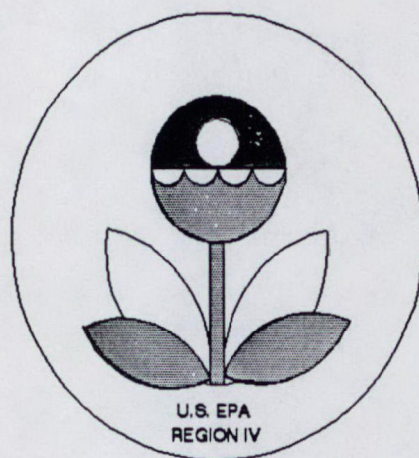


**INTERSTATE LEAD COMPANY
SUPERFUND SITE
BIOLOGICAL ASSESSMENT
JUNE 1994**



**U.S. EPA, REGION IV
ENVIRONMENTAL SERVICES DIVISION
ECOLOGICAL SUPPORT BRANCH
ATHENS, GEORGIA 30605**

Date: June 10, 1994

To: Kim Lanterman
Resource Project Manager

From: US EPA, Region IV, Ecological Support Branch and
ESAT, Region IV, Biological Assistance Team

Document Title/Description:

Final Report on the Biological Assessment of Streams in the Vicinity of ILCO
Inc., Leeds, Alabama. June 1994.

INTRODUCTION

This document is an update of a preliminary report on the biological assessment of streams in the vicinity of Interstate Lead Company (ILCO) Superfund Site, Leeds, Alabama, submitted March 31, 1994, and incorporates chemistry data on water, sediment, and fish tissue samples which was unavailable when the preliminary report was written. Previous studies (USEPA 1993a) have shown that these streams receive runoff and contaminants from the ILCO site. The primary contaminant of concern (COC) is lead.

OVERVIEW

During the weeks of March 6 and 13, 1994, members of the U.S. EPA Region IV, ESD/Ecological Support Branch accompanied by the ESAT Biological Assistance Team personnel visited the ILCO site. Following a reconnaissance of the area, six sampling locations were selected - three on Dry Creek (stations 03, 04, and 05), two on the unnamed tributary to Dry Creek (stations 01 and 02), and one on a small tributary to the unnamed tributary (station 0) (see map Fig. 1). The small tributary to the unnamed stream was selected as a reference stream. The ground-truth survey conducted during reconnaissance of the study area revealed that this small stream receives its water from a watershed adjacent to but not directly influenced by the ILCO site. Stations 01 and 03 were chosen as background stations for the unnamed stream and Dry Creek respectively.

At each sampling station, in-situ water chemistry was measured and a water and sediment sample were collected. Also, a Rapid Bioassessment Procedure (RBP) Protocol I (USEPA 1989) was conducted that included a physical characterization of the sampling location, habitat assessment, and a benthic macroinvertebrate survey. Finally, an attempt was made to collect fish at each station.

At the time of collection, water and sediment samples were split. At the end of each day a portion of each sample was shipped directly from the site to appropriate laboratories for chemical analysis. Another portion of each sample was retained by the ESAT team for toxicity testing. Chain-of-custody was maintained throughout sampling, shipping and testing.

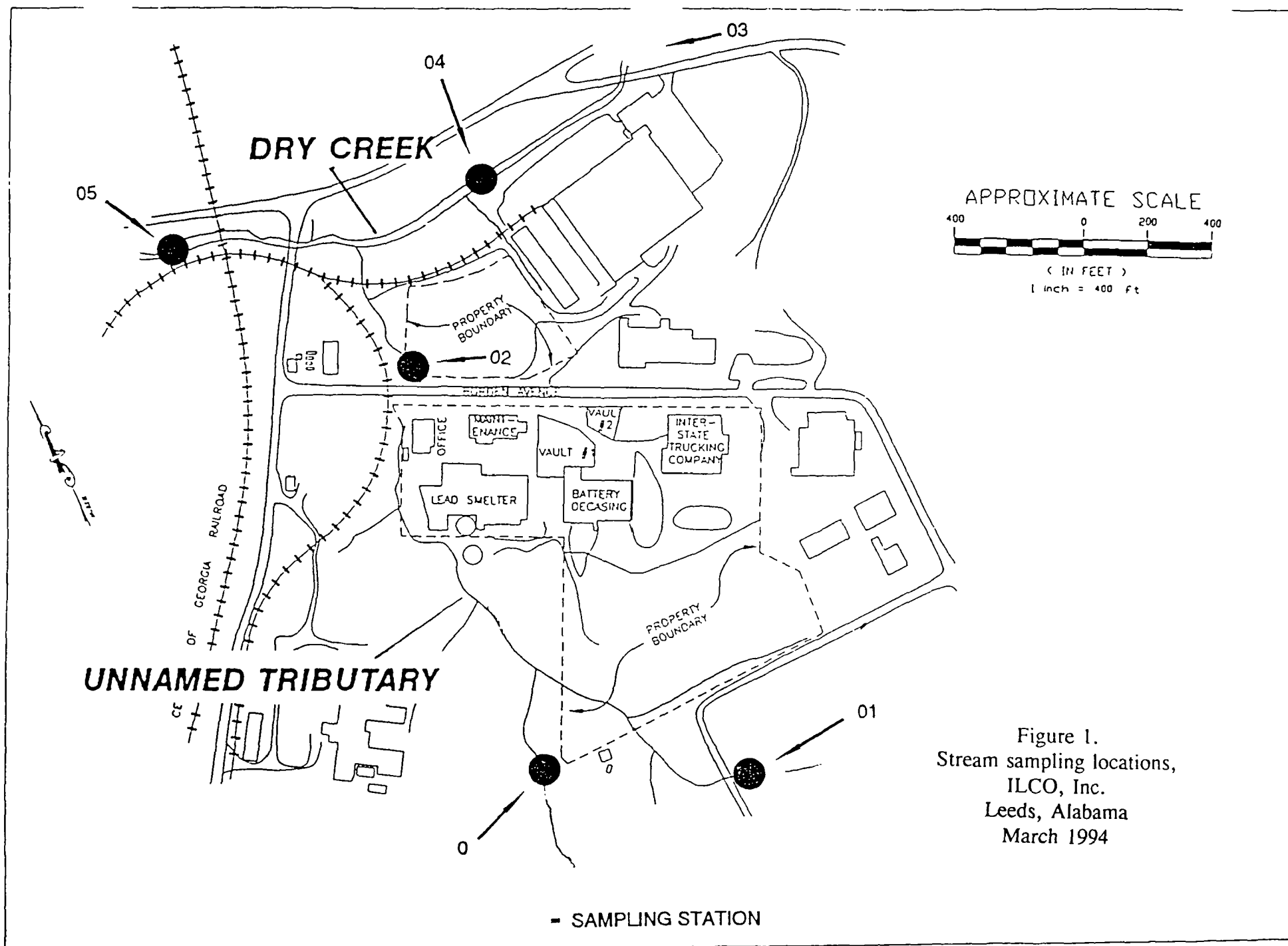


Figure 1.
Stream sampling locations,
ILCO, Inc.
Leeds, Alabama
March 1994

METHODS

In-situ Water Measurements

Dissolved Oxygen (DO), pH, temperature, and conductivity were measured using a calibrated YSI/Grant 3800 sonde unit. Alkalinity and hardness were determined later (within 72 hrs) in the laboratory using EPA approved methods (APHA 1992).

Water and Sediment Sampling

These were conducted according to EPA standard operating procedures (USEPA 1991). At the time of collection, each water and sediment sample was split as follows:

Water

- 3 - 40 ml vials with teflon septum (for volatile organics)
- 1 - 1 liter polyethylene bottle (for metals)
- 1 - 500 ml polyethylene bottle (for total organic carbon)
- 1 - 4 liter amber glass jar (for pesticides/extractables)
- 1 - 4 liter cubitainer (for toxicity testing)

Sediment

- 1 - 2 oz. jar with teflon septum (for volatile organics)
- 1 - 8 oz. jar (for metals)
- 1 - 8 oz. jar (for pesticides/extractables)
- 1 - 8 oz. jar (for total organic carbon)
- 1 - 1 liter jar (for toxicity testing)
- 1 - whirl pack (for sediment particle sizing)

After collection, samples were stored on wet ice.

Rapid Bioassessments

These were conducted according to EPA Rapid Bioassessment Protocols for Use in Streams and Rivers (USEPA 1989). A representative sample of benthic organisms were preserved in alcohol.

Fish Collections

Fish were collected using a Smith-Root Type VII backpack electroshocking unit. Stunned fish were collected in a decontaminated fish net, handled with latex gloves, placed in a clean plastic bag, and placed on wet ice. Within 48 hrs of collection fish from each sampling station were subdivided into two equal portions (one portion wrapped in plastic, the other in aluminum foil), frozen, and then shipped to the appropriate laboratories for chemical analysis. The species composition of each sample was noted and recorded.

Toxicity Tests

The following toxicity tests were conducted on water and sediment samples according to EPA Region IV Ecological Support Branch standard operating procedures (USEPA 1993b):

Water samples

Fathead Minnow 7-day Chronic Test (SOP VIII)
Ceriodaphnia 7-day Survival/Reproduction Test (SOP XV)
Selenastrum capricornutum 96 hr. Growth Test (SOP XX)
Microtox® Basic Test

Sediment samples

Ceriodaphnia 7-day Whole Sediment Test (SOP XV A)
Lettuce Seed Germination Test (SOP XVIII)
Microtox Basic Test (performed on sediment pore water)

RESULTS

In-situ Water Measurements

The results of in-situ water measurements (supplemented by laboratory determinations of water alkalinity and hardness) are summarized in Table 1.

Rapid Bioassessments

Tables 2 and 3 summarize the results for RBP's. Copies of field data sheets for each sampling station are included in Appendix A.

Toxicity Tests

A summary of toxicity test results are listed in Tables 4 and 5. Copies of laboratory bench sheets for each toxicity test are included in Appendix A.

Fish Collections

Electrofishing turned up bream, largemouth bass, and several minnow species at all three stations on Dry Creek. At station 02 on the unnamed tributary the fish collection consisted of bream, creek chubs, and minnows. Upstream at stations 0 and 01, only a few minnows were collected.

Chemical Analyses

The metals content of sediment and whole body fish tissue samples are summarized in Table 6. At all sampling stations the lead level in the sediments exceeds the NOAA ER-L value of 35 mg/kg (Long and Morgan 1991). The levels at stations 02 and 05 also exceed the ER-M of 110 mg/kg. Fish from stations 02 and 05 showed greatly elevated whole body lead burdens. The nickel level at station 04 exceeds the ER-L of 30 for nickel. However, this appears to be only a localized "hot spot," possibly derived from drainage of a nearby coat hanger plant.

Appendix B contains copies of the results of all chemical analyses performed on water, sediment, and fish tissue samples.

DISCUSSION

In spite of elevated levels of lead in the water and sediments of the unnamed tributary and elevated levels of lead in the sediments of Dry Creek, the macroinvertebrate surveys and toxicity tests indicate no impact from site-derived contaminants on the respective aquatic communities. According to the RBP's, both Dry Creek and its unnamed tributary, as well as the reference stream, provide suitable habitat for aquatic macroinvertebrates. This is reflected by the existence of a diverse assemblage of benthic macroinvertebrates as shown in the summary lists (Table 3), and specifically by an abundance of sensitive organisms such as stoneflies (Plecoptera), Mayflies (Ephemeroptera), and caddisflies (Trichoptera) at all sampling stations on Dry Creek and the unnamed tributary.

Toxicity test results are shown in Table 4 and Table 5. Sediment and water samples taken at sampling stations under the potential influence of site-derived contaminants (stations 02 and 05) showed no toxicity when compared to their respective background station (01 and 03 respectively). In some cases test organisms exposed to samples from these downstream

stations seemed to do better than organisms exposed to samples from background stations and even better than laboratory controls, i.e., they produced more young (see *Ceriodaphnia* water test), grew faster (see Fathead Minnow test), or reached a greater density (see Algae test). Oddly enough, the poorest performance is seen in some test organisms exposed to water and sediment from the reference stream (station 0). Both Dry Creek and its unnamed tributary supported abundant fish populations. The lack of fish in the upper reaches of the unnamed tributary (station 01) and the reference stream (station 0) probably reflect the intermittent nature of water flow in these sections of the watershed (see USEPA 1993a).

In short, site-derived contaminants from ILCO Inc., even though present, appear to be having no measurable deleterious effect on aquatic communities in Dry Creek and its unnamed tributary. However, the greatly elevated whole body lead burden in fish tissue (Table 7) does pose a potential risk to terrestrial communities and to human health. Schmitt et al. (1984) considered lead concentrations exceeding 0.3 mg/kg in edible fish tissue to be hazardous to human health. The fish tissue data and levels of lead in sediment (Table 6) clearly indicate the transport of site-derived contamination off site. How far beyond station 05 the contamination has been carried is unknown.

In order to adequately address ecological and human health concerns and the extent of site related contaminants in Dry Creek, further evaluation of forage fish, edible fish tissue, and sediment is recommended.

Table 1. Water quality measurements for streams in the vicinity of ILCO, Inc., Leeds, Alabama. March 1, 1994.

Sampling Stations	Stream Water Quality Data					
	In-situ Measurements				Laboratory Determinations	
	Temperature (C°)	Dissolved O ₂ (mg/l)	pH	Conductivity (μmhos/cm ²)	Alkalinity	Hardness (mg/l CaCO ₃)
0 (reference stream)	9.0	9.0	7.3	68	18	38
01 (bkgd on unnamed tributary)	9.2	9.4	7.7	90	29	50
02 (unnamed tributary immediately downstream of site)	9.2	7.4	7.5	148	44	68
03 (bkgd on Dry Creek)	9.3	8.9	7.5	142	47	74
04 (Dry Creek above confluence with unnamed tributary)	9.1	9.6	7.2	152	36	58
05 (Dry Creek below confluence with unnamed tributary)	9.1	9.6	6.5	148	41	64

Table 2. Summary of the Habitat Assessment Evaluation for streams in the vicinity of ILCO, Inc., Leeds, Alabama. March, 1993.

Sampling Stations	Habitat Assessment Evaluation				
	Score	% comparability to background	% comparability to reference	Comparability Assessment	
				To Background	To Reference
0 reference tributary	110	-	-	-	-
01 background for unnamed tributary	114	-	104	-	comparable
02 unnamed tributary	103	90	94	comparable	comparable
03 background for Dry Creek	113	-	103	comparable	comparable
04 Dry Creek upstream of confluence with unnamed tributary	114	101	104	comparable	comparable
05 Dry Creek downstream of confluence with unnamed tributary	110	97	100	comparable	comparable

Table 3. Macrobenthos qualitative sample list for six stream sampling stations in the vicinity of ILCO Inc., Leeds, Alabama. March, 1994.

Relative Abundance: R = rare (< 3) C = Common (3 -9) A = Abundant (>10) D = Dominant (> 50)

TAXON	Station 0 (reference tributary)	Station 01 (bkgrd for unnamed tributary)	Station 02 (unnamed tributary)	Station 03 (bkgrd for Dry Creek)	Station 04 (Dry Creek upstream of confluence)	Station 05 (Dry Creek downstream of confluence)
Porifera						
Hydrozoa						
Platyhelmenthes						
Tubellaria						
Hirundinia						
Oligochaeta	C	R	C			
Isopoda	C	R		R	R	
Amphipoda	R	R			R	
Decapoda	C	A	C	C	A	C
Gastropoda	C		C		R	R
Bivalvia				R	D	C
Anisoptera	R	D	R	R	R	R
Zygoptera	D	R	A	C	C	R
Hemiptera						
Coleoptera			R	C	C	
Lepidoptera						
Sialidae					R	
Corydalidae	R	R				
Tipulidae	R	D			R	
Empididae						
Simuliidae						
Tabanidae						
Culicidae						
Chironomidae			C	C	R	C
Plecoptera	A	A	C	R	C	C
Ephemeroptera	A	A	D	D	D	A
Tricoptera	A	R	C	C	R	C

Table 4. Summary of toxicity test results on surface water samples collected in the vicinity of ILCO Inc., Leeds, Alabama. March, 1994.

Sample ID #	Sampling Location	P. promelas 7-day chronic		Ceriodaphnia 7 day Chronic		96 hour Algal Growth Test (fluorometer units)	Microtox LC50 ¹
		Adult % Survival	avg. wt mg/fish	Adult Survival	Average # Young		
0	Reference tributary	72.5	0.430	9	19.6	2.80	> 100
01	Background for unnamed tributary	87.5	0.445	10	23.5	3.89	> 100
02	Unnamed tributary immediately downstream of site	100	0.449	10	28.2	4.75	> 100
03	Background for Dry Creek	90	0.450	9	18.3	3.09	> 100
04	Dry Creek upstream of confluence with unnamed tributary	97.5	0.550	10	29.7	3.12	> 100
05	Dry Creek upstream of confluence with unnamed tributary	97.5	0.522	10	25.5	4.44	> 100
lab control		97.5	0.447	10	27.0	NT	NT

¹ - LC50 values calculated from 5 minute readings.

NT - Not tested.

* - indicates that the value for this station is significantly different statistically from the value for its corresponding background station.

Note: None of the values are significantly different from background values.

Table 5. Summary of toxicity test results on sediment samples collected in the vicinity of ILCO Inc., Leeds, Alabama. March, 1994.

Sample ID #	Sampling Location	Ceriodaphnia 7 day Chronic		Lettuce Seed Germination (% germination)	Microtox LC50 ¹
		Adult % Survival	Average # Young		
0	reference stream	100	18.5	0.62	> 100
01	bkgd on unnamed stream	100	17.1	0.70	> 100
02	unnamed stream immediately downstream of site	100	19.6	0.85	> 100
03	bkgd on Dry Creek	100	21.9	0.82	> 100
04	Dry Creek above confluence with unnamed tributary	100	17.0	0.92	> 100
05	Dry Creek below confluence with unnamed tributary	100	19.9	0.93	> 100
Lab. Control		100	16.2	0.87	NT

¹ - LC50 values calculated from 15 minute readings.

NT - not tested.

* - indicates that the value for this station is significantly different statistically from the value for its corresponding background station. Note: None of the values are significantly different from background values.

Table 6. Level of metals in sediment and fish tissue, ILCO, Inc., Leeds, Alabama. March 1994.

Parameter (mg/kg)	Station Number					
	0 Reference Stream	1 Unnamed Tributary (Background)	2 Unnamed Tributary (Downstream of ILCO)	3 Dry Creek (Background)	4 Dry Creek (Upstream of Confluence)	5 Dry Creek (Downstream of Confluence)
Aluminum	4300	7500	3900	5100	4000	4400
Antimony	20UJ	20UJ	20UJ	20UJ	20UJ	20UJ
Arsenic	4.7	5	5.7	17	6.4	10
Barium	54	99	45	50	39	43
Beryllium	0.48J	0.92J	0.31J	0.59J	1.2J	0.78J
Cadmium	1.1U	1.4J	2.7	1.3U	1.1U	2.8J
Calcium	1400	10000	11000	3100	2300	9500
Chromium	12J	26J	16J	27J	17J	18J
Cobalt	7.6	12	6.4	7.5	9.1	8.1
Copper	3.8	13	13	7	9.4	13
Iron	15000	28000	14000	26000	18000	22000
Lead	46	47	1100	48	65	870
Magnesium	260	4000	4500	1100	590	1900
Manganese	490	1100	430	440	270	550
Mercury	0.15U	0.17U	0.16U	0.17U	0.15U	0.17U
Nickel	12	26	11	14	35	17
Potassium	240	680	330	320	370	330
Selenium	0.47UJ	0.48UJ	0.48UJ	1UJ	0.50UJ	0.53UJ
Silver	1.1U	1.2U	1.1U	1.3U	1.1U	1.3U
Sodium	14U	60	44	60	52	66
Thallium	0.24U	0.24U	0.24U	0.27U	0.25U	1.0U
Vanadium	14	16	11	18	16	13
Zinc	41J	140J	62J	62J	120J	94J
Fish (whole body) Lead Concentration	NA	NA	11.0	1.0	0.61	3.4

U - Material was analyzed for but not detected. The number is the minimum quantitation limit.

J - Estimated value.

NA - Not analyzed.

Table 7. Levels of lead in water, sediment, and fish tissue samples collected in the vicinity of ILCO Inc, Leeds, Alabama. March 1994. Data is compared to water quality criteria (USEPA 1992) and NOAA sediment guidelines (Long & Morgan 1991).

Media	Sampling Stations						Criteria			
	0	1	2	3	4	5	AWQC Maximum Concentration	AWQC Continuous Concentration	NOAA ER-L	NOAA ER-M
Water ($\mu\text{g/l}$)	25	75	140	15	4	4	33.78	1.38	-	-
Sediment (mg/kg)	46	47	1100	48	65	870	-	-	35	110
Fish, whole body (mg/kg)	NA	NA	11.0	1.0	0.61	3.4	-	-	-	-

NA - Not analyzed.

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- USEPA. 1989. Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish. 440/4-89/001. U.S. Environmental Protection Agency, Assessment and Watershed Protection Division, Washington, D.C.

APPENDIX A

Toxicity Test Bench Sheets

Rapid Bioassessment Field Data Sheets

SHORT-TERM CHRONIC TOXICITY TEST -- FISH WEIGHT DATA

Industry/Study: ILCO
Location: Leeds, IL
Date/Time: 3/25/94

Species: P. promelas
Analyst: Weirich
Oven Temp/Drying Time: 105° overnight

Sample ID #	Foil #	A Wt. of Foil (g)	B Wt. of Foil & Dried Fry (g)	B - A Total Dry Fry Wt. (g)	C Number of Fry Weighed	(B - A)/C Average Dry Fry Wt. (g)	Remarks Vial #
Control	56	.00347	.00860	.00513	410	.000513	56
	57	.00318	.00802	.00484	10	.000484 ^{new} .000464	57
	58	.00351	.00736	.00385	10	.000385	58
	59	.00371	.00736	.00365	10 ^{9 MW}	.000406	59
Ø	33	.00375	.00796	.00421	9	.000468	33
	34	.00343	.00756	.00413	10	.000413	34
	35	.00405	.00715	.00410	10	.000410	35
	—						
1	36	.00288	.00486	.00198	5	.000396	36
	37	.00378	.00806	.00508	10	.000508	37
	38	.00367	.00810	.00443	10	.000443	38
	39	.00329	.00760	.00433	10	.000433	39
2	40	.00318	.00739	.00421	10	.000421	40
	41	.00353	.00728	.00375	10	.000375	41
	42	.00381	.00768	.00387	10	.000387	42
	43	.00368	^{.00732 MW} .00760	.00445	10	.000445	43
3	44	.00290	.00661	.00371	9	.000412	44
	45	.00336	.00759	.00423	10 9 MW	.000470	45
	46	.00363	.00795	.00432	9	.000480	46
	47	.00285	.00677	.00392	10 9 MW	.000436	47
4	48	.00443	.01008	.00565	10	.000565	48
	49	.00346	.00972	.00626	10	.000626	49
	50	.00363	.00805	.00442	9	.000491	50
	51	.00363	.00881	.00518	10	.000518	51
5	52	.00388	^{.00914 MW} .008	.00526	10	.000526	52
	53	.00347	.00842	.00495	10	.000495	53
	54	.00308	.00894	.00586	10	.000586	54
	55	.00376	.00909	^{.00532 MW} .00532	9	.000480	55

SHORT TERM CHRONIC TOXICITY TEST -- FISH SURVIVAL DATA

Industry/Study: ILCO
Location: Leeds, AL
Date/Time: 3/5/94 11AM

Species: P. promelas
Analyst: Handley/Lewis

Sample ID # and/or Concentration	Rep. #	Number Surviving								Remarks
		Day								
		0 _s	1 _s	2 _m	3 _t	4 _w	5 _r	6 _r	7 _s	
Control	1	10	10	10	10	10	10	10	10	
	2	10	10	10	10	10	10	10	10	
	3	10	10	10	10	10	10	10	10	
	4	10	10	10	10	10	10	10	9	
Ø	1	10	10	9	9	9	9	9	9	
	2	10	10	10	10	10	10	10	10	
	3	10	10	10	10	10	10	10	10	
	4	10	10	10	9	2	0	0	0	
1	1	10	10	9	9	9	9	7	5	
	2	10	10	10	10	10	10	10	10	
	3	10	10	10	10	10	10	10	10	
	4	10	10	10	10	10	10	10	10	
2	1	10	10	10	10	10	10	10	10	
	2	10	10	10	10	10	10	10	10	Fatal injured?
	3	10	10	10	10	10	10	10	10	
	4	10	10	10	10	10	10	10	10	
3	1	10	9	10	10	10	9	9	9	
	2	10	10	10	10	10	10	10	9	
	3	10	10	10	10	10	9	9	9	
	4	10	10	10	9	9	9	9	9	
4	1	10	10	10	10	10	10	10	10	
	2	10	10	10	10	10	10	10	10	
	3	10	10	10	9	9	9	9	9	
	4	10	10	10	10	10	10	10	10	Injured 1?
5	1	10	10	10	10	10	10	10	10	
	2	10	10	10	10	10	10	10	10	
	3	10	10	10	10	10	10	10	10	
	4	10	10	10	9	9	9	9	9	

1 of 3

SHORT-TERM CHRONIC TOXICITY TEST - WATER CHEMISTRY AND SURVIVAL DATA

Industry/Study: ILCO
Location: Leeds AL.
Species: P. promelas

Date/Time: 3-5-94 11:00 Am
Analyst: Maudsley, Lewis

Sample ID # or Conc.	Day								Remarks
	0	1	2m	3	4w	5	6F	7	
Dmw Control									
# Larvae Surviving	40	40							
D.O. Initial	7.8		4.5		3.7		4.2	5.4	
D.O. Final			8.0				7.4		
Temperature	25.0		25.0		25.0		25.0	25.0	
pH	7.8		7.1		6.9		6.9	6.9	
Alkalinity	72								
Hardness	96								
Conductivity	180								
Salinity	0								
Chlorine									

Sample ID # or Conc.	Day								Remarks
	0	1	2	3	4	5	6	7	
Q									
# Larvae Surviving	40	40							
D.O. Initial	7.9		3.8		4.6		3.0	4.8	
D.O. Final			9.8				7.4		
Temperature	25		25		25.0		25.0	25.0	
pH	6.5		6.3		6.2		6.5	6.5	
Alkalinity	18								
Hardness	38								
Conductivity	60								
Salinity	0								
Chlorine									

Sample ID # or Conc.	Day								Remarks
	0	1	2	3	4	5	6	7	
I									
# Larvae Surviving	40	40							
D.O. Initial	7.9		3.6		4.8		5.0	4.9	
D.O. Final			9.4				7.9		
Temperature	25.0		25.0		25.0		25.0	25.0	
pH	7.4		6.4		6.5		6.6	6.6	
Alkalinity	29								
Hardness	50								
Conductivity	65								
Salinity	0								
Chlorine									

2 of 3

SHORT-TERM CHRONIC TOXICITY TEST - WATER CHEMISTRY AND SURVIVAL DATA

Industry/Study: ILCO
Location: Leads AL
Species: P. promelas

Date/Time: 3-5-94 11:00 Am
Analyst: Moadsley, Lewis

Sample ID # or Conc. 2	Day								Remarks
	0	1	2M	3	4	5	6	7	
# Larvae Surviving	40	40							
D.O. Initial	7.9		3.2		4.3		4.4	4.2	
D.O. Final			9.5				7.5		
Temperature	25.0		25.0		25.0		25.0	25.0	
pH	6.9		6.6		6.6		6.6	6.6	
Alkalinity	44								
Hardness	68								
Conductivity	95								
Salinity	0								
Chlorine									

Sample ID # or Conc. 3	Day								Remarks
	0	1	2	3	4	5	6	7	
# Larvae Surviving	40	40							
D.O. Initial	7.9		3.1		3.7		3.7	4.6	
D.O. Final			9.3				7.7		
Temperature	25.0		25.0		25.0		25.0	25.0	
pH	7.1		6.6		6.6		6.6	6.7	
Alkalinity	47								
Hardness	74								
Conductivity	145								
Salinity	0								
Chlorine									

Sample ID # or Conc. 4	Day								Remarks
	0	1	2	3	4	5	6	7	
# Larvae Surviving	40	40							
D.O. Initial	8.0		3.2		3.3		4.1	3.5	
D.O. Final			9.5				8.3		
Temperature	25.0		25.0		25.0		25.0	25.0	
pH	6.9		6.5		6.4		6.6	6.4	
Alkalinity	36								
Hardness	58								
Conductivity	100								
Salinity	0								
Chlorine									

3 of 3

SHORT-TERM CHRONIC TOXICITY TEST - WATER CHEMISTRY AND SURVIVAL DATA

Industry/Study: ILCO
Location: Leeds AL
Species: P. promelas

Date/Time: 3-5-94 11:00 AM
Analyst: Madsley, Lewis

Sample ID # or Conc. S	Day								Remarks
	0	1	2	3	4	5	6	7	
# Larvae Surviving	40	40							
D.O.	Initial	9.0	3.3		4.1		3.0	4.6	
	Final		9.9				7.9		
Temperature	25		25.0		25.0		25.0	25.0	
pH	7.1		6.6		6.7		6.5	6.6	
Alkalinity	41								
Hardness	64								
Conductivity	90								
Salinity	.0								
Chlorine									

Sample ID # or Conc.	Day								Remarks
	0	1	2	3	4	5	6	7	
# Larvae Surviving									
D.O.	Initial								
	Final								
Temperature									
pH									
Alkalinity									
Hardness									
Conductivity									
Salinity									
Chlorine									

Sample ID # or Conc.	Day								Remarks
	0	1	2	3	4	5	6	7	
# Larvae Surviving									
D.O.	Initial								
	Final								
Temperature									
pH									
Alkalinity									
Hardness									
Conductivity									
Salinity									
Chlorine									

SURFACE WATER

SOP XV
Revision No. 4
Date: September 10, 1993
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SUMMARY DATA

Industry/Study: Z LCC
Location: Leeds, AL

Date: 3-2-94 1:00pm.
Analyst: R. Lewis, M. Weirich

Surface Water

Sample # and/or Concentration	Day	Replicate										Number of Young	Number of Surviving Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
Control 0 MW	1T	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4S	✓	2+3	6	6	6	6	6	8	5	6	54		
	5M	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	8		
	6T	8+1	4+5	9+1	10+1	11	9	10	8	11	11	97		
	7W	✓	11+1	12	15	13	4	16	12	15+1	10+1	111		
	Total	17	26	37	21	11	4	16	25	22	22	270	10	27.0
0	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4	2+3	M	4	1+1	2+1	4	3	3	3	3	30		
	5	✓	M	✓	✓	✓	✓	✓	✓	✓	✓			
	6	6+4	1+1	4+2	6+1	6	6	5+2+1	7	6+2	7+1	10+1		
	7	7+5	✓	8+1	6+4	6+2	5+2	7+2	8+1	6+1	6+2	9+1		
	Total	27	✓	19	19	7	11	✓	✓	✓	17	172	9	19.55
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4	5	2	5	3+2	2+1	5	4	4	4	4+1	42		
	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	6	7+3	6+1	4+4	3+6	3+4	4+4	5+4	1+5	6+2	7+2	5+1		
	7	4+8	5+5	6+5	8+3	7+3	6+6	6+4	6+5	7+4	4+7	12+1		
	Total	27	19	24	25	10	✓	✓	24	25	25	231	10	23.5
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4	6	5	6	5	6	6	6	5	4	5+1	55		
	5	2	✓	✓	9+2	7+1	✓	✓	6+4	7+2	✓	40		
	6	8+1	9	10+1	0	1	9+1	9+1	7	0	7+2	55		
	7	13+2	14	13	10	14	11	13+1	12	10+2	13	12+1		
	Total	22	28	24	25	✓	✓	✓	11	✓	✓	271	10	28.2
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	M	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	M	✓	✓	✓	✓	✓			
	4	2	4	3	✓	M	4	4	3	3	2	25		
	5	✓	✓	✓	✓	M	✓	✓	✓	✓	1	1		
	6	8	8	6+2	6	M	5	7	5+1	5+1	M 6	60		
	7	11+1	11+1	14+1	10+1	5	9+2	13	11+1	10+1	7	49		
	Total	22	24	✓	7	1	31	24	21	20	9	183	9	18.3
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4	4	6	5	5	4	6	4	5	6	4	49		
	5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	6	9	10+1	11+1	10+1	9+1	10+1	11+2	9+1	9+2	8	10+1		
	7	13	15+1	17	14	13+2	14+3	12+1	14	13	9+1	14+1		
	Total	26	23	✓	23	✓	✓	✓	31	20	22	297	10	29.7

✓ = Test organism alive X = Test organism dead # = Number of live young # = Number of dead young M = Lost or missing ♂ = Male

Figure XV.4 Short-Term Chronic Toxicity Test -- Cladoceran Summary Data

SUMMARY DATA

Industry/Study: FLCO
Location: _____

Date: 3-2-94 1:00pm
Analyst: R. Levil, M. Weirich

Sample # and/or Concentration	Day	Replicate										Number of Young	Number of Surviving Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
0mm Control	1T	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4S	5	5	5	5	4	6	4	6	5	4	49		
	5M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	6T	6	8	8+1	9+1	10	8+1	10	10	8	9	89		
	7W	11+1	9+1	11+1	13+1	13+2	13+1	13	14	12	12+3	131		
	Total	23	23	23	29	29	23	23	24	25	26	269	10	26.9
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	4	4	6	5	✓	3+1	4	4	4	4	3+1	31		
	5	✓	✓	✓	4	✓	✓	✓	✓	✓	✓	4		
	6	10	10	8	7+0	8+9	8	7+1	8	10	10+1	82		
	7	13	13+1	10+2	8+1	12+2	13+1	10+1	12+1	15	12+3	130		
	Total	27	30	25	13	27	21	23	24	29	30	255	10	25.5
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	Total													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	Total													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	Total													

✓ = Test organism alive X = Test organism dead # = Number of live young d = Number of dead young M = Lost or missing ♂ = Male

Figure XV.4 Short-Term Chronic Toxicity Test -- Cladoceran Summary Data

EPA, ESD, TES
AUG. 1990

[illegible]

SURFACE WATER

Mic

Study: ILCODate: 3-1-94Location: Leeds, ALAnalyst: Weirich/Mandley

Sample	Reading Time	Cuvette Number				
		1	2	3	4	5
phenol	Initial	95	108	102	84	90
	5 minute	84	79	60	35	26
	15 minute	83	76	59	34	25
Sta 0	Initial	96	91	85	95	88
	5 minute	87	81	80	90	81
	15 minute	86	81	79	89	81
Sta 1	Initial	86	93	93	97	90
	5 minute	75	83	83	85	80
	15 minute	75	82	82	84	79
Sta 2	Initial	92	95	102	92	112
	5 minute	82	86	92	84	104
	15 minute	81	85	92	82	102
Sta 3	Initial	85	97	93	103	89
	5 minute	75	86	82	93	81
	15 minute	84	84	83	92	80
Sta 4	Initial	101	94	94	100	101
	5 minute	91	87	92	95	98
	15 minute	91	87	90	95	97
Sta 5	Initial	90	89	95	86	88
	5 minute	79	81	85	78	84
	15 minute	80	81	85	78	83

CLADOCERAN SURVIVAL AND REPRODUCTION DAILY RECORD

Industry/Study:

DLCO

Location:

Lecdo AL

Date Sample Collected:

3/1/94

Date Organism Hatched:

3/17/94

Test Start (Date-Time):

3/17/94 5PM

Test Stop (Date-Time):

Species:

C. dubia

Analyst:

Weirich/Maudsley/Lewis

9/92

Sample ID #	Day	Replicate										Comments
		1	2	3	4	5	6	7	8	9	10	
DMW control	1 F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	2 S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	3 S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4 M	2	2	2+1	2	1 ✓	2	2	✓	3	1	
	5 T	5	5	7	6	✓	5	6	5+1	1	7	
	6 W	3	1	1	✓	4	✓	3	✓	✓	2	
	7 T	10	8	10	10	7	10	8	5	6	13	
	Total	15	16	21	18	12	17	19	11	10	23	162
Ø	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4	3	4	3	3	3+1	✓	3	4	4	4	
	5	9	3	6	6	5	8	6	5	7	✓	
	6	✓	2	6+1	4	11+1	✓	2	✓	✓	✓	
	7	6+1	8	2	3+2	4+1	8	9	8	11	13	
	Total	19	17	18	16	21	13	20	17	22	22	185
01	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4	3	3	✓	4	2	4	6	✓	4	4	
	5	6	2	7	5	8	2	7	4	6+1	6	
	6	1	2	✓	2	✓	1	✓	✓	8	✓	
	7	9	11	7	6+1	8	7	9	6	1	8	
	Total	19	18	14	18	18	14	22	10	20	18	171
02	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4	4	✓	2	1	4	5	✓	✓	2	✓	
	5	9	12	11	8+1	9	7	6	4	1	7	
	6	✓	✓	✓	8+1	✓	1	✓	5	6	✓	
	7	11+1	13	8+1	11	12	9	6	0 ✓	7	7	
	Total	25	25	22	22	25	22	12	9	16	18	196
03	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4	2	3	2	✓	3	5	4	2	6	✓	
	5	8	9	8	5	6	9	7+1	7+1	11	8	
	6	✓	7	2	6	5	✓	✓	12	✓	✓	
	7	9	3	6+1	7	9	12	7	1	10	8+2	
	Total	19	22	19	18	23	25	19	23	27	24	219
04	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	4	2	2	3	1+1	2	5	✓	1	2	4+1	
	5	2	5	6	3	7	4	4	6	6	8	
	6	5	✓	✓	3	1	3	✓	✓	2	✓	
	7	11	8	4+1	7	7	8	9	5+2	7	9	
	Total	20	19	14	15	17	20	13	13	17	22	170

✓ = Test organism alive X = Test organism dead # = Number of live young - # = Number of dead young M = Lost or missing δ = Male

SUMMARY DATA

Industry/Study: ILCO
Location: Leads AL

Date: 3-17-94
Analyst: M. Weirich / Maudsley / Lewis

Sample # and/or Concentration	Day	Replicate										Number of Young	Number of Surviving Adults	Young per Adult
		1	2	3	4	5	6	7	8	9	10			
05	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		-	-
	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	3	✓	✓	✓	✓	✓	✓	4	2	4	2			
	4	2+1	3	2	4+2	2	1	✓	1	✓	✓			
	5	3	6	6	5	7	7	6	7	7	9			
	6	4	2	✓	7+1	10	5	8	7	9	7			
	7	9	4	6	2	10	✓	7	✓	9	1			
	Total	19	15	14	21	29	13	23	17	29	19	199		
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	Total													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	Total													
	1													
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	6													
	7													
	Total													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	Total													

✓ = Test organism alive X = Test organism dead # = Number of live young ✓ = Number of dead young M = Lost or missing ♂ = Male

Figure XV.4 Short-Term Chronic Toxicity Test -- Cladoceran Summary Data

SEED GERMINATION DATA

Industry/Study: ILCO.
Location: Leeds, AL
Species: Buttercrunch Lettuce

Analyst: nweirich
Start (Date-Time): 3/4/94 (Fri.)
Stop (Date-Time): 3/9/94 (Wed.)

Sample ID # or Concentration	Rep. #	# Seeds Planted	# Seeds Germinated	Proportion Germinated	Remarks
Control	1	15	13 11	.73	
	2	15	12 14	.93	av # germ .87
	3	15	13	.87	
	4	15	14	.93	
Φ	1	15	9	.60	Rocky
	2	15	8	.53	av # germ .62
	3	15	10	.67	
	4	15	10	.67	
1	1	15	8	.53	Has more clay than Φ
	2	15	13	.87	
	3	15	11	.73	av. # germ .70
	4	15	10	.67	
2	1	15	12	.80	"Fluffy" with sand + clay
	2	15	15	1.00	
	3	15	10	.67	av. # germ .85
	4	15	14	.93	
3	1	15	12	.80	Rocks and sand
	2	15	9	.60	
	3	15	13	.87	av. # germ .82
	4	15	15	1.00	
4	1	15	13	.87	Rocks, clay, sand
	2	15	15	1.00	darker brown color
	3	15	13	.87	av. germ .92
	4	15	14	.93	

Figure XVIII.1

SEED GERMINATION DATA

Industry/Study: ILCO
Location: Leeds, AL
Species: Buttercrunch Lettuce

Analyst: M. Weirich
Start (Date-Time): 3/4/94
Stop (Date-Time): _____

Sample ID # or Concentration	Rep. #	# Seeds Planted	# Seeds Germinated	Proportion Germinated	Remarks
5	1	15	14	.93	Slightly "fluffy", lighter brown than 4, clay + fine sand. av. germ .93
	2	15	15	1.00	
	3	15	14	.93	
	4	15	13	.87	
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				

Figure XVIII.1

PORE WATER

Microtox Data Sheet

Study: ILCO

Date: 3/8/94

Location: Leeds, AL

Analyst: MW / JRM

Sample	Reading Time	Cuvette Number				
		1	2	3	4	5
Pleural	Initial	94	94	87	86	85
	5 minute	85	66	48	35	23
	15 minute	83	65	49	35	23
Pore Water Ø	Initial	90	88	77	85	83
	5 minute	83	81	71	79	78
	15 minute	82	80	70	79	78
Pore Water 1	Initial	82	75	87	76	63
	5 minute	73	70	83	70	60
	15 minute	73	71	82	72	60
pore water 2	Initial	93	90	99	81	91
	5 minute	79	82	91	75	85
	15 minute	78	79	90	75	85
pore water 3	Initial	92	95	92	85	84
	5 minute	77	83	85	78	79
	15 minute	78	83	86	76	79
pore water 4	Initial	86	81	80	87	81
	5 minute	74	71	73	80	79
	15 minute	74	70	71	79	78
pore water 5	Initial	72	71	63	68	72
	5 minute	64	65	59	65	68
	15 minute	66	64	58	63	68

Quality Assurance Data
for Toxicity Tests

INITIAL WATER CHEMISTRY

Industry/Study: ILCO

Date(s) Collected: 3-1-94

Analyst: R. Lewis

Location: _____

Date(s) Analyzed: 3-2-94

Dec 1992

[illegible]

SEED BATCH GERMINATION

Industry/Study: QA
 Location: Baileys Rd.
 Species: Buttercrunch Lettuce

Analyst: M. Weirich
 Start (Date-Time): 3/7/94 2pm.
 Stop (Date-Time): 3/12/94 2pm.

Seed Batch	Rep. #	# Seeds Tested	# Seeds Germinated	Proportion Germinated	Remarks
Park Seed. 1/2 oz paper packet (no date)	1	10	9	.90	Small Petri dishes, 4ml DI. av. germ 87.5% T=25°
	2	10	8	.80	
	3	10	8	.80	
	4	10	10	1.00	
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				
	1				
	2				
	3				
	4				

ACUTE CLADOCERAN STATIC TOXICITY TEST DATA

Industry/Study:

KCL/QA

Start (Date-Time):

3-2-94 1500

Organism Type:

Ceriod

Location:

Stop (Date-Time):

Organism Age:

< 24 hrs

Sample ID #:

Chamber Size:

30 ml

Organism Fed?

once

Analyst:

R. Lewis

Sample Volume:

15 ml

Aerated?

no

9/92

Concentration (%)	Rep #	# Live Organisms				Dissolved Oxygen (mg/L)				Temperature (°C)				pH	Alkalinity (mg/L)	Hardness (mg/L)	Conductivity (µmhos/cm)	Salinity (‰)	Chlorine (mg/L)
		0	24	48	96	0	24	48	96	0	24	48	96						
2000 ppm	1	5	0	0		8.0	7.1	7.1		20.6	24.4	24.4		8.1	72	94	3300		
	2	5	0	0			7.1				24.4								
	3	5	0	0															
	4	5	0	0															
1000 ppm	1	5	0	0															
	2	5	0	0															
	3	5	0	0															
	4	5	0	0															
500 ppm	1	5	0	0		8.1	7.1	7.2		20.4	24.3	24.5		7.8	74	96	1000		
	2	5	0	0			7.2				24.3								
	3	5	0	0															
	4	5	0	0															
250	1	5	1	4															
	2	5	4	4															
	3	5	5	4															
	4	5	5	1															
125	1	5	5	5		8.2	7.3	7.3		20.4	24.4	24.4		7.7	76	98	385		
	2	5	5	5			7.3				24.4								
	3	5	5	5															
	4	5	5	5															
Control 0 MW	1	5	5	5		8.2	7.4	7.4		20.3	24.5	24.5		7.8			195		
	2	5	5	5			7.4				24.5								
	3	5	5	5															
	4	5	5	5															

Comments:

ACUTE FISH STATIC TOXICITY TEST DATA

Industry/Study: QA - KCE
Location: _____
Sample ID #: _____
Analyst: M. Weirich

Start (Date-Time): 3-8-94 10 A.
Stop (Date-Time): 3-10-94 10 A.
Chamber Size: 150 ml.
Sample Volume: 100 ml.

Organism Type: P. promelas
Organism Age: 4 day
Organism Fed? no
Aerated? no

Concentration (%)	Rep #	# Live Organisms				Dissolved Oxygen (mg/L)				Temperature (°C)				pH	Alkalinity (mg/L)	Hardness (mg/L)	Conductivity (µmhos/cm)	Salinity (‰)	Chlorine (mg/L)
		0	24	48	96	0	24	48	96	0	24	48	96						
0 (DMW)	1	10	8	8	8	7.8		7.2		23.4		22.7		7.8	72	96	180		
	2	10	10	10	10														
250 ppm	1	10	10	10	10														
	2	10	10	10	10														
500	1	10	8	8	8	7.5		7.1		23.3		22.3		7.8	76	103	1000		
	2	10	10	10	10														
1000	1	10	9	9	9											103 MW			
	2	10	9	9	9														
2000	1	10	0	0	0	7.8		5.6		23		22.4		8.1	78	102	3500		
	2	10	0	0	0														
	1																		
	2																		
	1																		
	2																		

Comments:

Data Sheet XII.1

Rapid Bioassessment Protocol I

Biosurvey Field Data Sheet

ILCO
station 6
3/11/94

RELATIVE ABUNDANCE OF AQUATIC BIOTA

Periphyton	0	(1)	2	3	4	Silmes	(0)	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	2	3	(4)
Macrophytes	0	1	(2)	3	4	Fish	0	(1)	2	3	4

0 = Absent/Not Observed

1 = Rare

2 = Common

3 = Abundant

4 = Dominant

MACROBENTHOS QUALITATIVE SAMPLE LIST (Indicate Relative Abundance R = Rare, C = Common, A = Abundant, D = Dominant)

Porifera	Anisoptera R	Chironomidae
Hirudinea	Zygoptera D	Plecoptera A (2 sp)
Polychaetes	Hemiptera	Ephemeroptera A (1 sp)
Turbellaria	Coleoptera	Trichoptera A (2 sp)
Hirudinea	Lepidoptera	Other
Oligochaeta C	Stellidae	
Isopoda C	Corydalidae R	
Amphipoda R	Tipulidae R	
Decapoda C	Empididae	
Gastropoda C	Simuliidae	
Bivalvia	Tabanidae	
	Culicidae	

Rare < 3 Common 3-9 Abundant > 10 Dominant > 50 (Estimate)

Observations

Figure 6.1-1. Biosurvey Field Data Sheet for use with Rapid Bioassessment Protocol I.

Name of Water Body no name Station # 0
 Date 3/11/94 Investigator _____
 Comments tributary to unnamed creek
about 100' upstream from confluence
w/ unnamed stream

CATEGORIES

HABITAT PARAMETER	EXCELLENT	GOOD	FAIR	POOR
1. BOTTOM SUBSTRATE/ AVAILABLE COVER	>50% rubble, gravel, submerged logs, undercut banks, or other stable habitat 17 18-20	30-50% rubble, gravel or other stable habitat. Adequate habitat. 11-15	10-30% rubble, gravel or other stable habitat. Habitat availability < desirable. 6-10	<10% rubble, gravel or other stable habitat. Lack of habitat is obvious. 0-5
2. EMBEDDED- NESS	Gravel, cobble, and boulder are <25% surrounded by fine sediment. 16 18-20	Gravel, cobble, and boulder are 25-50% surrounded by fine sediment. 11-15	Gravel, cobble, and boulder are 50-75% surrounded by fine sediment. 6-10	Gravel, cobble, and boulder are >75% surrounded by fine sediment. 0-5
3. <= 5 CFS OR >5 CFS	Cold; > 2 cfs Warm; >5 cfs 10-20	1-2 cfs 2-5 cfs 14 11-15	0.5-1 cfs <1-2 cfs 6-10	0.5 cfs 1 cfs 0-5
	Slow (<0.3 m/s), deep (>0.5m); slow, shallow (<0.5m); fast (>0.3m/s) deep; fast, shallow habitats all present 18-20	3 of 4 habitats present. (Missing riffles or runs get lower score than missing pools). 11-15	2 of 4 habitats present. (Missing riffles/runs get lower score.) 6-10	Dominated by one velocity/depth category (usually pool). 0-5
4. CHANNEL ALTERATION	Little / no enlarge- ment of islands or point bars, and/or no channelization 15 12-15	Some new increase in bar formation, mostly from coarse gravel; and/or some channel- ization present. 8-11	Moderate deposition of new gravel, coarse sand on old and new bars; pools partially filled w/silt; and/or embankments on both banks. 4-7	Heavy deposits of fine material, bar development increase Most pools filled w/ silt; and/or extensive channelization. 0-3
5. BOTTOM SCOURING AND DEPOSITION	<5% of bottom affected. 14 12-15	5-30% affected. Scour at constrictions and steep grades. Some deposition in pools. 8-11	30-50% affected. Deposit and scour at obstructions, bends, and constrictions. Some filling of pools 4-7	>50% bottom changing nearly year long. Pools absent due to deposition. Only large rocks exposed. 0-3
6. RUN/BEND, POOL/RIFFLER RATIO**	5-7. Variety of habitat. Deep riffles and pools. 12-15	7-15. Adequate depth in pools and riffles Bends provide habitat 9 8-11	15-25. Occasional riffle or bend. Bottom provide some habitat 4-7	>25. Essentially a straight stream. Flat water or shallow Poor habitat. 0-3
7. BANK STABILITY	Stable. No erosion or bank failure. Side slopes <30%. 9 8-10	Moderately stable Infrequent erosion mostly healed over. Side slopes to 40%. 6-8	Moderately unstable. Moderate erosion and side slopes to 60%. High erosion during high flow. 3-5	Unstable. Many eroded areas. Side slopes >60%. "Raw" areas frequent on straight and bends. 0-2
8. BANK VEGETATIVE STABILITY	>80% of streambank covered by vegetation or boulders and cobbles. 9 8-10	50-79% covered by vegetation, gravel or larger material. 6-8	25-49% covered by vegetation, gravel or larger material. 3-5	<25% covered by vegetation, gravel or larger material. 0-2
9. STREAMSIDE COVER	Dominant vegetation is shrub 8-10	Dominant vegetation is of tree form. 6-8	Dominant vegetation is grass or forbes. 3-5	>50% no vegetation Dominant material is soil, rock, bridge materials, culverts, or mine tailings. 0-2
COLUMN TOTALS	80	20		
SCORE	110			

ILCO

3/11/94

PHYSICAL CHARACTERIZATION

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Surrounding Land Use:

Forest Field/Pasture Agricultural Residential Commercial Industrial Other _____Local Watershed Erosion: None Moderate HeavyLocal Watershed NPS Pollution: No evidence Some Potential Sources Obvious SourcesEstimated Stream Width 3 ft Estimated Stream Depth: Riffle 2 ft Run 4 ft Pool 8 ftHigh Water Mark 2 ft Velocity 1 ft/sec Dam Present: Yes No Channelized: Yes NoCanopy Cover: Open Partly Open Partly Shaded Shaded

SEDIMENT/SUBSTRATE:

Sediment Odors: Normal Sewage Petroleum Chemical Anaerobic None Other _____Sediment Oils: Absent Slight Moderate ProfuseSediment Deposits: Sludge Sawdust Paper Fiber Sand Relict Shells Other SiltAre the undersides of stones which are not deeply embedded black? Yes No

Inorganic Substrate Components

Substrate Type	Diameter	Percent Composition in Sampling Area
Bedrock		
Boulder	>256-mm (10 in.)	— 5%
Cobble	64-256-mm (2.5-10 in.)	— 30%
Gravel	2-64-mm (0.1-2.5 in.)	— 40%
Sand	0.06-2.00-mm (gritty)	— 25%
Silt	.004-.06-mm	
Clay	<.004-mm (slick)	

Organic Substrate Components

Substrate Type	Characteristic	Percent Composition in Sampling Area
Detritus	Sticks, Wood, Coarse Plant Materials (CPOM)	100%
Muck-Mud	Black, Very Fine Organic (FPOM)	
Marl	Grey, Shell Fragments	

WATER QUALITY

Temperature 8.3 °C Dissolved Oxygen 10.13 pH 6.22 Conductivity 120 Other SA10.1

Instrument(s) Used _____

Stream Type: Coldwater Warmwater

Water Odors: Normal Sewage Petroleum Chemical None Other _____Water Surface Oils: Slick Sheen Globes Flecks NoneTurbidity: Clear Slightly Turbid Turbid Opaque Water Color _____

WEATHER CONDITIONS

cloudy, sunny, clear

PHOTOGRAPH NUMBER

3, 4 Roll 2

Lab notes

Station	
#0 (Sullivan's)	
Stoneflies (Plecopt.)	11:40 (2 sp.)
Mayfly (Ephem.)	5:14 (1 sp.)
Caddisfly (Trichopt.)	1:47 to 2 sp.
Crayfish	1
Tipulidae	1
Isopods	5:14
	1
(Lepidoptera)	1
Tric	1
Amphipods	1
(Isopods)	1
Water	2
Amphipods	

FLCO
station 01

Rapid Bioassessment Protocol I

Biosurvey Field Data Sheet

RELATIVE ABUNDANCE OF AQUATIC BIOTA

Periphyton 0 ① 2 3 4
Filamentous Algae ① 1 2 3 4
Macrophytes 0 ① 2 3 4

Slimes ① 1 2 3 4
Macroinvertebrates 0 1 2 3 ④
Fish 0 ① 2 3 4

0 = Absent/Not Observed

1 = Rare

2 = Common

3 = Abundant

4 = Dominant

MACROBENTHOS QUALITATIVE SAMPLE LIST (Indicate Relative Abundance R = Rare, C = Common, A = Abundant, D = Dominant)

Porifera	Anisoptera D	Chironomidae
Cnidaria	Zygoptera A	Plecoptera A (2 sp)
Helminthes	Hemiptera	Ephemeroptera A (2 sp)
Turbellaria	Coleoptera	Trichoptera R (1 sp)
Hirudinea	Lepidoptera	Other
Oligochaeta R	Stalidae	
Isopoda R	Corydalidae R	
Amphipoda R	Tipulidae D	
Decapoda A	Empididae	
Gastropoda	Simuliidae	
Blivalvia	Tabanidae	
	Culicidae	

Rare < 3

Common 3-9

Abundant > 10

Dominant > 50 (Estimate)

Observations

Figure 6.1-1. Biosurvey Field Data Sheet for use with Rapid Bioassessment Protocol I.

Name of Water Body Unnamed creek Station # 01
 Date 3/10/84 Investigator Meyer/Maudsley/Carter
 Comments background station for unnamed creek

HABITAT PARAMETER	CATEGORIES			
	EXCELLENT	GOOD	FAIR	POOR
1. BOTTOM SUBSTRATE/ AVAILABLE COVER	>50% rubble, gravel, submerged logs, undercut banks, or other stable habitat 18 18-20	30-50% rubble, gravel or other stable habitat. Adequate habitat. 11-15	10-30% rubble, gravel or other stable habitat. Habitat availability < desirable. 8-10	<10% rubble, gravel or other stable habitat. Lack of habitat is obvious. 0-5
2. EMBEDDED- NESS	Gravel, cobble, and boulder are <25% surrounded by fine sediment. 18 18-20	Gravel, cobble, and boulder are 25-50% surrounded by fine sediment. 11-15	Gravel, cobble, and boulder are 50-75% surrounded by fine sediment. 8-10	Gravel, cobble, and boulder are >75% surrounded by fine sediment. 0-5
3. <= 5 CFS	Cold; > 2 cfs Warm; > 5 cfs 10-20	1-2 cfs 2-5 cfs 11-15	0.5-1 cfs 1-2 cfs 6-10	0.5 cfs 1 cfs 0-5
OR > 5 CFS	Slow (<0.3 m/s), deep (>0.5m); slow, shallow (<0.5m); fast (>0.3m/s) deep; fast, shallow habitats all present 18-20	3 of 4 habitats present. (Missing riffles or runs get lower score than missing pools). 15 11-15	2 of 4 habitats present. (Missing riffles/runs get lower score.) 8-10	Dominated by one velocity/depth category (usually pool). 0-5
4. CHANNEL ALTERATION	Little / no enlarge- ment of islands or point bars, and/or no channelization 13 12-15	Some new increase in bar formation, mostly from coarse gravel; and/or some channel- ization present. 8-11	Moderate deposition of new gravel, coarse sand on old and new bars; pools partially filled w/silt; and/or embankments on both banks. 4-7	Heavy deposits of fine material, bar development increase Most pools filled w/ silt; and/or extensive channelization. 0-3
5. BOTTOM SCOURING AND DEPOSITION	<5% of bottom affected. 14 12-15	5-30% affected. Scour at constrictions and steep grades. Some deposition in pools. 8-11	30-50% affected. Deposit and scour at obstructions, bends, and constrictions. Some filling of pools 4-7	>50% bottom changing nearly year long. Pools absent due to deposition. Only large rocks exposed. 0-3
6. RUN/BEND, POOL/RIFFLE RATIO**	5-7. Variety of habitat. Deep riffles and pools. 12-15	7-15. Adequate depth in pools and riffles Bends provide habitat 11 8-11	15-25. Occasional riffle or bend. Bottom provide some habitat 4-7	>25. Essentially a straight stream. Flat water or shallow Poor habitat. 0-3
7. BANK STABILITY	Stable. No erosion or bank failure. Side slopes <30%. 9-10	Moderately stable Infrequent erosion mostly healed over. Side slopes to 40%. 8 8-8	Moderately unstable. Moderate erosion and side slopes to 80%. High erosion during high flow. 3-5	Unstable. Many eroded areas. Side slopes >80%. "Raw" areas frequent on straight and bends. 0-2
8. BANK VEGETATIVE STABILITY	>80% of streambank covered by vegetation or boulders and cobbles. 9 9-10	50-79% covered by vegetation, gravel or larger material. 8-8	25-49% covered by vegetation, gravel or larger material. 3-5	<25% covered by vegetation, gravel or larger material. 0-2
9. STREAMSIDE COVER	Dominant vegetation is shrub 9-10	Dominant vegetation is of tree form. 8 8-8	Dominant vegetation is grass or forbes. 3-5	>50% no vegetation Dominant material is soil, rock, bridge materials, culverts, or mine tailings. 0-2
COLUMN TOTALS	72	42		
SCORE	144			

lab notes

Station #4

#1 (sub sample)

Percy 12 (7/10 - 1/10) 2 sp

Eel 18 (2/10 - 1/10)

Turkey 14 1 sp

Crayfish 1

~~Frog~~ 11

Amphipod 11

Amphip 11

6

Oligo 2

Corydoras - 1

PHYSICAL CHARACTERIZATION/WATER QUALITY
FIELD DATA SHEET

ILCO 71

PHYSICAL CHARACTERIZATION

RIPIARIAN ZONE/INSTREAM FEATURES

Predominant Surrounding Land Use:

Forest Field/Pasture Agricultural Residential Commercial Industrial Other _____

Local Watershed Erosion: None Moderate Heavy

Local Watershed NPS Pollution: No evidence Some Potential Sources Obvious Sources

Estimated Stream Width 5 ft Estimated Stream Depth: Riffle 3 ft Run 5 ft Pool 1 ft

High Water Mark 4 ft Velocity 1 ft/s Dam Present: Yes _____ No X Channelized: Yes _____ No X

Canopy Cover: Open Partly Open Partly Shaded Shaded

SEDIMENT/SUBSTRATE:

Sediment Odors: Normal Sewage Petroleum Chemical Anaerobic None Other _____

Sediment Oils: Absent Slight Moderate Profuse

Sediment Deposits: Sludge Sawdust Paper Fiber Sand Relict Shells Other _____

Are the undersides of stones which are not deeply embedded black? Yes (No)

Inorganic Substrate Components

Substrate Type	Diameter	Percent Composition in Sampling Area
Bedrock	>256-mm (10 in.)	
Boulder	64-256-mm (2.5-10 in.)	<u>20%</u>
Cobble	2-64-mm (0.1-2.5 in.)	<u>70%</u>
Gravel	0.06-2.00-mm (gritty)	<u>10%</u>
Sand	.004-.06-mm	
Silt	.004-.06-mm	
Clay	<.004-mm (clay)	

Organic Substrate Components

Substrate Type	Characteristic	Percent Composition in Sampling Area
Detritus	Sticks, Wood, Coarse Plant Materials (CPOM)	<u>100%</u>
Muck-Mud	Black, Very Fine Organic (FPOM)	
Marl	Grey, Shell Fragments	

WATER QUALITY

Temperature 12.1 °C Dissolved Oxygen 10.00 pH 7.51 Conductivity 60 Other _____

Instrument(s) Used YSI 3400

Stream Type: Coldwater Warmwater

Water Odors: Normal Sewage Petroleum Chemical None Other _____

Water Surface Oils: Slick Sheen Globa Flecks None

Turbidity: Clear Slightly Turbid Turbid Opaque Water Color _____

WEATHER CONDITIONS

PHOTOGRAPH NUMBER

12

2nd 1st

ILCO
station 02

Rapid Bioassessment Protocol I

Biosurvey Field Data Sheet

RELATIVE ABUNDANCE OF AQUATIC BIOTA

Periphyton	0	1	2	3	4	Slimes	0	1	2	3	4
Filamentous Algae	0	1	2	3	4	Macroinvertebrates	0	1	2	3	4
Macrophytes	0	1	2	3	4	Fish	0	1	2	3	4

0 = Absent/Not Observed 1 = Rare 2 = Common 3 = Abundant 4 = Dominant

MACROBENTHOS QUALITATIVE SAMPLE LIST (Indicate Relative Abundance R = Rare, C = Common, A = Abundant, D = Dominant)

Porifera	Anisoptera R	Chironomidae C (2 sp)
Cnidaria	Zygoptera A	Plecoptera C (2 sp)
Helminthes	Hemiptera	Ephemeroptera D (3 sp)
Turbellaria	Coleoptera R	Trichoptera C (1 sp)
Hirudinea	Lepidoptera	Other
Oligochaeta C	Stilidae	
Isopoda	Corydalidae	
Amphipoda	Tipulidae	
Decapoda C	Empididae	
Gastropoda C	Simuliidae	
Blivalvia	Tabanidae	
	Culicidae	

Rare < 3 Common 3-9 Abundant > 10 Dominant > 50 (Estimate)

Observations

Observation made 3/1/94 during a rain event revealed that this channel is in effect flushed rather vigorously during rain events.

Figure 6.1-1. Biosurvey Field Data Sheet for use with Rapid Bioassessment Protocol I.

HABITAT ASSESSMENT FIELD DATA SHEET

Name of Water Body unnamed creek Station # 02
 Date 3/10/94 Investigator Meyer/Haundley/Carter
 Comments just downstream of culvert under road
in front of ELCO plant

HABITAT PARAMETER	CATEGORIES			
	EXCELLENT	GOOD	FAIR	POOR
1. BOTTOM SUBSTRATE/ AVAILABLE COVER	>50% rubble, gravel, submerged logs, undercut banks, or other stable habitat 20 16-20	30-50% rubble, gravel or other stable habitat. Adequate habitat. 11-15	10-30% rubble, gravel or other stable habitat. Habitat availability < desirable. 8-10	<10% rubble, gravel or other stable habitat. Lack of habitat is obvious. 0-5
2. EMBEDDED- NESS	Gravel, cobble, and boulder are <25% surrounded by fine sediment. 18 16-20	Gravel, cobble, and boulder are 25-50% surrounded by fine sediment. 11-15	Gravel, cobble, and boulder are 50-75% surrounded by fine sediment. 8-10	Gravel, cobble, and boulder are >75% surrounded by fine sediment. 0-5
3. <= 5 CFS	Cold; > 2 cfs Warm; > 5 cfs 10-20	1-2 cfs 2-6 cfs 11-15	0.5-1 cfs 1-2 cfs 6-10	0.5 cfs 1 cfs 0-5
OR > 5 CFS	Slow (<0.3 m/s), deep (>0.5m); slow, shallow (<0.3m); fast (>0.3m/s) deep; fast, shallow habitats all present 16-20	3 of 4 habitats present. (Missing riffles or runs get lower score than missing pools). 13 11-15	2 of 4 habitats present. (Missing riffles/runs get lower score.) 8-10	Dominated by one velocity/depth category (usually pool). 0-5
4. CHANNEL ALTERATION	Little / no enlarge- ment of islands or point bars, and/or no channelization 12-15	Some new increase in bar formation, mostly from coarse gravel; and/or some channel- ization present. 9 8-11	Moderate deposition of new gravel, coarse sand on old and new bars; pools partially filled w/silt; and/or embankments on both banks. 4-7	Heavy deposits of fine material, bar development increase Most pools filled w/ silt; and/or extensive channelization. 0-3
5. BOTTOM SCOURING AND DEPOSITION	<5% of bottom affected. 13 12-15	5-30% affected. Scour at constrictions and steep grades. Some deposition in pools. 8-11	30-50% affected. Deposit and scour at obstructions, bends, and constrictions. Some filling of pools 4-7	>50% bottom changing nearly year long. Pools absent due to deposition. Only large rocks exposed. 0-3
6. RUN/BEND, POOL/RIFFLE RATIO**	5-7. Variety of habitat. Deep riffles and pools. 12-15	7-15. Adequate depth in pools and riffles Bends provide habitat 10 8-11	15-25. Occasional riffle or bend. Bottom provide some habitat 4-7	>25. Essentially a straight stream. Flat water or shallow Poor habitat. 0-3
7. BANK STABILITY	Stable. No erosion or bank failure. Side slopes <30%. 9-10	Moderately stable Infrequent erosion mostly healed over. Side slopes to 40%. 8-8	Moderately unstable. Moderate erosion and side slopes to 60%. High erosion during high flow. 5 3-5	Unstable. Many eroded areas. Side slopes >60%. "Raw" areas frequent on straight and bends. 0-2
8. BANK VEGETATIVE STABILITY	>80% of streambank covered by vegetation or boulders and cobbles. 9-10	50-79% covered by vegetation, gravel or larger material. 7 8-8	25-49% covered by vegetation, gravel or larger material. 3-5	<25% covered by vegetation, gravel or larger material. 0-2
9. STREAMSIDE COVER	Dominant vegetation is shrub 9-10	Dominant vegetation is of tree form. 8 8-8	Dominant vegetation is grass or forbes. 3-5	>50% no vegetation Dominant material is soil, rock, bridge materials, culverts, or mine tailings. 0-2
COLUMN TOTALS	51	47	5	
SCORE	103			

FLC0 02
3/10/92

PHYSICAL CHARACTERIZATION

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Surrounding Land Use:

Forest Field/Pasture Agricultural Residential Commercial Industrial Other _____

Local Watershed Erosion: None Moderate Heavy

Local Watershed NPS Pollution: No evidence Some Potential Sources Obvious Sources

Estimated Stream Width 6 ft Estimated Stream Depth: Riffle 4" Run 6" Pool 1 1/2'

High Water Mark 4' Velocity 2 ft/sec Dam Present: Yes _____ No X Channelized: Yes _____ No X

Canopy Cover: Open Partly Open Partly Shaded Shaded

SEDIMENT/SUBSTRATE:

Sediment Odors: Normal Sewage Petroleum Chemical Anaerobic None Other _____

Sediment Oils: Absent Slight Moderate Profuse

Sediment Deposits: Sludge Sawdust Paper Fiber Sand Relict Shells Other _____

Are the undersides of stones which are not deeply embedded black? Yes No

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	Diameter	Percent Composition in Sampling Area	Substrate Type	Characteristic	Percent Composition in Sampling Area
Bedrock			Detritus	Sticks, Wood, Coarse Plant Materials (CPOM)	100%
Boulder	> 256-mm (10 in.)	20%		Black, Very Fine Organic (FPOM)	
Cobble	64-256-mm (2.5-10 in.)	70%	Muck-Mud	Grey, Shell Fragments	
Gravel	2-64-mm (0.1-2.5 in.)				
Sand	0.06-2.00-mm (gritty)	10%			
Silt	.004-.06-mm				
Clay	< .004-mm (slick)				

WATER QUALITY

Temperature 13.3 C Dissolved Oxygen 10.0 pH 7.45 Conductivity 118 Other 0.1 ppt

Instrument(s) Used _____

Stream Type: Coldwater Warmwater

Water Odors: Normal Sewage Petroleum Chemical None Other _____

Water Surface Oils: Slick Sheen Globs Flecks None

Turbidity: Clear Slightly Turbid Turbid Opaque Water Color _____

WEATHER CONDITIONS

PHOTOGRAPH NUMBER 23, 24, 25

JECO

Station = 02

Plecopt. IIII IIII III (2 sp)
 Ephemerata IIII+IIII IIII 50+ (2 sp)
 Trichopt. - IIII (1 sp) Rhyacophila sp. (predator) - cool running water

Chironomidae IIII (2 sp)

Anisoptera - 1

Zygoptera - 1 common but not collected

Gilled snail (R. hogwallow) - 11

Parch snail (left growing) - 1

Segmented worm IIII

Collembola - 11 2 sp. (one ref. 2nd/4)

ILCO
station 03

Rapid Bioassessment Protocol I

Biosurvey Field Data Sheet

RELATIVE ABUNDANCE OF AQUATIC BIOTA

Periphyton	0	1	2	3	4	Slimes	0	1	2	3	4
Filamentous Algae	0	1	2	3	4	Macroinvertebrates	0	1	2	3	4
Macrophytes	0	1	2	3	4	Fish	0	1	2	3	4

0 = Absent/Not Observed 1 = Rare 2 = Common 3 = Abundant 4 = Dominant

MACROBENTHOS QUALITATIVE SAMPLE LIST (Indicate Relative Abundance R = Rare, C = Common, A = Abundant, D = Dominant)

Porifera	Anisoptera R	Chironomidae C
Protozoa	Zygoptera C (2 sp.)	Plecoptera R (1 sp.)
Helminthes	Hemiptera	Ephemeroptera D (6 sp.)
Turbellaria	Coleoptera C (water penny Haliplidae)	Trichoptera C (1 sp.)
Hirudinea	Lepidoptera	Other
Oligochaeta	Stellidae	
Isopoda R	Corydalidae R	
Amphipoda	Tipulidae C	
Decapoda C	Empididae	
Gastropoda	Simuliidae	
Blivalvia R	Tabanidae	
	Culicidae	

Rare < 3 Common 3-9 Abundant > 10 Dominant > 50 (Estimate)

Observations

Coleop: water penny (2) Caddisfly: water penny (Haliplidae) (5)

Figure 6.1-1. Biosurvey Field Data Sheet for use with Rapid Bioassessment Protocol I.

HABITAT ASSESSMENT FIELD DATA SHEET

Name of Water Body Dry Creek Station # 03
 Date 3/10/94 Investigator Kuger/Mandelberg/Carter
 Comments just upstream from 141 B metals

HABITAT PARAMETER	CATEGORIES			
	EXCELLENT	GOOD	FAIR	POOR
1. BOTTOM SUBSTRATE/ AVAILABLE COVER	>50% rubble, gravel, submerged logs, undercut banks, or other stable habitat 18 18-20	30-50% rubble, gravel or other stable habitat. Adequate habitat. 11-15	10-30% rubble, gravel or other stable habitat. Habitat availability < desirable. 6-10	<10% rubble, gravel or other stable habitat. Lack of habitat is obvious. 0-5
2. EMBEDDED- NESS	Gravel, cobble, and boulder are <25% surrounded by fine sediment. 18 18-20	Gravel, cobble, and boulder are 25-50% surrounded by fine sediment. 11-15	Gravel, cobble, and boulder are 50-75% surrounded by fine sediment. 6-10	Gravel, cobble, and boulder are >75% surrounded by fine sediment. 0-5
3. <= 5 CFS OR >5 CFS	Cold; > 2 cfs Warm; > 5 cfs 10-20 Slow (<0.3 m/s), deep (>0.5m); slow, shallow (<0.5m); fast (>0.3m/s) deep; fast, shallow habitats all present 16 18-20	1-2 cfs 2-5 cfs 11-15 3 of 4 habitats present. (Missing riffles or runs get lower score than missing pools). 11-15	0.5-1 cfs 1-2 cfs 6-10 2 of 4 habitats present. (Missing riffles/runs get lower score.) 6-10	0.5 cfs 1 cfs 0-5 Dominated by one velocity/depth category (usually pool). 0-5
4. CHANNEL ALTERATION	Little / no enlarg- ment of islands or point bars, and/or no channelization 13 12-15	Some new increase in bar formation, mostly from coarse gravel; and/or some channel- ization present. 8-11	Moderate deposition of new gravel, coarse sand on old and new bars; pools partially filled w/silt; and/or embankments on both banks. 4-7	Heavy deposits of fine material, bar development increase Most pools filled w/ silt; and/or extensive channelization. 0-3
5. BOTTOM SCOURING AND DEPOSITION	<5% of bottom affected. 14 12-15	5-30% affected. Scour at constrictions and steep grades. Some deposition in pools. 8-11	30-50% affected. Deposit and scour at obstructions, bends, and constrictions. Some filling of pools 4-7	>50% bottom changing nearly year long. Pools absent due to deposition. Only large rocks exposed. 0-3
6. RUN/BEND, POOL/RIFPLE RATIO**	5-7. Variety of habitat. Deep riffles and pools. 12 12-15	7-15. Adequate depth in pools and riffles Bends provide habitat 8-11	15-25. Occasional riffle or bend. Bottom provide some habitat 4-7	>25. Essentially a straight stream. Flat water or shallow Poor habitat. 0-3
7. BANK STABILITY	Stable. No erosion or bank failure. Side slopes <30%. 9-10	Moderately stable Infrequent erosion mostly healed over. Side slopes to 40%. 7 8-8	Moderately unstable. Moderate erosion and side slopes to 60%. High erosion during high flow. 3-5	Unstable. Many eroded areas. Side slopes >60%. "Raw" areas frequent on straight and bends. 0-2
8. BANK VEGETATIVE STABILITY	>80% of streambank covered by vegetation or boulders and cobbles. 10 9-10	50-79% covered by vegetation, gravel or larger material. 8-8	25-49% covered by vegetation, gravel or larger material. 3-5	<25% covered by vegetation, gravel or larger material. 0-2
9. STREAMSIDE COVER	Dominant vegetation is shrub 9-10	Dominant vegetation is of tree form. 8-8	Dominant vegetation is grass or forbes. 3-5	>50% no vegetation. Dominant material is soil, rock, bridge materials, culverts, or mine tailings. 0-2
COLUMN TOTALS	101	7	5	
SCORE	113			

**PHYSICAL CHARACTERIZATION/WATER QUALITY
FIELD DATA SHEET**

PHYSICAL CHARACTERIZATION

RIPIARIAN ZONE/INSTREAM FEATURES

Predominant Surrounding Land Use:

Forest Field/Pasture Agricultural Residential Commercial Industrial Other _____

Local Watershed Erosion: None Moderate Heavy

Local Watershed NPS Pollution: No evidence Some Potential Sources Obvious Sources

Estimated Stream Width 15 ft Estimated Stream Depth Riffle 4-5" Run 1 ft Pool 2 1/2 ft

High Water Mark 4 ft Velocity 1 ft/sec Dam Present: Yes _____ No ☒ Channelized: Yes _____ No _____

Canopy Cover: Open Partly Open Partly Shaded Shaded

SEDIMENT/SUBSTRATE:

Sediment Odors: Normal Sewage Petroleum Chemical Anaerobic None Other _____

Sediment Oils: Absent Slight Moderate Profuse

Sediment Deposits: Sludge Sawdust Paper Fiber Sand Relict Shells Other _____

Are the undersides of stones which are not deeply embedded black? Yes No

Inorganic Substrate Components			Organic Substrate Components		
Substrate Type	Diameter	Percent Composition in Sampling Area	Substrate Type	Characteristic	Percent Composition in Sampling Area
Bedrock			Detritus	Sticks, Wood, Coarse Plant Materials (CPOM)	100%
Boulder	>256-mm (10 in.)	2%	Muck-Mud	Black, Very Fine Organic (FPOM)	
Cobble	64-256-mm (2.5-10 in.)	5%	Marl	Grey, Shell Fragments	
Gravel	2-64-mm (0.1-2.5 in.)	70%			
Sand	0.06-2.00-mm (gritty)	20%			
Silt	.004-.06-mm				
Clay	<.004-mm (clay)	3%			

WATER QUALITY

Temperature 12.0 °C Dissolved Oxygen 10.38 pH 7.38 Conductivity 98 Other 0.1 ppt Salinity

Instrument(s) Used _____

Stream Type: Coldwater Warmwater

Water Odors: Normal Sewage Petroleum Chemical None Other _____

Water Surface Oils: Slick Sheen Globes Flecks None

Turbidity: Clear Slightly Turbid Turbid Opaque Water Color _____

WEATHER CONDITIONS

PHOTOGRAPH NUMBER

ILCO
station 04

Rapid Bioassessment Protocol I

Biosurvey Field Data Sheet

RELATIVE ABUNDANCE OF AQUATIC BIOTA

Periphyton	0	(1)	2	3	4	Slimes	0	1	2	3	4
Filamentous Algae	(0)	1	2	3	4	Macroinvertebrates	0	1	2	3	(4)
Macrophytes	0	1	(2)	3	4	Fish	0	1	2	(3)	4

0 = Absent/Not Observed

1 = Rare

2 = Common

3 = Abundant

4 = Dominant

MACROBENTHOS QUALITATIVE SAMPLE LIST (Indicate Relative Abundance R = Rare, C = Common, A = Abundant, D = Dominant)

Porifera	Anisoptera	R	Chironomidae	R
Protozoa	Zygoptera	C	Plecoptera	
Helminthes	Hemiptera		Ephemeroptera	
Turbellaria	Coleoptera	C	Trichoptera	
Hirudinea	Lepidoptera		Other	Gilled snail R
Oligochaeta	Stalidae	R		
Isopoda	Corydalidae			
Amphipoda	Tipulidae	R		
Decapoda	Empididae			
Gastropoda	Simuliidae			
Blivalvia	Tabanidae			
	Culicidae			

Rare < 3

Common 3-9

Abundant > 10

Dominant > 50 (Estimate)

Observations

Figure 6.1-1. Biosurvey Field Data Sheet for use with Rapid Bioassessment Protocol I.

Name of Water Body

Dry Creek

Station #

04

Date

3/10/94

Investigator

Meyer/Mandley/Carter

Comments

Immediately upstream of influence of
ILCO site (downstream of 14th mile metal)

HABITAT PARAMETER	CATEGORIES			
	EXCELLENT	GOOD	FAIR	POOR
1. BOTTOM SUBSTRATE/ AVAILABLE COVER	>50% rubble, gravel, submerged logs, undercut banks, or other stable habitat 17 (18-20)	30-50% rubble, gravel or other stable habitat. Adequate habitat. 11-15	10-30% rubble, gravel or other stable habitat. Habitat availability < desirable. 6-10	<10% rubble, gravel or other stable habitat. Lack of habitat is obvious. 0-5
2. EMBEDDED- NESS	Gravel, cobble, and boulder are <25% surrounded by fine sediment. 18 (18-20)	Gravel, cobble, and boulder are 25-50% surrounded by fine sediment. 11-15	Gravel, cobble, and boulder are 50-75% surrounded by fine sediment. 6-10	Gravel, cobble, and boulder are >75% surrounded by fine sediment. 0-5
3. <= 5 CFS	Cold; > 2 cfs Warm; > 5 cfs 10-20	1-2 cfs 2-6 cfs 11-15	0.5-1 cfs <1-2 cfs 6-10	0.5 cfs 1 cfs 0-5
UK >5 CFS	Slow (<0.3 m/s), deep (>0.5m); slow, shallow (<0.5m); fast (>0.3m/s) deep; fast, shallow habitats all present 18-20	3 of 4 habitats present. (Missing riffles or runs get lower score than missing pools). 15 (11-15)	2 of 4 habitats present. (Missing riffles/runs get lower score.) 6-10	Dominated by one velocity/depth category (usually pool). 0-5
4. CHANNEL ALTERATION	Little / no enlarge- ment of islands or point bars, and/or no channelization 13 (12-15)	Some new increase in bar formation, mostly from coarse gravel; and/or some channel- ization present. 8-11	Moderate deposition of new gravel, coarse sand on old and new bars; pools partially filled w/silt; and/or embankments on both banks. 4-7	Heavy deposits of fine material, bar development increase Most pools filled w/ silt; and/or extensive channelization. 0-3
5. BOTTOM SCOURING AND DEPOSITION	<5% of bottom affected. 14 12-15	5-30% affected. Scour at constrictions and steep grades. Some deposition in pools. 8-11	30-50% affected. Deposit and scour at obstructions, bends, and constrictions. Some filling of pools 4-7	>50% bottom changing nearly year long. Pools absent due to deposition. Only large rocks exposed. 0-3
6. RUN/BEND, POOL/RIFFLE RATIO**	5-7. Variety of habitat. Deep riffles and pools. 13 12-15	7-15. Adequate depth in pools and riffles Bends provide habitat 8-11	15-25. Occasional riffle or bend. Bottom provide some habitat 4-7	>25. Essentially a straight stream. Flat water or shallow Poor habitat. 0-3
7. BANK STABILITY	Stable. No erosion or bank failure. Side slopes <30%. 9-10	Moderately stable Infrequent erosion mostly healed over. Side slopes to 40%. 8 (8-8)	Moderately unstable. Moderate erosion and side slopes to 80%. High erosion during high flow. 3-5	Unstable. Many eroded areas. Side slopes >80%. "Raw" areas frequent on straight and bends. 0-2
8. BANK VEGETATIVE STABILITY	>80% of streambank covered by vegetation or boulders and cobbles. 9 9-10	50-79% covered by vegetation, gravel or larger material. 8-8	25-49% covered by vegetation, gravel or larger material. 3-5	<25% covered by vegetation, gravel or larger material. 0-2
9. STREAMSIDE COVER	Dominant vegetation is shrub 9-10	Dominant vegetation is of tree form. 7 (8-8)	Dominant vegetation is grass or forbes. 3-5	>50% no vegetation Dominant material is soil, rock, bridge materials, culverts, or mine tailings. 0-2
COLUMN TOTALS	114	30		
SCORE	114			

PHYSICAL CHARACTERIZATION

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Surrounding Land Use:

Forest Field/Pasture Agricultural Residential Commercial Industrial Other _____Local Watershed Erosion: None Moderate HeavyLocal Watershed WPS Pollution: No evidence Some Potential Sources Obvious SourcesEstimated Stream Width 18 ft Estimated Stream Depth: Riffle 6" Run 1 ft Pool 1 1/2High Water Mark 3 ft Velocity 1 ft/sec Dam Present: Yes _____ No X Channelized: Yes _____ No _____Canopy Cover: Open Partly Open Partly Shaded Shaded

SEDIMENT/SUBSTRATE:

Sediment Odors: Normal Sewage Petroleum Chemical Anaerobic None Other _____Sediment Oils: Absent Slight Moderate ProfuseSediment Deposits: Sludge Sawdust Paper Fiber Sand Relict Shells Other _____Are the undersides of stones which are not deeply embedded black? Yes No

Inorganic Substrate Components

Substrate Type	Diameter	Percent Composition in Sampling Area
Bedrock		
Boulder	>156-mm (10 in.)	2%
Cobble	64-256-mm (2.5-10 in.)	5%
Gravel	2-64-mm (0.1-2.5 in.)	40%
Sand	0.06-2.00-mm (gritty)	40%
Silt	.004-.06-mm	33%
Clay	<.004-mm (silty)	

Organic Substrate Components

Substrate Type	Characteristic	Percent Composition in Sampling Area
Detritus	Sticks, Wood, Coarse Plant Materials (CPOM)	100%
Muck-Mud	Black, Very Fine Organic (FPOM)	
Marl	Grey, Shell Fragments	

WATER QUALITY

Temperature 10.5 °C Dissolved Oxygen 10.64 pH 7.26 Conductivity 106 other SAL. 1 pptInstrument(s) Used YSI 3800

Stream Type: Coldwater Warmwater

Water Odors: Normal Sewage Petroleum Chemical None Other _____

Water Surface Oils: Slick Sheen Globes Flecks NoneTurbidity: Clear Slightly Turbid Turbid Opaque Water Color _____

WEATHER CONDITIONS

Sunny, cool 45°F

PHOTOGRAPH NUMBER

Station 04 JLCO (shallow)

Plecoptera 111 (2 sp.)
 Ephemeroptera 50+ (5 sp.)
 Tricoptera - 1 (1 sp.)

Amphipod - 1
 Isopoda - 11

Anisoptera 71
 Zygoptera 1111 1111

Tipulidae 1
 Chironomidae 11

Coleoptera water penny - 1
 caddisfly water beetle - 11
 water beetle - 1

Gilled Snail (Rt. hand species) - 1

Salicidae (H. dentifly) - 1

Clinotanytus

JLCO station

Acc'd to Merritt + Cummins '78 "Intro to Aquatic Insects of NA"

Habitat: Lentic-littoral, Lotic-depositiona

Habit: Burrowers

Trophic Relationships: Engulfers (predators: Oligochaeta, Ostracoda, Chironomidae)

Distrib: E US, Canada South to Calif.

From Epler '92 "ID Man for the Larval Chiron (Dip) of FL"

Prefer soft sed in ponds + lakes, also streams + rivers, found in "clean" as well as organ. enriched water

Roback '76 recorded chem. pH 4.0-9.0 (6.2)

tot hard 0-300 ppm (69.8), alkalinity 0-200 (47.8)

Specif cond 0-600 μ mhos @ 25°C (140.6)

Rob '74 DO < 4ppm

ILCO
station 05

Rapid Bioassessment Protocol I

Biosurvey Field Data Sheet

RELATIVE ABUNDANCE OF AQUATIC BIOTA

Periphyton 0 1 2 3 4
Filamentous Algae 0 1 2 3 4
Macrophytes 0 1 2 3 4

Slimes 0 1 2 3 4
Macroinvertebrates 0 1 2 3 4
Fish 0 1 2 3 4

0 = Absent/Not Observed

1 = Rare

2 = Common

3 = Abundant

4 = Dominant

MACROBENTHOS QUALITATIVE SAMPLE LIST (Indicate Relative Abundance R = Rare, C = Common, A = Abundant, D = Dominant)

Porifera	Anisoptera R	Chironomidae C
Trozoa	Zygoptera R	Plecoptera C (1 sp)
helminthes	Hemiptera	Ephemeroptera A (3 sp)
Turbellaria	Coleoptera	Trichoptera C (2 sp)
Hirudinea	Lepidoptera	Other
Oligochaeta	Stalidae	
Isopoda	Corydalidae	
Amphipoda	Tipulidae R	
Decapoda C	Empididae	
Gastropoda R	Simuliidae	
Bivalvia C	Tabanidae	
	Culicidae	

Rare < 3

Common 3-9

Abundant > 10

Dominant > 50 (Estimate)

Observations

Figure 6.1-1. Biosurvey Field Data Sheet for use with Rapid Bioassessment Protocol I.

HABITAT ASSESSMENT FIELD DATA SHEET

Name of Water Body Dry Creek Station # 05
 Date 2/28/94 Investigator Meyer/Maudsley/Carter
 Comments 100' below confluence with unnamed creek

HABITAT PARAMETER	CATEGORIES			
	EXCELLENT	GOOD	FAIR	POOR
1. BOTTOM SUBSTRATE/ AVAILABLE COVER	>50% rubble, gravel, submerged logs, undercut banks, or other stable habitat <u>17</u> <u>18-20</u>	30-50% rubble, gravel or other stable habitat. Adequate habitat. <u>11-15</u>	10-30% rubble, gravel or other stable habitat. Habitat availability < desirable. <u>8-10</u>	<10% rubble, gravel or other stable habitat. Lack of habitat is obvious. <u>0-5</u>
2. EMBEDDED- NESS	Gravel, cobble, and boulder are <25% surrounded by fine sediment. <u>18</u> <u>18-20</u>	Gravel, cobble, and boulder are 25-50% surrounded by fine sediment. <u>11-15</u>	Gravel, cobble, and boulder are 50-75% surrounded by fine sediment. <u>8-10</u>	Gravel, cobble, and boulder are >75% surrounded by fine sediment. <u>0-5</u>
3. <= 5 CFS	Cold; > 2 cfs Warm; > 5 cfs <u>10-20</u>	1-2 cfs 2-5 cfs <u>11-15</u>	0.5-1 cfs 1-2 cfs <u>6-10</u>	0.5 cfs 1 cfs <u>0-5</u>
OR > 5 CFS	Slow (<0.3 m/s), deep (>0.5m); slow, shallow (<0.5m); fast (>0.3m/s) deep; fast, shallow habitats all present <u>16</u> <u>18-20</u>	3 of 4 habitats present. (Missing riffles or runs get lower score than missing pools). <u>11-15</u>	2 of 4 habitats present. (Missing riffles/runs get lower score.) <u>8-10</u>	Dominated by one velocity/depth category (usually pool). <u>0-5</u>
4. CHANNEL ALTERATION	Little / no enlarg- ment of islands or point bars, and/or no channelization <u>13</u> <u>12-15</u>	Some new increase in bar formation, mostly from coarse gravel; and/or some channel- ization present. <u>8-11</u>	Moderate deposition of new gravel, coarse sand on old and new bars; pools partially filled w/silt; and/or embankments on both banks. <u>4-7</u>	Heavy deposits of fine material, bar development increase Most pools filled w/ silt; and/or extensive channelization. <u>0-3</u>
5. BOTTOM SCOURING AND DEPOSITION	<5% of bottom affected. <u>13</u> <u>12-15</u>	5-30% affected. Scour at constrictions and steep grades. Some deposition in pools. <u>8-11</u>	30-50% affected. Deposit and scour at obstructions, bends, and constrictions. Some filling of pools <u>4-7</u>	>50% bottom changing nearly year long. Pools absent due to deposition. Only large rocks exposed. <u>0-3</u>
6. RUN/BEND, POOL/RIFPLE RATIO**	5-7. Variety of habitat. Deep riffles and pools. <u>12-15</u>	7-15. Adequate depth in pools and riffles Bends provide habitat <u>10</u> <u>8-11</u>	15-25. Occasional riffle or bend. Bottom provide some habitat <u>4-7</u>	>25. Essentially a straight stream. Flat water or shallow Poor habitat. <u>0-3</u>
7. BANK STABILITY	Stable. No erosion or bank failure. Side slopes <30%. <u>9-10</u>	Moderately stable Infrequent erosion mostly healed over. Side slopes to 40%. <u>8</u> <u>8-8</u>	Moderately unstable. Moderate erosion and side slopes to 80%. High erosion during high flow. <u>3-5</u>	Unstable. Many eroded areas. Side slopes >80%. "Raw" areas frequent on straight and bends. <u>0-2</u>
8. BANK VEGETATIVE STABILITY	>80% of streambank covered by vegetation or boulders and cobbles. <u>10</u> <u>9-10</u>	50-79% covered by vegetation, gravel or larger material. <u>8-8</u>	25-49% covered by vegetation, gravel or larger material. <u>3-5</u>	<25% covered by vegetation, gravel or larger material. <u>0-2</u>
9. STREAMSIDE COVER	Dominant vegetation is shrub <u>9-10</u>	Dominant vegetation is of tree form. <u>8-8</u>	Dominant vegetation is grass or forbes. <u>5</u> <u>3-5</u>	>50% no vegetation Dominant material is soil, rock, bridge materials, culverts, or mine tailings. <u>0-2</u>
COLUMN TOTALS	<u>274</u>	<u>198</u>	<u>5</u>	<u>5</u>
SCORE	<u>110</u>			

PHYSICAL CHARACTERIZATION

RIPARIAN ZONE/INSTREAM FEATURES

Predominant Surrounding Land Use:

Forest Field/Pasture Agricultural Residential Commercial Industrial Other _____Local Watershed Erosion: None Moderate HeavyLocal Watershed NPS Pollution: No evidence Some Potential Sources Obvious SourcesEstimated Stream Width 3 m Estimated Stream Depth: Little 0.1 m Run 0.2 m Pool 0.5 mHigh Water Mark 1 m Velocity _____ Dam Present: Yes _____ No ✓ Channelised: Yes _____ No ✓Canopy Cover: Open Partly Open Partly Shaded Shaded

SEDIMENT/SUBSTRATE:

Sediment Odors: Normal Sewage Petroleum Chemical Anaerobic None Other _____Sediment Oils: Absent Slight Moderate ProfuseSediment Deposits: Sludge Sawdust Paper Fiber Sand Relict Shells Other _____Are the undersides of stones which are not deeply embedded black? Yes No

Inorganic Substrate Components

Substrate Type	Diameter	Percent Composition in Sampling Area
Bedrock		
Boulder	>256-mm (10 in.)	
Cobble	64-256-mm (2.5-10 in.)	25
Gravel	2-64-mm (0.1-2.5 in.)	60
Sand	0.06-2.06-mm (gritty)	5
Silt	.004-.06-mm	5
Clay	<.004-mm (clay)	5

Organic Substrate Components

Substrate Type	Characteristic	Percent Composition in Sampling Area
Detritus	Sticks, Wood, Coarse Plant Materials (CPOM)	} 100 about equal mix
Muck-Mud	Black, Very Fine Organic (FPOM)	
Marl	Grey, Shell Fragments	

WATER QUALITY

Temperature 10.4°C Dissolved Oxygen 10.65 % 6.93 Conductivity 110 Other Sal 6.1 ppt

Instrument(s) Used _____

Stream Type: Coldwater WarmwaterWater Odors: Normal Sewage Petroleum Chemical None Other _____Water Surface Oils: slick Sheen Globes Flecks NoneTurbidity: Clear Slightly Turbid Turbid Opaque Water Color _____

WEATHER CONDITIONS

initially overcast w/ light drizzle.

By time macro invertebrates collected steady rain and high water. Bugs collected 3/2/94

PHOTOGRAPH NUMBER

APPENDIX B

Chemical Analyses

FILE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 04/23/94

SUBJECT: Results of Metals Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper
Chief, Laboratory Evaluation/Quality Assurance Section

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

INORGANIC DATA QUALIFIERS REPORT

.se Number: 21694
 rproject Number: 94-0316
 Site: Ilco, Leeds, Al

Element	Flag	Samples Affected	Reason
<u>A. Water</u>			
Pb, Se, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Ca, Mg	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Cd	JN	All positives with Fe concentrations in solution > 120,000 ug/L	Suspected positive interference as noted in the contractor ICS
Sb	J	All with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
Pb	J	All by ICP with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
<u>B. Soil</u>			
Pb, Se, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Cd	JN	All positives with Fe concentrations in solution > 120,000 ug/L	Suspected positive interference as noted in the contractor ICS
Sb	J	All with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
Pb	J	All by ICP with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
Sb	J	All	Matrix spike recovery = 62.5%
Se	J	All	Matrix spike recovery = 61.5%
Zn	J	All positives	Matrix spike recovery = 156.2%
Be	J	All	Matrix duplicate RPD = 65.5%
Cr	J	All	Matrix duplicate RPD = 85.4%
Cd	J	MDGW82 & 83	% CV > 20% for ICP multiple exposures

SAMPLE AND ANALYS NAGEMENT SYSTEM
EPA-REGION IV ATHENS, GA.

2/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84150 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 0 COLLECTION START: 03/01/94 1120 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW75
**

U6/L ANALYTICAL RESULTS

11000 ALUMINUM
53U ANTIMONY
4U ARSENIC
72 BARIUM
1U BERYLLIUM
5U CADMIUM
11000 CALCIUM
25 CHROMIUM
21 COBALT
16 COPPER
24000 IRON
25 LEAD
2200 MAGNESIUM

AL WQ Crt = 5.17

U6/L ANALYTICAL RESULTS

470 MANGANESE
0.20U MERCURY
26 NICKEL
2100 POTASSIUM
2U SELENIUM
5U SILVER
1600 SODIUM
1U THALLIUM
NA TIN
37 VANADIUM
110 ZINC

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV LJO, ATHENS, GA.

03/22/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84149 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 1 COLLECTION START: 03/01/94 1015 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW74 **
**

UG/L
18000 ALUMINUM
530 ANTIMONY
30 ARSENIC
140 BARIUM
10 BERYLLIUM
50 CADMIUM
35000 CALCIUM
29 CHROMIUM
21 COBALT
23 COPPER
41000 IRON
75 LEAD
12000 MAGNESIUM

ANALYTICAL RESULTS

AL WD - 6.54

UG/L
1400 MANGANESE
0.54 MERCURY
43 NICKEL
2600 POTASSIUM
30 SELENIUM
50 SILVER
1900 SODIUM
10 THALLIUM
NA TIN
42 VANADIUM
270 ZINC

ANALYTICAL RESULTS

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYST AGEMENT SYSTEM
EPA-REGION IV ECU, ATHENS, GA.

04/24/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84148 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 2 COLLECTION START: 03/01/94 0945 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW73
**

UG/L ANALYTICAL RESULTS

3200 ALUMINUM
530 ANTIMONY
20 ARSENIC
42 BARIUM
10 BERYLLIUM
50 CADMIUM
24000 CALCIUM
80 CHROMIUM
100 COBALT
80 COPPER -
76000 IRON
140 LEAD
5300 MAGNESIUM

AL WA QRT - 8.5

UG/L ANALYTICAL RESULTS

210 MANGANESE
0.200 MERCURY
150 NICKEL
1600 POTASSIUM
20 SELENIUM
50 SILVER
3800 SODIUM
10 THALLIUM
NA TIN
90 VANADIUM
110 ZINC

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYS. JAGEMENT SYSTEM
EPA-REGION IV L... , ATHENS, GA.

6. 2/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84147 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 3 COLLECTION START: 03/01/94 0945 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW72
**

UG/L ANALYTICAL RESULTS
660 ALUMINUM
53U ANTIMONY
6U ARSENIC
27 BARIUM
1U BERYLLIUM
5U CADMIUM
22000 CALCIUM
8U CHROMIUM
10U COBALT
8U COPPER
1600 IRON
15 LEAD
3800 MAGNESIUM

UG/L ANALYTICAL RESULTS
81 MANGANESE
0.20U MERCURY
15U NICKEL
1600 POTASSIUM
2U SELENIUM
5U SILVER
13000 SODIUM
1U THALLIUM
NA TIN
9U VANADIUM
29 ZINC

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV, ATHENS, GA.

2/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84146 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 4 COLLECTION START: 03/01/94 0845 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW71
**

UG/L ANALYTICAL RESULTS		UG/L ANALYTICAL RESULTS	
300	ALUMINUM	52	MANGANESE
530	ANTIMONY	0.200	MERCURY
10	ARSENIC	150	NICKEL
19	BARIUM	1500	POTASSIUM
10	BERYLLIUM	20	SELENIUM
50	CADMIUM	50	SILVER
18000	CALCIUM	6400	SODIUM
80	CHROMIUM	10	THALLIUM
100	COBALT	NA	TIN
80	COPPER	90	VANADIUM
720	IRON	14	ZINC
4	LEAD		
3500	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYS NAGEMENT SYSTEM
EPA-REGION IV . . . ATHENS, GA.

.2/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84145 SAMPLE TYPE: SURFWTR PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID. 5 COLLECTION START: 03/01/94 0810 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW70
**

ug/L ANALYTICAL RESULTS		ug/L ANALYTICAL RESULTS	
220	ALUMINUM	67	MANGANESE
530	ANTIMONY	0.20U	MERCURY
1U	ARSENIC	15U	NICKEL
18	BARIUM	1200	POTASSIUM
1U	BERYLLIUM	2U	SELENIUM
5U	CADMIUM	5U	SILVER
18000	CALCIUM	4600	SODIUM
8U	CHROMIUM	1U	THALLIUM
10U	COBALT	NA	TIN
8U	COPPER	9U	VANADIUM
660	IRON	17	ZINC
4	LEAD		
3500	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV, ATLANTA, GA.

2/22/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84151 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 0 COLLECTION START: 03/01/94 1430 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW77 **
**

Mg/Kg ANALYTICAL RESULTS
4300 ALUMINUM
200J ANTIMONY
4 7 ARSENIC
54 BARIUM
0.48J BERYLLIUM
1.1U CADMIUM
1400 CALCIUM
12J CHROMIUM
7.6 COBALT
3.8 COPPER
15000 IRON
46 LEAD
260 MAGNESIUM

Mg/Kg ANALYTICAL RESULTS
490 MANGANESE
0.15U MERCURY
12 NICKEL
240 POTASSIUM
0.470J SELENIUM
1.1U SILVER
14U SODIUM
0.24U THALLIUM
NA TIN
14 VANADIUM
41J ZINC
33 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALY ANAGEMENT SYSTEM
EPA-REGION IV LSO, ATHENS, GA.

,22/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84155 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 1 COLLECTION START: 03/01/94 1655 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW82 **
**

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
7500	ALUMINUM	1100	MANGANESE
200J	ANTIMONY	0.17U	MERCURY
5	ARSENIC	26	NICKEL
99	BARIUM	680	POTASSIUM
0.92J	BERYLLIUM	0.480J	SELENIUM
1.4J	CADMIUM	1.2U	SILVER
10000	CALCIUM	60	SODIUM
26J	CHROMIUM	0.24U	THALLIUM
12	COBALT	NA	TIN
13	COPPER	16	VANADIUM
28000	IRON	140J	ZINC
47	LEAD	40	PERCENT MOISTURE
4000	MAGNESIUM		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV LEO, ATHENS, GA.

22/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84154 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 2 COLLECTION START: 03/01/94 1620 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW81 **
**

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
3900	ALUMINUM	430	MANGANESE
200J	ANTIMONY	0.16U	MERCURY
5.7	ARSENIC	11	NICKEL
45	BARIUM	330	POTASSIUM
0.31U	BERYLLIUM	0.480J	SELENIUM
2.7	CADMIUM	1.1U	SILVER
11000	CALCIUM	44	SODIUM
16J	CHROMIUM	0.24U	THALLIUM
6.4	COBALT	NA	TIN
13	COPPER	11	VANADIUM
14000	IRON	62J	ZINC
1100	LEAD	36	PERCENT MOISTURE
4500	MAGNESIUM		

REMARKS

REMARKS

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METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84153 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/01/94 1600 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW80 **

MG/KG ANALYTICAL RESULTS

5100 ALUMINUM
20UJ ANTIMONY
17 ARSENIC
50 BARIUM
0 59J BERYLLIUM
1.3U CADMIUM
3100 CALCIUM
27J CHROMIUM
7.5 COBALT
7 COPPER
26000 IRON
48 LEAD
1100 MAGNESIUM

MG/KG ANALYTICAL RESULTS

.140 MANGANESE
0.17U MERCURY
14 NICKEL
320 POTASSIUM
10J SELENIUM
1.3U SILVER
60 SODIUM
0.27U THALLIUM
NA TIN
18 VANADIUM
62J ZINC
43 PERCENT MOISTURE

REMARKS

REMARKS

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SAMPLE AND ANALY. MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

04/22/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84152 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 4 COLLECTION START: 03/01/94 1540 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW79 **
**

MG/KG ANALYTICAL RESULTS

4000 ALUMINUM
200J ANTIMONY
6.4 ARSENIC
39 BARIUM
1.2J BERYLLIUM
1.1U CADMIUM
2300 CALCIUM
17J CHROMIUM
9.1 COBALT
9.4 COPPER
18000 IRON
65 LEAD
590 MAGNESIUM

MG/KG ANALYTICAL RESULTS

270 MANGANESE
0.15U MERCURY
35 NICKEL
370 POTASSIUM
0.500J SELENIUM
1.1U SILVER
52 SODIUM
0.25U THALLIUM
NA TIN
16 VANADIUM
120J ZINC
36 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ATLANTA, GA.

22/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84156 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO ST: AL
** STATION ID: 18 St. 5 COLLECTION START: 03/01/94 1120 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: MD NUMBER: GW83
** GW 78

MG/KG ANALYTICAL RESULTS
4400 ALUMINUM
200J ANTIMONY
10 ARSENIC
43 BARIUM
0.78J BERYLLIUM
2.8J CADMIUM
9500 CALCIUM
18J CHROMIUM
8.1 COBALT
13 COPPER
22000 IRON
870 LEAD
1900 MAGNESIUM

MG/KG ANALYTICAL RESULTS
550 MANGANESE
0.17U MERCURY
17 NICKEL
330 POTASSIUM
0.530J SELENIUM
1.30U SILVER
66 SODIUM
1U THALLIUM
NA TIN
13 VANADIUM
94J ZINC
44 PERCENT MOISTURE

REMARKS

REMARKS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 04/23/94

SUBJECT: Results of Metals Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NC: 8318D

FROM: Charles H. Hooper *St Bennett /acting*
Chief, Laboratory Evaluation/Quality Assurance Section

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

INORGANIC DATA QUALIFIERS REPORT

Case Number: 21694

Project Number: 94-0316

Site: Ilco, Leeds, Al

Element	Flag	Samples Affected	Reason
<u>A. Water</u>			
Pb, Se, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Ca, Mg	U	All positives > IDL, but < 10X contaminant level	Positives in blanks
Cd	JN	All positives with Fe concentrations in solution > 120,000 ug/L	Suspected positive interference as noted in the contractor ICS
Sb	J	All with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
Pb	J	All by ICP with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
<u>B. Soil</u>			
Pb, Se, Tl	U	All positives > IDL, but < CRDL	Baseline instability
Cd	JN	All positives with Fe concentrations in solution > 120,000 ug/L	Suspected positive interference as noted in the contractor ICS
Sb	J	All with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
Pb	J	All by ICP with Al or Fe concentrations in solution > 110,000 ug/L	Suspected over correction as noted in the contractor ICS
Sb	J	All	Matrix spike recovery = 62.5%
Se	J	All	Matrix spike recovery = 61.5%
Zn	J	All positives	Matrix spike recovery = 156.2%
Be	J	All	Matrix duplicate RPD = 65.5%
Cr	J	All	Matrix duplicate RPD = 85.4%
Cd	J	MDGW82 & 83	% CV > 20% for ICP multiple exposures

SAMPLE AND ANALY. ANAGEMENT SYSTEM
EPA-REGION IV LDD, ATHENS, GA

REPRINTED ON 06/06/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84841 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START 03/10/94 1505 STOP: 32/68/08 JE **
** CASE NUMBER. 21694 SAS NUMBER. 8318D MD NUMBER. 2460 **
**

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
38	ALUMINUM	18	MANGANESE
0.96U	ANTIMONY	0.06	MERCURY
1UJ	ARSENIC	0.57U	NICKEL
1.7	BARIUM	2900	POTASSIUM
0.05U	BERYLLIUM	0.83J	SELENIUM
1.2	CADMIUM	0.19U	SILVER
11000	CALCIUM	940	SODIUM
1U	CHROMIUM	0.05U	THALLIUM
1U	COBALT	NA	TIN
4U	COPPER	0.24U	VANADIUM
150	IRON	37J	ZINC
11	LEAD		
400	MAGNESIUM		

REMARKS

REMARKS

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SAMPLE AND ANALY. ANAGEMENT SYSTEM
EPA-REGION IV ASD, ATHENS, GA

REPRINTED ON 05/06/94

METALS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84842 SAMPLE TYPE: FISH PROG ELEM. SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/10/94 1355 STOP 32/68/08 JE **
** CASE NUMBER: 21694 SAS NUMBER 8318D MD NUMBER 2461 **

MG/KG	ANALYTICAL RESULTS	MG/YG	ANALYTICAL RESULTS
31	ALUMINUM	15	MANGANESE
0.95U	ANTIMONY	0.06	MERCURY
0.23UJ	ARSENIC	0.57U	NICKEL
1.1J	BARIUM	2700	POTASSIUM
0.05U	BERYLLIUM	0.98J	SELENIUM
0.19U	CADMIUM	1U	SILVER
15000	CALCIUM	1100	SODIUM
0.69	CHROMIUM	0.05U	THALLIUM
1U	COBALT	NA	TIN
2U	COPPER	0.24U	VANADIUM
56	IRON	28J	ZINC
1	LEAD		
480	MAGNESIUM		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV LEO, ATHENS, GA.

REPRINTED ON 03/06/94

METALS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO 84843 SAMPLE TYPE. FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY. LEEDS ST: AL **
** STATION ID. 4 COLLECTION START: 03/10/94 1215 STOP. 32/68/08 JE **
** CASE NUMBER 21694 SAS NUMBER 8318D MD NUMBER 2462 **
**

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
23	ALUMINUM	10	MANGANESE
0 98U	ANTIMONY	0 06	MERCURY
0 21UJ	ARSENIC	0 50U	NICKEL
1 7	BARIUM	2900	POTASSIUM
0 05U	BERYLLIUM	0 77J	SELENIUM
0 20U	CADMIUM	0 20U	SILVER
14000	CALCIUM	1100	SODIUM
0 63	CHROMIUM	0 04U	THALLIUM
0 34U	COBALT	NA	TIN
5U	COPPER	0 24U	VANADIUM
39	IRON	22J	ZINC
0.61	LEAD		
440	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALY. ANAGEMENT SYSTEM
EPA-REGION IV ASD, ATHENS, GA.

REPRINTED ON 06/94

METALS DATA REPORT

** PROJECT NO 94-0316 SAMPLE NO. 84844 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID 5 COLLECTION START: 03/02/94 0900 STOP: 32/68/08 JE **
** CASE NUMBER: 21694 SAS NUMBER 8318D MD NUMBER: 2463 **
**

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
27	ALUMINUM	67	MANGANESE
0.81U	ANTIMONY	0.04U	MERCURY
0.23UJ	ARSENIC	0.49U	NICKEL
0.47J	BARIUM	2900	POTASSIUM
0.04U	BERYLLIUM	0.82J	SELENIUM
0.16U	CADMIUM	0.16U	SILVER
13000	CALCIUM	990	SODIUM
1U	CHROMIUM	0.05U	THALLIUM
0.28U	COBALT	NA	TIN
1.2	COPPER	0.20U	VANADIUM
41	IRON	30J	ZINC
3.4	LEAD		
480	MAGNESIUM		

REMARKS

REMARKS

FOOTNOTES

*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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 05/11/94

SUBJECT: Results of Extractable Organic Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper
Chief, Laboratory Evaluation/Quality Assurance Section

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 21694 Project Number 94-0316 SAS Number 8318D
 Site ID. Ilco, Leeds, AL

<u>Affected Sample</u>	<u>Compound or Fraction</u>	<u>Flag</u>	<u>UsedReason</u>
<u>Extractables</u>			
84845,84846	4,6-dinitro-2-methylphenol	J	low internal standard
	N-nitrosodiphenylamine	J	low internal standard
	4-bromophenylphenylether	J	low internal standard
	hexachlorobenzene	J	low internal standard
	pentachlorophenol	J	low internal standard
	phenanthrene	J	low internal standard
	anthracene	J	low internal standard
	di-n-butylphthalate	J	low internal standard
	fluoranthene	J	low internal standard
84845	carbazole	J	low internal standard
	pyrene	J	low internal standard
	butylbenzylphthalate	J	low internal standard
	3,3'-dichlorobenzidine	J	low internal standard
	benzo(a)anthracene	J	low internal standard
	chrysene	J	low internal standard
	bis(2-ethylhexyl)phthalate	J	low internal standard
	di-n-octylphthalate	J	low internal standard
	benzo(b/k)fluoranthene	J	low internal standard
	benzo(a)pyrene	J	low internal standard
	indeno(1,2,3-cd)pyrene	J	low internal standard
	dibenz(a,h)anthracene	J	low internal standard
	benzo(g,h,i)perylene	J	low internal standard
<u>Pesticides</u>			
84845	dieldrin	J	<quantitation limit

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ESd, ATHENS, GA.

05/./94

EXTRACTABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84845 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/10/94 1505 STOP: 32/68/08 JE **

** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2464 **

*** **

MG/KG ANALYTICAL RESULTS

.48U PHENOL
.48U BIS(2-CHLOROETHYL) ETHER
.48U 2-CHLOROPHENOL
.48U 1,3-DICHLOROBENZENE
.48U 1,4-DICHLOROBENZENE
.48U 1,2-DICHLOROBENZENE
.48U 2-METHYLPHENOL
.48U 2,2'-CHLOROISOPROPYLETHYR
.48U (3-AND/OR 4-)METHYLPHENOL
.48U N-NITROSODI-N-PROPYLAMINE
.48U HEXACHLOROETHANE
.48U NITROBENZENE
.48U ISOPHORONE
.48U 2-NITROPHENOL
.48U 2,4-DIMETHYLPHENOL
.48U BIS(2-CHLOROETHOXY) METHANE
.48U 2,4-DICHLOROPHENOL
.48U 1,2,4-TRICHLOROBENZENE
.48U NAPHTHALENE
.48U 4-CHLOROANILINE
.48U HEXACHLOROBUTADIENE
.48U 4-CHLORO-3-METHYLPHENOL
.48U 2-METHYLNAPHTHALENE
.48U HEXACHLOROCYCLOPENTADIENE (HCCP)
.48U 2,4,6-TRICHLOROPHENOL
1.2U 2,4,5-TRICHLOROPHENOL
.48U 2-CHLORONAPHTHALENE
1.2U 2-NITROANILINE
.48U DIMETHYL PHTHALATE
.48U ACENAPHTHYLENE
.48U 2,6-DINITROTOLUENE

MG/KG ANALYTICAL RESULTS

1.2U 3-NITROANILINE
.48U ACENAPHTHENE
1.2U 2,4-DINITROPHENOL
1.2U 4-NITROPHENOL
.48U DIBENZOFURAN
.48U 2,4-DINITROTOLUENE
.48U DIETHYL PHTHALATE
.48U 4-CHLOROPHENYL PHENYL ETHER
.48U FLUORENE
1.2U 4-NITROANILINE
1.2UJ 2-METHYL-4,6-DINITROPHENOL
.48UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
.48UJ 4-BROMOPHENYL PHENYL ETHER
.48UJ HEXACHLOROBENZENE (HCB)
1.2UJ PENTACHLOROPHENOL
.48UJ PHENANTHRENE
.48UJ ANTHRACENE
.48UJ CARBAZOLE
.48UJ DI-N-BUTYLPHTHALATE
.48UJ FLUORANTHENE
.48UJ PYRENE
.48UJ BENZYL BUTYL PHTHALATE
.48UJ 3,3'-DICHLOROBENZIDINE
.48UJ BENZO(A)ANTHRACENE
.48UJ CHRYSENE
.48UJ BIS(2-ETHYLHEXYL) PHTHALATE
.48UJ DI-N-OCTYLPHTHALATE
.48UJ BENZO(B AND/OR K)FLUORANTHENE
.48UJ BENZO-A-PYRENE
.48UJ INDENO (1,2,3-CD) PYRENE
.48UJ DIBENZO(A,H)ANTHRACENE
.48UJ BENZO(GH)PERYLENE

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ES, ATHENS, GA.

05/10/94

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84845 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/10/94 1505 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2464 MD NO: **
**

ANALYTICAL RESULTS MG/KG

5JN PYRIDINECARBOXAMIDE
1JN BIS(HYDROXYETHYL)DODECANAMIDE
5JN TETRADECANOIC ACID
2JN (ACETYLOXY)OCTADECENOIC ACID, METHYLESTER
5JN HEXADECANOIC ACID
5JN OCTADECENOIC ACID, METHYLESTER (2 ISOMERS)
10JN OCTADECADIENAL
20JN CHOLESTEROL
20J 11 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*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
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

05/10/94

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84846 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/10/94 1355 STOP: 32/68/08 JE **
**
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2465 **
*** ** ** ** ** ** ** ** ** ** ** ** **

MG/KG ANALYTICAL RESULTS

.98U PHENOL
.98U BIS(2-CHLOROETHYL) ETHER
.98U 2-CHLOROPHENOL
.98U 1,3-DICHLOROBENZENE
.98U 1,4-DICHLOROBENZENE
.98U 1,2-DICHLOROBENZENE
.98U 2-METHYLPHENOL
.98U 2,2'-CHLOROISOPROPYLETHER
.98U (3-AND/OR 4-)METHYLPHENOL
.98U N-NITROSODI-N-PROPYLAMINE
.98U HEXACHLOROETHANE
.98U NITROBENZENE
.98U ISOPHORONE
.98U 2-NITROPHENOL
.98U 2,4-DIMETHYLPHENOL
.98U BIS(2-CHLOROETHOXY) METHANE
.98U 2,4-DICHLOROPHENOL
.98U 1,2,4-TRICHLOROBENZENE
.98U NAPHTHALENE
.98U 4-CHLOROANILINE
.98U HEXACHLOROBUTADIENE
.98U 4-CHLORO-3-METHYLPHENOL
.98U 2-METHYLNAPHTHALENE
.98U HEXACHLOROCYCLOPENTADIENE (HCCP)
.98U 2,4,6-TRICHLOROPHENOL
2.4U 2,4,5-TRICHLOROPHENOL
.98U 2-CHLORONAPHTHALENE
2.4U 2-NITROANILINE
.98U DIMETHYL PHTHALATE
.98U ACENAPHTHYLENE
.98U 2,6-DINITROTOLUENE

MG/KG ANALYTICAL RESULTS

2.4U 3-NITROANILINE
.98U ACENAPHTHENE
2.4U 2,4-DINITROPHENOL
2.4U 4-NITROPHENOL
.98U DIBENZOFURAN
.98U 2,4-DINITROTOLUENE
.98U DIETHYL PHTHALATE
.98U 4-CHLOROPHENYL PHENYL ETHER
.98U FLUORENE
2.4U 4-NITROANILINE
2.4UJ 2-METHYL-4,6-DINITROPHENOL
.98UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
.98UJ 4-BROMOPHENYL PHENYL ETHER
.98UJ HEXACHLOROBENZENE (HCB)
2.4UJ PENTACHLOROPHENOL
.98UJ PHENANTHRENE
.98UJ ANTHRACENE
.98UJ CARBAZOLE
.98UJ DI-N-BUTYLPHTHALATE
.98UJ FLUORANTHENE
.98U PYRENE
.98U BENZYL BUTYL PHTHALATE
.98U 3,3'-DICHLOROBENZIDINE
.98U BENZO(A)ANTHRACENE
.98U CHRYSENE
6.0U BIS(2-ETHYLHEXYL) PHTHALATE
.98U DI-N-OCTYLPHTHALATE
.98U BENZO(B AND/OR K)FLUORANTHENE
.98U BENZO-A-PYRENE
.98U INDENO (1,2,3-CD) PYRENE
.98U DIBENZO(A,H)ANTHRACENE
.98U BENZO(GH)PERYLENE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS JEMENT SYSTEM
EPA-REGION IV ESO, ATHENS, GA.

05/11/94

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84846 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/10/94 1355 STOP: 32/68/08 JE **
** CASE.NO.: 21694 SAS NO.: 8318D D. NO.: 2465 MD NO: **
** ** ** **

ANALYTICAL RESULTS MG/KG

70J 8 UNIDENTIFIED COMPOUNDS
0.5JN BIS(HYDROXYETHYL)DODECANAMIDE
2JN TETRADECANOIC ACID, METHYLESTER
10JN TETRADECANOIC ACID
1JN PENTADECANOIC ACID
7JN HEXADECENOIC ACID, METHYLESTER
10JN HEXADECANOIC ACID, METHYLESTER
10JN OCTADECENOIC ACID, METHYLESTER
5JN METHYLHEPTADECANOIC ACID, METHYLESTER
50JN CHOLESTEROL
1JN METHYLHEXADECANOIC ACID, METHYLESTER

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ES, ATHENS, GA.

05/..,94

EXTRACTABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84847 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 4 COLLECTION START: 03/10/94 1215 STOP: 32/68/08 JE **
**
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2466 **
*** ** ** ** **

MG/KG ANALYTICAL RESULTS

.48U PHENOL
.48U BIS(2-CHLOROETHYL) ETHER
.48U 2-CHLOROPHENOL
.48U 1,3-DICHLOROBENZENE
.48U 1,4-DICHLOROBENZENE
.48U 1,2-DICHLOROBENZENE
.48U 2-METHYLPHENOL
.48U 2,2'-CHLOROISOPROPYLETHER
.48U (3-AND/OR 4-)METHYLPHENOL
.48U N-NITROSODI-N-PROPYLAMINE
.48U HEXACHLOROETHANE
.48U NITROBENZENE
.48U ISOPHORONE
.48U 2-NITROPHENOL
.48U 2,4-DIMETHYLPHENOL
.48U BIS(2-CHLOROETHOXY) METHANE
.48U 2,4-DICHLOROPHENOL
.48U 1,2,4-TRICHLOROBENZENE
.48U NAPHTHALENE
.48U 4-CHLOROANILINE
.48U HEXACHLOROBUTADIENE
.48U 4-CHLORO-3-METHYLPHENOL
.48U 2-METHYLNAPHTHALENE
.48U HEXACHLOROCYCLOPENTADIENE (HCCP)
.48U 2,4,6-TRICHLOROPHENOL
1.2U 2,4,5-TRICHLOROPHENOL
.48U 2-CHLORONAPHTHALENE
1.2U 2-NITROANILINE
.48U DIMETHYL PHTHALATE
.48U ACENAPHTHYLENE
.48U 2,6-DINITROTOLUENE

MG/KG ANALYTICAL RESULTS

1.2U 3-NITROANILINE
.48U ACENAPHTHENE
1.2U 2,4-DINITROPHENOL
1.2U 4-NITROPHENOL
.48U DIBENZOFURAN
.48U 2,4-DINITROTOLUENE
.48U DIETHYL PHTHALATE
.48U 4-CHLOROPHENYL PHENYL ETHER
.48U FLUORENE
1.2U 4-NITROANILINE
1.2U 2-METHYL-4,6-DINITROPHENOL
.48U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
.48U 4-BROMOPHENYL PHENYL ETHER
.48U HEXACHLOROBENZENE (HCB)
1.2U PENTACHLOROPHENOL
.48U PHENANTHRENE
.48U ANTHRACENE
.48U CARBAZOLE
.48U DI-N-BUTYLPHTHALATE
.48U FLUORANTHENE
.48U PYRENE
.48U BENZYL BUTYL PHTHALATE
.48U 3,3'-DICHLOROBENZIDINE
.48U BENZO(A)ANTHRACENE
.48U CHRYSENE
.48U BIS(2-ETHYLHEXYL) PHTHALATE
.48U DI-N-OCTYLPHTHALATE
.48U BENZO(B AND/OR K)FLUORANTHENE
.48U BENZO-A-PYRENE
.48U INDENO (1,2,3-CD) PYRENE
.48U DIBENZO(A,H)ANTHRACENE
.48U BENZO(GH)PERYLENE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESO, ATHENS, GA.

05/11/94

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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***
** PROJECT NO. 94-0316  SAMPLE NO. 84847  SAMPLE TYPE: FISH  PROG ELEM: SSF  COLLECTED BY: B CARTER  **
** SOURCE: ILCO  CITY: LEEDS  ST: AL  **
** STATION ID: 4  COLLECTION START: 03/10/94  1215  STOP: 32/68/08  JE  **
** CASE NO.: 21694  SAS NO.: 8318D  D NO.: 2466  MD NO:  **
**
***

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ANALYTICAL RESULTS MG/KG

```

3JN DODECANOIC ACID
0.8JN TETRADECANOIC ACID, METHYLESTER
2JN TETRADECANOIC ACID
0.8JN HEXADECENOIC ACID, METHYLESTER
3JN (ACETYLOXY)OCTADECENOIC ACID, METHYLESTER
50JN HEXADECANOIC ACID
2JN OCTADECENOIC ACID, METHYLESTER
20JN CHOLESTEROL
20J 7 UNIDENTIFIED COMPOUNDS

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FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

05, /94

EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84848 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 5 COLLECTION START: 03/02/94 0900 STOP: 32/68/08 JE
**
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2467

MG/KG ANALYTICAL RESULTS

.75U PHENOL
.75U BIS(2-CHLOROETHYL) ETHER
.75U 2-CHLOROPHENOL
.75U 1,3-DICHLOROBENZENE
.75U 1,4-DICHLOROBENZENE
.75U 1,2-DICHLOROBENZENE
.75U 2-METHYLPHENOL
.75U 2,2'-CHLOROISOPROPYLETH
.75U (3-AND/OR 4-)METHYLPHENOL
.75U N-NITROSODI-N-PROPYLAMINE
.75U HEXACHLOROETHANE
.75U NITROBENZENE
.75U ISOPHORONE
.75U 2-NITROPHENOL
.75U 2,4-DIMETHYLPHENOL
.75U BIS(2-CHLOROETHOXY) METHANE
.75U 2,4-DICHLOROPHENOL
.75U 1,2,4-TRICHLOROBENZENE
.75U NAPHTHALENE
.75U 4-CHLOROANILINE
.75U HEXACHLOROBUTADIENE
.75U 4-CHLORO-3-METHYLPHENOL
.75U 2-METHYLNAPHTHALENE
.75U HEXACHLOROCYCLOPENTADIENE (HCCP)
.75U 2,4,6-TRICHLOROPHENOL
1.2U 2,4,5-TRICHLOROPHENOL
.75U 2-CHLORONAPHTHALENE
1.2U 2-NITROANILINE
.75U DIMETHYL PHTHALATE
.75U ACENAPHTHYLENE
.75U 2,6-DINITROTOLUENE

MG/KG ANALYTICAL RESULTS

1.2U 3-NITROANILINE
.75U ACENAPHTHENE
1.2U 2,4-DINITROPHENOL
1.2U 4-NITROPHENOL
.75U DIBENZOFURAN
.75U 2,4-DINITROTOLUENE
.75U DIETHYL PHTHALATE
.75U 4-CHLOROPHENYL PHENYL ETHER
.75U FLUORENE
1.2U 4-NITROANILINE
1.2U 2-METHYL-4,6-DINITROPHENOL
.75U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
.75U 4-BROMOPHENYL PHENYL ETHER
.75U HEXACHLOROBENZENE (HCB)
1.2U PENTACHLOROPHENOL
.75U PHENANTHRENE
.75U ANTHRACENE
.75U CARBAZOLE
.75U DI-N-BUTYLPHTHALATE
.75U FLUORANTHENE
.75U PYRENE
.75U BENZYL BUTYL PHTHALATE
.75U 3,3'-DICHLOROBENZIDINE
.75U BENZO(A)ANTHRACENE
.75U CHRYSENE
.75U BIS(2-ETHYLHEXYL) PHTHALATE
.75U DI-N-OCTYLPHTHALATE
.75U BENZO(B AND/OR K)FLUORANTHENE
.75U BENZO-A-PYRENE
.75U INDENO (1,2,3-CD) PYRENE
.75U DIBENZO(A,H)ANTHRACENE
.75U BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESO, ATHENS, GA.

05, ., 94

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84848 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/02/94 0900 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2467 MD NO: **
**

ANALYTICAL RESULTS MG/KG

0.5JN PYRIDINECARBOXAMIDE
3JN TETRADECANOIC ACID
2JN PENTADECANOIC ACID
0.8JN HEXADECENOIC ACID, METHYLESTER
3JN (ACETYLOXY)OCTADECENOIC, METHYLESTER
2JN OCTADECADIENOIC ACID, METHYLESTER
50J 14 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 05/11/94

SUBJECT: Results of Pesticide/PCB Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper
Chief, Laboratory Evaluation/Quality Assurance Section

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

ORGANIC DATA QUALIFIER REPORT

Case Number 21694 Project Number 94-0316 SAS Number 8318D
 Site ID. Ilco, Leeds, AL

<u>Affected Sample</u>	<u>Compound or Fraction</u>	<u>Flag</u>	<u>UsedReason</u>
<u>Extractables</u>			
84845, 84846	4,6-dinitro-2-methylphenol	J	low internal standard
	N-nitrosodiphenylamine	J	low internal standard
84845	4-bromophenylphenylether	J	low internal standard
	hexachlorobenzene	J	low internal standard
	pentachlorophenol	J	low internal standard
	phenanthrene	J	low internal standard
	anthracene	J	low internal standard
	di-n-butylphthalate	J	low internal standard
	fluoranthene	J	low internal standard
	carbazole	J	low internal standard
	pyrene	J	low internal standard
	butylbenzylphthalate	J	low internal standard
	3,3'-dichlorobenzidine	J	low internal standard
	benzo(a)anthracene	J	low internal standard
	chrysene	J	low internal standard
	bis(2-ethylhexyl)phthalate	J	low internal standard
	di-n-octylphthalate	J	low internal standard
	benzo(b/k)fluoranthene	J	low internal standard
	benzo(a)pyrene	J	low internal standard
	indeno(1,2,3-cd)pyrene	J	low internal standard
	dibenz(a,h)anthracene	J	low internal standard
	benzo(g,h,i)perylene	J	low internal standard
<u>Pesticides</u>			
84845	dieldrin	J	<quantitation limit

SAMPLE AND ANALYSIS JEMENT SYSTEM
EPA-REGION IV ESO, ATHENS, GA.

05/ . 34

PESTICIDES/PCB'S DATA REPORT

*** ** * PROJECT NO. 94-0316 SAMPLE NO. 84845 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/10/94 1505 STOP: 32/68/08 JE **
** CASE NUMBER: 21694 SAS NUMBER: 8318D D. NUMBER: 2464 **
*** ** *

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
.001U	ALPHA-BHC	.006U	METHOXYCHLOR
.001U	BETA-BHC	.001U	ENDRIN KETONE
.001U	DELTA-BHC	.001U	ENDRIN ALDEHYDE
.001U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
.001U	HEPTACHLOR	.001U	GAMMA-CHLORDANE /2
.001U	ALDRIN	.001U	ALPHA-CHLORDANE /2
.001U	HEPTACHLOR EPOXIDE	.060U	TOXAPHENE
.001U	ENDOSULFAN I (ALPHA)	.012U	PCB-1016 (AROCLOR 1016)
.001J	DIELDRIN	.024U	PCB-1221 (AROCLOR 1221)
.001U	4,4'-DDE (P,P'-DDE)	.012U	PCB-1232 (AROCLOR 1232)
.001U	ENDRIN	.012U	PCB-1242 (AROCLOR 1242)
.001U	ENDOSULFAN II (BETA)	.012U	PCB-1248 (AROCLOR 1248)
.001U	4,4'-DDD (P,P'-DDD)	.012U	PCB-1254 (AROCLOR 1254)
.001U	ENDOSULFAN SULFATE	.012U	PCB-1260 (AROCLOR 1260)
.001U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES

- *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
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 - *C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

05, ,94

PESTICIDES/PCB'S DATA REPORT

```

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84846 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/10/94 1355 STOP: 32/68/08 JE **
** CASE NUMBER: 21694 SAS NUMBER: 8318D D. NUMBER: 2465 **
**

```

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
.001U	ALPHA-BHC	.006U	METHOXYCHLOR
.001U	BETA-BHC	.001U	ENDRIN KETONE
.001U	DELTA-BHC	.001U	ENDRIN ALDEHYDE
.001U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
.001U	HEPTACHLOR	.001U	GAMMA-CHLORDANE /2
.001U	ALDRIN	.001U	ALPHA-CHLORDANE /2
.001U	HEPTACHLOR EPOXIDE	.060U	TOXAPHENE
.001U	ENDOSULFAN I (ALPHA)	.012U	PCB-1016 (AROCLOR 1016)
.001U	DIELDRIN	.024U	PCB-1221 (AROCLOR 1221)
.001U	4,4'-DDE (P,P'-DDE)	.012U	PCB-1232 (AROCLOR 1232)
.001U	ENDRIN	.012U	PCB-1242 (AROCLOR 1242)
.001U	ENDOSULFAN II (BETA)	.012U	PCB-1248 (AROCLOR 1248)
.001U	4,4'-DDD (P,P'-DDD)	.012U	PCB-1254 (AROCLOR 1254)
.001U	ENDOSULFAN SULFATE	.012U	PCB-1260 (AROCLOR 1260)
.001U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

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SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ES. ATHENS, GA.

05/ , 94

PESTICIDES/PCB'S DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84847 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 4 COLLECTION START: 03/10/94 1215 STOP: 32/68/08 JE **
** CASE NUMBER: 21694 SAS NUMBER: 8318D D. NUMBER: 2466 **
**

MG/KG	ANALYTICAL RESULTS	MG/KG	ANALYTICAL RESULTS
.001U	ALPHA-BHC	.006U	METHOXYCHLOR
.001U	BETA-BHC	.001U	ENDRIN KETONE
.001U	DELTA-BHC	.001U	ENDRIN ALDEHYDE
.001U	GAMMA-BHC (LINDANE)	---	CHLORDANE (TECH MIXTURE) /1
.001U	HEPTACHLOR	.001U	GAMMA-CHLORDANE /2
.001U	ALDRIN	.001U	ALPHA-CHLORDANE /2
.001U	HEPTACHLOR EPOXIDE	.063U	TOXAPHENE
.001U	ENDOSULFAN I (ALPHA)	.012U	PCB-1016 (AROCLOR 1016)
.001U	DIELDRIN	.025U	PCB-1221 (AROCLOR 1221)
.001U	4,4'-DDE (P,P'-DDE)	.012U	PCB-1232 (AROCLOR 1232)
.001U	ENDRIN	.012U	PCB-1242 (AROCLOR 1242)
.001U	ENDOSULFAN II (BETA)	.012U	PCB-1248 (AROCLOR 1248)
.001U	4,4'-DDD (P,P'-DDD)	.012U	PCB-1254 (AROCLOR 1254)
.001U	ENDOSULFAN SULFATE	.012U	PCB-1260 (AROCLOR 1260)
.001U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV Es. , ATHENS, GA.

05, , 94

PESTICIDES/PCB'S DATA REPORT

*** ** * PROJECT NO. 94-0316 SAMPLE NO. 84848 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/02/94 0900 STOP: 32/68/08 JE **
** CASE NUMBER: 21694 SAS NUMBER: 8318D D. NUMBER: 2467 **
*** ** *

MG/KG

ANALYTICAL RESULTS

.001U ALPHA-BHC
.001U BETA-BHC
.001U DELTA-BHC
.001U GAMMA-BHC (LINDANE)
.001U HEPTACHLOR
.001U ALDRIN
.001U HEPTACHLOR EPOXIDE
.001U ENDOSULFAN I (ALPHA)
.001U DIELDRIN
.001U 4,4'-DDE (P,P'-DDE)
.001U ENDRIN
.001U ENDOSULFAN II (BETA)
.001U 4,4'-DDD (P,P'-DDD)
.001U ENDOSULFAN SULFATE
.001U 4,4'-DDT (P,P'-DDT)

MG/KG

ANALYTICAL RESULTS

.007U METHOXYCHLOR
.001U ENDRIN KETONE
.001U ENDRIN ALDEHYDE
--- CHLORDANE (TECH. MIXTURE) /1
.001U GAMMA-CHLORDANE /2
.001U ALPHA-CHLORDANE /2
.065U TOXAPHENE
.013U PCB-1016 (AROCLOR 1016)
.026U PCB-1221 (AROCLOR 1221)
.013U PCB-1232 (AROCLOR 1232)
.013U PCB-1242 (AROCLOR 1242)
.013U PCB-1248 (AROCLOR 1248)
.013U PCB-1254 (AROCLOR 1254)
.013U PCB-1260 (AROCLOR 1260)

REMARKS

REMARKS

FOOTNOTES

- *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV
COLLEGE STATION RD.
ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 05/17/94

SUBJECT: Results of Specified Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Tom B. Bennett, Jr.
ESAT RPO

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project. These data replace those previously submitted to you on these samples

If you have any questions please contact me.

ATTACHMENT

Lipids

SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

REPRINTED ON 05/ , 94

SPECIFIED ANALYSIS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84845 SAMPLE TYPE: FISH PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/10/94 1505 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: 2464 MD NO: **
** **

RESULTS UNITS PARAMETER
12 % LIPIDS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED THE NUMBER IS THE MINIMUM QUANTITATION LIMIT

REPRINTED ON 05/ . . 34

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*****
** PROJECT NO. 94-0316 SAMPLE NO. 84846 SAMPLE TYPE: FISH          PROG ELEM: SSF COLLECTED BY: B CARTER
** SOURCE: ILCO CITY: LEEDS ST. AL
** STATION ID: 3 COLLECTION START: 03/10/94 1355 STOP: 32/68/08 JE
** CASE NO.: 21694 SAS NO.: 8318D D NO.: 2465 MD NO.
**
*****

```

RESULTS	UNITS	PARAMETER
5.8		% LIPIDS

FOOTNOTES***
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SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

REPRINTED ON 05/ . 94

SPECIFIED ANALYSIS DATA REPORT

```
*** ** ** ** **
** PROJECT NO. 94-0316  SAMPLE NO. 84847  SAMPLE TYPE: FISH  PROG ELEM: SSF  COLLECTED BY: B CARTER  **
** SOURCE: ILCO  CITY: LEEDS  ST AL  **
** STATION ID: 4  COLLECTION START: 03/10/94  1215  STOP. 32/68/08  JE  **
** CASE NO.: 21694  SAS NO.: 8318D  D. NO.: 2466  MD NO.:  **
** ** ** **
```

RESULTS UNITS PARAMETER
6.5 % LIPIDS

FOOTNOTES

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REPRINTED ON 05, 34

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*****
** PROJECT NO. 94-0316  SAMPLE NO. 84848  SAMPLE TYPE: FISH  PROG ELEM: SSF  COLLECTED BY: B CARTER
** SOURCE: ILCO  CITY: LEEDS  ST: AL
** STATION ID: 5  COLLECTION START: 03/02/94  0900  STOP: 32/68/08  JE
** CASE NO.: 21694  SAS NO.: 8318D  D NO 2467  MD NO:
**
*****

```

RESULTS	UNITS	PARAMETER
7.2		% LIPIDS

FOOTNOTES***
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 04/07/94

SUBJECT: Results of Purgeable Organic Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper
Chief, Laboratory Evaluation/Quality Assurance Section

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

APR 13 1994

ORGANIC DATA QUALIFIER REPORT

Case Number 21694

Project Number 94-0316

SAS Number

Site ID. ILCO, Leeds, AL

<u>Affected Samples</u>	<u>Compound or Fraction</u>	<u>Flag Used</u>	<u>Reason</u>
<u>Volatiles</u>			
84147	acetone	N	common lab contaminant
84152,84902	acetone	N J	common lab contaminant erratic response factor
<u>Extractables</u>			
84152	di-n-octylphthalate	J	low internal standard recovery
	benzo(b/k)fluoranthene	J	low internal standard recovery
	benzo(a)pyrene	J	low internal standard recovery
	indeno(1,2,3-cd)pyrene	J	low internal standard recovery
	dibenz(a,h)anthracene	J	low internal standard recovery
	benzo(g,h,i)perylene	J	low internal standard recovery
84154	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	chrysene	J	< quantitation limit
	di-n-octylphthalate	J	low internal standard recovery
	benzo(b/k)fluoranthene	J	low internal standard recovery
	benzo(a)pyrene	J	low internal standard recovery
	indeno(1,2,3-cd)pyrene	J	low internal standard recovery
	dibenz(a,h)anthracene	J	low internal standard recovery
	benzo(g,h,i)perylene	J	low internal standard recovery
84902	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
<u>Pesticides</u>			
None			

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04, . ., 94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84901 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. TB COLLECTION START. 03/01/94 1100 STOP. 00/00/00 **
** CASE NO.: 21694 SAS NO.: 8318D D NO : GW76 **
*** ** ** ** ** **

UG/L ANALYTICAL RESULTS

10U CHLOROMETHANE
10U BROMOMETHANE
10U VINYL CHLORIDE
10U CHLOROETHANE
10U METHYLENE CHLORIDE
10U ACETONE
10U CARBON DISULFIDE
10U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U 1,1-DICHLOROETHANE
10U 1,2-DICHLOROETHENE (TOTAL)
10U CHLOROFORM
10U 1,2-DICHLOROETHANE
10U METHYL ETHYL KETONE
10U 1,1,1-TRICHLOROETHANE
10U CARBON TETRACHLORIDE
10U BROMODICHLOROMETHANE

UG/L ANALYTICAL RESULTS

10U 1,2-DICHLOROPROPANE
10U CIS-1,3-DICHLOROPROPENE
10U TRICHLOROETHENE (TRICHLOROETHYLENE)
10U DIBROMOCHLOROMETHANE
10U 1,1,2-TRICHLOROETHANE
10U BENZENE
10U TRANS-1,3-DICHLOROPROPENE
10U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
10U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U 1,1,2,2-TETRACHLOROETHANE
10U TOLUENE
10U CHLOROBENZENE
10U ETHYL BENZENE
10U STYRENE
10U TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESO, ATHENS, GA.

04/05/94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84150 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 0 COLLECTION START: 03/01/94 1120 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO. D. NO.: GW75 **
*** ** ** ** *

UG/L ANALYTICAL RESULTS

10U CHLOROMETHANE
10U BROMOMETHANE
10U VINYL CHLORIDE
10U CHLOROETHANE
10U METHYLENE CHLORIDE
10U ACETONE
10U CARBON DISULFIDE
10U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U 1,1-DICHLOROETHANE
10U 1,2-DICHLOROETHENE (TOTAL)
10U CHLOROFORM
10U 1,2-DICHLOROETHANE
10U METHYL ETHYL KETONE
10U 1,1,1-TRICHLOROETHANE
10U CARBON TETRACHLORIDE
10U BROMODICHLOROMETHANE

UG/L ANALYTICAL RESULTS

10U 1,2-DICHLOROPROPANE
10U CIS-1,3-DICHLOROPROPENE
10U TRICHLOROETHENE (TRICHLOROETHYLENE)
10U DIBROMOCHLOROMETHANE
10U 1,1,2-TRICHLOROETHANE
10U BENZENE
10U TRANS-1,3-DICHLOROPROPENE
10U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
10U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U 1,1,2,2-TETRACHLOROETHANE
10U TOLUENE
10U CHLOROBENZENE
10U ETHYL BENZENE
10U STYRENE
10U TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/01/94

PURGEABLE ORGANICS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84149 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 1 COLLECTION START: 03/01/94 1015 STOP: 00/00/00 **
**
** CASE NO : 21694 SAS NO.: D. NO.: GW74 **

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

REMARKS

REMARKS

FOOTNOTES

*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.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/05/94

PURGEABLE ORGANICS DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84148 SAMPLE TYPE: SURFACEWA PROG ELEM. SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 0945 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO.: GW73 **

UG/L ANALYTICAL RESULTS

10U CHLOROMETHANE
10U BROMOMETHANE
10U VINYL CHLORIDE
10U CHLOROETHANE
10U METHYLENE CHLORIDE
10U ACETONE
10U CARBON DISULFIDE
10U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U 1,1-DICHLOROETHANE
10U 1,2-DICHLOROETHENE (TOTAL)
10U CHLOROFORM
10U 1,2-DICHLOROETHANE
10U METHYL ETHYL KETONE
10U 1,1,1-TRICHLOROETHANE
10U CARBON TETRACHLORIDE
10U BROMODICHLOROMETHANE

UG/L ANALYTICAL RESULTS

10U 1,2-DICHLOROPROPANE
10U CIS-1,3-DICHLOROPROPENE
10U TRICHLOROETHENE (TRICHLOROETHYLENE)
10U DIBROMOCHLOROMETHANE
10U 1,1,2-TRICHLOROETHANE
10U BENZENE
10U TRANS-1,3-DICHLOROPROPENE
10U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
10U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U 1,1,2,2-TETRACHLOROETHANE
10U TOLUENE
10U CHLOROBENZENE
10U ETHYL BENZENE
10U STYRENE
10U TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES

*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.
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SAMPLE AND ANALYSIS AGEMENT SYSTEM
EPA-REGION IV ECU, ATHENS, GA.

04, 05/94

PURGEABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84147 SAMPLE TYPE SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/01/94 0945 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO.: GW72 **
*** **

UG/L ANALYTICAL RESULTS

10U CHLOROMETHANE
10U BROMOMETHANE
10U VINYL CHLORIDE
10U CHLOROETHANE
10U METHYLENE CHLORIDE
14N ACETONE
10U CARBON DISULFIDE
10U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
10U 1,1-DICHLOROETHANE
10U 1,2-DICHLOROETHENE (TOTAL)
10U CHLOROFORM
10U 1,2-DICHLOROETHANE
10U METHYL ETHYL KETONE
10U 1,1,1-TRICHLOROETHANE
10U CARBON TETRACHLORIDE
10U BROMODICHLOROMETHANE

UG/L ANALYTICAL RESULTS

10U 1,2-DICHLOROPROPANE
10U CIS-1,3-DICHLOROPROPENE
10U TRICHLOROETHENE (TRICHLOROETHYLENE)
10U DIBROMOCHLOROMETHANE
10U 1,1,2-TRICHLOROETHANE
10U BENZENE
10U TRANS-1,3-DICHLOROPROPENE
10U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
10U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U 1,1,2,2-TETRACHLOROETHANE
10U TOLUENE
10U CHLOROBENZENE
10U ETHYL BENZENE
10U STYRENE
10U TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/11/94

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** ** ** ** **
** PROJECT NO 94-0316 SAMPLE NO. 84147 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/01/94 0945 STOP: 00/00/00 **
** CASE NO : 21694 SAS NO.: D. NO.: GW72 MD NO: GW72 **
** ** ** **

ANALYTICAL RESULTS UG/L

3JN HYDROXYBENZALDEHYDE
5JN HYDROXYBENZIC ACID

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04, _/_/94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** **
 ** PROJECT NO. 94-0316 SAMPLE NO. 84146 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
 ** SOURCE: ILCO CITY: LEEDS ST: AL **
 ** STATION ID. 4 COLLECTION START 03/01/94 0845 STOP. 00/00/00 **
 **
 ** CASE NO.: 21694 SAS NO.: D. NO. GW71 **
 *** ** ** ** **

UG/L ANALYTICAL RESULTS

10U CHLOROMETHANE
 10U BROMOMETHANE
 10U VINYL CHLORIDE
 10U CHLOROETHANE
 10U METHYLENE CHLORIDE
 10U ACETONE
 10U CARBON DISULFIDE
 10U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
 10U 1,1-DICHLOROETHANE
 10U 1,2-DICHLOROETHENE (TOTAL)
 10U CHLOROFORM
 10U 1,2-DICHLOROETHANE
 10U METHYL ETHYL KETONE
 10U 1,1,1-TRICHLOROETHANE
 10U CARBON TETRACHLORIDE
 10U BROMODICHLOROMETHANE

UG/L ANALYTICAL RESULTS

10U 1,2-DICHLOROPROPANE
 10U CIS-1,3-DICHLOROPROPENE
 10U TRICHLOROETHENE (TRICHLOROETHYLENE)
 10U DIBROMOCHLOROMETHANE
 10U 1,1,2-TRICHLOROETHANE
 10U BENZENE
 10U TRANS-1,3-DICHLOROPROPENE
 10U BROMOFORM
 10U METHYL ISOBUTYL KETONE
 10U METHYL BUTYL KETONE
 10U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
 10U 1,1,2,2-TETRACHLOROETHANE
 10U TOLUENE
 10U CHLOROBENZENE
 10U ETHYL BENZENE
 10U STYRENE
 10U TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES

*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

SAMPLE AND ANALYSIS REGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/11/94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84145 SAMPLE TYPE: SURFWTR PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/01/94 0810 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW70 **
*** ** ** ** **

UG/L ANALYTICAL RESULTS
10U CHLOROMETHANE
10U BROMOMETHANE
10U VINYL CHLORIDE
10U CHLOROETHANE
10U METHYLENE CHLORIDE
10U ACETONE
10U CARBON DISULFIDE
10U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
10U 1,1-DICHLOROETHANE
10U 1,2-DICHLOROETHENE (TOTAL)
10U CHLOROFORM
10U 1,2-DICHLOROETHANE
10U METHYL ETHYL KETONE
10U 1,1,1-TRICHLOROETHANE
10U CARBON TETRACHLORIDE
10U BROMODICHLOROMETHANE

UG/L ANALYTICAL RESULTS
10U 1,2-DICHLOROPROPANE
10U CIS-1,3-DICHLOROPROPENE
10U TRICHLOROETHENE (TRICHLOROETHYLENE)
10U DIBROMOCHLOROMETHANE
10U 1,1,2-TRICHLOROETHANE
10U BENZENE
10U TRANS-1,3-DICHLOROPROPENE
10U BROMOFORM
10U METHYL ISOBUTYL KETONE
10U METHYL BUTYL KETONE
10U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
10U 1,1,2,2-TETRACHLOROETHANE
10U TOLUENE
10U CHLOROBENZENE
10U ETHYL BENZENE
10U STYRENE
10U TOTAL XYLENES

REMARKS

REMARKS

FOOTNOTES

*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

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/..,94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** **
 ** PROJECT NO. 94-0316 SAMPLE NO. 84156 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
 ** SOURCE: ILCO CITY: LEEDS ST: AL **
 ** STATION ID: TB COLLECTION START. 03/01/94 1120 STOP. 00/00/00 **
 ** CASE NO.: 21694 SAS NO D. NO.: DGW83 **
 *** ** ** ** * ** ** ** **
 UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

12U CHLOROMETHANE
 12U BROMOMETHANE
 12U VINYL CHLORIDE
 12U CHLOROETHANE
 12U METHYLENE CHLORIDE
 12U ACETONE
 12U CARBON DISULFIDE
 12U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
 12U 1,1-DICHLOROETHANE
 12U 1,2-DICHLOROETHENE (TOTAL)
 12U CHLOROFORM
 12U 1,2-DICHLOROETHANE
 12U METHYL ETHYL KETONE
 12U 1,1,1-TRICHLOROETHANE
 12U CARBON TETRACHLORIDE
 12U BROMODICHLOROMETHANE

12U 1,2-DICHLOROPROPANE
 12U CIS-1,3-DICHLOROPROPENE
 12U TRICHLOROETHENE (TRICHLOROETHYLENE)
 12U DIBROMOCHLOROMETHANE
 12U 1,1,2-TRICHLOROETHANE
 12U BENZENE
 12U TRANS-1,3-DICHLOROPROPENE
 12U BROMOFORM
 12U METHYL ISOBUTYL KETONE
 12U METHYL BUTYL KETONE
 12U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
 12U 1,1,2,2-TETRACHLOROETHANE
 12U TOLUENE
 12U CHLOROBENZENE
 12U ETHYL BENZENE
 12U STYRENE
 12U TOTAL XYLENES
 19 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/00/94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** **
 ** PROJECT NO. 94-0316 SAMPLE NO. 84151 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
 ** SOURCE: ILCO CITY: LEEDS ST: AL **
 ** STATION ID: 0 COLLECTION START. 03/01/94 1430 STOP. 00/00/00 **
 ** CASE NO.: 21694 SAS NO.: D. NO.: GW77 **
 *** ** ** ** **

UG/KG ANALYTICAL RESULTS
 14U CHLOROMETHANE
 14U BROMOMETHANE
 14U VINYL CHLORIDE
 14U CHLOROETHANE
 14U METHYLENE CHLORIDE
 14U ACETONE
 14U CARBON DISULFIDE
 14U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
 14U 1,1-DICHLOROETHANE
 14U 1,2-DICHLOROETHENE (TOTAL)
 14U CHLOROFORM
 14U 1,2-DICHLOROETHANE
 14U METHYL ETHYL KETONE
 14U 1,1,1-TRICHLOROETHANE
 14U CARBON TETRACHLORIDE
 14U BROMODICHLOROMETHANE

UG/KG ANALYTICAL RESULTS
 14U 1,2-DICHLOROPROPANE
 14U CIS-1,3-DICHLOROPROPENE
 14U TRICHLOROETHENE (TRICHLOROETHYLENE)
 14U DIBROMOCHLOROMETHANE
 14U 1,1,2-TRICHLOROETHANE
 14U BENZENE
 14U TRANS-1,3-DICHLOROPROPENE
 14U BROMOFORM
 14U METHYL ISOBUTYL KETONE
 14U METHYL BUTYL KETONE
 14U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
 14U 1,1,2,2-TETRACHLOROETHANE
 14U TOLUENE
 14U CHLOROBENZENE
 14U ETHYL BENZENE
 14U STYRENE
 14U TOTAL XYLENES
 26 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*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.

04/11/94

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***UNRECORDED UNRECORDED UNRECORDED DATA REPORT***
** PROJECT NO. 94-0316 SAMPLE NO. 84151 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 0 COLLECTION START: 03/01/94 1430 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO. D NO.: GW77 MD NO: GW77 **
** ** ** ** **

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100JN	HEXADECANOIC ACID
1000.1	2 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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&L, ATHENS, GA.

04/05/94

PURGEABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84155 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 1 COLLECTION START: 03/01/94 1655 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO.: GW82 **
*** **

UG/KG ANALYTICAL RESULTS

13U CHLOROMETHANE
13U BROMOMETHANE
13U VINYL CHLORIDE
13U CHLOROETHANE
13U METHYLENE CHLORIDE
13U ACETONE
13U CARBON DISULFIDE
13U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
13U 1,1-DICHLOROETHANE
13U 1,2-DICHLOROETHENE (TOTAL)
13U CHLOROFORM
13U 1,2-DICHLOROETHANE
13U METHYL ETHYL KETONE
13U 1,1,1-TRICHLOROETHANE
13U CARBON TETRACHLORIDE
13U BROMODICHLOROMETHANE

UG/KG ANALYTICAL RESULTS

13U 1,2-DICHLOROPROPANE
13U CIS-1,3-DICHLOROPROPENE
13U TRICHLOROETHENE (TRICHLOROETHYLENE)
13U DIBROMOCHLOROMETHANE
13U 1,1,2-TRICHLOROETHANE
13U BENZENE
13U TRANS-1,3-DICHLOROPROPENE
13U BROMOFORM
13U METHYL ISOBUTYL KETONE
13U METHYL BUTYL KETONE
13U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
13U 1,1,2,2-TETRACHLOROETHANE
13U TOLUENE
13U CHLOROBENZENE
13U ETHYL BENZENE
13U STYRENE
13U TOTAL XYLENES
25 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

04/00/94

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84155 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST. AL **
** STATION ID: 1 COLLECTION START: 03/01/94 1655 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW82 MD NO: GW82 **
** **

ANALYTICAL RESULTS UG/KG

2000J 4 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/05/94

PURGEABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84154 SAMPLE TYPE: SOIL PROG ELEM SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 1620 STOP 00/00/00 **
**
** CASE NO.: 21694 SAS NO D NO.: GW81 **

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
14U	CHLOROMETHANE	14U	1,2-DICHLOROPROPANE
14U	BROMOMETHANE	14U	CIS-1,3-DICHLOROPROPENE
14U	VINYL CHLORIDE	14U	TRICHLOROETHENE (TRICHLOROETHYLENE)
14U	CHLOROETHANE	14U	DIBROMOCHLOROMETHANE
14U	METHYLENE CHLORIDE	14U	1,1,2-TRICHLOROETHANE
14U	ACETONE	14U	BENZENE
14U	CARBON DISULFIDE	14U	TRANS-1,3-DICHLOROPROPENE
14U	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)	14U	BROMOFORM
14U	1,1-DICHLOROETHANE	14U	METHYL ISOBUTYL KETONE
14U	1,2-DICHLOROETHENE (TOTAL)	14U	METHYL BUTYL KETONE
14U	CHLOROFORM	14U	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
14U	1,2-DICHLOROETHANE	14U	1,1,2,2-TETRACHLOROETHANE
14U	METHYL ETHYL KETONE	14U	TOLUENE
14U	1,1,1-TRICHLOROETHANE	14U	CHLOROBENZENE
14U	CARBON TETRACHLORIDE	14U	ETHYL BENZENE
14U	BROMODICHLOROMETHANE	14U	STYRENE
		14U	TOTAL XYLENES
		29	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

04/00/94

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** * * * *
** PROJECT NO. 94-0316 SAMPLE NO. 84154 SAMPLE TYPE SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 1620 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW81 MD NO: GW81 **
** * * * * *

ANALYTICAL RESULTS UG/KG

2000JN TETRAMETHYLBUTYLPHENOL
20000J 13 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS CEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04/01/94

PURGEABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84153 SAMPLE TYPE: SOIL PROG ELEM. SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START. 03/01/94 1600 STOP. 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D NO.: GW80 **

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
14U	CHLOROMETHANE	14U	1,2-DICHLOROPROPANE
14U	BROMOMETHANE	14U	CIS-1,3-DICHLOROPROPENE
14U	VINYL CHLORIDE	14U	TRICHLOROETHENE (TRICHLOROETHYLENE)
14U	CHLOROETHANE	14U	DIBROMOCHLOROMETHANE
14U	METHYLENE CHLORIDE	14U	1,1,2-TRICHLOROETHANE
14U	ACETONE	14U	BENZENE
14U	CARBON DISULFIDE	14U	TRANS-1,3-DICHLOROPROPENE
14U	1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)	14U	BROMOFORM
14U	1,1-DICHLOROETHANE	14U	METHYL ISOBUTYL KETONE
14U	1,2-DICHLOROETHENE (TOTAL)	14U	METHYL BUTYL KETONE
14U	CHLOROFORM	14U	TETRACHLOROETHENE (TETRACHLOROETHYLENE)
14U	1,2-DICHLOROETHANE	14U	1,1,2,2-TETRACHLOROETHANE
14U	METHYL ETHYL KETONE	14U	TOLUENE
14U	1,1,1-TRICHLOROETHANE	14U	CHLOROBENZENE
14U	CARBON TETRACHLORIDE	14U	ETHYL BENZENE
14U	BROMODICHLOROMETHANE	14U	STYRENE
		14U	TOTAL XYLENES
		26	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*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
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SAMPLE AND ANALYSIS AGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/06/94

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84153 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/01/94 1600 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D NO.: GW80 MD NO: GW80 **
**

ANALYTICAL RESULTS UG/KG

300JN HEXADECANOIC ACID
3000J 6 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*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
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04, ., 94

PURGEABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84152 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY LEEDS ST: AL **
** STATION ID: 4 COLLECTION START: 03/01/94 1540 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW79 **
*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

15U CHLOROMETHANE
15U BROMOMETHANE
15U VINYL CHLORIDE
15U CHLOROETHANE
15U METHYLENE CHLORIDE
28NJ ACETONE
15U CARBON DISULFIDE
15U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
15U 1,1-DICHLOROETHANE
15U 1,2-DICHLOROETHENE (TOTAL)
15U CHLOROFORM
15U 1,2-DICHLOROETHANE
15U METHYL ETHYL KETONE
15U 1,1,1-TRICHLOROETHANE
15U CARBON TETRACHLORIDE
15U BROMODICHLOROMETHANE

15U 1,2-DICHLOROPROPANE
15U CIS-1,3-DICHLOROPROPENE
15U TRICHLOROETHENE(TRICHLOROETHYLENE)
15U DIBROMOCHLOROMETHANE
15U 1,1,2-TRICHLOROETHANE
15U BENZENE
15U TRANS-1,3-DICHLOROPROPENE
15U BROMOFORM
15U METHYL ISOBUTYL KETONE
15U METHYL BUTYL KETONE
15U TETRACHLOROETHENE(TETRACHLOROETHYLENE)
15U 1,1,2,2-TETRACHLOROETHANE
15U TOLUENE
15U CHLOROBENZENE
15U ETHYL BENZENE
15U STYRENE
15U TOTAL XYLENES
32 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*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
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SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04/.../94

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

*** * * * *
** PROJECT NO. 94-0316 SAMPLE NO. 84152 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST. AL **
** STATION ID: 4 COLLECTION START: 03/01/94 1540 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO : GW79 MD NO: GW79 **
** * * * * *

ANALYTICAL RESULTS UG/KG

2000J 3 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&I, ATHENS, GA.

04, 11/94

PURGEABLE ORGANICS DATA REPORT

*** ** ** ** **
 ** PROJECT NO. 94-0316 SAMPLE NO. 84902 SAMPLE TYPE: SOIL PROG ELEM. SSF COLLECTED BY: P MEYER **
 ** SOURCE: ILCO CITY: LEEDS ST: AL **
 ** STATION ID: 5 COLLECTION START. 03/01/94 1510 STOP. 00/00/00 **
 **
 ** CASE NO.: 21694 SAS NO.: 8318D D NO.: GW78 **
 *** ** ** ** **
 UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

15U CHLOROMETHANE
 15U BROMOMETHANE
 15U VINYL CHLORIDE
 15U CHLOROETHANE
 15U METHYLENE CHLORIDE
 16NJ ACETONE
 15U CARBON DISULFIDE
 15U 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE)
 15U 1,1-DICHLOROETHANE
 15U 1,2-DICHLOROETHENE (TOTAL)
 15U CHLOROFORM
 15U 1,2-DICHLOROETHANE
 15U METHYL ETHYL KETONE
 15U 1,1,1-TRICHLOROETHANE
 15U CARBON TETRACHLORIDE
 15U BROMODICHLOROMETHANE

15U 1,2-DICHLOROPROPANE
 15U CIS-1,3-DICHLOROPROPENE
 15U TRICHLOROETHENE (TRICHLOROETHYLENE)
 15U DIBROMOCHLOROMETHANE
 15U 1,1,2-TRICHLOROETHANE
 15U BENZENE
 15U TRANS-1,3-DICHLOROPROPENE
 15U BROMOFORM
 15U METHYL ISOBUTYL KETONE
 15U METHYL BUTYL KETONE
 15U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
 15U 1,1,2,2-TETRACHLOROETHANE
 15U TOLUENE
 15U CHLOROBENZENE
 15U ETHYL BENZENE
 15U STYRENE
 15U TOTAL XYLENES
 35 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

04/05/94

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84902 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/01/94 1510 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: GW78 MD NO: **
**

ANALYTICAL RESULTS UG/KG

200JN DIHYDROMETHYLETHENYLNAPHTHOFURAN
200JN HEXADECANOIC ACID
200JN BENZOFLUORENE
4000J 6 UNIDENTIFIED COMPOUNDS

FOOTNOTES

*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
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 04/07/94

SUBJECT: Results of Extractable Organic Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper
Chief, Laboratory Evaluation/Quality Assurance Section

TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT

RECEIVED
APR 13 1994

ORGANIC DATA QUALIFIER REPORT

Case Number 21694 Project Number 94-0316 SAS Number
 Site ID. ILCO, Leeds, AL

<u>Affected Samples</u>	<u>Compound or Fraction</u>	<u>Flag Used</u>	<u>Reason</u>
<u>Volatiles</u>			
84147	acetone	N	common lab contaminant
84152, 84902	acetone	N J	common lab contaminant erratic response factor
<u>Extractables</u>			
84152	di-n-octylphthalate	J	low internal standard recovery
	benzo(b/k)fluoranthene	J	low internal standard recovery
	benzo(a)pyrene	J	low internal standard recovery
	indeno(1,2,3-cd)pyrene	J	low internal standard recovery
	dibenz(a,h)anthracene	J	low internal standard recovery
	benzo(g,h,i)perylene	J	low internal standard recovery
84154	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	chrysene	J	< quantitation limit
	di-n-octylphthalate	J	low internal standard recovery
	benzo(b/k)fluoranthene	J	low internal standard recovery
	benzo(a)pyrene	J	low internal standard recovery
	indeno(1,2,3-cd)pyrene	J	low internal standard recovery
	dibenz(a,h)anthracene	J	low internal standard recovery
	benzo(g,h,i)perylene	J	low internal standard recovery
84902	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
<u>Pesticides</u>			
None			

SAMPLE AND ANALYSIS ELEMENT SYSTEM
EPA-REGION IV ESL, ATHENS, GA.

04/ 04

EXTRACTABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84150 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 0 COLLECTION START: 03/01/94 1120 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO : GW75 **
*** ** ** ** *

UG/L ANALYTICAL RESULTS

10U PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U 2,2'-CHLOROISOPROPYLETHER
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCCP)
10U 2,4,6-TRICHLOROPHENOL
25U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
25U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

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

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
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SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ES. ATHENS, GA.

04, , 94

EXTRACTABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84149 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 1 COLLECTION START. 03/01/94 1015 STOP: 00/00/00 **
** ** ** **

** CASE NO.: 21694 SAS NO : D. NO. GW74 **
*** ** ** ** **

UG/L ANALYTICAL RESULTS

10U PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U 2,2'-CHLOROISOPROPYLETHER
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCCP)
10U 2,4,6-TRICHLOROPHENOL
25U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
25U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

25U 3-NITROANILINE
10U ACENAPHTHENE
25U 2,4-DINITROPHENOL
25U 4-NITROPHENOL
10U DIBENZOFURAN
10U 2,4-DINITROTOLUENE
10U DIETHYL PHTHALATE
10U 4-CHLOROPHENYL PHENYL ETHER
10U FLUORENE
25U 4-NITROANILINE
25U 2-METHYL-4,6-DINITROPHENOL
10U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
10U 4-BROMOPHENYL PHENYL ETHER
10U HEXACHLOROBENZENE (HCB)
25U PENTACHLOROPHENOL
10U PHENANTHRENE
10U ANTHRACENE
10U CARBAZOLE
10U DI-N-BUTYLPHTHALATE
10U FLUORANTHENE
10U PYRENE
10U BENZYL BUTYL PHTHALATE
10U 3,3'-DICHLOROBENZIDINE
10U BENZO(A)ANTHRACENE
10U CHRYSENE
20U BIS(2-ETHYLHEXYL) PHTHALATE
10U DI-N-OCTYLPHTHALATE
10U BENZO(B AND/OR K)FLUORANTHENE
10U BENZO-A-PYRENE
10U INDENO (1,2,3-CD) PYRENE
10U DIBENZO(A,H)ANTHRACENE
10U BENZO(GHI)PERYLENE

REMARKS

REMARKS

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&L, ATHENS, GA.

04/11/94

EXTRACTABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84148 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 0945 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO.: GW73 **
*** ** ** ** **
UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

10U PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U 2,2'-CHLOROISOPROPYLETHER
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCCP)
10U 2,4,6-TRICHLOROPHENOL
25U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
25U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

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

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&A, ATHENS, GA.

04, ., 94

EXTRACTABLE ORGANICS DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84147 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 3 COLLECTION START. 03/01/94 0945 STOP. 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW72 **
*** ** ** ** * UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS ***

12 PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U 2,2'-CHLOROISOPROPYLETHER
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCCP)
10U 2,4,6-TRICHLOROPHENOL
25U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
25U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

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

EPA Reg IV
Screening list

maximum
(1000)
1020

maximum
(1000)
254

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/ ,94

EXTRACTABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84146 SAMPLE TYPE SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 4 COLLECTION START: 03/01/94 0845 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW71 **
*** **

UG/L ANALYTICAL RESULTS

10U PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U 2,2'-CHLOROISOPROPYLETH
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCLP)
10U 2,4,6-TRICHLOROPHENOL
25U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
25U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

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

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04, 15/94

EXTRACTABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84145 SAMPLE TYPE: SURFWTR PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/01/94 0810 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW70 **
*** **

UG/L ANALYTICAL RESULTS

10U PHENOL
10U BIS(2-CHLOROETHYL) ETHER
10U 2-CHLOROPHENOL
10U 1,3-DICHLOROBENZENE
10U 1,4-DICHLOROBENZENE
10U 1,2-DICHLOROBENZENE
10U 2-METHYLPHENOL
10U 2,2'-CHLOROISOPROPYLETHER
10U (3-AND/OR 4-)METHYLPHENOL
10U N-NITROSODI-N-PROPYLAMINE
10U HEXACHLOROETHANE
10U NITROBENZENE
10U ISOPHORONE
10U 2-NITROPHENOL
10U 2,4-DIMETHYLPHENOL
10U BIS(2-CHLOROETHOXY) METHANE
10U 2,4-DICHLOROPHENOL
10U 1,2,4-TRICHLOROBENZENE
10U NAPHTHALENE
10U 4-CHLOROANILINE
10U HEXACHLOROBUTADIENE
10U 4-CHLORO-3-METHYLPHENOL
10U 2-METHYLNAPHTHALENE
10U HEXACHLOROCYCLOPENTADIENE (HCCP)
10U 2,4,6-TRICHLOROPHENOL
25U 2,4,5-TRICHLOROPHENOL
10U 2-CHLORONAPHTHALENE
25U 2-NITROANILINE
10U DIMETHYL PHTHALATE
10U ACENAPHTHYLENE
10U 2,6-DINITROTOLUENE

UG/L ANALYTICAL RESULTS

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

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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04, - - /94

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** CASE NO : 21694          SAS NO .          D. NO.: GW77          **
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UG/KG      ANALYTICAL RESULTS          UG/KG      ANALYTICAL RESULTS

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1100U 3-NITROANILINE
440U ACENAPHTHENE
1100U 2,4-DINITROPHENOL
1100U 4-NITROPHENOL
440U DIBENZOFURAN
440U 2,4-DINITROTOLUENE
440U DIETHYL PHTHALATE
440U 4-CHLOROPHENYL PHENYL ETHER
440U FLUORENE
1100U 4-NITROANILINE
1100U 2-METHYL-4,6-DINITROPHENOL
440U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
440U 4-BROMOPHENYL PHENYL ETHER
440U HEXACHLOROBENZENE (HCB)
1100U PENTACHLOROPHENOL
440U PHENANTHRENE
440U ANTHRACENE
440U CARBAZOLE
440U DI-N-BUTYL PHTHALATE
440U FLUORANTHENE
440U PYRENE
440U BENZYL BUTYL PHTHALATE
440U 3,3'-DICHLOROBENZIDINE
440U BENZO(A)ANTHRACENE
440U CHRYSENE
440U BIS(2-ETHYLHEXYL) PHTHALATE
440U DI-N-OCTYL PHTHALATE
440U BENZO(B AND/OR K)FLUORANTHENE
440U BENZO-A-PYRENE
440U INDENO (1,2,3-CD) PYRENE
440U DIBENZO(A,H)ANTHRACENE
440U BENZO(GH)PERYLENE
26 PERCENT MOISTURE

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*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
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04/00/94

EXTRACTABLE ORGANICS DATA REPORT

*** ** PROJECT NO. 94-0316 SAMPLE NO. 84155 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 1 COLLECTION START: 03/01/94 1655 STOP: 00/00/00 **

*** CASE NO.: 21694 SAS NO : D. NO.: GW82 ***

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
440U	PHENOL	1100U	3-NITROANILINE
440U	BIS(2-CHLOROETHYL) ETHER	440U	ACENAPHTHENE
440U	2-CHLOROPHENOL	1100U	2,4-DINITROPHENOL
440U	1,3-DICHLOROBENZENE	1100U	4-NITROPHENOL
440U	1,4-DICHLOROBENZENE	440U	DIBENZOFURAN
440U	1,2-DICHLOROBENZENE	440U	2,4-DINITROTOLUENE
440U	2-METHYLPHENOL	440U	DIETHYL PHTHALATE
440U	2,2'-CHLOROISOPROPYLETHER	440U	4-CHLOROPHENYL PHENYL ETHER
440U	(3-AND/OR 4-)METHYLPHENOL	440U	FLUORENE
440U	N-NITROSODI-N-PROPYLAMINE	1100U	4-NITROANILINE
440U	HEXACHLOROETHANE	1100U	2-METHYL-4,6-DINITROPHENOL
440U	NITROBENZENE	440U	N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
440U	ISOPHORONE	440U	4-BROMOPHENYL PHENYL ETHER
440U	2-NITROPHENOL	440U	HEXACHLOROBENZENE (HCB)
440U	2,4-DIMETHYLPHENOL	1100U	PENTACHLOROPHENOL
440U	BIS(2-CHLOROETHOXY) METHANE	440U	PHENANTHRENE
440U	2,4-DICHLOROPHENOL	440U	ANTHRACENE
440U	1,2,4-TRICHLOROBENZENE	440U	CARBAZOLE
440U	NAPHTHALENE	440U	DI-N-BUTYLPHTHALATE
440U	4-CHLOROANILINE	440U	FLUORANTHENE
440U	HEXACHLOROBUTADIENE	440U	PYRENE
440U	4-CHLORO-3-METHYLPHENOL	440U	BENZYL BUTYL PHTHALATE
440U	2-METHYLNAPHTHALENE	440U	3,3'-DICHLOROBENZIDINE
440U	HEXACHLOROCYCLOPENTADIENE (HCCP)	440U	BENZO(A)ANTHRACENE
440U	2,4,6-TRICHLOROPHENOL	440U	CHRYSENE
1100U	2,4,5-TRICHLOROPHENOL	440U	BIS(2-ETHYLHEXYL) PHTHALATE
440U	2-CHLORONAPHTHALENE	440U	DI-N-OCTYLPHTHALATE
1100U	2-NITROANILINE	440U	BENZO(B AND/OR K)FLUORANTHENE
440U	DIMETHYL PHTHALATE	440U	BENZO-A-PYRENE
440U	ACENAPHTHYLENE	440U	INDENO (1,2,3-CD) PYRENE
440U	2,6-DINITROTOLUENE	440U	DIBENZO(A,H)ANTHRACENE
		440U	BENZO(GHI)PERYLENE
		25	PERCENT MOISTURE

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04/00/94

EXTRACTABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84154 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 1620 STOP: 00/00/00 **
** CASE NO.: 21694 SAS NO.: D. NO.: GW81 **
*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

460U PHENOL
460U BIS(2-CHLOROETHYL) ETHER
460U 2-CHLOROPHENOL
460U 1,3-DICHLOROBENZENE
460U 1,4-DICHLOROBENZENE
460U 1,2-DICHLOROBENZENE
460U 2-METHYLPHENOL
460U 2,2'-CHLOROISOPROPYLETHER
460U (3-AND/OR 4-)METHYLPHENOL
460U N-NITROSODI-N-PROPYLAMINE
460U HEXACHLOROETHANE
460U NITROBENZENE
460U ISOPHORONE
460U 2-NITROPHENOL
460U 2,4-DIMETHYLPHENOL
460U BIS(2-CHLOROETHOXY) METHANE
460U 2,4-DICHLOROPHENOL
460U 1,2,4-TRICHLOROBENZENE
460U NAPHTHALENE
460U 4-CHLOROANILINE
460U HEXACHLOROBUTADIENE
460U 4-CHLORO-3-METHYLPHENOL
460U 2-METHYLNAPHTHALENE
460U HEXACHLOROCYCLOPENTADIENE (HCCP)
460U 2,4,6-TRICHLOROPHENOL
1100U 2,4,5-TRICHLOROPHENOL
460U 2-CHLORONAPHTHALENE
1100U 2-NITROANILINE
460U DIMETHYL PHTHALATE
460U ACENAPHTHYLENE
460U 2,6-DINITROTOLUENE

1100U 3-NITROANILINE
460U ACENAPHTHENE
1100U 2,4-DINITROPHENOL
1100U 4-NITROPHENOL
460U DIBENZOFURAN
460U 2,4-DINITROTOLUENE
460U DIETHYL PHTHALATE
460U 4-CHLOROPHENYL PHENYL ETHER
460U FLUORENE
1100U 4-NITROANILINE
1100U 2-METHYL-4,6-DINITROPHENOL
460U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
460U 4-BROMOPHENYL PHENYL ETHER
460U HEXACHLOROBENZENE (HCB)
1100U PENTACHLOROPHENOL
460U PHENANTHRENE
460U ANTHRACENE
460U CARBAZOLE
460U DI-N-BUTYLPHTHALATE
120J FLUORANTHENE
170J PYRENE
460U BENZYL BUTYL PHTHALATE
460U 3,3'-DICHLOROBENZIDINE
460U BENZO(A)ANTHRACENE
110J CHRYSENE
460U BIS(2-ETHYLHEXYL) PHTHALATE
460UJ DI-N-OCTYLPHTHALATE
460UJ BENZO(B AND/OR K)FLUORANTHENE
460UJ BENZO-A-PYRENE
460UJ INDENO (1,2,3-CD) PYRENE
460UJ DIBENZO(A,H)ANTHRACENE
460UJ BENZO(GH)PERYLENE
29 PERCENT MOISTURE

< quantitation limit
low internal standard
recovery

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04/11/94

EXTRACTABLE ORGANICS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84153 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 3 COLLECTION START: 03/01/94 1600 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO.: GW80 **
*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

440U PHENOL
440U BIS(2-CHLOROETHYL) ETHER
440U 2-CHLOROPHENOL
440U 1,3-DICHLOROBENZENE
440U 1,4-DICHLOROBENZENE
440U 1,2-DICHLOROBENZENE
440U 2-METHYLPHENOL
440U 2,2'-CHLOROISOPROPYLETHER
440U (3-AND/OR 4-)METHYLPHENOL
440U N-NITROSODI-N-PROPYLAMINE
440U HEXACHLOROETHANE
440U NITROBENZENE
440U ISOPHORONE
440U 2-NITROPHENOL
440U 2,4-DIMETHYLPHENOL
440U BIS(2-CHLOROETHOXY) METHANE
440U 2,4-DICHLOROPHENOL
440U 1,2,4-TRICHLOROBENZENE
440U NAPHTHALENE
440U 4-CHLOROANILINE
440U HEXACHLOROBUTADIENE
440U 4-CHLORO-3-METHYLPHENOL
440U 2-METHYLNAPHTHALENE
440U HEXACHLOROCYCLOPENTADIENE (HCCP)
440U 2,4,6-TRICHLOROPHENOL
1100U 2,4,5-TRICHLOROPHENOL
440U 2-CHLORONAPHTHALENE
1100U 2-NITROANILINE
440U DIMETHYL PHTHALATE
440U ACENAPHTHYLENE
440U 2,6-DINITROTOLUENE

1100U 3-NITROANILINE
440U ACENAPHTHENE
1100U 2,4-DINITROPHENOL
1100U 4-NITROPHENOL
440U DIBENZOFURAN
440U 2,4-DINITROTOLUENE
440U DIETHYL PHTHALATE
440U 4-CHLOROPHENYL PHENYL ETHER
440U FLUORENE
1100U 4-NITROANILINE
1100U 2-METHYL-4,6-DINITROPHENOL
440U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
440U 4-BROMOPHENYL PHENYL ETHER
440U HEXACHLOROBENZENE (HCB)
440U PENTACHLOROPHENOL
440U PHENANTHRENE
440U ANTHRACENE
440U CARBAZOLE
440U DI-N-BUTYLPHTHALATE
440U FLUORANTHENE
440U PYRENE
440U BENZYL BUTYL PHTHALATE
440U 3,3'-DICHLOROBENZIDINE
440U BENZO(A)ANTHRACENE
440U CHRYSENE
440U BIS(2-ETHYLHEXYL) PHTHALATE
440U DI-N-OCTYLPHTHALATE
440U BENZO(B AND/OR K)FLUORANTHENE
440U BENZO-A-PYRENE
440U INDENO (1,2,3-CD) PYRENE
440U DIBENZO(A,H)ANTHRACENE
440U BENZO(GH)PERYLENE
26 PERCENT MOISTURE

FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04/05/94

EXTRACTABLE ORGANICS DATA REPORT

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*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84152 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 4 COLLECTION START: 03/01/94 1540 STOP: 00/00/00 **
**
** CASE NO.: 21694 SAS NO.: D. NO.: GW79 **
*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

```

480U PHENOL
 480U BIS(2-CHLOROETHYL) ETHER
 480U 2-CHLOROPHENOL
 480U 1,3-DICHLOROBENZENE
 480U 1,4-DICHLOROBENZENE
 480U 1,2-DICHLOROBENZENE
 480U 2-METHYLPHENOL
 480U 2,2'-CHLOROISOPROPYLETHER
 480U (3-AND/OR 4-)METHYLPHENOL
 480U N-NITROSODI-N-PROPYLAMINE
 480U HEXACHLOROETHANE
 480U NITROBENZENE
 480U ISOPHORONE
 480U 2-NITROPHENOL
 480U 2,4-DIMETHYLPHENOL
 480U BIS(2-CHLOROETHOXY) METHANE
 480U 2,4-DICHLOROPHENOL
 480U 1,2,4-TRICHLOROBENZENE
 480U NAPHTHALENE
 480U 4-CHLOROANILINE
 480U HEXACHLOROBUTADIENE
 480U 4-CHLORO-3-METHYLPHENOL
 480U 2-METHYLNAPHTHALENE
 480U HEXACHLOROCYCLOPENTADIENE (HCCP)
 480U 2,4,6-TRICHLOROPHENOL
 1200U 2,4,5-TRICHLOROPHENOL
 480U 2-CHLORONAPHTHALENE
 1200U 2-NITROANILINE
 480U DIMETHYL PHTHALATE
 480U ACENAPHTHYLENE
 480U 2,6-DINITROTOLUENE

1200U 3-NITROANILINE
 480U ACENAPHTHENE
 1200U 2,4-DINITROPHENOL
 1200U 4-NITROPHENOL
 480U DIBENZOFURAN
 480U 2,4-DINITROTOLUENE
 480U DIETHYL PHTHALATE
 480U 4-CHLOROPHENYL PHENYL ETHER
 480U FLUORENE
 1200U 4-NITROANILINE
 1200U 2-METHYL-4,6-DINITROPHENOL
 480U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
 480U 4-BROMOPHENYL PHENYL ETHER
 480U HEXACHLOROBENZENE (HCB)
 1200U PENTACHLOROPHENOL
 480U PHENANTHRENE
 480U ANTHRACENE
 480U CARBAZOLE
 480U DI-N-BUTYLPHTHALATE
 480U FLUORANTHENE
 480U PYRENE
 480U BENZYL BUTYL PHTHALATE
 480U 3,3'-DICHLOROBENZIDINE
 480U BENZO(A)ANTHRACENE
 480U CHRYSENE
 480U BIS(2-ETHYLHEXYL) PHTHALATE
 480UJ DI-N-OCTYLPHTHALATE
 480UJ BENZO(B AND/OR K)FLUORANTHENE
 480UJ BENZO-A-PYRENE
 480UJ INDENO (1,2,3-CD) PYRENE
 480UJ DIBENZO(A,H)ANTHRACENE
 480UJ BENZO(GH)PERYLENE
 32 PERCENT MOISTURE

FOOTNOTES

*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.
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&L, ATHENS, GA.

04, --, 94

EXTRACTABLE ORGANICS DATA REPORT

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*** **
** PROJECT NO. 94-0316  SAMPLE NO. 84902  SAMPLE TYPE: SOIL  PROG ELEM: SSF  COLLECTED BY: P MEYER  **
** SOURCE: ILCO  CITY: LEEDS  ST: AL  **
** STATION ID. 5  COLLECTION START: 03/01/94  1510  STOP. 00/00/00  **
**
** CASE NO.: 21694  SAS NO.: 8318D  D. NO : GW78  **
*** **
UG/KG  ANALYTICAL RESULTS  UG/KG  ANALYTICAL RESULTS

```

510U PHENOL
 510U BIS(2-CHLOROETHYL) ETHER
 510U 2-CHLOROPHENOL
 510U 1,3-DICHLOROBENZENE
 510U 1,4-DICHLOROBENZENE
 510U 1,2-DICHLOROBENZENE
 510U 2-METHYLPHENOL
 510U 2,2'-CHLOROISOPROPYLETHER
 510U (3-AND/OR 4-)METHYLPHENOL
 510U N-NITROSODI-N-PROPYLAMINE
 510U HEXACHLOROETHANE
 510U NITROBENZENE
 510U ISOPHORONE
 510U 2-NITROPHENOL
 510U 2,4-DIMETHYLPHENOL
 510U BIS(2-CHLOROETHOXY) METHANE
 510U 2,4-DICHLOROPHENOL
 510U 1,2,4-TRICHLOROBENZENE
 510U NAPHTHALENE
 510U 4-CHLOROANILINE
 510U HEXACHLOROBUTADIENE
 510U 4-CHLORO-3-METHYLPHENOL
 510U 2-METHYLNAPHTHALENE
 510U HEXACHLOROCYCLOPENTADIENE (HCCP)
 510U 2,4,6-TRICHLOROPHENOL
 1200U 2,4,5-TRICHLOROPHENOL
 510U 2-CHLORONAPHTHALENE
 1200U 2-NITROANILINE
 510U DIMETHYL PHTHALATE
 510U ACENAPHTHYLENE
 510U 2,6-DINITROTOLUENE

1200U 3-NITROANILINE
 510U ACENAPHTHENE
 1200U 2,4-DINITROPHENOL
 1200U 4-NITROPHENOL
 510U DIBENZOFURAN
 510U 2,4-DINITROTOLUENE
 510U DIETHYL PHTHALATE
 510U 4-CHLOROPHENYL PHENYL ETHER
 510U FLUORENE
 1200U 4-NITROANILINE
 1200U 2-METHYL-4,6-DINITROPHENOL
 510U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
 510U 4-BROMOPHENYL PHENYL ETHER
 510U HEXACHLOROBENZENE (HCB)
 1200U PENTACHLOROPHENOL
 370J PHENANTHRENE
 82J ANTHRACENE
 510U CARBAZOLE
 510U DI-N-BUTYLPHTHALATE
 620 FLUORANTHENE
 620 PYRENE
 510U BENZYL BUTYL PHTHALATE
 510U 3,3'-DICHLOROBENZIDINE
 350J BENZO(A)ANTHRACENE
 340J CHRYSENE
 510U BIS(2-ETHYLHEXYL) PHTHALATE
 510U DI-N-OCTYLPHTHALATE
 660 BENZO(B AND/OR K)FLUORANTHENE
 260J BENZO-A-PYRENE
 130J INDENO (1,2,3-CD) PYRENE
 510U DIBENZO(A,H)ANTHRACENE
 510U BENZO(GH)PERYLENE
 35 PERCENT MOISTURE

< quantitation limit

< quant limit

low internal standard recovery

< quant limit

	FR: L (91)	FR: M (91)	FR: L (91)	FR: M (91)
fluoranthene	606	6100	600	6600
pyrene	665	2600	350	2200

FOOTNOTES

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 04/07/94

SUBJECT: Results of Pesticide/PCB Analysis;
94-0316 ILCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper
Chief, Laboratory Evaluation/Quality Assurance Section

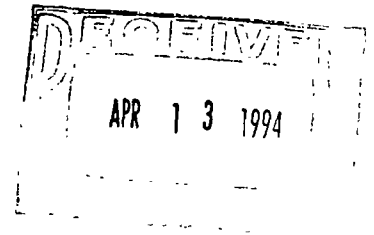
TO: BILL BOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT



ORGANIC DATA QUALIFIER REPORT

Case Number 21694 Project Number 94-0316 SAS Number
 Site ID. ILCO, Leeds, AL

<u>Affected Samples</u>	<u>Compound or Fraction</u>	<u>Flag Used</u>	<u>Reason</u>
<u>Volatiles</u>			
84147	acetone	N	common lab contaminant
84152, 84902	acetone	N J	common lab contaminant erratic response factor
<u>Extractables</u>			
84152	di-n-octylphthalate	J	low internal standard recovery
	benzo(b/k)fluoranthene	J	low internal standard recovery
	benzo(a)pyrene	J	low internal standard recovery
	indeno(1,2,3-cd)pyrene	J	low internal standard recovery
	dibenz(a,h)anthracene	J	low internal standard recovery
	benzo(g,h,i)perylene	J	low internal standard recovery
84154	fluoranthene	J	< quantitation limit
	pyrene	J	< quantitation limit
	chrysene	J	< quantitation limit
	di-n-octylphthalate	J	low internal standard recovery
	benzo(b/k)fluoranthene	J	low internal standard recovery
	benzo(a)pyrene	J	low internal standard recovery
	indeno(1,2,3-cd)pyrene	J	low internal standard recovery
	dibenz(a,h)anthracene	J	low internal standard recovery
	benzo(g,h,i)perylene	J	low internal standard recovery
84902	phenanthrene	J	< quantitation limit
	anthracene	J	< quantitation limit
	benzo(a)anthracene	J	< quantitation limit
	chrysene	J	< quantitation limit
	benzo(a)pyrene	J	< quantitation limit
	indeno(1,2,3-cd)pyrene	J	< quantitation limit
<u>Pesticides</u>			
None			

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/00/94

PESTICIDES/PCB'S DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84145 SAMPLE TYPE: SURFWTR PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/01/94 0810 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D NUMBER: GW70 **
**

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES

*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
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*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 AND ANALYSIS AGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/06/94

PESTICIDES/PCB'S DATA REPORT

*** ** ** ** **
** PROJECT NO. 94-0316 SAMPLE NO. 84146 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 4 COLLECTION START 03/01/94 0845 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D. NUMBER: GW71 **
** **

*** ** ** ** * UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS ***

0.050U ALPHA-BHC
0.050U BETA-BHC
0.050U DELTA-BHC
0.050U GAMMA-BHC (LINDANE)
0.050U HEPTACHLOR
0.050U ALDRIN
0.050U HEPTACHLOR EPOXIDE
0.050U ENDOSULFAN I (ALPHA)
0.10U DIELDRIN
0.10U 4,4'-DDE (P,P'-DDE)
0.10U ENDRIN
0.10U ENDOSULFAN II (BETA)
0.10U 4,4'-DDD (P,P'-DDD)
0.10U ENDOSULFAN SULFATE
0.10U 4,4'-DDT (P,P'-DDT)

0.50U METHOXYCHLOR
0.10U ENDRIN KETONE
0.10U ENDRIN ALDEHYDE
-- CHLORDANE (TECH MIXTURE) /1
0.050U GAMMA-CHLORDANE /2
0.050U ALPHA-CHLORDANE /2
5.0U TOXAPHENE
1.0U PCB-1016 (AROCOR 1016)
2.0U PCB-1221 (AROCOR 1221)
1.0U PCB-1232 (AROCOR 1232)
1.0U PCB-1242 (AROCOR 1242)
1.0U PCB-1248 (AROCOR 1248)
1.0U PCB-1254 (AROCOR 1254)
1.0U PCB-1260 (AROCOR 1260)

REMARKS

REMARKS

FOOTNOTES

*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
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*C-CONFIRMED BY GCMS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.
2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS, AGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/06/94

PESTICIDES/PCB'S DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84147 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/01/94 0945 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D. NUMBER: GW72 **
**

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES

*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 AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

04/06/94

PESTICIDES/PCB'S DATA REPORT

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*** **
** PROJECT NO. 94-0316  SAMPLE NO. 84148  SAMPLE TYPE: SURFACEWA  PROG ELEM: SSF  COLLECTED BY: P MEYER  **
** SOURCE: ILCO  CITY: LEEDS  ST: AL  **
** STATION ID. 2  COLLECTION START: 03/01/94  0945  STOP: 00/00/00  **
** CASE NUMBER: 21694  SAS NUMBER:  D. NUMBER: GW73  **
**

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UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES

*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
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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

04/06/94

PESTICIDES/PCB'S DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84149 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: P MEYER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 1 COLLECTION START: 03/01/94 1015 STOP: 00/00/00
** CASE NUMBER: 21694 SAS NUMBER: D. NUMBER: GW74
**

UG/L	ANALYTICAL RESULTS	UG/L	ANALYTICAL RESULTS
0.050U	ALPHA-BHC	0.50U	METHOXYCHLOR
0.050U	BETA-BHC	0.10U	ENDRIN KETONE
0.050U	DELTA-BHC	0.10U	ENDRIN ALDEHYDE
0.050U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
0.050U	HEPTACHLOR	0.050U	GAMMA-CHLORDANE /2
0.050U	ALDRIN	0.050U	ALPHA-CHLORDANE /2
0.050U	HEPTACHLOR EPOXIDE	5.0U	TOXAPHENE
0.050U	ENDOSULFAN I (ALPHA)	1.0U	PCB-1016 (AROCLOR 1016)
0.10U	DIELDRIN	2.0U	PCB-1221 (AROCLOR 1221)
0.10U	4,4'-DDE (P,P'-DDE)	1.0U	PCB-1232 (AROCLOR 1232)
0.10U	ENDRIN	1.0U	PCB-1242 (AROCLOR 1242)
0.10U	ENDOSULFAN II (BETA)	1.0U	PCB-1248 (AROCLOR 1248)
0.10U	4,4'-DDD (P,P'-DDD)	1.0U	PCB-1254 (AROCLOR 1254)
0.10U	ENDOSULFAN SULFATE	1.0U	PCB-1260 (AROCLOR 1260)
0.10U	4,4'-DDT (P,P'-DDT)		

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

04, 94

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** PROJECT NO. 94-0316   SAMPLE NO. 84150   SAMPLE TYPE: SURFACEWA   PROG ELEM: SSF   COLLECTED BY: P MEYER
** SOURCE: ILC0          CITY: LEEDS          ST: AL
** STATION ID: 0         COLLECTION START: 03/01/94   1120   STOP: 00/00/00
** CASE NUMBER: 21694    SAS NUMBER:          D. NUMBER: GW75

```

UG/L ANALYTICAL RESULTS UG/L ANALYTICAL RESULTS

0.050U ALPHA-BHC
0.050U BETA-BHC
0.050U DELTA-BHC
0.050U GAMMA-BHC (LINDANE)
0.050U HEPTACHLOR
0.050U ALDRIN
0.050U HEPTACHLOR EPOXIDE
0.050U ENDOSULFAN I (ALPHA)
0.10U DIELDRIN
0.10U 4,4'-DDE (P,P'-DDE)
0.10U ENDRIN
0.10U ENDOSULFAN II (BETA)
0.10U 4,4'-DDD (P,P'-DDD)
0.10U ENDOSULFAN SULFATE
0.10U 4,4'-DDT (P,P'-DDT)

```

0.50U METHOXYCHLOR
0.10U ENDRIN KETONE
0.10U ENDRIN ALDEHYDE
-- CHLORDANE (TECH. MIXTURE) /1
0.050U GAMMA-CHLORDANE /2
0.050U ALPHA-CHLORDANE /2
5.0U TOXAPHENE
1.0U PCB-1016 (AROCOR 1016)
2.0U PCB-1221 (AROCOR 1221)
1.0U PCB-1232 (AROCOR 1232)
1.0U PCB-1242 (AROCOR 1242)
1.0U PCB-1248 (AROCOR 1248)
1.0U PCB-1254 (AROCOR 1254)
1.0U PCB-1260 (AROCOR 1260)

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REMARKS

REMARKS

*** FOOTNOTES ***

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS AGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/00/94

PESTICIDES/PCB'S DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84151 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: O COLLECTION START. 03/01/94 1430 STOP. 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D NUMBER: GW77 **

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
2.3U	ALPHA-BHC	23U	METHOXYCHLOR
2.3U	BETA-BHC	4.5U	ENDRIN KETONE
2.3U	DELTA-BHC	4.5U	ENDRIN ALDEHYDE
2.3U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
2.3U	HEPTACHLOR	2.3U	GAMMA-CHLORDANE /2
2.3U	ALDRIN	2.3U	ALPHA-CHLORDANE /2
2.3U	HEPTACHLOR EPOXIDE	230U	TOXAPHENE
2.3U	ENDOSULFAN I (ALPHA)	45U	PCB-1016 (AROCLOR 1016)
4.5U	DIELDRIN	91U	PCB-1221 (AROCLOR 1221)
4.5U	4,4'-DDE (P,P'-DDE)	45U	PCB-1232 (AROCLOR 1232)
4.5U	ENDRIN	45U	PCB-1242 (AROCLOR 1242)
4.5U	ENDOSULFAN II (BETA)	45U	PCB-1248 (AROCLOR 1248)
4.5U	4,4'-DDD (P,P'-DDD)	45U	PCB-1254 (AROCLOR 1254)
4.5U	ENDOSULFAN SULFATE	45U	PCB-1260 (AROCLOR 1260)
4.5U	4,4'-DDT (P,P'-DDT)	26	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/00/94

PESTICIDES/PCB'S DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84152 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 4 COLLECTION START: 03/01/94 1540 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D. NUMBER: GW79 **
**

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
2.5U	ALPHA-BHC	25U	METHOXYCHLOR
2.5U	BETA-BHC	4.9U	ENDRIN KETONE
2.5U	DELTA-BHC	4.9U	ENDRIN ALDEHYDE
2.5U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
2.5U	HEPTACHLOR	2.5U	GAMMA-CHLORDANE /2
2.5U	ALDRIN	2.5U	ALPHA-CHLORDANE /2
2.5U	HEPTACHLOR EPOXIDE	250U	TOXAPHENE
2.5U	ENDOSULFAN I (ALPHA)	49U	PCB-1016 (AROCLOR 1016)
4.9U	DIELDRIN	99U	PCB-1221 (AROCLOR 1221)
4.9U	4,4'-DDE (P,P'-DDE)	49U	PCB-1232 (AROCLOR 1232)
4.9U	ENDRIN	49U	PCB-1242 (AROCLOR 1242)
4.9U	ENDOSULFAN II (BETA)	49U	PCB-1248 (AROCLOR 1248)
4.9U	4,4'-DDD (P,P'-DDD)	49U	PCB-1254 (AROCLOR 1254)
4.9U	ENDOSULFAN SULFATE	49U	PCB-1260 (AROCLOR 1260)
4.9U	4,4'-DDT (P,P'-DDT)	32	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS: AGEMENT SYSTEM
EPA-REGION IV ESU, ATHENS, GA.

04/00/94

PESTICIDES/PCB'S DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84153 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 3 COLLECTION START. 03/01/94 1600 STOP. 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D. NUMBER: GW80 **
**

*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

2.3U ALPHA-BHC
2.3U BETA-BHC
2.3U DELTA-BHC
2.3U GAMMA-BHC (LINDANE)
2.3U HEPTACHLOR
2.3U ALDRIN
2.3U HEPTACHLOR EPOXIDE
2.3U ENDOSULFAN I (ALPHA)
4.5U DIELDRIN
4.5U 4,4'-DDE (P,P'-DDE)
4.5U ENDRIN
4.5U ENDOSULFAN II (BETA)
4.5U 4,4'-DDD (P,P'-DDD)
4.5U ENDOSULFAN SULFATE
4.5U 4,4'-DDT (P,P'-DDT)

23U METHOXYCHLOR
4.5U ENDRIN KETONE
4.5U ENDRIN ALDEHYDE
-- CHLORDANE (TECH. MIXTURE) /1
2.3U GAMMA-CHLORDANE /2
2.3U ALPHA-CHLORDANE /2
230U TOXAPHENE
45U PCB-1016 (AROCLOR 1016)
91U PCB-1221 (AROCLOR 1221)
45U PCB-1232 (AROCLOR 1232)
45U PCB-1242 (AROCLOR 1242)
45U PCB-1248 (AROCLOR 1248)
45U PCB-1254 (AROCLOR 1254)
45U PCB-1260 (AROCLOR 1260)
26 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ES&, ATHENS, GA.

04/05/94

PESTICIDES/PCB'S DATA REPORT

*** ** ** ** **
 ** PROJECT NO. 94-0316 SAMPLE NO. 84154 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
 ** SOURCE: ILCO CITY: LEEDS ST: AL **
 ** STATION ID. 2 COLLECTION START: 03/01/94 1620 STOP: 00/00/00 **
 ** CASE NUMBER: 21694 SAS NUMBER: D NUMBER: GW81 **
 ** ** ** **

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
2.4U	ALPHA-BHC	24U	METHOXYCHLOR
2.4U	BETA-BHC	4.6U	ENDRIN KETONE
2.4U	DELTA-BHC	9.0U	ENDRIN ALDEHYDE
2.4U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
2.4U	HEPTACHLOR	2.4U	GAMMA-CHLORDANE /2
2.4U	ALDRIN	2.4U	ALPHA-CHLORDANE /2
2.4U	HEPTACHLOR EPOXIDE	240U	TOXAPHENE
2.4U	ENDOSULFAN I (ALPHA)	46U	PCB-1016 (AROCLOR 1016)
4.6U	DIELDRIN	94U	PCB-1221 (AROCLOR 1221)
4.6U	4,4'-DDE (P,P'-DDE)	46U	PCB-1232 (AROCLOR 1232)
4.6U	ENDRIN	46U	PCB-1242 (AROCLOR 1242)
4.6U	ENDOSULFAN II (BETA)	46U	PCB-1248 (AROCLOR 1248)
4.6U	4,4'-DDD (P,P'-DDD)	46U	PCB-1254 (AROCLOR 1254)
4.6U	ENDOSULFAN SULFATE	46U	PCB-1260 (AROCLOR 1260)
4.6U	4,4'-DDT (P,P'-DDT)	29	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

04, . ., 94

PESTICIDES/PCB'S DATA REPORT

** PROJECT NO. 94-0316 SAMPLE NO. 84155 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID. 1 COLLECTION START. 03/01/94 1655 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: D NUMBER: GW82 **
**

UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS
2.3U	ALPHA-BHC	23U	METHOXYCHLOR
2.3U	BETA-BHC	4.4U	ENDRIN KETONE
2.3U	DELTA-BHC	4.4U	ENDRIN ALDEHYDE
2.3U	GAMMA-BHC (LINDANE)	--	CHLORDANE (TECH. MIXTURE) /1
2.3U	HEPTACHLOR	2.3U	GAMMA-CHLORDANE /2
2.3U	ALDRIN	2.3U	ALPHA-CHLORDANE /2
2.3U	HEPTACHLOR EPOXIDE	230U	TOXAPHENE
2.3U	ENDOSULFAN I (ALPHA)	44U	PCB-1016 (AROCLOR 1016)
4.4U	DIELDRIN	89U	PCB-1221 (AROCLOR 1221)
4.4U	4,4'-DDE (P,P'-DDE)	44U	PCB-1232 (AROCLOR 1232)
4.4U	ENDRIN	44U	PCB-1242 (AROCLOR 1242)
4.4U	ENDOSULFAN II (BETA)	44U	PCB-1248 (AROCLOR 1248)
4.4U	4,4'-DDD (P,P'-DDD)	44U	PCB-1254 (AROCLOR 1254)
4.4U	ENDOSULFAN SULFATE	44U	PCB-1260 (AROCLOR 1260)
4.4U	4,4'-DDT (P,P'-DDT)	25	PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ES. ATHENS, GA.

04, .94

PESTICIDES/PCB'S DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84902 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: P MEYER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/01/94 1510 STOP: 00/00/00 **
** CASE NUMBER: 21694 SAS NUMBER: 8318D D. NUMBER: GW78 **
**

*** **
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS

2.6U ALPHA-BHC
2.6U BETA-BHC
2.6U DELTA-BHC
2.6U GAMMA-BHC (LINDANE)
2.6U HEPTACHLOR
2.6U ALDRIN
2.6U HEPTACHLOR EPOXIDE
2.6U ENDOSULFAN I (ALPHA)
5.1U DIELDRIN
5.1U 4,4'-DDE (P,P'-DDE)
8.2 ENDRIN
5.1U ENDOSULFAN II (BETA)
5.1U 4,4'-DDD (P,P'-DDD)
5.1U ENDOSULFAN SULFATE
5.1U 4,4'-DDT (P,P'-DDT)

26U METHOXYCHLOR
5.1U ENDRIN KETONE
7.0U ENDRIN ALDEHYDE
-- CHLORDANE (TECH. MIXTURE) /1
2.6U GAMMA-CHLORDANE /2
2.6U ALPHA-CHLORDANE /2
260U TOXAPHENE
51U PCB-1016 (AROCLOR 1016)
100U PCB-1221 (AROCLOR 1221)
51U PCB-1232 (AROCLOR 1232)
51U PCB-1242 (AROCLOR 1242)
51U PCB-1248 (AROCLOR 1248)
51U PCB-1254 (AROCLOR 1254)
51U PCB-1260 (AROCLOR 1260)
35 PERCENT MOISTURE

ER-L (91)
(ppb)
0.02

ER-m (91)
(ppb)
45

REMARKS

REMARKS

FOOTNOTES

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2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV
Environmental Services Division
College Station Road, Athens, Ga. 30613

*****MEMORANDUM*****

DATE: 06/03/94

SUBJECT: Results of Specified Analysis;
94-0316 ELCO
LEEDS AL
CASE NO: 21694SAS NO: 8318D

FROM: Charles H. Hooper *SK Bennett /acting*
Chief, Laboratory Evaluation/Quality Assurance Section

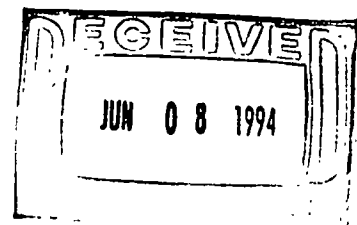
TO: BILL EOKEY

Attached are the results of analysis of samples collected as part of the subject project.

As a result of the Quality Assurance Review, certain data qualifiers may have been placed on the data. Attached is a DATA QUALIFIER REPORT which explains the reasons that these qualifiers were required.

If you have any questions please contact me.

ATTACHMENT



SAMPLE AND ANALYSIS SEWAGE SYSTEM
EPA-REGION IV ESD, ATHENS, GA.

06/01/94

SPECIFIED ANALYSIS DATA REPORT

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*** * * * *
** PROJECT NO. 94-0316 SAMPLE NO. 84849 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 5 COLLECTION START: 03/01/94 0810 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D. NO MD NO: 2478 **
**
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RESULTS UNITS PARAMETER
1U MG/L TOTAL ORGANIC CARBON

FOOTNOTES

*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

06, 94

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** PROJECT NO. 94-0316 SAMPLE NO. 84850 SAMPLE TYPE: SURFACEWA PROG ELEM: SSF COLLECTED BY: B CARTER
** SOURCE: ILCO CITY: LEEDS ST: AL
** STATION ID: 4 COLLECTION START: 03/01/94 0845 STOP 32/68/08 JE
** CASE NO.: 21694 SAS NO.: 8318D D NO: MD NO: 2479
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RESULTS	UNITS	PARAMETER
1U	MG/L	TOTAL ORGANIC CARBON

FOOTNOTES

*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.

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ES, ATHENS, GA.

06/ . / 94

SPECIFIED ANALYSIS DATA REPORT

*** * * * *
** PROJECT NO. 94-0316 SAMPLE NO 84851 SAMPLE TYPE SURFACEWA PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE ILCO CITY LEEDS ST: AL **
** STATION ID: 3 COLLECTION START: 03/01/94 0945 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D NO.: MD NO: 2480 **
*** * * * *

RESULTS UNITS PARAMETER
8 1 MG/L TOTAL ORGANIC CARBON

FOOTNOTES

*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.

06, 34

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** PROJECT NO. 94-0316 SAMPLE NO. 84852 SAMPLE TYPE SURFACEWA PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 1015 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D NO. MD NO. 2481 **
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RESULTS	UNITS	PARAMETER
1.6 MG/L		TOTAL ORGANIC CARBON

FOOTNOTES
 *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.

SAMPLE AND ANALYSIS GEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

06/1, 94

SPECIFIED ANALYSIS DATA REPORT

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*** * * * *
** PROJECT NO. 94-0316 SAMPLE NO. 84853 SAMPLE TYPE SURFACEWA PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY: LEEDS ST: AL **
** STATION ID: 1 COLLECTION START: 03/01/94 1045 STOP: 32/68/08 JE **
** CASE NO.: 21694 SAS NO.: 8318D D. NO.: MD NO: 2482 **
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RESULTS UNITS PARAMETER
3 9 MG/L TOTAL ORGANIC CARBON

FOOTNOTES

*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.

06/11/94

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** PROJECT NO. 94-0316      SAMPLE NO 84854    SAMPLE TYPE: SURFACEWA   PROG ELEM: SSF     COLLECTED BY: B CARTER **  
** SOURCE: ILCO              CITY: LEEDS                ST AL          **  
** STATION ID: O             COLLECTION START 03/01/94  1120 STOP. 32/68/D8 JE **  
** CASE NO. 21694           SAS NO : 8318D        D. NO.:         MD NO: 2483       **  
**                                     **
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FOOTNOTES

*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.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
EPA-REGION IV ESC, ATHENS, GA.

06/11/94

SPECIFIED ANALYSIS DATA REPORT

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*** * * * *
** PROJECT NO 94-0316 SAMPLE NO 84855 SAMPLE TYPE SOIL PROG ELEM SSF COLLECTED BY: B CARTER **
** SOURCE: ILCO CITY LEEDS ST AL **
** STATION ID: 0 COLLECTION START 03/01/94 1430 STOP: 32/68/08 JE **
** CASE NO: 21694 SAS NO 8318D D NO MD NO: 2484 **
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RESULTS UNITS PARAMETER
10000 MG/KG TOTAL ORGANIC CARBON
74 % SOLIDS

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FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

06, . . 34

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** PROJECT NO. 94-0316  SAMPLE NO 84856  SAMPLE TYPE: SOIL  PROG ELEM: SSF  COLLECTED BY: B CARTER
** SOURCE ILCO  CITY: LEEDS  ST: AL
** STATION ID: 5  COLLECTION START: 03/01/94  1510  STOP: 32/68/08  JE
** CASE NO.: 21694  SAS NO.: 8318D  D. NO  MD NO 2485
**
*****

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RESULTS	UNITS	PARAMETER
18000	MG/KG	TOTAL ORGANIC CARBON
58		% SOLIDS

FOOTNOTES***
 *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.

06, 34

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***** SPECIFIED ANALYSIS DATA REPORT *****
** PROJECT NO. 94-0316 SAMPLE NO. 84857 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: B CARTER
** SOURCE: ILCO ST: AL CITY: LEEDS
** STATION ID: 4 COLLECTION START 03/01/94 1540 STOP: 32/68/08 JE
** CASE NO.: 21694 SAS NO 8318D D NO MD NO 2486
**
*****

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RESULTS	UNITS	PARAMETER
12000	MG/KG	TOTAL ORGANIC CARBON
55		% SOLIDS

FOOTNOTES***
 *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

06, . , 94

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** PROJECT NO. 94-0316  SAMPLE NO. 84858  SAMPLE TYPE SOIL  PROG ELEM: SSF  COLLECTED BY: B CARTER
** SOURCE: ILCO  CITY LEEDS  ST: AL
** STATION ID: 3  COLLECTION START 03/01/94  1600  STOP: 32/68/08  JE
** CASE NO.: 21694  SAS NO.: 8318D  D. NO.:  MD NO: 2487
**

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RESULTS	UNITS	PARAMETER
4200	MG/KG	TOTAL ORGANIC CARBON
70		% SOLIDS

FOOTNOTES***
 *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.

SAMPLE AND ANALYSIS .GEMENT SYSTEM
EPA-REGION IV ESC. ATHENS, GA.

06, . ., 94

SPECIFIED ANALYSIS DATA REPORT

*** **
** PROJECT NO. 94-0316 SAMPLE NO. 84859 SAMPLE TYPE: SOIL PROG ELEM: SSF COLLECTED BY: B CARTER **
** SOURCE ILCO CITY: LEEDS ST: AL **
** STATION ID: 2 COLLECTION START: 03/01/94 1620 STOP: 32/68/08 JE **
** CASE NO. 21694 SAS NO 8318D D NO. MD NO: 2488 **
**

RESULTS UNITS PARAMETER
13000 MG/KG TOTAL ORGANIC CARBON
53 % SOLIDS

FOOTNOTES

*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

06, . 94

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** PROJECT NO. 94-0316  SAMPLE NO. 84860  SAMPLE TYPE: SOIL  PROG ELEM: SSF  COLLECTED BY: B CARTER  **
** SOURCE: ILCO  CITY: LEEDS  ST: AL  **
** STATION ID: 1  COLLECTION START: 03/01/94  1655  STOP: 32/68/08  JE  **
** CASE NO.: 21694  SAS NO : 8318D  D NO  MD NO  2489  **
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FOOTNOTES
 *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.