360U	UG/KG	NITROBENZENE
360U	UG/KG	ISOPHORONE
360U	UG/KG	2-NITROPHENOL
360U	UG/KG	2,4-DIMETHYLPHENOL
360U	UG/KG	BIS(2-CHLOROETHOXY)METHANE
360U	UG/KG	2,4-DICHLOROPHENOL
360U	UG/KG	1,2,4-TRICHLOROBENZENE
360U	UG/KG	NAPHTHALENE
360U	UG/KG	4-CHLOROANILINE
360U	UG/KG	HEXACHLOROBUTADIENE
360U	UG/KG	4-CHLORO-3-METHYLPHENOL
360U	UG/KG	2-METHYLNAPHTHALENE
360U	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
360UJ	UG/KG	2,4,6-TRICHLOROPHENOL
910U	UG/KG	2,4,5-TRICHLOROPHENOL
360U	UG/KG	2-CHLORONAPHTHALENE
910U	UG/KG	2-NITROANILINE
360U	UG/KG	DIMETHYL PHTHALATE
360U	UG/KG	ACENAPHTHYLENE
360U	UG/KG	2,6-DINITROTOLUENE
910U	UG/KG	3-NITROANILINE
360U	UG/KG	ACENAPHTHENE
910U	UG/KG	2,4-DINITROPHENOL
910U	UG/KG	4-NITROPHENOL
360U	UG/KG	DIBENZOFURAN
360U	UG/KG	2,4-DINITROTOLUENE
360U	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
360U	UG/KG	4-CHLOROPHENYL PHENYL ETHER
360U	UG/KG	FLUORENE
910U	UG/KG	4-NITROANILINE
910U	UG/KG	2-METHYL-4,6-DINITROPHENOL
360U	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
360UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
360UJ	UG/KG	HEXACHLOROBENZENE (HCB)
910U	UG/KG	PENTACHLOROPHENOL
360U	UG/KG	PHENANTHRENE
360U	UG/KG	ANTHRACENE
360U	UG/KG	CARBAZOLE
360U	UG/KG	DI-N-BUTYLPHTHALATE
41J	UG/KG	FLUORANTHENE
44J	UG/KG	PYRENE
360U	UG/KG	BENZYL BUTYL PHTHALATE
360U	UG/KG	3,3'-DICHLOROBENZIDINE
360U	UG/KG	BENZO(A)ANTHRACENE
360U	UG/KG	CHRYSENE
360U	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
360U	UG/KG	DI-N-OCTYLPHTHALATE
39J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
360U	UG/KG	BENZO-A-PYRENE
360U	UG/KG	INDENO (1,2,3-CD) PYRENE
360U	UG/KG	DIBENZO(A,H)ANTHRACENE
360U	UG/KG	BENZO(GHI)PERYLENE
9	%	% MOISTURE

A average value NA-not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given U-material was analyzed for but not detected the number is the minimum quantitation l[illegible]
R qc indicates that data unusable compound may or may not be present resampling and reanalysis is [illegible]essary for verification
C [illegible] 1 wh[illegible] value [illegible]rted, [illegible]ordai[illegible]tituer[illegible]onstit[illegible]or met[illegible]s of technical chlordane

EXTRACTABLES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:21

Sample 11760 FY 1997 Project: 97-0292

EXTRACTABLES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS14 MD Number: MN20 Inorg Contractor: SENTIN
Media: SOIL D Number: MN20 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 14.15
Ending:

RESULTS	UNITS	ANALYTE
380UJ	UG/KG	PHENOL
380UJ	UG/KG	BIS(2-CHLOROETHYL) ETHER
380UJ	UG/KG	2-CHLOROPHENOL
380UJ	UG/KG	1,3-DICHLOROBENZENE
380UJ	UG/KG	1,4-DICHLOROBENZENE
380UJ	UG/KG	1,2-DICHLOROBENZENE
380UJ	UG/KG	2-METHYLPHENOL
380UJ	UG/KG	BIS(2-CHLOROISOPROPYL) ETHER
380UJ	UG/KG	(3-AND/OR 4-)METHYLPHENOL
380UJ	UG/KG	N-NITROSODI-N-PROPYLAMINE
380UJ	UG/KG	HEXACHLOROETHANE
380UJ	UG/KG	NITROBENZENE
380UJ	UG/KG	ISOPHORONE
380UJ	UG/KG	2-NITROPHENOL
380UJ	UG/KG	2,4-DIMETHYLPHENOL
380UJ	UG/KG	BIS(2-CHLOROETHOXY)METHANE
380UJ	UG/KG	2,4-DICHLOROPHENOL
380UJ	UG/KG	1,2,4-TRICHLOROBENZENE
380UJ	UG/KG	NAPHTHALENE
380UJ	UG/KG	4-CHLOROANILINE
380UJ	UG/KG	HEXACHLOROBUTADIENE
380UJ	UG/KG	4-CHLORO-3-METHYLPHENOL
380UJ	UG/KG	2-METHYLNAPHTHALENE
380UJ	UG/KG	HEXACHLOROCYCLOPENTADIENE (HCCP)
380UJ	UG/KG	2,4,6-TRICHLOROPHENOL
950UJ	UG/KG	2,4,5-TRICHLOROPHENOL
380UJ	UG/KG	2-CHLORONAPHTHALENE
950UJ	UG/KG	2-NITROANILINE
380UJ	UG/KG	DIMETHYL PHTHALATE
380UJ	UG/KG	ACENAPHTHYLENE
380UJ	UG/KG	2,6-DINITROTOLUENE
950UJ	UG/KG	3-NITROANILINE
380UJ	UG/KG	ACENAPHTHENE
950UJ	UG/KG	2,4-DINITROPHENOL
950UJ	UG/KG	4-NITROPHENOL
380UJ	UG/KG	DIBENZOFURAN
380UJ	UG/KG	2,4-DINITROTOLUENE
380UJ	UG/KG	DIETHYL PHTHALATE

RESULTS	UNITS	ANALYTE
380UJ	UG/KG	4-CHLOROPHENYL PHENYL ETHER
380UJ	UG/KG	FLUORENE
950UJ	UG/KG	4-NITROANILINE
950UJ	UG/KG	2-METHYL-4,6-DINITROPHENOL
380UJ	UG/KG	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
380UJ	UG/KG	4-BROMOPHENYL PHENYL ETHER
380UJ	UG/KG	HEXACHLOROBENZENE (HCB)
950UJ	UG/KG	PENTACHLOROPHENOL
39J	UG/KG	PHENANTHRENE
380UJ	UG/KG	ANTHRACENE
380UJ	UG/KG	CARBAZOLE
380UJ	UG/KG	DI-N-BUTYLPHTHALATE
88J	UG/KG	FLUORANTHENE
70J	UG/KG	PYRENE
380UJ	UG/KG	BENZYL BUTYL PHTHALATE
380UJ	UG/KG	3,3'-DICHLOROBENZIDINE
380UJ	UG/KG	BENZO(A)ANTHRACENE
43J	UG/KG	CHRYSENE
380UJ	UG/KG	BIS(2-ETHYLHEXYL) PHTHALATE
380UJ	UG/KG	DI-N-OCTYLPHTHALATE
87J	UG/KG	BENZO(B AND/OR K)FLUORANTHENE
380UJ	UG/KG	BENZO-A-PYRENE
380UJ	UG/KG	INDENO (1,2,3-CD) PYRENE
380UJ	UG/KG	DIBENZO(A,H)ANTHRACENE
380UJ	UG/KG	BENZO(GHI)PERYLENE
13	%	% MOISTURE

EXCESSIVE HOLDING TIME

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0118

EXTRACTABLES SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:21

Sample 11760 FY 1997 Project 97-0292

MISCELLANEOUS COMPOUNDS

Facility BROWN'S DUMP JACKSONVILLE, FL

Program NSF Case Number. 25558

Id/Station BDSS14 MD Number: MN20 Inorg Contractor: SENTIN

Media SOIL D Number MN20 Org Contractor: COMPU

Printed by. John McConney

Collected By.

Beginning: 07/09/97 14.15

Ending:

RESULTS	UNITS	ANALYTE
5000J	UG/KG	6 UNIDENTIFIED COMPOUNDS
600J	UG/KG	ALKANES

A-average value NA not analyzed NAI-interferences J-estimated value. N-presumptive evidence of presence of material.
K actual value is known to be less than value given L-actual value is known to be greater than value [redacted] n U material was analyzed for but not detected - the number is the [redacted]
[redacted] data [redacted] ple [redacted] nd m [redacted] ay n [redacted] esent [redacted] npling [redacted] eanal [redacted] neces [redacted] r veri [redacted]
[redacted] by gcms I when no value is reported, see chlordane constituents [illegible]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 09/08/97

Subject: Results of VOLATILES ORGANIC Sample Analysis
97-0292 BROWN'S DUMP
JACKSONVILLE, FL

From: Gary Bennett

To: PAULA MACLAREN

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 25558 Project Number 97-0292 SAS Number

Site ID.Brown's Dump, Jacksonville, FL

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
10162	2-butanone	J	erratic response factor
10181	all compounds	J	exceeded holding times
11018	chloroform	J	< quantitation limit
Extractables			
all samples	bis(2-chloroethyl)ether	J	warning low on PE sample
	2,4,6-trichlorophenol	J	warning low on PE sample
	4-bromophenyl-phenylether	J	warning low on PE sample
	hexachlorobenzene	J	warning low on PE sample
except 10154-10156, 10167,10174, 11760	all compounds	J	exceeded extraction holding times
10157	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10159	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(b/k)fluoranthene	J	isomers not separated
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	dibenzo(a,h)anthracene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10169	phenanthrene	J	< quantitation limit
	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
10170	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit

ORGANIC DATA QUALIFIER REPORT
Case Number 25558

Affected Samples	Compound or Fraction	Flag Used	Reason
10172	acenaphthylene	J	< quantitation limit
	acenaphthene	J	< quantitation limit
	anthracene	J	< quantitation limit
	carbazole	J	< qunatitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	dibenzo(a,h)anthracene	J	< quantitation limit
10173	phenanthrene	J	< quantitation limit
	fluroanthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10176	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10177	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10179	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(b/k)fluoranthene	J	isomers not separated
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10180	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
Pesticides			
all samples	endosulfan II	R	missed on PE sample
10154	dieldrin	N	column differences
10155	dieldrin	J	< quantitation limit
10157	heptachlor	J	< quantitation limit
10159	4,4'-DDD	N	column differences
10163	endrin	J	warning high on PE sample
	4,4'-DDT	N	column differences

ORGANIC DATA QUALIFIER REPORT
Case Number 25558

Affected Samples	Compound or Fraction	Flag Used	Reason
10167	endosulfan I	J	< quantitation limit
	dieldrin	J	< quantitation limit
		N	column differences
10171	heptachlor	J	< quantitation limit
	dieldrin	J	< quantitation limit
	aroclor-1260	J	< quantitation limit
10172,10173, 10177	aroclor-1260	C	GC/MS confirmed
10173	4,4'-DDE	C	GC/MS confirmed
	4,4'-DDD	C	GC/MS confirmed
	4,4'-DDT	C	GC/MS confirmed
10178	beta-BHC	J	< quantitation limit
		N	column differences
	heptachlor	J	< quantitation limit
	4,4'-DDD	J	< quantitation limit
		N	column differences
	4,4'-DDT	N	column differences
10179	endrin	J	warning high on PE sample
		N	column differences
10180	endrin aldehyde	J	< quantitation limit

Sample 10174 FY 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Beginning: 07/09/97 11:35

Program: NSF Case Number: 25558

Ending:

Id/Station: BDSS01 MD Number: MN07 Inorg Contractor: SENTIN

Media: SOIL D Number: MN07 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
12U	UG/KG	CHLOROMETHANE
12U	UG/KG	BROMOMETHANE
12U	UG/KG	VINYL CHLORIDE
12U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
12U	UG/KG	ACETONE
12U	UG/KG	CARBON DISULFIDE
12U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
12U	UG/KG	1,1-DICHLOROETHANE
12U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
12U	UG/KG	CHLOROFORM
12U	UG/KG	1,2-DICHLOROETHANE
12U	UG/KG	METHYL ETHYL KETONE
12U	UG/KG	1,1,1-TRICHLOROETHANE
12U	UG/KG	CARBON TETRACHLORIDE
12U	UG/KG	BROMODICHLOROMETHANE
12U	UG/KG	1,2-DICHLOROPROPANE
12U	UG/KG	CIS-1,3-DICHLOROPROPENE
12U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
12U	UG/KG	DIBROMOCHLOROMETHANE
12U	UG/KG	1,1,2-TRICHLOROETHANE
12U	UG/KG	BENZENE
12U	UG/KG	TRANS-1,3-DICHLOROPROPENE
12U	UG/KG	BROMOFORM
12U	UG/KG	METHYL ISOBUTYL KETONE
12U	UG/KG	METHYL BUTYL KETONE
12U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
12U	UG/KG	1,1,2,2-TETRACHLOROETHANE
12U	UG/KG	TOLUENE
12U	UG/KG	CHLOROBENZENE
12U	UG/KG	ETHYL BENZENE
12U	UG/KG	STYRENE
12U	UG/KG	TOTAL XYLENES
18	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10179 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS02 MD Number: MN08 Inorg Contractor: SENTIN
Media: SOIL D Number: MN08 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16:40
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
10	%	% MOISTURE

3 12 0121

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10176 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS03 MD Number: MN09 Inorg Contractor: SENTIN
Media: SOIL D Number: MN09 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 15:50
Ending:

RESULTS	UNITS	ANALYTE
12U	UG/KG	CHLOROMETHANE
12U	UG/KG	BROMOMETHANE
12U	UG/KG	VINYL CHLORIDE
12U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
12U	UG/KG	ACETONE
12U	UG/KG	CARBON DISULFIDE
12U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
12U	UG/KG	1,1-DICHLOROETHANE
12U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
12U	UG/KG	CHLOROFORM
12U	UG/KG	1,2-DICHLOROETHANE
12U	UG/KG	METHYL ETHYL KETONE
12U	UG/KG	1,1,1-TRICHLOROETHANE
12U	UG/KG	CARBON TETRACHLORIDE
12U	UG/KG	BROMODICHLOROMETHANE
12U	UG/KG	1,2-DICHLOROPROPANE
12U	UG/KG	CIS-1,3-DICHLOROPROPENE
12U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
12U	UG/KG	DIBROMOCHLOROMETHANE
12U	UG/KG	1,1,2-TRICHLOROETHANE
12U	UG/KG	BENZENE
12U	UG/KG	TRANS-1,3-DICHLOROPROPENE
12U	UG/KG	BROMOFORM
12U	UG/KG	METHYL ISOBUTYL KETONE
12U	UG/KG	METHYL BUTYL KETONE
12U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
12U	UG/KG	1,1,2,2-TETRACHLOROETHANE
12U	UG/KG	TOLUENE
12U	UG/KG	CHLOROBENZENE
12U	UG/KG	ETHYL BENZENE
12U	UG/KG	STYRENE
12U	UG/KG	TOTAL XYLENES
20	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
:-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
:-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10169 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS04 MD Number: MN10 Inorg Contractor: SENTIN
Media: SOIL D Number: MN10 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 10:45
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
10	%	% MOISTURE

3 12 0122

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10180 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS05 MD Number: MN11 Inorg Contractor: SENTIN
Media: SOIL D Number: MN11 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 17:00
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
9	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10155 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS06 MD Number: MN12 Inorg Contractor: SENTIN
Media: SOIL D Number: MN12 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:10
Ending:

RESULTS	UNITS	ANALYTE
13U	UG/KG	CHLOROMETHANE
13U	UG/KG	BROMOMETHANE
13U	UG/KG	VINYL CHLORIDE
13U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
13U	UG/KG	ACETONE
13U	UG/KG	CARBON DISULFIDE
13U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
13U	UG/KG	1,1-DICHLOROETHANE
13U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
13U	UG/KG	CHLOROFORM
13U	UG/KG	1,2-DICHLOROETHANE
13U	UG/KG	METHYL ETHYL KETONE
13U	UG/KG	1,1,1-TRICHLOROETHANE
13U	UG/KG	CARBON TETRACHLORIDE
13U	UG/KG	BROMODICHLOROMETHANE
13U	UG/KG	1,2-DICHLOROPROPANE
13U	UG/KG	CIS-1,3-DICHLOROPROPENE
13U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
13U	UG/KG	DIBROMOCHLOROMETHANE
13U	UG/KG	1,1,2-TRICHLOROETHANE
13U	UG/KG	BENZENE
13U	UG/KG	TRANS-1,3-DICHLOROPROPENE
13U	UG/KG	BROMOFORM
13U	UG/KG	METHYL ISOBUTYL KETONE
13U	UG/KG	METHYL BUTYL KETONE
13U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
13U	UG/KG	1,1,2,2-TETRACHLOROETHANE
13U	UG/KG	TOLUENE
13U	UG/KG	CHLOROBENZENE
13U	UG/KG	ETHYL BENZENE
13U	UG/KG	STYRENE
13U	UG/KG	TOTAL XYLENES
22	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10157 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS07 MD Number: MN13 Inorg Contractor: SENTIN
Media: SOIL D Number: MN13 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:30
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
10	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10170 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS08 MD Number: MN14 Inorg Contractor: SENTIN
Media: SOIL D Number: MN14 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 11:00
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
6	%	% MOISTURE

erage value. NA-not analyzed. NAI-Interferences. J-estimated value. N-presumptive evidence of presence of material.
tual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
nfirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10156 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS09 MD Number: MN15 Inorg Contractor: SENTIN
Media: SOIL D Number: MN15 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:10
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
12	%	% MOISTURE

3 12 0125

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10154 FY 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:
Beginning: 07/08/97 11:40
Ending:

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS10 MD Number: MN16 Inorg Contractor: SENTIN
Media. SOIL D Number: MN16 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
11U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
6	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10173 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS11 MD Number: MN17 Inorg Contractor: SENTIN
Media: SOIL D Number: MN17 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 11:45
Ending:

RESULTS	UNITS	ANALYTE
13U	UG/KG	CHLOROMETHANE
13U	UG/KG	BROMOMETHANE
13U	UG/KG	VINYL CHLORIDE
13U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
13U	UG/KG	ACETONE
13U	UG/KG	CARBON DISULFIDE
13U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
13U	UG/KG	1,1-DICHLOROETHANE
13U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
13U	UG/KG	CHLOROFORM
13U	UG/KG	1,2-DICHLOROETHANE
13U	UG/KG	METHYL ETHYL KETONE
13U	UG/KG	1,1,1-TRICHLOROETHANE
13U	UG/KG	CARBON TETRACHLORIDE
13U	UG/KG	BROMODICHLOROMETHANE
13U	UG/KG	1,2-DICHLOROPROPANE
13U	UG/KG	CIS-1,3-DICHLOROPROPENE
13U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
13U	UG/KG	DIBROMOCHLOROMETHANE
13U	UG/KG	1,1,2-TRICHLOROETHANE
13U	UG/KG	BENZENE
13U	UG/KG	TRANS-1,3-DICHLOROPROPENE
13U	UG/KG	BROMOFORM
13U	UG/KG	METHYL ISOBUTYL KETONE
13U	UG/KG	METHYL BUTYL KETONE
13U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
13U	UG/KG	1,1,2,2-TETRACHLOROETHANE
13U	UG/KG	TOLUENE
13U	UG/KG	CHLOROBENZENE
13U	UG/KG	ETHYL BENZENE
13U	UG/KG	STYRENE
13U	UG/KG	TOTAL XYLENES
25	%	% MOISTURE

3 12 0126

·average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
·confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10171 FY 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:

Beginning: 07/09/97 12:00

Ending:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS12 MD Number: MN18 Inorg Contractor: SENTIN

Media. SOIL D Number: MN18 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
12U	UG/KG	CHLOROMETHANE
12U	UG/KG	BROMOMETHANE
12U	UG/KG	VINYL CHLORIDE
12U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
12U	UG/KG	ACETONE
12U	UG/KG	CARBON DISULFIDE
12U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
12U	UG/KG	1,1-DICHLOROETHANE
12U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
12U	UG/KG	CHLOROFORM
12U	UG/KG	1,2-DICHLOROETHANE
12U	UG/KG	METHYL ETHYL KETONE
12U	UG/KG	1,1,1-TRICHLOROETHANE
12U	UG/KG	CARBON TETRACHLORIDE
12U	UG/KG	BROMODICHLOROMETHANE
12U	UG/KG	1,2-DICHLOROPROPANE
12U	UG/KG	CIS-1,3-DICHLOROPROPENE
12U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
12U	UG/KG	DIBROMOCHLOROMETHANE
12U	UG/KG	1,1,2-TRICHLOROETHANE
12U	UG/KG	BENZENE
12U	UG/KG	TRANS-1,3-DICHLOROPROPENE
12U	UG/KG	BROMOFORM
12U	UG/KG	METHYL ISOBUTYL KETONE
12U	UG/KG	METHYL BUTYL KETONE
12U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
12U	UG/KG	1,1,2,2-TETRACHLOROETHANE
12U	UG/KG	TOLUENE
12U	UG/KG	CHLOROBENZENE
12U	UG/KG	ETHYL BENZENE
12U	UG/KG	STYRENE
12U	UG/KG	TOTAL XYLENES
14	%	% MOISTURE

-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10177 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS13 MD Number: MN19 Inorg Contractor: SENTIN
Media: SOIL D Number: MN19 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 15:15
Ending:

RESULTS	UNITS	ANALYTE
13U	UG/KG	CHLOROMETHANE
13U	UG/KG	BROMOMETHANE
13U	UG/KG	VINYL CHLORIDE
13U	UG/KG	CHLOROETHANE
13U	UG/KG	METHYLENE CHLORIDE
13U	UG/KG	ACETONE
13U	UG/KG	CARBON DISULFIDE
13U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
13U	UG/KG	1,1-DICHLOROETHANE
13U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
13U	UG/KG	CHLOROFORM
13U	UG/KG	1,2-DICHLOROETHANE
13U	UG/KG	METHYL ETHYL KETONE
13U	UG/KG	1,1,1-TRICHLOROETHANE
13U	UG/KG	CARBON TETRACHLORIDE
13U	UG/KG	BROMODICHLOROMETHANE
13U	UG/KG	1,2-DICHLOROPROPANE
13U	UG/KG	CIS-1,3-DICHLOROPROPENE
13U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
13U	UG/KG	DIBROMOCHLOROMETHANE
13U	UG/KG	1,1,2-TRICHLOROETHANE
13U	UG/KG	BENZENE
13U	UG/KG	TRANS-1,3-DICHLOROPROPENE
13U	UG/KG	BROMOFORM
13U	UG/KG	METHYL ISOBUTYL KETONE
13U	UG/KG	METHYL BUTYL KETONE
13U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
13U	UG/KG	1,1,2,2-TETRACHLOROETHANE
13U	UG/KG	TOLUENE
13U	UG/KG	CHLOROBENZENE
13U	UG/KG	ETHYL BENZENE
13U	UG/KG	STYRENE
13U	UG/KG	TOTAL XYLENES
21	%	% MOISTURE

3 12 0127

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 11760 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS14 MD Number: MN20 Inorg Contractor: SENTIN
Media: SOIL D Number: MN20 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 14:15
Ending:

RESULTS	UNITS	ANALYTE
11U	UG/KG	CHLOROMETHANE
11U	UG/KG	BROMOMETHANE
11U	UG/KG	VINYL CHLORIDE
11U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
11U	UG/KG	ACETONE
11U	UG/KG	CARBON DISULFIDE
11U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
11U	UG/KG	1,1-DICHLOROETHANE
11U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
11U	UG/KG	CHLOROFORM
11U	UG/KG	1,2-DICHLOROETHANE
11U	UG/KG	METHYL ETHYL KETONE
11U	UG/KG	1,1,1-TRICHLOROETHANE
11U	UG/KG	CARBON TETRACHLORIDE
11U	UG/KG	BROMODICHLOROMETHANE
11U	UG/KG	1,2-DICHLOROPROPANE
11U	UG/KG	CIS-1,3-DICHLOROPROPENE
11U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
11U	UG/KG	DIBROMOCHLOROMETHANE
11U	UG/KG	1,1,2-TRICHLOROETHANE
11U	UG/KG	BENZENE
11U	UG/KG	TRANS-1,3-DICHLOROPROPENE
11U	UG/KG	BROMOFORM
11U	UG/KG	METHYL ISOBUTYL KETONE
11U	UG/KG	METHYL BUTYL KETONE
11U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
11U	UG/KG	1,1,2,2-TETRACHLOROETHANE
11U	UG/KG	TOLUENE
11U	UG/KG	CHLOROBENZENE
11U	UG/KG	ETHYL BENZENE
11U	UG/KG	STYRENE
11U	UG/KG	TOTAL XYLENES
13	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10172 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS15 MD Number: MN21 Inorg Contractor: SENTIN
Media: SOIL D Number: MN21 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
13U	UG/KG	CHLOROMETHANE
13U	UG/KG	BROMOMETHANE
13U	UG/KG	VINYL CHLORIDE
13U	UG/KG	CHLOROETHANE
13U	UG/KG	METHYLENE CHLORIDE
13U	UG/KG	ACETONE
13U	UG/KG	CARBON DISULFIDE
13U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
13U	UG/KG	1,1-DICHLOROETHANE
13U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
13U	UG/KG	CHLOROFORM
13U	UG/KG	1,2-DICHLOROETHANE
13U	UG/KG	METHYL ETHYL KETONE
13U	UG/KG	1,1,1-TRICHLOROETHANE
13U	UG/KG	CARBON TETRACHLORIDE
13U	UG/KG	BROMODICHLOROMETHANE
13U	UG/KG	1,2-DICHLOROPROPANE
13U	UG/KG	CIS-1,3-DICHLOROPROPENE
13U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
13U	UG/KG	DIBROMOCHLOROMETHANE
13U	UG/KG	1,1,2-TRICHLOROETHANE
13U	UG/KG	BENZENE
13U	UG/KG	TRANS-1,3-DICHLOROPROPENE
13U	UG/KG	BROMOFORM
13U	UG/KG	METHYL ISOBUTYL KETONE
13U	UG/KG	METHYL BUTYL KETONE
13U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
13U	UG/KG	1,1,2,2-TETRACHLOROETHANE
13U	UG/KG	TOLUENE
13U	UG/KG	CHLOROBENZENE
13U	UG/KG	ETHYL BENZENE
13U	UG/KG	STYRENE
13U	UG/KG	TOTAL XYLENES
25	%	% MOISTURE

3 12 0128

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10178 FY 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:

Beginning: 07/09/97 16:10

Ending:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS16 MD Number: MN22 Inorg Contractor: SENTIN

Media: SOIL D Number: MN22 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
12U	UG/KG	CHLOROMETHANE
12U	UG/KG	BROMOMETHANE
12U	UG/KG	VINYL CHLORIDE
12U	UG/KG	CHLOROETHANE
20U	UG/KG	METHYLENE CHLORIDE
40U	UG/KG	ACETONE
12U	UG/KG	CARBON DISULFIDE
12U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
12U	UG/KG	1,1-DICHLOROETHANE
12U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
12U	UG/KG	CHLOROFORM
12U	UG/KG	1,2-DICHLOROETHANE
12U	UG/KG	METHYL ETHYL KETONE
12U	UG/KG	1,1,1-TRICHLOROETHANE
12U	UG/KG	CARBON TETRACHLORIDE
12U	UG/KG	BROMODICHLOROMETHANE
12U	UG/KG	1,2-DICHLOROPROPANE
12U	UG/KG	CIS-1,3-DICHLOROPROPENE
12U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
12U	UG/KG	DIBROMOCHLOROMETHANE
12U	UG/KG	1,1,2-TRICHLOROETHANE
12U	UG/KG	BENZENE
12U	UG/KG	TRANS-1,3-DICHLOROPROPENE
12U	UG/KG	BROMOFORM
12U	UG/KG	METHYL ISOBUTYL KETONE
12U	UG/KG	METHYL BUTYL KETONE
12U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
12U	UG/KG	1,1,2,2-TETRACHLOROETHANE
12U	UG/KG	TOLUENE
12U	UG/KG	CHLOROBENZENE
12U	UG/KG	ETHYL BENZENE
12U	UG/KG	STYRENE
12U	UG/KG	TOTAL XYLENES
20	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10158 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW01 MD Number: MN37 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN37 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

3 12 0129

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10175 FY 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Beginning: 07/09/97 14:00

Program: NSF Case Number: 25558

Ending:

Id/Station: BDMW04 MD Number: MN40 Inorg Contractor: SENTIN

Media: GROUNDWA D Number: MN40 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10161 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW05 MD Number: MN41 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN41 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

3 12 0130

verage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
onfirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10164 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW06 MD Number: MN39 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN39 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 17:15
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

ge value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
l value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
dicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
rmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10165 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW01 MD Number: MN33 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN33 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:25
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

3 12 0131

verage value. NA-not analyzed. NAI-Interferences. J-estimated value. N-presumptive evidence of presence of material.
ctual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
c indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
onfirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10166 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW02 MD Number: MN34 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN34 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:00
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

rage value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
ual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
ndicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
firmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10162 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW03 MD Number: MN35 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN35 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 16:10
Ending:

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
37J	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

3 12 0132

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1 when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10160 [redacted]Y 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:

Beginning: 07/08/97 15:00

Ending:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSW04 MD Number: MN36 Inorg Contractor: SENTIN

Media: SURFACEWA D Number: MN36 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
10U	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

erage value. NA-not analyzed. NAI-Interferences. J-estimated value. N-presumptive evidence of presence of material.
tual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
: indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
nfirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10167 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD01 MD Number: MN29 Inorg Contractor: SENTIN
Media: SOIL D Number: MN29 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:30
Ending:

RESULTS	UNITS	ANALYTE
12U	UG/KG	CHLOROMETHANE
12U	UG/KG	BROMOMETHANE
12U	UG/KG	VINYL CHLORIDE
12U	UG/KG	CHLOROETHANE
12U	UG/KG	METHYLENE CHLORIDE
12U	UG/KG	ACETONE
12U	UG/KG	CARBON DISULFIDE
12U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
12U	UG/KG	1,1-DICHLOROETHANE
12U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
12U	UG/KG	CHLOROFORM
12U	UG/KG	1,2-DICHLOROETHANE
12U	UG/KG	METHYL ETHYL KETONE
12U	UG/KG	1,1,1-TRICHLOROETHANE
12U	UG/KG	CARBON TETRACHLORIDE
12U	UG/KG	BROMODICHLOROMETHANE
12U	UG/KG	1,2-DICHLOROPROPANE
12U	UG/KG	CIS-1,3-DICHLOROPROPENE
12U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
12U	UG/KG	DIBROMOCHLOROMETHANE
12U	UG/KG	1,1,2-TRICHLOROETHANE
12U	UG/KG	BENZENE
12U	UG/KG	TRANS-1,3-DICHLOROPROPENE
12U	UG/KG	BROMOFORM
12U	UG/KG	METHYL ISOBUTYL KETONE
12U	UG/KG	METHYL BUTYL KETONE
12U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
12U	UG/KG	1,1,2,2-TETRACHLOROETHANE
12U	UG/KG	TOLUENE
12U	UG/KG	CHLOROBENZENE
12U	UG/KG	ETHYL BENZENE
12U	UG/KG	STYRENE
12U	UG/KG	TOTAL XYLENES
20	%	% MOISTURE

3 12 0133

-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
-confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10168 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD02 MD Number: MN30 Inorg Contractor: SENTIN
Media: SOIL D Number: MN30 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:00
Ending:

RESULTS	UNITS	ANALYTE
13U	UG/KG	CHLOROMETHANE
13U	UG/KG	BROMOMETHANE
13U	UG/KG	VINYL CHLORIDE
13U	UG/KG	CHLOROETHANE
30U	UG/KG	METHYLENE CHLORIDE
40U	UG/KG	ACETONE
13U	UG/KG	CARBON DISULFIDE
13U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
13U	UG/KG	1,1-DICHLOROETHANE
13U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
13U	UG/KG	CHLOROFORM
13U	UG/KG	1,2-DICHLOROETHANE
13U	UG/KG	METHYL ETHYL KETONE
13U	UG/KG	1,1,1-TRICHLOROETHANE
13U	UG/KG	CARBON TETRACHLORIDE
13U	UG/KG	BROMODICHLOROMETHANE
13U	UG/KG	1,2-DICHLOROPROPANE
13U	UG/KG	CIS-1,3-DICHLOROPROPENE
13U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
13U	UG/KG	DIBROMOCHLOROMETHANE
13U	UG/KG	1,1,2-TRICHLOROETHANE
13U	UG/KG	BENZENE
13U	UG/KG	TRANS-1,3-DICHLOROPROPENE
13U	UG/KG	BROMOFORM
13U	UG/KG	METHYL ISOBUTYL KETONE
13U	UG/KG	METHYL BUTYL KETONE
13U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
13U	UG/KG	1,1,2,2-TETRACHLOROETHANE
13U	UG/KG	TOLUENE
13U	UG/KG	CHLOROBENZENE
13U	UG/KG	ETHYL BENZENE
13U	UG/KG	STYRENE
13U	UG/KG	TOTAL XYLENES
21	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10163 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD03 MD Number: MN31 Inorg Contractor: SENTIN
Media: SOIL D Number: MN31 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 16:25
Ending:

RESULTS	UNITS	ANALYTE
14U	UG/KG	CHLOROMETHANE
14U	UG/KG	BROMOMETHANE
14U	UG/KG	VINYL CHLORIDE
14U	UG/KG	CHLOROETHANE
30U	UG/KG	METHYLENE CHLORIDE
40U	UG/KG	ACETONE
14U	UG/KG	CARBON DISULFIDE
14U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
14U	UG/KG	1,1-DICHLOROETHANE
14U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
14U	UG/KG	CHLOROFORM
14U	UG/KG	1,2-DICHLOROETHANE
14U	UG/KG	METHYL ETHYL KETONE
14U	UG/KG	1,1,1-TRICHLOROETHANE
14U	UG/KG	CARBON TETRACHLORIDE
14U	UG/KG	BROMODICHLOROMETHANE
14U	UG/KG	1,2-DICHLOROPROPANE
14U	UG/KG	CIS-1,3-DICHLOROPROPENE
14U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
14U	UG/KG	DIBROMOCHLOROMETHANE
14U	UG/KG	1,1,2-TRICHLOROETHANE
14U	UG/KG	BENZENE
14U	UG/KG	TRANS-1,3-DICHLOROPROPENE
14U	UG/KG	BROMOFORM
14U	UG/KG	METHYL ISOBUTYL KETONE
14U	UG/KG	METHYL BUTYL KETONE
14U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
14U	UG/KG	1,1,2,2-TETRACHLOROETHANE
14U	UG/KG	TOLUENE
14U	UG/KG	CHLOROBENZENE
14U	UG/KG	ETHYL BENZENE
14U	UG/KG	STYRENE
14U	UG/KG	TOTAL XYLENES
26	%	% MOISTURE

average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0134

Sample 10159 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32 Inorg Contractor: SENTIN
Media: SOIL D Number: MN32 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
15U	UG/KG	CHLOROMETHANE
15U	UG/KG	BROMOMETHANE
15U	UG/KG	VINYL CHLORIDE
15U	UG/KG	CHLOROETHANE
30U	UG/KG	METHYLENE CHLORIDE
30U	UG/KG	ACETONE
15U	UG/KG	CARBON DISULFIDE
15U	UG/KG	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
15U	UG/KG	1,1-DICHLOROETHANE
15U	UG/KG	1,2-DICHLOROETHENE (TOTAL)
15U	UG/KG	CHLOROFORM
15U	UG/KG	1,2-DICHLOROETHANE
15U	UG/KG	METHYL ETHYL KETONE
15U	UG/KG	1,1,1-TRICHLOROETHANE
15U	UG/KG	CARBON TETRACHLORIDE
15U	UG/KG	BROMODICHLOROMETHANE
15U	UG/KG	1,2-DICHLOROPROPANE
15U	UG/KG	CIS-1,3-DICHLOROPROPENE
15U	UG/KG	TRICHLOROETHENE (TRICHLOROETHYLENE)
15U	UG/KG	DIBROMOCHLOROMETHANE
15U	UG/KG	1,1,2-TRICHLOROETHANE
15U	UG/KG	BENZENE
15U	UG/KG	TRANS-1,3-DICHLOROPROPENE
15U	UG/KG	BROMOFORM
15U	UG/KG	METHYL ISOBUTYL KETONE
15U	UG/KG	METHYL BUTYL KETONE
15U	UG/KG	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
15U	UG/KG	1,1,2,2-TETRACHLOROETHANE
15U	UG/KG	TOLUENE
15U	UG/KG	CHLOROBENZENE
15U	UG/KG	ETHYL BENZENE
15U	UG/KG	STYRENE
15U	UG/KG	TOTAL XYLENES
34	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

LATILES SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:12

Sample 10181 FY 1997 Project: 97-0292

VOLATILES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDTB01

Media: WATER D Number: MNO6 Org Contractor: COMPU

Printed by: John McConney

Collected By:

Beginning: 07/08/97 09:25

Ending:

RESULTS	UNITS	ANALYTE
10UJ	UG/L	CHLOROMETHANE
10UJ	UG/L	BROMOMETHANE
10UJ	UG/L	VINYL CHLORIDE
10UJ	UG/L	CHLOROETHANE
10UJ	UG/L	METHYLENE CHLORIDE
10UJ	UG/L	ACETONE
10UJ	UG/L	CARBON DISULFIDE
10UJ	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10UJ	UG/L	1,1-DICHLOROETHANE
10UJ	UG/L	1,2-DICHLOROETHENE (TOTAL)
10UJ	UG/L	CHLOROFORM
10UJ	UG/L	1,2-DICHLOROETHANE
10UJ	UG/L	METHYL ETHYL KETONE
10UJ	UG/L	1,1,1-TRICHLOROETHANE
10UJ	UG/L	CARBON TETRACHLORIDE
10UJ	UG/L	BROMODICHLOROMETHANE
10UJ	UG/L	1,2-DICHLOROPROPANE
10UJ	UG/L	CIS-1,3-DICHLOROPROPENE
10UJ	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10UJ	UG/L	DIBROMOCHLOROMETHANE
10UJ	UG/L	1,1,2-TRICHLOROETHANE
10UJ	UG/L	BENZENE
10UJ	UG/L	TRANS-1,3-DICHLOROPROPENE
10UJ	UG/L	BROMOFORM
10UJ	UG/L	METHYL ISOBUTYL KETONE
10UJ	UG/L	METHYL BUTYL KETONE
10UJ	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10UJ	UG/L	1,1,2,2-TETRACHLOROETHANE
10UJ	UG/L	TOLUENE
10UJ	UG/L	CHLOROBENZENE
10UJ	UG/L	ETHYL BENZENE
10UJ	UG/L	STYRENE
10UJ	UG/L	TOTAL XYLENES

3 12 0135

HOLDING TIMES EXCEEDED(40 CFR 136,OCTOBER 26,1984)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 11018 FY 1997 Project: 97-0292

Printed by: John McConney

VOLATILES SCAN

Collected By:
Beginning:
Ending:

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDFB01 MD Number: MN42 Inorg Contractor: SENTIN
Media: WATER D Number: MN42 Org Contractor: COMPU

RESULTS	UNITS	ANALYTE
10U	UG/L	CHLOROMETHANE
10U	UG/L	BROMOMETHANE
10U	UG/L	VINYL CHLORIDE
10U	UG/L	CHLOROETHANE
10U	UG/L	METHYLENE CHLORIDE
10U	UG/L	ACETONE
10U	UG/L	CARBON DISULFIDE
10U	UG/L	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U	UG/L	1,1-DICHLOROETHANE
10U	UG/L	1,2-DICHLOROETHENE (TOTAL)
6J	UG/L	CHLOROFORM
10U	UG/L	1,2-DICHLOROETHANE
10U	UG/L	METHYL ETHYL KETONE
10U	UG/L	1,1,1-TRICHLOROETHANE
10U	UG/L	CARBON TETRACHLORIDE
10U	UG/L	BROMODICHLOROMETHANE
10U	UG/L	1,2-DICHLOROPROPANE
10U	UG/L	CIS-1,3-DICHLOROPROPENE
10U	UG/L	TRICHLOROETHENE (TRICHLOROETHYLENE)
10U	UG/L	DIBROMOCHLOROMETHANE
10U	UG/L	1,1,2-TRICHLOROETHANE
10U	UG/L	BENZENE
10U	UG/L	TRANS-1,3-DICHLOROPROPENE
10U	UG/L	BROMOFORM
10U	UG/L	METHYL ISOBUTYL KETONE
10U	UG/L	METHYL BUTYL KETONE
10U	UG/L	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U	UG/L	1,1,2,2-TETRACHLOROETHANE
10U	UG/L	TOLUENE
10U	UG/L	CHLOROBENZENE
10U	UG/L	ETHYL BENZENE
10U	UG/L	STYRENE
10U	UG/L	TOTAL XYLENES

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 09/12/97

Subject: Results of DIOXINS ORGANIC Sample Analysis
97-0293 BROWN'S DUMP
JACKSONVILLE, FL

From: for Gary Bennett

To: PAULA MACLAREN

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me.

ATTACHMENT

DATA QUALIFIER REPORT

Project No.: 97-0293

Site Name: Brown's Dump

Affected Samples	Analyte	Flag Used	Reason
All	Total congeners	J	Assumed Resp. Factors/ Cal. Stds not available for all congeners
10184, 10185, 10186, 10188, 10189, 10190, 10191, 10192, 10193, 10196, 10197, 10198, 10199	TCDD	R	Unacceptable PE Sample performance
10187, 10194, 10195	TCDD	J	Unacceptable PE Sample performance
10184	All-HxCDD, 2,3,4,6,7,8-HxCDF	J	1
10185	OCDF	J	1
10186	HpCDD, 1,2,3,7,8-PeCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, OCDF	J	1
10187	PeCDD, 2,3,4,7,8-PeCDF, 2,3,4,6,7,8-HxCDF	J	1
10188	1,2,3,4,7,8-HxCDD, 2,3,4,7,8-PeCDF	J	1
10189	OCDD	J	2
	PeCDD, 1,2,3,4,7,8-HxCDD	J	1
10190	1,2,3,4,7,8,9-HpCDF	J	1
10191	1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,7,8,9-HpCDF	J	High IS recovery (non-detect in dilution)
	1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD	J	1 (taken from dilution because of IS recovery)
	TCDF	J	Low IS recovery on conf. column

DATA QUALIFIER REPORT

Project No.: 97-0293

Site Name: Brown's Dump

Affected Samples	Analyte	Flag Used	Reason
10193	OCDF	J	1
10194	OCDD	J	2
	2,3,4,7,8-PeCDF	J	1
10196	TCDF	UJ	low IS recovery, conf. column
	PeCDD, 1,2,3,4,7,8-HxCDD, 2,3,4,7,8-PeCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,4,7,8,9-HpCDF	J	1
10197	OCDD	J	2
	TCDF	J	Primary column result not confirmed by second column
	PeCDD, 1,2,3,4,7,8-HxCDD, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8,9-HpCDF	J	1
10I98	PeCDD, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8,9-HpCDF	J	1
10199	OCDD	J	2
	1,2,3,7,8,9-HxCDD, 2,3,4,6,7,8-HxCDF	J	1

TEQ's : The Toxic Equivalent (TEQ) represents a summation of values from the individual equivalents that are calculated for each of the 2,3,7,8 containing isomers. If 10% or greater of the TEQ value was from data considered to be estimated, then the TEQ is reported as estimated (J flag).

Abbreviation Key:

TCDD = Tetrachlorodibenzodioxin TCDF = Tetrachlorodibenzofuran
PeCDD = Pentachlorodibenzodioxin PeCDF = Pentachlorodibenzofuran
HxCDD = Hexachlorodibenzodioxin HxCDF = Hexachlorodibenzofuran
HpCDD = Heptachlorodibenzodioxin HpCDF = Heptachlorodibenzofuran
OCDD = Octachlorodibenzodioxin OCDF = Octachlorodibenzofuran
IS = Internal Standard

Reason Codes:

1. Results lower than the minimum quantitation limit
2. Results higher than the maximum calibration limit

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample 10193 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS01

Media: SOIL D Number: SS01

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 16:35

Ending:

RESULTS	UNITS	ANALYTE
2.5UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
4.8J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
6.2U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
6.2UJ	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
6.2U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
6.2U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
6.2U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
15J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
15	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
33J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
130	NG/KG	OCTACHLORODIBENZODIOXIN
2.5U	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
11J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
6.2U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
6.2U	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
3.6J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
6.2U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
6.2U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
6.2U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
6.2U	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
4.6J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
6.2U	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
6.2U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
6.2UJ	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
5.0J	NG/KG	OCTACHLORODIBENZOFURAN
0.3	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
19	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0138

DIOXINS SAMPLE ANALYSIS

EPA - REGION IV SESD, ATHENS, GA

PRINTED 09/12/97 10:15

Sample 10198 FY 1997 Project: 97-0293

Printed by: John McConney

DIOXIN SCAN

Collected By:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Beginning: 07/09/97 16:40

Program: NSF

Ending:

Id/Station: BDSS02

SAS Number: DIOX

Media: SOIL

D Number: SS02

Org Contractor: SWOK

RESULTS	UNITS	ANALYTE
2.2UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
9.0J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
2.5J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
11J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
6U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
18	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
15	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
150J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
310	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
580J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
1600	NG/KG	OCTACHLORODIBENZODIOXIN
4.5	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
80J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
10U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
3.4J	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
240J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
50U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
8.5	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.6U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
14	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
220J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
110	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
3.7J	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
110J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
120	NG/KG	OCTACHLORODIBENZOFURAN
15J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
11	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value giv[redacted] U-material was analyzed for but not detected. the number is the min[redacted]quant[redacted]
R-qc indic[redacted] that data unusable comp[redacted] may o[redacted] not be[redacted]nt. re[redacted]g an[redacted]lysis [redacted]essary[redacted]ificat[redacted]
C-c[redacted] / g[redacted] 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample **10194** FY **1997** Project: **97-0293**

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station:BDSS03

Media: SOIL D Number: SS03

SAS Number:DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 15:50

Ending:

RESULTS	UNITS	ANALYTE
4.2J	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
57J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
12	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
82J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
13	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
41	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
47	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
580J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
1000	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
2200J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
7300J	NG/KG	OCTACHLORODIBENZODIOXIN
14	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
130J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
6.4U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
4.5J	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
240J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
6.4U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
20U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
6.4U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
8.1	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
130J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
140	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
6.4U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
360J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
390	NG/KG	OCTACHLORODIBENZOFURAN
44J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
22	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0139

DIOXINS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **PRINTED 09/12/97 10:15**

Sample **10188** FY **1997** Project: **97-0293**

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS04

Media: SOIL D Number: SS04

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 10:45

Ending:

RESULTS	UNITS	ANALYTE
2.3UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
4.3J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
5.7U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
5.7U	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
2.7J	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
14	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
10	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
140J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
270	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
540J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
1700	NG/KG	OCTACHLORODIBENZODIOXIN
4.6	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
38J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
17	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
1.9J	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
170J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
60U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
15	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.7U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
9.6	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
110J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
97	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
5.7U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
98J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
100	NG/KG	OCTACHLORODIBENZOFURAN
13	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation [illegible]
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is n[illegible]ary fo[illegible]cation [illegible]
[illegible]-conf[illegible] when [illegible]e is r[illegible], see [illegible]ane c[illegible]ents [illegible] metabo[illegible] technical chlordane

DIOXINS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/12/97 10:15

Sample 10199 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS05

Media: SOIL D Number: SS05

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 17.00

Ending:

RESULTS	UNITS	ANALYTE
2.2UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
2.9J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
5.4U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
1.3J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
5.4U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
15	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
5.3J	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
49J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
410	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
1200J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
11000J	NG/KG	OCTACHLORODIBENZODIOXIN
4U	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
16J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
11	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
5.4U	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
84J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
30U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
6.9	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.4U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
3.2J	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
48J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
80	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
5.4U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
380J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
180	NG/KG	OCTACHLORODIBENZOFURAN
20J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
7	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0140

DIOXINS SAMPLE ANALYSIS — EPA - REGION IV SESD, ATHENS, GA — PRINTED 09/12/97 10:15

Sample 10184 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS06

Media: SOIL D Number: SS06

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/08/97 11:40

Ending:

RESULTS	UNITS	ANALYTE
2.5UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
1.4J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
6.1U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
6.1UJ	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
0.9J	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
1.9J	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
1.5J	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
21J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
46	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
100J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
490	NG/KG	OCTACHLORODIBENZODIOXIN
2.5U	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
24J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
24	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
6.1U	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
79J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
6.1U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
10	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
6.1U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
2.4J	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
36J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
15	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
6.1U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
34J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
21	NG/KG	OCTACHLORODIBENZOFURAN
4.0J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
18	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. J[redacted]terial was analyzed [redacted] not [redacted]d. th[redacted]er is [redacted]imun[redacted]tatior[redacted]
[redacted]c indi[redacted]sable[redacted]bound[redacted]r may[redacted] pres[redacted]samp[redacted]d rea[redacted]is ne[redacted]y for v[redacted]ion. [redacted]
C-confirmed by gcms. 1.when no value is reported, see chlordane constituents. 2.constituents or metabolites of [illegible]

DIOXINS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/12/97 10:15

Sample 10187 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS07

Media: SOIL D Number: SS07

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/08/97 12:30

Ending:

RESULTS	UNITS	ANALYTE
1.9J	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
9.7J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
4.8J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
9.5J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
5.5U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
8.2	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
5.5U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
28J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
99	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
200J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
530	NG/KG	OCTACHLORODIBENZODIOXIN
3.6	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
38J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
19	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
1.2J	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
99J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
20U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
16	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.5U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
2.9J	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
49J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
44	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
5.5U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
68J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
40	NG/KG	OCTACHLORODIBENZOFURAN
11J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
10	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

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DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample 10189 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS08

Media: SOIL D Number: SS08

SAS Number:DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 11:00

Ending:

RESULTS	UNITS	ANALYTE
2.1UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
14J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
3.0J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
11J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
3.1J	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
16	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
11	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
150J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
350	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
710J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
2500J	NG/KG	OCTACHLORODIBENZODIOXIN
5.7	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
51J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
22	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
5.8	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
230J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
70U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
20U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.3U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
11	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
89J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
120	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
5.3U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
190J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
76	NG/KG	OCTACHLORODIBENZOFURAN
17J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
6	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation lim
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is [redacted]ssary for verification [redacted]
[redacted]C-co[redacted].whe[redacted]lue is [redacted]ed, se[redacted]dane [redacted]uents [redacted]stitue [redacted]metal[redacted]of tec[redacted]chlordane [redacted]

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample 10186 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS09

Media: SOIL D Number: SS09

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/08/97 12:10

Ending:

RESULTS	UNITS	ANALYTE
2.3UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
2.3UJ	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
5.7J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
5.7UJ	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
5.7U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
5.7U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
5.7U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
5.7UJ	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
4.9J	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
11J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
24	NG/KG	OCTACHLORODIBENZODIOXIN
2.3U	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
1.2J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
2.7J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
5.7U	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
13J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
5.7U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
1.2J	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.7U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
5.7U	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
5.3J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
2.3J	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
5.7U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
3.5J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
3.1J	NG/KG	OCTACHLORODIBENZOFURAN
0.4J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0142

DIOXINS SAMPLE ANALYSIS **EPA - REGION IV SESD, ATHENS, GA** **PRINTED 09/12/97 10:15**

Sample **10185** FY **1997** Project: **97-0293**

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS10

Media: SOIL D Number: SS10

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/08/97 11:10

Ending:

RESULTS	UNITS	ANALYTE
2.1UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
12J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
5.3U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
5.3UJ	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
5.3U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
5.3U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
5.3U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
5.3UJ	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
25	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
54J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
170	NG/KG	OCTACHLORODIBENZODIOXIN
2.1U	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
51J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
31	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
5.3U	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
160J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
5.3U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
10U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.3U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
5.3U	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
57J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
20U	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
5.3U	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
5.3UJ	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
9.1J	NG/KG	OCTACHLORODIBENZOFURAN
2.0	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
6	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantita[illegible]
R-qc indicat[illegible] at date unusable [illegible] compou[illegible]y or [illegible] be p[illegible] resa[illegible] and [illegible]sis is [illegible]sary f[illegible]catio[illegible]
C-con[illegible] when no value is reported, see chlordane constituents 2.constituents of metabolites of technical chlordane

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample 10192 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station:BDSS11

Media: SOIL D Number: SS11

SAS Number:DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 11:45

Ending:

RESULTS	UNITS	ANALYTE
2.8UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
260J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
40U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
260J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
410	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
170	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
180	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
2300J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
2600	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
4600J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
17000	NG/KG	OCTACHLORODIBENZODIOXIN
57	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
410J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
240	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
31	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
1100J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
240U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
7.0U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
7.0U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
7.0U	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
780J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
780	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
34	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
810J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
2800	NG/KG	OCTACHLORODIBENZOFURAN
160	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
28	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

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Sample 10190 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS12

Media: SOIL D Number: SS12

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 12:00

Ending:

RESULTS	UNITS	ANALYTE
2.3UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
20J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
5.7U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
19J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
29	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
9.6	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
9.7	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
130J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
180	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
350J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
980	NG/KG	OCTACHLORODIBENZODIOXIN
14	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
160J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
17	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
9.5	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
210J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
70U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
5.7U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.7U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
5.7U	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
97J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
59	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
2.1J	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
61J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
78	NG/KG	OCTACHLORODIBENZOFURAN
15	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
13	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minim[redacted]ntitat[redacted]
R-qc indicate[redacted]al data unusable. compound may or m[redacted]be pr[redacted]resan[redacted]and re[redacted]is is n[redacted]ary fo[redacted]ation [redacted]
[redacted]-conf[redacted]ch[redacted]when [redacted]e is reported, see chlordane constituents 2 constituents of metabolites of technical chlordane

DIOXINS SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/12/97 10:15

Sample 10195 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility. BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS13

Media: SOIL D Number: SS13

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 15:15

Ending:

RESULTS	UNITS	ANALYTE
7.0J	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
300J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
51	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
350J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
110	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
200	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
240	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
1900J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
3300	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
6000J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
23000	NG/KG	OCTACHLORODIBENZODIOXIN
41	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
650J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
230	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
59	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
1200J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
240U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
6.2U	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
6.2U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
39	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
930J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
1100	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
54	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
1100J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
2900	NG/KG	OCTACHLORODIBENZOFURAN
210	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
19	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample 10196 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS14

Media: SOIL D Number: SS14

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 14:15

Ending:

3 12 0144

RESULTS	UNITS	ANALYTE
2.3UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
8.9J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
1.5J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
6.1J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
3.5J	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
9.1	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
7.7	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
63J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
230	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
390J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
1500	NG/KG	OCTACHLORODIBENZODIOXIN
3UJ	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
13J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
8.5	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
3.1J	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
85J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
20U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
3.6J	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
5.8U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
5.8	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
99J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
220	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
2.8J	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
220J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
130	NG/KG	OCTACHLORODIBENZOFURAN
12J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
13	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is nece[illegible] for verification.
[illegible]nfirm[illegible]: [illegible]n no [illegible]s repo[illegible]ee ch[illegible] cons[illegible]s 2.c[illegible]ents [illegible]bolite[illegible]hnica[illegible]dane

DIOXINS SAMPLE ANALYSIS

EPA - REGION IV SESD, ATHENS, GA

PRINTED 09/12/97 10:15

Sample 10191 FY 1997 Project: 97-0293

Printed by: John McConney

DIOXIN SCAN

Collected By:

Facility: BROWN'S DUMP JACKSONVILLE, FL

Beginning: 07/09/97 12:25

Program: NSF

Ending:

Id/Station: BDSS15

SAS Number: DIOX

Media: SOIL

D Number: SS15

Org Contractor: SWOK

RESULTS	UNITS	ANALYTE
2.6UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
58J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
8U	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
11J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
56J	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
38J	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
36J	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
290J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
960	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
1800J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
6200	NG/KG	OCTACHLORODIBENZODIOXIN
21J	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
410J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
270	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
58	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
1400J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
66U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
100J	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
66U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
9.2J	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
200J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
340	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
12J	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
340J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
360	NG/KG	OCTACHLORODIBENZOFURAN
88J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
24	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

DIOXINS SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/12/97 10:15

Sample 10197 FY 1997 Project: 97-0293

DIOXIN SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF

Id/Station: BDSS16

Media: SOIL D Number: SS16

SAS Number: DIOX

Org Contractor: SWOK

Printed by: John McConney

Collected By:

Beginning: 07/09/97 16:10

Ending:

3 12 0145

RESULTS	UNITS	ANALYTE
2.4UR	NG/KG	2,3,7,8-TETRACHLORODIBENZODIOXIN
14J	NG/KG	TETRACHLORODIBENZODIOXIN (TOTAL)
1.8J	NG/KG	1,2,3,7,8-PENTACHLORODIBENZODIOXIN
9.1J	NG/KG	PENTACHLORODIBENZODIOXIN (TOTAL)
4.6J	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN
16	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN
10	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN
100J	NG/KG	HEXACHLORODIBENZODIOXIN (TOTAL)
440	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN
770J	NG/KG	HEPTACHLORODIBENZODIOXIN (TOTAL)
3500J	NG/KG	OCTACHLORODIBENZODIOXIN
5.2J	NG/KG	2,3,7,8-TETRACHLORODIBENZOFURAN
32J	NG/KG	TETRACHLORODIBENZOFURAN (TOTAL)
9.2	NG/KG	1,2,3,7,8-PENTACHLORODIBENZOFURAN
2.5J	NG/KG	2,3,4,7,8-PENTACHLORODIBENZOFURAN
95J	NG/KG	PENTACHLORODIBENZOFURAN (TOTAL)
30U	NG/KG	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN
7.7	NG/KG	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN
6.0U	NG/KG	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN
6.4	NG/KG	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN
120J	NG/KG	HEXACHLORODIBENZOFURAN (TOTAL)
290	NG/KG	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN
3.7J	NG/KG	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN
290J	NG/KG	HEPTACHLORODIBENZOFURAN (TOTAL)
200	NG/KG	OCTACHLORODIBENZOFURAN
19J	NG/KG	TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89)
17	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolite of technical chlordane

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

MEMORANDUM

Date: 09/08/97

Subject: Results of PESTICIDES/PCB ORGANIC Sample Analysis
97-0292 BROWN'S DUMP
JACKSONVILLE, FL

From: Gary Bennett

To: PAULA MACLAREN

Attached are the results of analysis of samples collected as part of the subject project. If you have any questions, please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 25558 Project Number 97-0292 SAS Number

Site ID.Brown's Dump, Jacksonville, FL

Affected Samples	Compound or Fraction	Flag Used	Reason
Volatiles			
10162	2-butanone	J	erratic response factor
10181	all compounds	J	exceeded holding times
11018	chloroform	J	< quantitation limit
Extractables			
all samples	bis(2-chloroethyl)ether	J	warning low on PE sample
	2,4,6-trichlorophenol	J	warning low on PE sample
	4-bromophenyl-phenylether	J	warning low on PE sample
	hexachlorobenzene	J	warning low on PE sample
except 10154-10156, 10167,10174, 11760	all compounds	J	exceeded extraction holding times
10157	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10159	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(b/k)fluoranthene	J	isomers not separated
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	dibenzo(a,h)anthracene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10169	phenanthrene	J	< quantitation limit
	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
10170	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit

ORGANIC DATA QUALIFIER REPORT
Case Number 25558

Affected Samples	Compound or Fraction	Flag Used	Reason
10172	acenaphthylene	J	< quantitation limit
	acenaphthene	J	< quantitation limit
	anthracene	J	< quantitation limit
	carbazole	J	< qunatitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	dibenzo(a,h)anthracene	J	< quantitation limit
10173	phenanthrene	J	< quantitation limit
	fluroanthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10176	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10177	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10179	anthracene	J	< quantitation limit
	carbazole	J	< quantitation limit
	pyrene	J	erratic response factor
	benzo(b/k)fluoranthene	J	isomers not separated
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
	benzo(g,h,i)perylene	J	< quantitation limit
10180	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	benzo(b/k)fluoranthene	J	< quantitation limit
Pesticides			
all samples	endosulfan II	R	missed on PE sample
10154	dieldrin	N	column differences
10155	dieldrin	J	< quantitation limit
10157	heptachlor	J	< quantitation limit
10159	4,4'-DDD	N	column differences
10163	endrin	J	warning high on PE sample
	4,4'-DDT	N	column differences

ORGANIC DATA QUALIFIER REPORT
Case Number 25558

Affected Samples	Compound or Fraction	Flag Used	Reason
10167	endosulfan I	J	< quantitation limit
	dieldrin	J	< quantitation limit
		N	column differences
10171	heptachlor	J	< quantitation limit
	dieldrin	J	< quantitation limit
	aroclor-1260	J	< quantitation limit
10172,10173, 10177	aroclor-1260	C	GC/MS confirmed
10173	4,4'-DDE	C	GC/MS confirmed
	4,4'-DDD	C	GC/MS confirmed
	4,4'-DDT	C	GC/MS confirmed
10178	beta-BHC	J	< quantitation limit
		N	column differences
	heptachlor	J	< quantitation limit
	4,4'-DDD	J	< quantitation limit
		N	column differences
	4,4'-DDT	N	column differences
10179	endrin	J	warning high on PE sample
		N	column differences
10180	endrin aldehyde	J	< quantitation limit

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10174 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS01 MD Number: MN07 Inorg Contractor: SENTIN
Media: SOIL D Number: MN07 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 11:35
Ending:

RESULTS	UNITS	ANALYTE
2.0U	UG/KG	ALPHA-BHC
2.0U	UG/KG	BETA-BHC
2.0U	UG/KG	DELTA-BHC
2.0U	UG/KG	GAMMA-BHC (LINDANE)
2.0U	UG/KG	HEPTACHLOR
2.0U	UG/KG	ALDRIN
2.0U	UG/KG	HEPTACHLOR EPOXIDE
2.0U	UG/KG	ENDOSULFAN I (ALPHA)
4.0U	UG/KG	DIELDRIN
4.0U	UG/KG	4,4'-DDE (P,P'-DDE)
4.0U	UG/KG	ENDRIN
4.0UR	UG/KG	ENDOSULFAN II (BETA)
4.0U	UG/KG	4,4'-DDD (P,P'-DDD)
4.0U	UG/KG	ENDOSULFAN SULFATE
4.0U	UG/KG	4,4'-DDT (P,P'-DDT)
20U	UG/KG	METHOXYCHLOR
4.0U	UG/KG	ENDRIN KETONE
4.0U	UG/KG	ENDRIN ALDEHYDE
2.0U	UG/KG	ALPHA-CHLORDANE /2
2.0U	UG/KG	GAMMA-CHLORDANE /2
200U	UG/KG	TOXAPHENE
40U	UG/KG	PCB-1016 (AROCLOR 1016)
81U	UG/KG	PCB-1221 (AROCLOR 1221)
40U	UG/KG	PCB-1232 (AROCLOR 1232)
40U	UG/KG	PCB-1242 (AROCLOR 1242)
40U	UG/KG	PCB-1248 (AROCLOR 1248)
58	UG/KG	PCB-1254 (AROCLOR 1254)
40U	UG/KG	PCB-1260 (AROCLOR 1260)
18	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:30

Sample 10179 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF
Case Number: 25558
Id/Station: BDSS02
MD Number: MN08
Inorg Contractor: SENTIN
Media: SOIL
D Number: MN08
Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16:40
Ending:

3 12 0148

RESULTS	UNITS	ANALYTE
1.9U	UG/KG	ALPHA-BHC
1.9U	UG/KG	BETA-BHC
1.9U	UG/KG	DELTA-BHC
1.9U	UG/KG	GAMMA-BHC (LINDANE)
1.9U	UG/KG	HEPTACHLOR
4.0U	UG/KG	ALDRIN
1.9U	UG/KG	HEPTACHLOR EPOXIDE
1.9U	UG/KG	ENDOSULFAN I (ALPHA)
3.7U	UG/KG	DIELDRIN
9.4	UG/KG	4,4'-DDE (P,P'-DDE)
7.9NJ	UG/KG	ENDRIN
3.7UR	UG/KG	ENDOSULFAN II (BETA)
3.7U	UG/KG	4,4'-DDD (P,P'-DDD)
3.7U	UG/KG	ENDOSULFAN SULFATE
20U	UG/KG	4,4'-DDT (P,P'-DDT)
19U	UG/KG	METHOXYCHLOR
8.0U	UG/KG	ENDRIN KETONE
5.0U	UG/KG	ENDRIN ALDEHYDE
1.9U	UG/KG	ALPHA-CHLORDANE /2
1.9U	UG/KG	GAMMA-CHLORDANE /2
190U	UG/KG	TOXAPHENE
37U	UG/KG	PCB-1016 (AROCLOR 1016)
74U	UG/KG	PCB-1221 (AROCLOR 1221)
37U	UG/KG	PCB-1232 (AROCLOR 1232)
37U	UG/KG	PCB-1242 (AROCLOR 1242)
37U	UG/KG	PCB-1248 (AROCLOR 1248)
37U	UG/KG	PCB-1254 (AROCLOR 1254)
37U	UG/KG	PCB-1260 (AROCLOR 1260)
10	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C confirmed by [illegible]s: 1 when no value is reported, see chlordane constituents 2. [illegible]uents or metabolite [illegible] chnic[illegible]dane [illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample : 10176 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS03 MD Number: MN09 Inorg Contractor: SENTIN
Media: SOIL D Number: MN09 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 15:50
Ending:

RESULTS	UNITS	ANALYTE
4.2U	UG/KG	ALPHA-BHC
4.2U	UG/KG	BETA-BHC
4.2U	UG/KG	DELTA-BHC
4.2U	UG/KG	GAMMA-BHC (LINDANE)
4.2U	UG/KG	HEPTACHLOR
4.2U	UG/KG	ALDRIN
4.2U	UG/KG	HEPTACHLOR EPOXIDE
4.2U	UG/KG	ENDOSULFAN I (ALPHA)
8.2U	UG/KG	DIELDRIN
20	UG/KG	4,4'-DDE (P,P'-DDE)
8.2U	UG/KG	ENDRIN
8.2UR	UG/KG	ENDOSULFAN II (BETA)
8.2U	UG/KG	4,4'-DDD (P,P'-DDD)
8.2U	UG/KG	ENDOSULFAN SULFATE
30U	UG/KG	4,4'-DDT (P,P'-DDT)
29U	UG/KG	METHOXYCHLOR
8.2U	UG/KG	ENDRIN KETONE
8.2U	UG/KG	ENDRIN ALDEHYDE
50U	UG/KG	ALPHA-CHLORDANE /2
50U	UG/KG	GAMMA-CHLORDANE /2
420U	UG/KG	TOXAPHENE
82U	UG/KG	PCB-1016 (AROCLOR 1016)
170U	UG/KG	PCB-1221 (AROCLOR 1221)
82U	UG/KG	PCB-1232 (AROCLOR 1232)
82U	UG/KG	PCB-1242 (AROCLOR 1242)
82U	UG/KG	PCB-1248 (AROCLOR 1248)
82U	UG/KG	PCB-1254 (AROCLOR 1254)
82U	UG/KG	PCB-1260 (AROCLOR 1260)
20	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0149

Sample 10169 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS04 MD Number: MN10 Inorg Contractor: SENTIN
Media: SOIL D Number: MN10 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 10:45
Ending:

RESULTS	UNITS	ANALYTE
9.4U	UG/KG	ALPHA-BHC
9.4U	UG/KG	BETA-BHC
9.4U	UG/KG	DELTA-BHC
9.4U	UG/KG	GAMMA-BHC (LINDANE)
9.4U	UG/KG	HEPTACHLOR
9.4U	UG/KG	ALDRIN
9.4U	UG/KG	HEPTACHLOR EPOXIDE
9.4U	UG/KG	ENDOSULFAN I (ALPHA)
18U	UG/KG	DIELDRIN
110	UG/KG	4,4'-DDE (P,P'-DDE)
18U	UG/KG	ENDRIN
18UR	UG/KG	ENDOSULFAN II (BETA)
24	UG/KG	4,4'-DDD (P,P'-DDD)
18U	UG/KG	ENDOSULFAN SULFATE
73	UG/KG	4,4'-DDT (P,P'-DDT)
94U	UG/KG	METHOXYCHLOR
18U	UG/KG	ENDRIN KETONE
18U	UG/KG	ENDRIN ALDEHYDE
40U	UG/KG	ALPHA-CHLORDANE /2
9.4U	UG/KG	GAMMA-CHLORDANE /2
940U	UG/KG	TOXAPHENE
180U	UG/KG	PCB-1016 (AROCLOR 1016)
370U	UG/KG	PCB-1221 (AROCLOR 1221)
180U	UG/KG	PCB-1232 (AROCLOR 1232)
180U	UG/KG	PCB-1242 (AROCLOR 1242)
180U	UG/KG	PCB-1248 (AROCLOR 1248)
180U	UG/KG	PCB-1254 (AROCLOR 1254)
180U	UG/KG	PCB-1260 (AROCLOR 1260)
10	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
[redacted]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10180 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS05 MD Number: MN11 Inorg Contractor: SENTIN
Media: SOIL D Number: MN11 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 17:00
Ending:

RESULTS	UNITS	ANALYTE
1.9U	UG/KG	ALPHA-BHC
1.9U	UG/KG	BETA-BHC
1.9U	UG/KG	DELTA-BHC
1.9U	UG/KG	GAMMA-BHC (LINDANE)
1.9U	UG/KG	HEPTACHLOR
1.9U	UG/KG	ALDRIN
1.9U	UG/KG	HEPTACHLOR EPOXIDE
1.9U	UG/KG	ENDOSULFAN I (ALPHA)
8.9	UG/KG	DIELDRIN
3.6U	UG/KG	4,4'-DDE (P,P'-DDE)
3.6U	UG/KG	ENDRIN
3.6UR	UG/KG	ENDOSULFAN II (BETA)
3.6U	UG/KG	4,4'-DDD (P,P'-DDD)
3.6U	UG/KG	ENDOSULFAN SULFATE
3.6U	UG/KG	4,4'-DDT (P,P'-DDT)
19U	UG/KG	METHOXYCHLOR
3.6U	UG/KG	ENDRIN KETONE
0.87J	UG/KG	ENDRIN ALDEHYDE
1.9U	UG/KG	ALPHA-CHLORDANE /2
1.9U	UG/KG	GAMMA-CHLORDANE /2
190U	UG/KG	TOXAPHENE
36U	UG/KG	PCB-1016 (AROCLOR 1016)
73U	UG/KG	PCB-1221 (AROCLOR 1221)
36U	UG/KG	PCB-1232 (AROCLOR 1232)
36U	UG/KG	PCB-1242 (AROCLOR 1242)
36U	UG/KG	PCB-1248 (AROCLOR 1248)
36U	UG/KG	PCB-1254 (AROCLOR 1254)
36U	UG/KG	PCB-1260 (AROCLOR 1260)
9	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

3 12 0150

Sample 10155 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS06 MD Number: MN12 Inorg Contractor: SENTIN
Media: SOIL D Number: MN12 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:10
Ending:

RESULTS	UNITS	ANALYTE
2.2U	UG/KG	ALPHA-BHC
2.2U	UG/KG	BETA-BHC
2.2U	UG/KG	DELTA-BHC
2.2U	UG/KG	GAMMA-BHC (LINDANE)
2.2U	UG/KG	HEPTACHLOR
2.2U	UG/KG	ALDRIN
2.2U	UG/KG	HEPTACHLOR EPOXIDE
2.2U	UG/KG	ENDOSULFAN I (ALPHA)
1.8J	UG/KG	DIELDRIN
4.2U	UG/KG	4,4'-DDE (P,P'-DDE)
4.2U	UG/KG	ENDRIN
4.2UR	UG/KG	ENDOSULFAN II (BETA)
4.2U	UG/KG	4,4'-DDD (P,P'-DDD)
4.2U	UG/KG	ENDOSULFAN SULFATE
4.2U	UG/KG	4,4'-DDT (P,P'-DDT)
22U	UG/KG	METHOXYCHLOR
4.2U	UG/KG	ENDRIN KETONE
4.2U	UG/KG	ENDRIN ALDEHYDE
2.2U	UG/KG	ALPHA-CHLORDANE /2
2.2U	UG/KG	GAMMA-CHLORDANE /2
220U	UG/KG	TOXAPHENE
42U	UG/KG	PCB-1016 (AROCLOR 1016)
86U	UG/KG	PCB-1221 (AROCLOR 1221)
42U	UG/KG	PCB-1232 (AROCLOR 1232)
42U	UG/KG	PCB-1242 (AROCLOR 1242)
42U	UG/KG	PCB-1248 (AROCLOR 1248)
42U	UG/KG	PCB-1254 (AROCLOR 1254)
84	UG/KG	PCB-1260 (AROCLOR 1260)
22	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed [illegible] cms. 1 when no value is reported, see [illegible] lane [illegible] ents [illegible] ituen[illegible] etabo[illegible] tech[illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10157 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS07 MD Number: MN13 Inorg Contractor: SENTIN
Media: SOIL D Number: MN13 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:30
Ending:

RESULTS	UNITS	ANALYTE
1.9U	UG/KG	ALPHA-BHC
1.9U	UG/KG	BETA-BHC
1.9U	UG/KG	DELTA-BHC
1.9U	UG/KG	GAMMA-BHC (LINDANE)
1.1J	UG/KG	HEPTACHLOR
1.9U	UG/KG	ALDRIN
1.9U	UG/KG	HEPTACHLOR EPOXIDE
1.9U	UG/KG	ENDOSULFAN I (ALPHA)
5.4	UG/KG	DIELDRIN
5.0U	UG/KG	4,4'-DDE (P,P'-DDE)
3.7U	UG/KG	ENDRIN
3.7UR	UG/KG	ENDOSULFAN II (BETA)
3.7U	UG/KG	4,4'-DDD (P,P'-DDD)
3.7U	UG/KG	ENDOSULFAN SULFATE
9.0U	UG/KG	4,4'-DDT (P,P'-DDT)
19U	UG/KG	METHOXYCHLOR
3.7U	UG/KG	ENDRIN KETONE
9.0U	UG/KG	ENDRIN ALDEHYDE
1.9U	UG/KG	ALPHA-CHLORDANE /2
1.9U	UG/KG	GAMMA-CHLORDANE /2
190U	UG/KG	TOXAPHENE
37U	UG/KG	PCB-1016 (AROCLOR 1016)
74U	UG/KG	PCB-1221 (AROCLOR 1221)
37U	UG/KG	PCB-1232 (AROCLOR 1232)
37U	UG/KG	PCB-1242 (AROCLOR 1242)
37U	UG/KG	PCB-1248 (AROCLOR 1248)
37U	UG/KG	PCB-1254 (AROCLOR 1254)
280	UG/KG	PCB-1260 (AROCLOR 1260)
10	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10170 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS08 MD Number: MN14
Media: SOIL D Number: MN14

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney

Collected By:
Beginning: 07/09/97 11:00
Ending:

3 12 0151

RESULTS	UNITS	ANALYTE
1.8U	UG/KG	ALPHA-BHC
1.8U	UG/KG	BETA-BHC
1.8U	UG/KG	DELTA-BHC
1.8U	UG/KG	GAMMA-BHC (LINDANE)
1.8U	UG/KG	HEPTACHLOR
1.8U	UG/KG	ALDRIN
1.8U	UG/KG	HEPTACHLOR EPOXIDE
1.8U	UG/KG	ENDOSULFAN I (ALPHA)
3.5U	UG/KG	DIELDRIN
3.5U	UG/KG	4,4'-DDE (P,P'-DDE)
3.5U	UG/KG	ENDRIN
3.5UR	UG/KG	ENDOSULFAN II (BETA)
3.5U	UG/KG	4,4'-DDD (P,P'-DDD)
3.5U	UG/KG	ENDOSULFAN SULFATE
5.0U	UG/KG	4,4'-DDT (P,P'-DDT)
18U	UG/KG	METHOXYCHLOR
3.5U	UG/KG	ENDRIN KETONE
6.0U	UG/KG	ENDRIN ALDEHYDE
1.8U	UG/KG	ALPHA-CHLORDANE /2
1.8U	UG/KG	GAMMA-CHLORDANE /2
180U	UG/KG	TOXAPHENE
35U	UG/KG	PCB-1016 (AROCLOR 1016)
71U	UG/KG	PCB-1221 (AROCLOR 1221)
35U	UG/KG	PCB-1232 (AROCLOR 1232)
35U	UG/KG	PCB-1242 (AROCLOR 1242)
35U	UG/KG	PCB-1248 (AROCLOR 1248)
35U	UG/KG	PCB-1254 (AROCLOR 1254)
120	UG/KG	PCB-1260 (AROCLOR 1260)
6	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by [illegible]s: 1 when no value is reported, see chlordane constituents 2 c[illegible]ents [illegible]bolite[illegible]chnica[illegible]dane [illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10156 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS09 MD Number: MN15 Inorg Contractor: SENTIN
Media: SOIL D Number: MN15 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:10
Ending:

RESULTS	UNITS	ANALYTE
1.9U	UG/KG	ALPHA-BHC
1.9U	UG/KG	BETA-BHC
1.9U	UG/KG	DELTA-BHC
1.9U	UG/KG	GAMMA-BHC (LINDANE)
1.9U	UG/KG	HEPTACHLOR
1.9U	UG/KG	ALDRIN
1.9U	UG/KG	HEPTACHLOR EPOXIDE
1.9U	UG/KG	ENDOSULFAN I (ALPHA)
3.7U	UG/KG	DIELDRIN
3.7U	UG/KG	4,4'-DDE (P,P'-DDE)
3.7U	UG/KG	ENDRIN
3.7UR	UG/KG	ENDOSULFAN II (BETA)
3.7U	UG/KG	4,4'-DDD (P,P'-DDD)
3.7U	UG/KG	ENDOSULFAN SULFATE
3.7U	UG/KG	4,4'-DDT (P,P'-DDT)
19U	UG/KG	METHOXYCHLOR
3.7U	UG/KG	ENDRIN KETONE
3.7U	UG/KG	ENDRIN ALDEHYDE
1.9U	UG/KG	ALPHA-CHLORDANE /2
1.9U	UG/KG	GAMMA-CHLORDANE /2
190U	UG/KG	TOXAPHENE
37U	UG/KG	PCB-1016 (AROCLOR 1016)
76U	UG/KG	PCB-1221 (AROCLOR 1221)
37U	UG/KG	PCB-1232 (AROCLOR 1232)
37U	UG/KG	PCB-1242 (AROCLOR 1242)
37U	UG/KG	PCB-1248 (AROCLOR 1248)
37U	UG/KG	PCB-1254 (AROCLOR 1254)
37U	UG/KG	PCB-1260 (AROCLOR 1260)
12	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Sample 10154 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS10 MD Number: MN16 Inorg Contractor: SENTIN
Media: SOIL D Number: MN16 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 11:40
Ending:

3 12 0152

RESULTS	UNITS	ANALYTE
1.8U	UG/KG	ALPHA-BHC
1.8U	UG/KG	BETA-BHC
1.8U	UG/KG	DELTA-BHC
1.8U	UG/KG	GAMMA-BHC (LINDANE)
1.8U	UG/KG	HEPTACHLOR
1.8U	UG/KG	ALDRIN
1.8U	UG/KG	HEPTACHLOR EPOXIDE
1.8U	UG/KG	ENDOSULFAN I (ALPHA)
7.8N	UG/KG	DIELDRIN
3.5U	UG/KG	4,4'-DDE (P,P'-DDE)
3.5U	UG/KG	ENDRIN
3.5UR	UG/KG	ENDOSULFAN II (BETA)
3.5U	UG/KG	4,4'-DDD (P,P'-DDD)
3.5U	UG/KG	ENDOSULFAN SULFATE
3.5U	UG/KG	4,4'-DDT (P,P'-DDT)
18U	UG/KG	METHOXYCHLOR
3.5U	UG/KG	ENDRIN KETONE
3.5U	UG/KG	ENDRIN ALDEHYDE
1.8U	UG/KG	ALPHA-CHLORDANE /2
1.8U	UG/KG	GAMMA-CHLORDANE /2
180U	UG/KG	TOXAPHENE
35U	UG/KG	PCB-1016 (AROCLOR 1016)
70U	UG/KG	PCB-1221 (AROCLOR 1221)
35U	UG/KG	PCB-1232 (AROCLOR 1232)
35U	UG/KG	PCB-1242 (AROCLOR 1242)
35U	UG/KG	PCB-1248 (AROCLOR 1248)
35U	UG/KG	PCB-1254 (AROCLOR 1254)
350	UG/KG	PCB-1260 (AROCLOR 1260)
6	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present resampling and reanalysis is necessary for verification.
C-confirmed by [illegible]s: 1 when no value is reported, see chlordane constituents 2.constituents or metabolite [illegible] chnical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10173 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS11 MD Number: MN17 Inorg Contractor: SENTIN
Media: SOIL D Number: MN17 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 11:45
Ending:

RESULTS	UNITS	ANALYTE
2.2U	UG/KG	ALPHA-BHC
2.2U	UG/KG	BETA-BHC
2.2U	UG/KG	DELTA-BHC
2.2U	UG/KG	GAMMA-BHC (LINDANE)
2.2U	UG/KG	HEPTACHLOR
2.2U	UG/KG	ALDRIN
2.2U	UG/KG	HEPTACHLOR EPOXIDE
2.2U	UG/KG	ENDOSULFAN I (ALPHA)
20U	UG/KG	DIELDRIN
270C	UG/KG	4,4'-DDE (P,P'-DDE)
9.0U	UG/KG	ENDRIN
4.4UR	UG/KG	ENDOSULFAN II (BETA)
41C	UG/KG	4,4'-DDD (P,P'-DDD)
4.4U	UG/KG	ENDOSULFAN SULFATE
99C	UG/KG	4,4'-DDT (P,P'-DDT)
22U	UG/KG	METHOXYCHLOR
4.4U	UG/KG	ENDRIN KETONE
4.4U	UG/KG	ENDRIN ALDEHYDE
13	UG/KG	ALPHA-CHLORDANE /2
14	UG/KG	GAMMA-CHLORDANE /2
220U	UG/KG	TOXAPHENE
44U	UG/KG	PCB-1016 (AROCLOR 1016)
89U	UG/KG	PCB-1221 (AROCLOR 1221)
44U	UG/KG	PCB-1232 (AROCLOR 1232)
44U	UG/KG	PCB-1242 (AROCLOR 1242)
44U	UG/KG	PCB-1248 (AROCLOR 1248)
44U	UG/KG	PCB-1254 (AROCLOR 1254)
500C	UG/KG	PCB-1260 (AROCLOR 1260)
25	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 10171 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS12 MD Number: MN18 Inorg Contractor: SENTIN
Media: SOIL D Number: MN18 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12:00
Ending:

3 12 0153

RESULTS	UNITS	ANALYTE
2.0U	UG/KG	ALPHA-BHC
2.0U	UG/KG	BETA-BHC
2.0U	UG/KG	DELTA-BHC
2.0U	UG/KG	GAMMA-BHC (LINDANE)
1.6J	UG/KG	HEPTACHLOR
2.0U	UG/KG	ALDRIN
2.0U	UG/KG	HEPTACHLOR EPOXIDE
2.0U	UG/KG	ENDOSULFAN I (ALPHA)
2.2J	UG/KG	DIELDRIN
3.8U	UG/KG	4,4'-DDE (P,P'-DDE)
3.8U	UG/KG	ENDRIN
3.8UR	UG/KG	ENDOSULFAN II (BETA)
3.8U	UG/KG	4,4'-DDD (P,P'-DDD)
3.8U	UG/KG	ENDOSULFAN SULFATE
4.0U	UG/KG	4,4'-DDT (P,P'-DDT)
20U	UG/KG	METHOXYCHLOR
3.8U	UG/KG	ENDRIN KETONE
3.8U	UG/KG	ENDRIN ALDEHYDE
2.0U	UG/KG	ALPHA-CHLORDANE /2
2.0U	UG/KG	GAMMA-CHLORDANE /2
200U	UG/KG	TOXAPHENE
38U	UG/KG	PCB-1016 (AROCLOR 1016)
78U	UG/KG	PCB-1221 (AROCLOR 1221)
38U	UG/KG	PCB-1232 (AROCLOR 1232)
38U	UG/KG	PCB-1242 (AROCLOR 1242)
38U	UG/KG	PCB-1248 (AROCLOR 1248)
38U	UG/KG	PCB-1254 (AROCLOR 1254)
33J	UG/KG	PCB-1260 (AROCLOR 1260)
14	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10177 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL

Program: NSF Case Number: 25558

Id/Station: BDSS13 MD Number: MN19 Inorg Contractor: SENTIN

Media: SOIL D Number: MN19 Org Contractor: COMPU

Printed by: John McConney

Collected By:

Beginning: 07/09/97 15.15

Ending:

RESULTS	UNITS	ANALYTE
2.2U	UG/KG	ALPHA-BHC
2.2U	UG/KG	BETA-BHC
2.2U	UG/KG	DELTA-BHC
2.2U	UG/KG	GAMMA-BHC (LINDANE)
2.2U	UG/KG	HEPTACHLOR
2.2U	UG/KG	ALDRIN
2.2U	UG/KG	HEPTACHLOR EPOXIDE
2.2U	UG/KG	ENDOSULFAN I (ALPHA)
4.2U	UG/KG	DIELDRIN
4.2U	UG/KG	4,4'-DDE (P,P'-DDE)
4.2U	UG/KG	ENDRIN
4.2UR	UG/KG	ENDOSULFAN II (BETA)
4.2U	UG/KG	4,4'-DDD (P,P'-DDD)
4.2U	UG/KG	ENDOSULFAN SULFATE
4.2U	UG/KG	4,4'-DDT (P,P'-DDT)
22U	UG/KG	METHOXYCHLOR
4.2U	UG/KG	ENDRIN KETONE
4.2U	UG/KG	ENDRIN ALDEHYDE
6.0U	UG/KG	ALPHA-CHLORDANE /2
8.4	UG/KG	GAMMA-CHLORDANE /2
220U	UG/KG	TOXAPHENE
42U	UG/KG	PCB-1016 (AROCLOR 1016)
85U	UG/KG	PCB-1221 (AROCLOR 1221)
42U	UG/KG	PCB-1232 (AROCLOR 1232)
42U	UG/KG	PCB-1242 (AROCLOR 1242)
42U	UG/KG	PCB-1248 (AROCLOR 1248)
42U	UG/KG	PCB-1254 (AROCLOR 1254)
800C	UG/KG	PCB-1260 (AROCLOR 1260)
21	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:30

Sample 11760 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS14 MD Number: MN20 Inorg Contractor: SENTIN
Media: SOIL D Number: MN20 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 14:15
Ending:

3 12 0154

RESULTS	UNITS	ANALYTE
1.9U	UG/KG	ALPHA-BHC
1.9U	UG/KG	BETA-BHC
1.9U	UG/KG	DELTA-BHC
1.9U	UG/KG	GAMMA-BHC (LINDANE)
1.9U	UG/KG	HEPTACHLOR
1.9U	UG/KG	ALDRIN
1.9U	UG/KG	HEPTACHLOR EPOXIDE
1.9U	UG/KG	ENDOSULFAN I (ALPHA)
3.8U	UG/KG	DIELDRIN
3.8U	UG/KG	4,4'-DDE (P,P'-DDE)
3.8U	UG/KG	ENDRIN
3.8UR	UG/KG	ENDOSULFAN II (BETA)
3.8U	UG/KG	4,4'-DDD (P,P'-DDD)
3.8U	UG/KG	ENDOSULFAN SULFATE
3.8U	UG/KG	4,4'-DDT (P,P'-DDT)
19U	UG/KG	METHOXYCHLOR
3.8U	UG/KG	ENDRIN KETONE
3.8U	UG/KG	ENDRIN ALDEHYDE
1.9U	UG/KG	ALPHA-CHLORDANE /2
1.9U	UG/KG	GAMMA-CHLORDANE /2
190U	UG/KG	TOXAPHENE
38U	UG/KG	PCB-1016 (AROCLOR 1016)
77U	UG/KG	PCB-1221 (AROCLOR 1221)
38U	UG/KG	PCB-1232 (AROCLOR 1232)
38U	UG/KG	PCB-1242 (AROCLOR 1242)
38U	UG/KG	PCB-1248 (AROCLOR 1248)
38U	UG/KG	PCB-1254 (AROCLOR 1254)
38U	UG/KG	PCB-1260 (AROCLOR 1260)
13	%	% MOISTURE

A-average value NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10172 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS15 MD Number: MN21 Inorg Contractor: SENTIN
Media: SOIL D Number: MN21 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
2.3U	UG/KG	ALPHA-BHC
2.3U	UG/KG	BETA-BHC
2.3U	UG/KG	DELTA-BHC
2.3U	UG/KG	GAMMA-BHC (LINDANE)
2.3U	UG/KG	HEPTACHLOR
2.3U	UG/KG	ALDRIN
2.3U	UG/KG	HEPTACHLOR EPOXIDE
2.3U	UG/KG	ENDOSULFAN I (ALPHA)
59	UG/KG	DIELDRIN
4.4U	UG/KG	4,4'-DDE (P,P'-DDE)
9.0U	UG/KG	ENDRIN
4.4UR	UG/KG	ENDOSULFAN II (BETA)
4.4U	UG/KG	4,4'-DDD (P,P'-DDD)
4.4U	UG/KG	ENDOSULFAN SULFATE
4.4U	UG/KG	4,4'-DDT (P,P'-DDT)
23U	UG/KG	METHOXYCHLOR
4.4U	UG/KG	ENDRIN KETONE
4.4U	UG/KG	ENDRIN ALDEHYDE
2.3U	UG/KG	ALPHA-CHLORDANE /2
4.0U	UG/KG	GAMMA-CHLORDANE /2
230U	UG/KG	TOXAPHENE
44U	UG/KG	PCB-1016 (AROCLOR 1016)
89U	UG/KG	PCB-1221 (AROCLOR 1221)
44U	UG/KG	PCB-1232 (AROCLOR 1232)
44U	UG/KG	PCB-1242 (AROCLOR 1242)
44U	UG/KG	PCB-1248 (AROCLOR 1248)
44U	UG/KG	PCB-1254 (AROCLOR 1254)
1400C	UG/KG	PCB-1260 (AROCLOR 1260)
25	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS | EPA - REGION IV SESD, ATHENS, GA | PRINTED 09/08/97 13:30

Sample 10178 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSS16 MD Number: MN22 Inorg Contractor: SENTIN
Media: SOIL D Number: MN22 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 16:10
Ending:

3 12 0155

RESULTS	UNITS	ANALYTE
2.1U	UG/KG	ALPHA-BHC
0.81JN	UG/KG	BETA-BHC
2.1U	UG/KG	DELTA-BHC
2.1U	UG/KG	GAMMA-BHC (LINDANE)
0.44J	UG/KG	HEPTACHLOR
2.1U	UG/KG	ALDRIN
2.1U	UG/KG	HEPTACHLOR EPOXIDE
2.1U	UG/KG	ENDOSULFAN I (ALPHA)
4.4	UG/KG	DIELDRIN
5.0U	UG/KG	4,4'-DDE (P,P'-DDE)
6.0U	UG/KG	ENDRIN
4.1UR	UG/KG	ENDOSULFAN II (BETA)
2.7JN	UG/KG	4,4'-DDD (P,P'-DDD)
4.1U	UG/KG	ENDOSULFAN SULFATE
7.1N	UG/KG	4,4'-DDT (P,P'-DDT)
21U	UG/KG	METHOXYCHLOR
4.1U	UG/KG	ENDRIN KETONE
4.1U	UG/KG	ENDRIN ALDEHYDE
6.0U	UG/KG	ALPHA-CHLORDANE /2
5.0U	UG/KG	GAMMA-CHLORDANE /2
210U	UG/KG	TOXAPHENE
41U	UG/KG	PCB-1016 (AROCLOR 1016)
83U	UG/KG	PCB-1221 (AROCLOR 1221)
41U	UG/KG	PCB-1232 (AROCLOR 1232)
41U	UG/KG	PCB-1242 (AROCLOR 1242)
41U	UG/KG	PCB-1248 (AROCLOR 1248)
41U	UG/KG	PCB-1254 (AROCLOR 1254)
41U	UG/KG	PCB-1260 (AROCLOR 1260)
20	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by g[illegible] 1.when no value is reported, see chlordane constituents 2.co[illegible]nts or [illegible]olites [illegible]nical [illegible]ane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10158 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW01 MD Number: MN37 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN37 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 12:25
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10175 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW04 MD Number: MN40 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN40 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 14:00
Ending:

3 12 0156

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms. 1 when no value is reported, see chlordane constituents 2 constituents or metabolite technical chlordane

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10161 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW05 MD Number: MN41 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN41 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0157

PESTICIDES/PCB SAMPLE ANALYSIS **EPA - REGION IV SESD, ATHENS, GA** **PRINTED 09/08/97 13:30**

Sample **10164** FY **1997** Project: **97-0292**

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDMW06 MD Number: MN39 Inorg Contractor: SENTIN
Media: GROUNDWA D Number: MN39 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 17:15
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by [illegible] 1 when no value [illegible] reported. see chlordane cons[illegible]s 2.c[illegible]ents [illegible]bolite[illegible]chnica[illegible]ane [illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10165 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW01 MD Number: MN33 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN33 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:25
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0158

PESTICIDES/PCB SAMPLE ANALYSIS **EPA - REGION IV SESD, ATHENS, GA** **PRINTED 09/08/97 13:30**

Sample **10166** FY **1997** Project: **97-0292**

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW02 MD Number: MN34
Media: SURFACEWA D Number: MN34

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:00
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirm[illegible] gcms. 1 when no value is reported, see chlordane constituent[illegible] constitu[illegible] meta[illegible] of te[illegible] chlor[illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10162 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW03 MD Number: MN35 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN35 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 16:10
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
.050U	UG/L	GAMMA-BHC (LINDANE)
.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

3 12 0159

PESTICIDES/PCB SAMPLE ANALYSIS **EPA - REGION IV SESD, ATHENS, GA** **PRINTED 09/08/97 13:30**

Sample 10160 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSW04 MD Number: MN36 Inorg Contractor: SENTIN
Media: SURFACEWA D Number: MN36 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 15:00
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirm[illegible] gcms: 1 when no value is reported, [illegible] chlordan[illegible] [illegible]tituen[illegible] [illegible]nstit[illegible] [illegible] met[illegible] of te[illegible] chlo[illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10167 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD01 MD Number: MN29 Inorg Contractor: SENTIN
Media: SOIL D Number: MN29 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:30
Ending:

RESULTS	UNITS	ANALYTE
2.1U	UG/KG	ALPHA-BHC
2.1U	UG/KG	BETA-BHC
2.1U	UG/KG	DELTA-BHC
2.1U	UG/KG	GAMMA-BHC (LINDANE)
2.1U	UG/KG	HEPTACHLOR
2.1U	UG/KG	ALDRIN
2.1U	UG/KG	HEPTACHLOR EPOXIDE
0.68J	UG/KG	ENDOSULFAN I (ALPHA)
0.45JN	UG/KG	DIELDRIN
4.1U	UG/KG	4,4'-DDE (P,P'-DDE)
4.1U	UG/KG	ENDRIN
4.1UR	UG/KG	ENDOSULFAN II (BETA)
4.1U	UG/KG	4,4'-DDD (P,P'-DDD)
4.1U	UG/KG	ENDOSULFAN SULFATE
4.1U	UG/KG	4,4'-DDT (P,P'-DDT)
21U	UG/KG	METHOXYCHLOR
4.1U	UG/KG	ENDRIN KETONE
4.1U	UG/KG	ENDRIN ALDEHYDE
2.1U	UG/KG	ALPHA-CHLORDANE /2
2.1U	UG/KG	GAMMA-CHLORDANE /2
210U	UG/KG	TOXAPHENE
41U	UG/KG	PCB-1016 (AROCLOR 1016)
84U	UG/KG	PCB-1221 (AROCLOR 1221)
41U	UG/KG	PCB-1232 (AROCLOR 1232)
41U	UG/KG	PCB-1242 (AROCLOR 1242)
41U	UG/KG	PCB-1248 (AROCLOR 1248)
41U	UG/KG	PCB-1254 (AROCLOR 1254)
41U	UG/KG	PCB-1260 (AROCLOR 1260)
20	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0160

Sample 10168 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD02 MD Number: MN30 Inorg Contractor: SENTIN
Media: SOIL D Number: MN30 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/09/97 09:00
Ending:

RESULTS	UNITS	ANALYTE
2.2U	UG/KG	ALPHA-BHC
2.2U	UG/KG	BETA-BHC
2.2U	UG/KG	DELTA-BHC
2.2U	UG/KG	GAMMA-BHC (LINDANE)
2.2U	UG/KG	HEPTACHLOR
2.2U	UG/KG	ALDRIN
2.2U	UG/KG	HEPTACHLOR EPOXIDE
2.2U	UG/KG	ENDOSULFAN I (ALPHA)
4.2U	UG/KG	DIELDRIN
4.2U	UG/KG	4,4'-DDE (P,P'-DDE)
4.2U	UG/KG	ENDRIN
4.2UR	UG/KG	ENDOSULFAN II (BETA)
4.2U	UG/KG	4,4'-DDD (P,P'-DDD)
4.2U	UG/KG	ENDOSULFAN SULFATE
4.2U	UG/KG	4,4'-DDT (P,P'-DDT)
22U	UG/KG	METHOXYCHLOR
4.2U	UG/KG	ENDRIN KETONE
4.2U	UG/KG	ENDRIN ALDEHYDE
2.2U	UG/KG	ALPHA-CHLORDANE /2
2.2U	UG/KG	GAMMA-CHLORDANE /2
220U	UG/KG	TOXAPHENE
42U	UG/KG	PCB-1016 (AROCLOR 1016)
85U	UG/KG	PCB-1221 (AROCLOR 1221)
42U	UG/KG	PCB-1232 (AROCLOR 1232)
42U	UG/KG	PCB-1242 (AROCLOR 1242)
42U	UG/KG	PCB-1248 (AROCLOR 1248)
42U	UG/KG	PCB-1254 (AROCLOR 1254)
42U	UG/KG	PCB-1260 (AROCLOR 1260)
21	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1 when no value is reported, see chlordane constituents 2 constituents or metabolit[illegible] technical chlordan[illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 10163 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD03 MD Number: MN31 Inorg Contractor: SENTIN
Media: SOIL D Number: MN31 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning: 07/08/97 16:25
Ending:

RESULTS	UNITS	ANALYTE
2.3U	UG/KG	ALPHA-BHC
2.3U	UG/KG	BETA-BHC
2.3U	UG/KG	DELTA-BHC
10	UG/KG	GAMMA-BHC (LINDANE)
11	UG/KG	HEPTACHLOR
9.7	UG/KG	ALDRIN
2.3U	UG/KG	HEPTACHLOR EPOXIDE
2.3U	UG/KG	ENDOSULFAN I (ALPHA)
9.7	UG/KG	DIELDRIN
9.0U	UG/KG	4,4'-DDE (P,P'-DDE)
7.3J	UG/KG	ENDRIN
4.4UR	UG/KG	ENDOSULFAN II (BETA)
12	UG/KG	4,4'-DDD (P,P'-DDD)
4.4U	UG/KG	ENDOSULFAN SULFATE
11N	UG/KG	4,4'-DDT (P,P'-DDT)
23U	UG/KG	METHOXYCHLOR
4.4U	UG/KG	ENDRIN KETONE
4.4U	UG/KG	ENDRIN ALDEHYDE
3.0U	UG/KG	ALPHA-CHLORDANE /2
4.0U	UG/KG	GAMMA-CHLORDANE /2
230U	UG/KG	TOXAPHENE
44U	UG/KG	PCB-1016 (AROCLOR 1016)
90U	UG/KG	PCB-1221 (AROCLOR 1221)
44U	UG/KG	PCB-1232 (AROCLOR 1232)
44U	UG/KG	PCB-1242 (AROCLOR 1242)
44U	UG/KG	PCB-1248 (AROCLOR 1248)
44U	UG/KG	PCB-1254 (AROCLOR 1254)
44U	UG/KG	PCB-1260 (AROCLOR 1260)
26	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

3 12 0161

PESTICIDES/PCB SAMPLE ANALYSIS **EPA - REGION IV SESD, ATHENS, GA** **PRINTED 09/08/97 13:30**

Sample 10159 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility: BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station: BDSD04 MD Number: MN32
Media: SOIL D Number: MN32

Inorg Contractor: SENTIN
Org Contractor: COMPU

Printed by: John McConney

Collected By:
Beginning: 07/08/97 15:05
Ending:

RESULTS	UNITS	ANALYTE
2.6U	UG/KG	ALPHA-BHC
2.6U	UG/KG	BETA-BHC
2.6U	UG/KG	DELTA-BHC
2.6U	UG/KG	GAMMA-BHC (LINDANE)
2.6U	UG/KG	HEPTACHLOR
2.6U	UG/KG	ALDRIN
2.6U	UG/KG	HEPTACHLOR EPOXIDE
2.6U	UG/KG	ENDOSULFAN I (ALPHA)
5.0U	UG/KG	DIELDRIN
5.0U	UG/KG	4,4'-DDE (P,P'-DDE)
0.96J	UG/KG	ENDRIN
5.0UR	UG/KG	ENDOSULFAN II (BETA)
6.7N	UG/KG	4,4'-DDD (P,P'-DDD)
5.0U	UG/KG	ENDOSULFAN SULFATE
20U	UG/KG	4,4'-DDT (P,P'-DDT)
26U	UG/KG	METHOXYCHLOR
5.0U	UG/KG	ENDRIN KETONE
5.0U	UG/KG	ENDRIN ALDEHYDE
2.6U	UG/KG	ALPHA-CHLORDANE /2
2.6U	UG/KG	GAMMA-CHLORDANE /2
260U	UG/KG	TOXAPHENE
50U	UG/KG	PCB-1016 (AROCLOR 1016)
100U	UG/KG	PCB-1221 (AROCLOR 1221)
50U	UG/KG	PCB-1232 (AROCLOR 1232)
50U	UG/KG	PCB-1242 (AROCLOR 1242)
50U	UG/KG	PCB-1248 (AROCLOR 1248)
50U	UG/KG	PCB-1254 (AROCLOR 1254)
50U	UG/KG	PCB-1260 (AROCLOR 1260)
34	%	% MOISTURE

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed [illegible] cms: 1 when no value is reported, see [illegible]ane c[illegible]ents [illegible]tituen[illegible]etabo[illegible]techn[illegible]lorda[illegible]

PESTICIDES/PCB SAMPLE ANALYSIS EPA - REGION IV SESD, ATHENS, GA PRINTED 09/08/97 13:30

Sample 11018 FY 1997 Project: 97-0292

PESTICIDES SCAN

Facility. BROWN'S DUMP JACKSONVILLE, FL
Program: NSF Case Number: 25558
Id/Station:BDFB01 MD Number: MN42 Inorg Contractor: SENTIN
Media: WATER D Number: MN42 Org Contractor: COMPU

Printed by: John McConney
Collected By:
Beginning:
Ending:

RESULTS	UNITS	ANALYTE
0.050U	UG/L	ALPHA-BHC
0.050U	UG/L	BETA-BHC
0.050U	UG/L	DELTA-BHC
0.050U	UG/L	GAMMA-BHC (LINDANE)
0.050U	UG/L	HEPTACHLOR
0.050U	UG/L	ALDRIN
0.050U	UG/L	HEPTACHLOR EPOXIDE
0.050U	UG/L	ENDOSULFAN I (ALPHA)
0.10U	UG/L	DIELDRIN
0.10U	UG/L	4,4'-DDE (P,P'-DDE)
0.10U	UG/L	ENDRIN
0.10UR	UG/L	ENDOSULFAN II (BETA)
0.10U	UG/L	4,4'-DDD (P,P'-DDD)
0.10U	UG/L	ENDOSULFAN SULFATE
0.10U	UG/L	4,4'-DDT (P,P'-DDT)
0.50U	UG/L	METHOXYCHLOR
0.10U	UG/L	ENDRIN KETONE
0.10U	UG/L	ENDRIN ALDEHYDE
0.050U	UG/L	ALPHA-CHLORDANE /2
0.050U	UG/L	GAMMA-CHLORDANE /2
5.0U	UG/L	TOXAPHENE
1.0U	UG/L	PCB-1016 (AROCLOR 1016)
2.0U	UG/L	PCB-1221 (AROCLOR 1221)
1.0U	UG/L	PCB-1232 (AROCLOR 1232)
1.0U	UG/L	PCB-1242 (AROCLOR 1242)
1.0U	UG/L	PCB-1248 (AROCLOR 1248)
1.0U	UG/L	PCB-1254 (AROCLOR 1254)
1.0U	UG/L	PCB-1260 (AROCLOR 1260)

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.
K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.
R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.
C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2 constituents or metabolites of technical chlordane

Appendix C

Ecological Assessment Checklist

APPENDIX A - CHECKLIST FOR ECOLOGICAL ASSESSMENT/SAMPLING

Introduction

The checklist that follows provides guidance in making observations for an ecological assessment. It is not intended for limited or emergency response actions (e.g., removal of a few drums) or for purely industrial settings with no discharges. The checklist is a screening tool for preliminary site evaluation and may also be useful in planning more extensive site investigations. It must be completed as thoroughly as time allows. The results of the checklist will serve as a starting point for the collection of appropriate biological data to be used in developing a response action. It is recognized that certain questions in this checklist are not universally applicable and that site-specific conditions will influence interpretation. Therefore, a site synopsis is requested to facilitate final review of the checklist by a trained ecologist.

Checklist

The checklist has been divided into sections that correspond to data collection methods and ecosystem types. These sections are:

I. Site Description

   IA. Summary of Observations and Site Setting

II. Terrestrial Habitat Checklist

   IIA. Wooded
   IIB. Shrub/Scrub
   IIC. Open Field
   IID. Miscellaneous

III. Aquatic Habitat Checklist – Non-Flowing Systems

IV. Aquatic Habitat Checklist – Flowing Systems

V. Wetlands Habitat Checklist

Checklist for Ecological Assessment/Sampling

I. SITE DESCRIPTION

1. Site Name: Brown's Dump

   Location: 33rd St West: Peirce Sts

   County: Duval City: Jacksonville State: FL

2. Latitude: See ERA Longitude: see ERA

3. What is the approximate area of the site? ± 10 Ac

4. Is this the first site visit? ☑ yes ☐ no If no, attach trip report of previous site visit(s), if available.

   Date(s) of previous site visit(s): _____.

5. Please attach to the checklist USGS topographic map(s) of the site, if available.

   See Figure 1-1, ERA

6. Are aerial or other site photographs available? ☑ yes ☐ no If yes, please attach any available photo(s) to the site map at the conclusion of this section.

   See Appendix A, ERA

7. The land use on the site is:

25 % Urban

____ % Rural

25 % Residential

____ % Industrial (☐ light ☐ heavy)

____ % Agricultural

(Crops: _____)

40 % Recreational

(Describe; note if it is a park, etc.)

_____

_____

10 % Undisturbed

____ % Other

The area surrounding the site is:

_____ mile radius

40 % Urban

____ % Rural

30 % Residential

30 % Industrial (☑ light ☐ heavy)

____ % Agricultural

(Crops: _____)

____ % Recreational

(Describe; note if it is a park, etc.)

_____

_____

____ % Undisturbed

____ % Other

8. Has any movement of soil taken place at the site? ☑ yes ☐ no. If yes, please identify the most likely cause of this disturbance:

____ Agricultural Use ____ Heavy Equipment ____ Mining

____ Natural Events ____ Erosion X Other Ppc

Please describe:

Previous file records indicate previous dredging activities on Moncrief Creek and excavation of highly contaminated soils in residential area.

9. Do any potentially sensitive environmental areas exist adjacent to or in proximity to the site, e.g., Federal and State parks, National and State monuments, wetlands, prairie potholes? *Remember, flood plains and wetlands are not always obvious; do not answer "no" without confirming information.*

No.

Please provide the source(s) of information used to identify these sensitive areas, and indicate their general location on the site map.

N/A

10. What type of facility is located at the site?

☐ Chemical ☐ Manufacturing ☐ Mixing ☑ Waste disposal

☑ Other (specify) Elementary school

11. What are the suspected contaminants of concern at the site? If known, what are the maximum concentration levels?

Metals, PAHs, Dioxin/Furans

12. Check any potential routes of off-site migration of contaminants observed at the site:

☑ Swales ☐ Depressions ☑ Drainage ditches

☑ Runoff ☐ Windblown particulates ☐ Vehicular traffic

☑ Other (specify) Moncrief Creek along northern site boundary

13. If known, what is the approximate depth to the water table? > 8'

14. Is the direction of surface runoff apparent from site observations? ☑ yes ☐ no If yes, to which of the following does the surface runoff discharge? Indicate all that apply.

☑ Surface water ☐ Groundwater ☐ Sewer ☐ Collection impoundment

15. Is there a navigable waterbody or tributary to a navigable waterbody? ☑ yes ☐ no

Moncrief Creek is not navigable but is a tributary of Trent River, which is.

16. Is there a waterbody anywhere on or in the vicinity of the site? If yes, also complete Section III: Aquatic Habitat Checklist – Non-Flowing Systems and/or Section IV: Aquatic Habitat Checklist – Flowing Systems.

☑ yes (approx. distance at north bdry) ☐ no

17 Is there evidence of flooding? ☑ yes ☐ no *Wetlands and flood plains are not always obvious; do not answer "no" without confirming information.* If yes, complete Section V: Wetland Habitat Checklist.

18. If a field guide was used to aid any of the identifications, please provide a reference. Also, estimate the time spent identifying fauna. [Use a blank sheet if additional space is needed for text.]

Peterson's Guide to Mammals,
Audubon Society Field Guides for Birds, Reptiles/Amphibians, Fish
Guide to Wildflowers: Trees of Florida
Spent approximately 4 hours at the site observing field conditions

19. Are any threatened and/or endangered species (plant or animal) known to inhabit the area of the site? ☐ yes ☒ no *If yes, you are required to verify this information with the U.S. Fish and Wildlife Service.* If species' identities are known, please list them next.

See text in Section 1.2.1 of ERA

20. Record weather conditions at the time this checklist was prepared:

DATE: 12/16/99

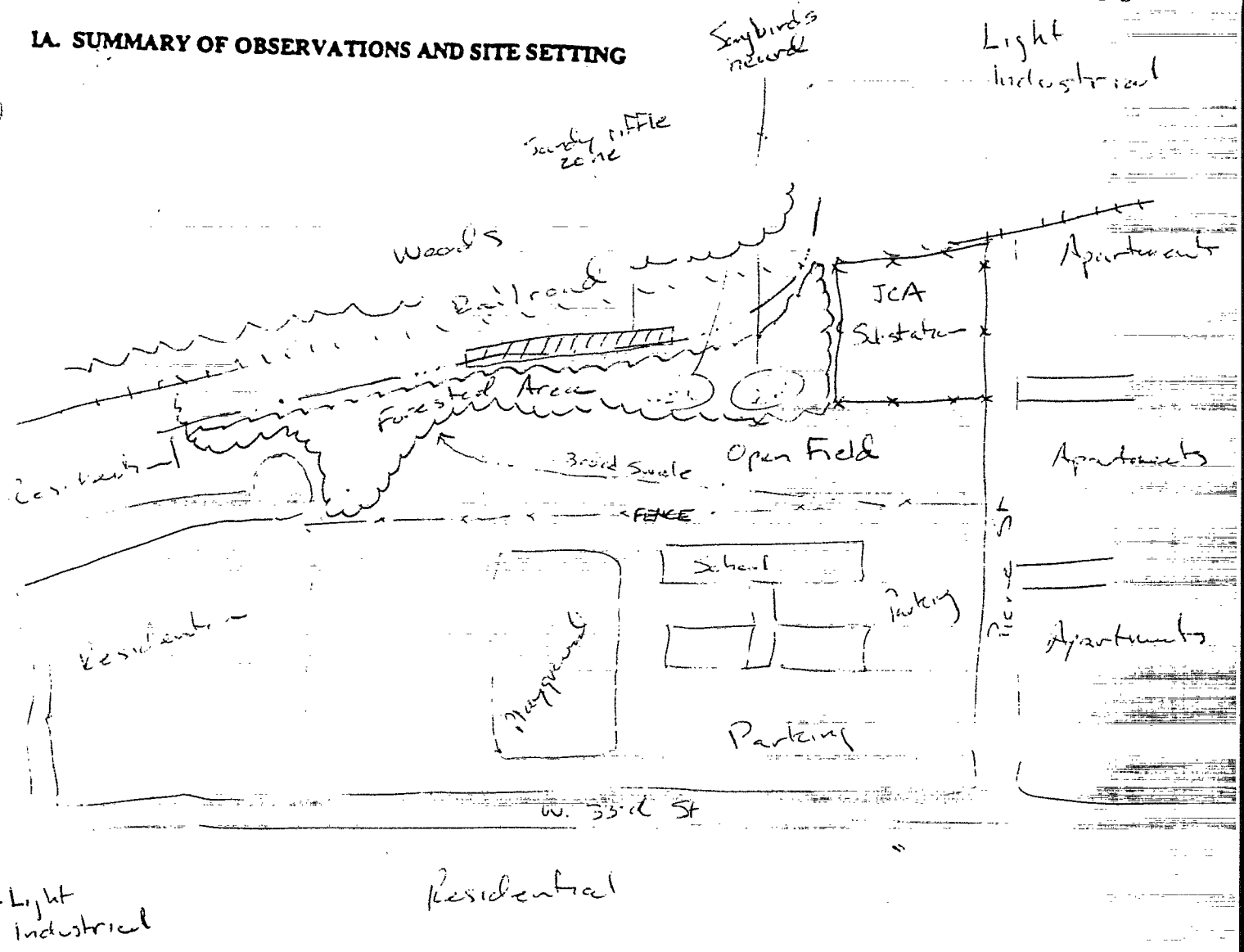
13°C Temperature (°C/°F) — 15°C Normal daily high temperature

W 5mph Wind (direction/speed) — — Precipitation (rain, snow)

light Cloud cover

3 12.. 0166

IA. SUMMARY OF OBSERVATIONS AND SITE SETTING



Completed by Dane G. Pehrman Affiliation BES

Additional Preparers

Site Manager Gina Kelly

Date 12/16/99

II. TERRESTRIAL HABITAT CHECKLIST

IIA. WOODED

1. Are there any wooded areas at the site? ☑ yes ☐ no If no, go to Section IIB: Shrub/Scrub.

2. What percentage or area of the site is wooded? (10 % _____ acres). Indicate the wooded area on the site map which is attached to a copy of this checklist. Please identify what information was used to determine the wooded area of the site.

3. What is the dominant type of vegetation in the wooded area? (Circle one: Evergreen/Deciduous/Mixed) Provide a photograph, if available.

   Dominant plant, if known: Longleaf Pine / Oaks

4. What is the predominant size of the trees at the site? Use diameter at breast height.

   ☐ 0-6 in. ☑ 6-12 in. ☐ > 12 in.

5. Specify type of understory present, if known. Provide a photograph, if available.

   Deciduous shrubs of various species See Appendix A for photo

IIB. SHRUB/SCRUB

1. Is shrub/scrub vegetation present at the site? ☐ yes ☑ no If no, go to Section IIC: Open Field.

2. What percentage of the site is covered by scrub/shrub vegetation? (_____% _____ acres). Indicate the areas of shrub/scrub on the site map. Please identify what information was used to determine this area.

3. What is the dominant type of scrub/shrub vegetation, if known? Provide a photograph, if available.

4. What is the approximate average height of the scrub/shrub vegetation?

   ☐ 0-2 ft. ☐ 2-5 ft. ☐ > 5 ft.

5. Based on site observations, how dense is the scrub/shrub vegetation?

☐ Dense ☐ Patchy ☐ Sparse

IIC. OPEN FIELD

1. Are there open (bare, barren) field areas present at the site? ☑ yes ☐ no If yes, please indicate the type below:

☐ Prairie/plains ☐ Savannah ☐ Old field ☑ Other (specify) Maintained lawn

2. What percentage of the site is open field? (40 % _____ acres). Indicate the open fields on the site map.

3. What is/are the dominant plant(s)? Provide a photograph, if available.

Lawn grasses and some weeds such as starbur and partridge pea. See Appendix A for photo

4. What is the approximate average height of the dominant plant? 2"

5. Describe the vegetation cover: ☐ Dense ☐ Sparse ☒ Patchy

IID. MISCELLANEOUS

1. Are other types of terrestrial habitats present at the site, other than woods, scrub/shrub, and open field? ☐ yes ☒ no If yes, identify and describe them below.

2. Describe the terrestrial miscellaneous habitat(s) and identify these area(s) on the site map.

3. What observations, if any, were made at the site regarding the presence and/or absence of insects, fish, birds, mammals, etc.?

Very little use of the open field area by wildlife was noted however, songbirds were heard in the forested area and small fish and tubificoid worms were observed in the creek.

4. Review the questions in Section I to determine if any additional habitat checklists should be completed for this site.

3 12 . 0168

III. AQUATIC HABITAT CHECKLIST -- NON-FLOWING SYSTEMS

N/A

Note: Aquatic systems are often associated with wetland habitats. Please refer to Section V, Wetland Habitat Checklist.

1. What type of open-water, non-flowing system is present at the site?

   ☐ Natural (pond, lake)
   ☐ Artificially created (lagoon, reservoir, canal, impoundment)

2. If known, what is the name(s) of the waterbody(ies) on or adjacent to the site?

   _____

3. If a waterbody is present, what are its known uses (e.g.: recreation, navigation, etc.)?

4. What is the approximate size of the waterbody(ies)? _____ acre(s).

5. Is any aquatic vegetation present? ☐ yes ☐ no If yes, please identify the type of vegetation present if known.

   ☐ Emergent ☐ Submergent ☐ Floating

6. If known, what is the depth of the water? _____

7. What is the general composition of the substrate? Check all that apply.

   ☐ Bedrock ☐ Sand (coarse) ☐ Muck (fine/black)
   ☐ Boulder (>10 in.) ☐ Silt (fine) ☐ Debris
   ☐ Cobble (2.5-10 in.) ☐ Marl (shells) ☐ Detritus
   ☐ Gravel (0.1-2.5 in.) ☐ Clay (slick) ☐ Concrete
   ☐ Other (specify)_____

8. What is the source of water in the waterbody?

   ☐ River/Stream/Creek ☐ Groundwater ☐ Other (specify)_____
   ☐ Industrial discharge ☐ Surface runoff.

9. Is there a discharge from the site to the waterbody? ☐ yes ☐ no If yes, please describe this discharge and its path.

10. Is there a discharge from the waterbody? ☐ yes ☐ no If yes, and the information is available, identify from the list below the environment into which the waterbody discharges.

☐ River/Stream/Creek	☐ onsite	☐ offsite	Distance_____
☐ Groundwater	☐ onsite	☐ offsite	
☐ Wetland	☐ onsite	☐ offsite	Distance_____
☐ Impoundment	☐ onsite	☐ offsite	

11. Identify any field measurements and observations of water quality that were made. For those parameters for which data were collected provide the measurement and the units of measure below:

_____ Area

_____ Depth (average)

_____ Temperature (depth of the water at which the reading was taken)_____

_____ pH

_____ Dissolved oxygen

_____ Salinity

_____ Turbidity (clear, slightly turbid, turbid, opaque) (Secchi disk depth _____)

_____ Other (specify)

12. Describe observed color and area of coloration.

13. Mark the open-water, non-flowing system on the site map attached to this checklist.

14. What observations, if any, were made at the waterbody regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, etc.?

IV. AQUATIC HABITAT CHECKLIST – FLOWING SYSTEMS

Note: Aquatic systems are often associated with wetland habitats. Please refer to Section V, Wetland Habitat Checklist.

1. What type(s) of flowing water system(s) is (are) present at the site?

☐ River	☐ Stream	☑ Creek
☐ Dry wash	☐ Arroyo	☐ Brook
☐ Artificially created (ditch, etc.)	☐ Intermittent Stream	☐ Channeling
	☐ Other (specify)_____	

2. If known, what is the name of the waterbody? Moncrief Creek

3. For natural systems, are there any indicators of physical alteration (e.g., channeling, debris, etc.)?
☒ yes ☐ no If yes, please describe indicators that were observed.

- Erosion on banks
- Cutbanks
- Sandbars
- Embeddedness of substrate
- Removal of riparian vegetation on north bank

4. What is the general composition of the substrate? Check all that apply.

☐ Bedrock	☒ Sand (coarse)	☐ Muck (fine/black)
☐ Boulder (>10 in.)	☒ Silt (fine)	☐ Debris
☐ Cobble (2.5-10 in.)	☐ Marl (shells)	☐ Detritus
☒ Gravel (0.1-2.5 in.)	☐ Clay (slick)	☐ Concrete
☐ Other (specify)_____		

5. What is the condition of the bank (e.g., height, slope, extent of vegetative cover)?

- North bank is approximated 2:1 slope, 8' high with only herbaceous cover
- South bank is approximately 2:1 slope, 6'-15' high with overhanging trees

6. Is the system influenced by tides? ☐ yes ☒ no What information was used to make this determination?

USGS maps and field observations

7. Is the flow intermittent? ☐ yes ☒ no If yes, please note the information that was used in making this determination.

8 Is there a discharge from the site to the waterbody? ☐ yes ☐ no If yes, please describe the discharge and its path.

There is a broad swale that flows through the open field area, westward into a ditch through the forested area and finally into Moncrief Creek. GW may also recharge the creek from the site

9. Is there a discharge from the waterbody? ☒ yes ☐ no If yes, and the information is available, please identify what the waterbody discharges to and whether the discharge is on site or off site.

Approximately 2 miles from the site, Moncrief Creek flows into Trent River.

10. Identify any field measurements and observations of water quality that were made. For those parameters for which data were collected, provide the measurement and the units of measure in the appropriate space below:

12'	Width (ft.)
1'	Depth (ft.)
<1 Fps	Velocity (specify units): Feet per second
unknown	Temperature (depth of the water at which the reading was taken_____)
unknown	pH
unknown	Dissolved oxygen
unknown	Salinity
____	Turbidity (clear, slightly turbid, turbid, opaque) (Secchi disk depth _____)
____	Other (specify)_____

* No field measurements of these metrics were taken.

11. Describe observed color and area of coloration.

12. Is any aquatic vegetation present? ☐ yes ☐ no If yes, please identify the type of vegetation present, if known.

☒ Emergent ☐ Submergent ☐ Floating

Duck potato : pickerleweed

13. Mark the flowing water system on the attached site map.

See map

14. What observations were made at the waterbody regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, etc.?

A scoop of the sandy riffle area showed the presence of tubificid worms but no other benthic invertebrates

Minnows were observed along the shallow fringes of the creek.

Songbirds were heard in the trees nearby but not other wildlife was observed

V. WETLAND HABITAT CHECKLIST

N/A

1. Based on observations and/or available information, are designated or known wetlands definitely present at the site?
☐ yes ☒ no

   Please note the sources of observations and information used (e.g., USGS Topographic Maps, National Wetland Inventory, Federal or State Agency, etc.) to make this determination.

2. Based on the location of the site (e.g., along a waterbody, in a floodplain) and site conditions (e.g., standing water; dark, wet soils; mud cracks; debris line; water marks), are wetland habitats suspected?
☐ yes ☐ no If yes, proceed with the remainder of the wetland habitat identification checklist.

3. What type(s) of vegetation are present in the wetland?

   ☐ Submergent
   ☐ Scrub/Shrub
   ☐ Emergent
   ☐ Wooded

   ☐ Other (specify)_____

4. Provide a general description of the vegetation present in and around the wetland (height, color, etc.). Provide a photograph of the known or suspected wetlands, if available.

5. Is standing water present? ☐ yes ☐ no If yes, is this water: ☐ Fresh ☐ Brackish
What is the approximate area of the water (sq. ft.)?_____
Please complete questions 4, 11, 12 in Checklist III - Aquatic Habitat – Non-Flowing Systems.

6 Is there evidence of flooding at the site? What observations were noted?

   ☐ Buttressing
   ☐ Water marks
   ☐ Mud cracks
   ☐ Debris line
   ☐ Other (describe below)

7. If known, what is the source of the water in the wetland?

☐ Stream/River/Creek/Lake/Pond ☐ Groundwater

☐ Flooding ☐ Surface Runoff

8. Is there a discharge from the site to a known or suspected wetland? ☐ yes ☐ no If yes, please describe.

9. Is there a discharge from the wetland? ☐ yes ☐ no. If yes, to what waterbody is discharge released?

☐ Surface Stream/River ☐ Groundwater ☐ Lake/Pond ☐ Marine

10. If a soil sample was collected, describe the appearance of the soil in the wetland area. Circle or write in the best response.

Color (blue/gray, brown, black, mottled) _____

Water content (dry, wet, saturated/unsaturated) _____

11. Mark the observed wetland area(s) on the attached site map.