



PASCO COUNTY, FLORIDA

DADE CITY (904) 521-4274
NEW PORT RICHEY (813) 847-8902

UTILITIES SERVICES BRANCH
PASCO COUNTY GOVT. COMPLEX
8864 GOVERNMENT DRIVE
NEW PORT RICHEY, FL 34654

December 15, 1993

Ms. Allison Amram
Florida Department of
Environmental Protection
Solid Waste Department
3804 Coconut Palm Drive
Tampa, FL 33619

D.E.P.

JAN 21 1994

SOUTHWEST DISTRICT
TAMPA

RE: Resource Recovery
Leachate Analysis

Dear Ms. Amram:

Enclosed please find analytical results for analysis conducted on the primary and secondary leachate from the ash cell at the Hays Road Resource Recovery site. Also included is the QA/QC data associated with this analysis. This completes the Quarter IV 1993 monitoring requirement.

If you have any questions please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Candia E. Mulhern".

Candia E. Mulhern
Laboratory Manager

CEM/mr

Enclosure

cc: Douglas S. Bramlet, Assistant County Administrator (Utilities Services)
Robert J. Sigmond, Utilities Solid Waste/Fiscal Services Director
Robert J. Tietz, Utilities Operations and Maintenance Director



PASCO COUNTY, FLORIDA

D.E.P.

JAN 21 1994

SOUTHWEST DISTRICT
TAMPA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: ROBERT TIETZ

DATE: 01/10/94
DHRS # 54237, E44123

(Page 1 of 3)

LAB No.	SAMPLE		SAMPLER	DELIVERY TO LAB	
	DATE	TIME		DATE	TIME MATRIX
18595	10/11/93	1230	CHRIS CHILDRESS	10/11/93	1500 LE
18596	10/11/93	1255	CHRIS CHILDRESS	10/11/93	1500 LE

CLIENT STATION ID:	A-1 PRIMARY	A-1 SECONDARY
LAB #:	18595	18596

PARAMETER	UNIT	A-1 PRIMARY	A-1 SECONDARY
WATER LEVEL	FEET	N/A	N/A
FIELD PH	STD. UNITS	6.22	7.48
FIELD TEMPERATURE	DEGREES C	29.83	28.97
FIELD CONDUCTIVITY	umhos/cm	92440	3263
DISSOLVED OXYGEN, FIELD	mg/L	0.14	3.01
TOTAL CHLORINE RESIDUAL, FIELD	mg/L	N/A	N/A
ALKALINITY, BICARB.	mg/l	287	233
TOT. ORGANIC CARBON	mg/L	135.6	88.6
CHLORIDE	mg/L	43400	933
AMMONIA NITROGEN	mg/L	42.1	0.10
UN-IONIZED AMMONIA N	mg/L	3.96	<0.02
TOTAL ORGANIC N	mg/L	3.80	1.23
NITRATE/NITRITE	mg/l	<0.10	0.701
TOTAL NITROGEN	MG/L	49.9	2.03
OIL AND GREASE	mg/l	<3	<3
PH, LAB	std units	7.14	8.12
TOTAL PHENOLS	mg/L	0.24	0.005
TOTAL DISS. SOLIDS	mg/L	87000	2720
SPEC. CONDUCTIVITY	umhos	70000	2420

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
 14230 HAYS ROAD
 SPRING HILL, FL 34610-
 Attn: ROBERT TIETZ

DATE: 01/10/94
 DHRS # 54237, E44123

(Page 2 of 3)

LAB No.	SAMPLE		SAMPLER	DELIVERY TO LAB	
	DATE	TIME		DATE	TIME MATRIX
18595	10/11/93	1230	CHRIS CHILDRESS	10/11/93	1500 LE
18596	10/11/93	1255	CHRIS CHILDRESS	10/11/93	1500 LE

CLIENT STATION ID: A-1 PRIMARY A-1 SECONDARY
 LAB #: 18595 18596

ANALYTE	UNIT	A-1 PRIMARY	A-1 SECONDARY
SULFATE	mg/L	189.0	20.7
TURBIDITY	NTU	54.0	1.27
TOTAL ORGANIC HALIDES	mg/l	0.400	0.280
ANTIMONY, TOTAL	mg/L	<0.01	<0.001
ARSENIC, TOTAL	mg/L	<0.01	<0.001
BERYLLIUM, TOTAL	mg/L	<0.005	<0.0005
CADMIUM, TOTAL	mg/L	<0.005	<0.0005
CALCIUM, TOTAL	mg/L	10280	432
CHROMIUM, TOTAL	mg/L	<0.001	<0.001
COPPER, TOTAL	mg/L	0.25	0.03
IRON, TOTAL	mg/L	1.09	0.24
LEAD, TOTAL	mg/L	<0.01	0.0011
MAGNESIUM, TOTAL	mg/L	2.65	4.94
MANGANESE, TOTAL	mg/L	0.40	0.06
MERCURY, TOTAL	mg/L	0.00088	0.00051
NICKEL, TOTAL	mg/L	0.75	<0.07
SELENIUM, TOTAL	mg/L	<0.01	<0.001
SILVER, TOTAL	mg/L	<0.005	<0.0005
SODIUM, TOTAL	mg/L	8880	208

LABORATORY DIRECTOR *Carla E. Miller*



PASCO COUNTY, FLORIDA

REPORT OF ANALYSES

RESOURCE RECOVERY
14230 HAYS ROAD
SPRING HILL, FL 34610-
Attn: ROBERT TIETZ

DATE: 01/10/94
DHRS # 54237, E44123

(Page 3 of 3)

LAB No.	SAMPLE			DELIVERY TO LAB	
	DATE	TIME	SAMPLER	DATE	TIME MATRIX
18595	10/11/93	1230	CHRIS CHILDRESS	10/11/93	1500 LE
18596	10/11/93	1255	CHRIS CHILDRESS	10/11/93	1500 LE

CLIENT STATION ID:	A-1 PRIMARY	A-1 SECONDARY
LAB #:	18595	18596

THALLIUM, TOTAL	mg/L	<0.01	<0.001
ZINC, TOTAL	mg/L	0.18	0.02

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 18595, 18596,
Page 1

Analyte	LAB ID	Precision Data			Accuracy Data	Reference Sample Data				
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
WATER LEVEL FIELD FEET		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
FIELD PH EPA 150.0 STD. UNITS		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
FIELD TEMPERATURE EPA 170.1 DEGREES C		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
FIELD CONDUCTIVITY EPA 120.1 umhos/cm		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
DISSOLVED OXYGEN, FIELD EPA 360.1 mg/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
TOTAL CHLORINE RESIDUAL, FIELD HACH mg/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
ALKALINITY, BICARB. EPA 310.1 mg/l		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 18595, 18596,
Page 2

Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
TOT.ORGANIC CARBON EPA 415.1 mg/L							KHP	28.20	28.09	99.60
							KHP	10.000	10.310	103.10
CHLORIDE EPA 325.3 mg/L	18518					97.20	STD	20.0	20.7	103.70
AMMONIA NITROGEN EPA350.1 mg/L	931014	10.00	10.02	0.020	0.20					
UN-IONIZED AMMONIA N EPA 350.1 mg/L	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									
TOTAL ORGANIC N CALC-351.3 mg/L	931014	9.86	10.08	0.22	2.21					
NITRATE/NITRITE EPA 353.2 mg/l	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									
TOTAL NITROGEN CALC. MG/L	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 18595, 18596,
Page 3

Analyte	LAB ID	Precision Data			Accuracy Data	Reference Sample Data				
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
OIL AND GREASE EPA413.1 mg/l		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
PH,LAB EPA150.1 std units		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
TOTAL PHENOLS 420.1,2,3 mg/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
TOTAL DISS.SOLIDS EPA160.1 mg/L	18582	480	500	20	4.08	-----	STD	293	294	100.30
SPEC.CONDUCTIVITY EPA120.1 umhos		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
SULFATE EPA375.4 mg/L		-----								
TURBIDITY EPA180.1 NTU		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 18595, 18596,
Page 4

Analyte	LAB ID	Precision Data			Accuracy Data	Reference Sample Data				
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
TOTAL ORGANIC HALIDES SM 506 mg/l										
ANTIMONY, TOTAL 204.2 mg/L	18596	<0.001	<0.001	0.00050	0.00	135.00	-----	-----	-----	-----
ARSENIC, TOTAL 206.2 mg/L	18579	2.22	2.59	0.37	15.38	-----	-----	-----	-----	-----
BERYLLIUM, TOTAL 210.2 mg/L	18596	<0.0005	<0.0005	0.00025	0.00	101.70	-----	-----	-----	-----
CADMIUM, TOTAL 213.2 mg/L	18597	0.14	0.13	0.010	7.41	-----	-----	-----	-----	-----
CALCIUM, TOTAL 215.1 mg/L	18596	4.33	4.30	0.030	0.70	98.00	-----	-----	-----	-----
CHROMIUM, TOTAL 218.2 mg/L	18597	0.34	0.29	0.050	15.87	-----	WP 23	6.65	6.76	101.60



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 18595, 18596,
Page 5

Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
COPPER, TOTAL 220.2 mg/L	18595	0.25	0.25	0	0.00	96.40	-----	-----	-----	-----
IRON, TOTAL 236.2 mg/L	18595	1.093	1.091	0.0020	0.18	94.40	-----	-----	-----	-----
LEAD, TOTAL 239.2 mg/L	15898	1.36	1.31	0.050	3.75	-----	-----	-----	-----	-----
MAGNESIUM, TOTAL 242.1 mg/L	18595	266	264	2.0	0.75	88.00	-----	-----	-----	-----
MANGANESE, TOTAL 243.2 mg/L	18595	0.405	0.397	0.0080	2.00	92.70	-----	-----	-----	-----
MERCURY, TOTAL 245.1 mg/L	18596	0.49	0.52	0.030	5.94	95.40	3404	7.18	7.8	108.60
NICKEL, TOTAL 249.2 mg/L	18595	.86	.86	0	0.00	-----	-----	-----	-----	-----



PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 18595, 18596,
Page 6

Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
SELENIUM, TOTAL 270.2 mg/L	18597	<0.001	<0.001	0.00050	0.00	102.40	-----	-----	-----	-----
SILVER, TOTAL 272.2 mg/L	18596	0.07	0.10	0.030	35.29	90.60	-----	-----	-----	-----
SODIUM, TOTAL 273.1 mg/L	18598	1.00	1.00	0	0.00	113.10	-----	-----	-----	-----
THALLIUM, TOTAL 279.2 mg/L	18596	2.29	1.75	0.54	26.73	86.10	-----	-----	-----	-----
ZINC, TOTAL 289.1 mg/L	15895	158	156	2.0	1.27	-----	-----	-----	-----	-----



PASCO COUNTY, FLORIDA

LAB NOS.: 18595, 18596

DATE, TIME, ANALYST REPORT

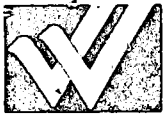
ANALYSIS	METHOD	ANALYSIS		ANALYST
		DATE	TIME	
AG/T/AA	272.2	10/18/93	0930	TER
AS/T/AA	206.2	10/13/93	1450	TER
BE/T/AA	210.2	10/18/93	1410	TER
BICARB. ALK	EPA310.1	10/12/93	1100	JK
CA/T/FLAA	215.1	10/15/93	1120	TER
CD/T/AA	213.2	10/13/93	1100	TER
CL-	EPA 325.3	10/12/93	1000	JK
CL2 RES	HACH	10/11/93	1600	CEM
COND	EPA120.1	10/11/93	1430	CC
COND, FIELD	EPA 120.1	10/12/93	1230	CHR
CR/T/AA	218.2	10/13/93	0945	TER
CU/T/AA	220.2	10/15/93	0820	TER
DO, FIELD	EPA 360.1	10/12/93	1230	CHR
FE/T/AA	236.2	10/15/93	0850	TER
FIELD TEMP	EPA 170.1	10/12/93	1230	CHR
H2O LEVEL	FIELD	10/11/93	1200	CC
HG/T/CVAA	245.1	10/19/93	1030	TER
MG/T/FLAA	242.1	10/15/93	1145	TER
MN/T/AA	243.2	10/15/93	1000	TER
NA/T/FLAA	273.1	10/15/93	1400	TER
NH3	EPA350.1	10/14/93	1500	TER
NH3-UNION	EPA 350.1	11/12/93	0800	CEM
NI/T/AA	249.2	10/15/93	1100	TER
NO2+NO3	EPA 353.2	10/14/93	1429	CEM
O+G	EPA413.1	10/25/93	1400	TER
PB/T/AA	239.2	10/13/93	1230	TER
PH	EPA150.1	10/11/93	1430	CC
PH, FIELD	EPA 150.0	10/12/93	1230	CHR
PHENOLS	420.1, 2, 3	11/29/93	0800	DH
SB/T/AA	204.2	10/18/93	1145	TER
SE/T/AA	270.2	10/13/93	1600	TER
SO4	EPA375.4	10/13/93	1400	JK
TDS	EPA160.1	10/18/93	1500	JK
TL/T/AA	279.2	10/18/93	1030	TER
TN	CALC.	11/12/93	0800	CEM
TOC	EPA 415.1	10/15/93	0900	IF
TON	CALC-351.3	10/14/93	1500	TER
TOX	SM 506	10/16/93	0800	CH
TURB	EPA180.1	10/11/93	1500	CC



PASCO COUNTY, FLORIDA

DATE, TIME, ANALYST REPORT

ANALYSIS	METHOD	ANALYSIS		ANALYST
		DATE	TIME	
ZN/T/FLAA	289.1	10/15/93	1030	TER



BROWARD TESTING LABORATORY, INC.

4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334



Potable Water Laboratory Certification Number BTL#1-86137

Environmental Laboratory Certification Number 86035

D.E.P.

JAN 21 1994

SOUTHWEST DISTRICT
TAMPA

LABORATORY PARAMETER ANALYSIS REPORT

PROJECT: PASCO COUNTY UTILITIES

SOURCE: RESOURCE RECOVERY LEACHATE, A-1 PRIMARY SAMPLE DATE: 10-19-93
 LAB NUMBER: 958-6264 SAMPLE TIME:
 SAMPLED BY: CLIENT COMPLETION DATE: 11-8-93

STORET CODE	PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
01049	LEAD	239.1	0.046	MG/L	10-25	M.G.

REVIEWED BY: *Gary J. Meyer*
 Gary J. Meyer, Laboratory Director



BROWARD TESTING LABORATORY, INC.

4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334



Potable Water Laboratory Certification Number BTL#1-36137

Environmental Laboratory Certification Number 86035

LABORATORY PARAMETER ANALYSIS REPORT

PROJECT: PASCO COUNTY UTILITIES

SOURCE: RESOURCE RECOVERY LEACHATE, A-1 SECONDARY SAMPLE DATE: 10-19-93

LAB NUMBER: 958-6265

SAMPLE TIME:

SAMPLED BY: CLIENT

COMPLETION DATE: 11-8-93

STORET CODE	PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
01049	LEAD	239.1	<0.001	MG/L	10-25	M.G.

REVIEWED BY:

Gary J. Meyer
Gary J. Meyer, Laboratory Director



BROWARD TESTING LABORATORY, INC.

4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334



Potable Water Laboratory Certification Number BTL#1-86137

Environmental Laboratory Certification Number 86035

LABORATORY PARAMETER ANALYSIS REPORT

PROJECT: PASCO COUNTY UTILITIES

SOURCE: A-1 PRIMARY TANK

LAB NUMBER: 958-6034

SAMPLED BY: CLIENT

SAMPLE DATE: 10-11-93

SAMPLE TIME:

COMPLETION DATE: 11-29-93

STORET CODE	PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
32730	PHENOLS	420.1	0.24	MG/L	10-25	D.H.

BLANK <0.001

% REC & SPIKE LEVEL 102% REC. @ 0.02 MG/L

% D FOR DUPLICATES 0% DIPP BETWEEN DUPS

TOX WAS SUBCONTRACTED TO LAW ENVIRONMENTAL SEE ATTACHED REPORTS.

LAW ENVIRONMENTAL HRS #LAB #1 81351, E81234

LAB #2 81392, E81297

REVIEWED BY:

Gary J. Meyer
Gary J. Meyer, Laboratory Director



BROWARD TESTING LABORATORY, INC.

4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334



Potable Water Laboratory Certification Number BTL#1-86137

Environmental Laboratory Certification Number 86035

LABORATORY PARAMETER ANALYSIS REPORT

PROJECT: PASCO COUNTY UTILITIES

SOURCE: A-1 SECONDARY TANK

SAMPLE DATE: 10-11-93

LAB NUMBER: 958-6035

SAMPLE TIME:

SAMPLED BY: CLIENT

COMPLETION DATE: 11-29-93

STORET CODE	PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
32730	PHENOLS	420.1	0.005	MG/L	10-25	D.H.

BLANK <0.001

% REC & SPIKE LEVEL 102% REC. @ 0.02 MG/L

% D FOR DUPLICATES 0% DIPP BETWEEN DUPS

TOX WAS SUBCONTRACTED TO LAW ENVIRONMENTAL SEE ATTACHED REPORTS.

LAW ENVIRONMENTAL HRS #LAB #1 81351, E81234

LAB #2 81392, E81297

REVIEWED BY:

Gary J. Meyer
Gary J. Meyer, Laboratory Director

Law Environmental, Inc.
Pensacola Branch
7215 Pine Forest Road
Pensacola, Florida 32526



November 16, 1993

Ms. Jackie Kramer
Broward Testing Lab., Inc.
4416 N.E. 11th Avenue
Ft. Lauderdale, FL 33334
Clt. #32660 Proj. #958-6032-35

Dear: Ms. Kramer:

Below are the results of analysis of 4 samples received for examination on October 16, 1993:

Sample I.D. AA44802 Location code: BROW54
Purchase order number: 9586032 Project account code: 32660
Location Description: 958-6032 Sample collector: C.HARRIS
Sample collection date: 10/11/93
Lab submittal date: 10/16/93 Time: 12:25 *5:3-1 Primary*

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2220-Tot. Organic Halides W.	ug/L		21 5.0

Sample I.D. AA44803 Location code: BROW54
Purchase order number: 9586032 Project account code: 32660
Location Description: 958-6032 Sample collector: C.HARRIS
Sample collection date: 10/11/93
Lab submittal date: 10/16/93 Time: 12:25 *SW-1 Secondary*

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2220-Tot. Organic Halides W.	ug/L		160 30

Sample I.D. AA44804 Location code: BROW54
Purchase order number: 9586032 Project account code: 32660
Location Description: 958-6034 Sample collector: C.HARRIS
Sample collection date: 10/11/93
Lab submittal date: 10/16/93 Time: 12:25 *A-1 Primary*

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2220-Tot. Organic Halides W.	ug/L		400 300

Page: 2
November 16, 1993

Sample I.D. AA44805
Purchase order number: 9586032
Location Description: 958-6035
Sample collection date: 10/11/93
Lab submittal date: 10/16/93

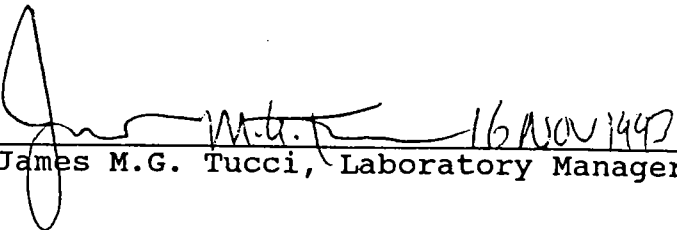
Location code: BROW54
Project account code: 32660
Sample collector: C.HARRIS

Time: 12:25 A-1 Secondary

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2220-Tot. Organic Halides W.	ug/L		280 50

Please advise should you have questions concerning these data.

Respectfully submitted,


James M.G. Tucci, Laboratory Manager



03:19:20 398322
ASR000 D 1 4
02813 0

Law Environmental, Inc. - GA
112 Townpark Drive
Kennesaw, GA 30144

LLI Sample No. WW 2045472
Date Reported 11/12/93
Date Submitted 10/29/93
Discard Date 11/20/93

COC #8216 ID #93-6821-01 Water Sample
LENL-Kennesaw Project Name: 93-6821
Project No. 958-6032-35

Time Collected
P.O. 2201-678
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Total Org. Halogen	21.5 ug/l	5	057407000 *

Total organic halogen (TOX) is a surrogate measurement used to estimate the total quantity of halogenated organic material in a sample. Duplicate determinations are required for the method, in order to evaluate random bias. The results for this sample were:

23.1
18.3

The reported result is an average of these determinations.

The analysis for TOX was performed by LWS on 11/10/93.
The method used was EPA SW-846, Method 9020A.

1 COPY TO Law Environmental, Inc. ATTN: Ms. Rhonda K. Arnwine

Questions? Contact Environmental
Client Services at (717) 656-2301
882 02813 0.00 007000

Respectfully Submitted
Lancaster Laboratories, Inc.

Samuel Huber, B.S.
Group Ldr., Inst. Water Qual.



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301





03:19:21 398322
ASR000 D 1 4
02813 0

Law Environmental, Inc. - GA
112 Townpark Drive
Kennesaw, GA 30144

LLI Sample No. WW 2045473
Date Reported 11/12/93
Date Submitted 10/29/93
Discard Date 11/20/93

COC #8216 ID #93-6821-02 Water Sample
LENL-Kennesaw Project Name: 93-6821
Project No. 958-6032-35

Time Collected
P.O. 2201-678
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Total Org. Halogen	160.0 ug/l	30.0	057407000 *

Total organic halogen (TOX) is a surrogate measurement used to estimate the total quantity of halogenated organic material in a sample. Duplicate determinations are required for the method, in order to evaluate random bias. The results for this sample were:

128.5
183.6

The reported result is an average of these determinations.

The analysis for TOX was performed by LWS on 11/10/93.
The method used was EPA SW-846, Method 9020A.

1 COPY TO Law Environmental, Inc. ATTN: Ms. Rhonda K. Arnwine

Questions? Contact Environmental
Client Services at (717) 656-2301
882 02813 0.00 007000

Respectfully Submitted
Lancaster Laboratories, Inc.



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Samuel Huber, B.S.
Group Ldr., Inst. Water Qual.





Lancaster Laboratories

Where quality is a science.

03:19:22 398322
ASR000 D 1 4
02813 0

Law Environmental, Inc. - GA
112 Townpark Drive
Kennesaw, GA 30144

LLI Sample No. WW 2045474
Date Reported 11/12/93
Date Submitted 10/29/93
Discard Date 11/20/93

COC #8216 ID #93-6821-03 Water Sample
LENL-Kennesaw Project Name: 93-6821
Project No. 958-6032-35

Time Collected
P.O. 2201-678
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Total Org. Halogen	400 ug/l	300	057407000 *

Total organic halogen (TOX) is a surrogate measurement used to estimate the total quantity of halogenated organic material in a sample. Duplicate determinations are required for the method, in order to evaluate random bias. The results for this sample were:

305.7
402.8

The reported result is an average of these determinations.

The analysis for TOX was performed by DPL on 11/10/93.
The method used was EPA SW-846, Method 9020A.

1 COPY TO Law Environmental, Inc.

ATTN: Ms. Rhonda K. Arnwine

Questions? Contact Environmental
Client Services at (717) 656-2301
882 02813 0.00 007000

Respectfully Submitted
Lancaster Laboratories, Inc.

Samuel Huber, B.S.
Group Ldr., Inst. Water Qual.



Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.





Lancaster Laboratories
Where quality is a science.

03:19:23 398322
ASR000 D 1 4
02813 0

Law Environmental, Inc. - GA
112 Townpark Drive
Kennesaw, GA 30144

LLI Sample No. WW 2045475
Date Reported 11/12/93
Date Submitted 10/29/93
Discard Date 11/20/93

COC #8216 ID #93-6821-04 Water Sample
LENL-Kennesaw Project Name: 93-6821
Project No. 958-6032-35

Time Collected
P.O. 2201-678
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Total Org. Halogen	280 ug/l	50	057407000 *

Total organic halogen (TOX) is a surrogate measurement used to estimate the total quantity of halogenated organic material in a sample. Duplicate determinations are required for the method, in order to evaluate random bias. The results for this sample were:

253.7
302.6

The reported result is an average of these determinations.

The analysis for TOX was performed by DPL on 11/10/93.
The method used was EPA SW-846, Method 9020A.

1 COPY TO Law Environmental, Inc. ATTN: Ms. Rhonda K. Arnwine

Questions? Contact Environmental
Client Services at (717) 656-2301
882 02813 0.00 007000

Respectfully Submitted
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2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.



INTERLABORATORY TRANSFER OF SAMPLES

(Subcontract lab: Please sign off and return this form with report.)

BROWARD LAB ID #	DATE OF COLLECTION	REQUESTED ANALYSIS BY METHOD #	PRESERVATIVE (or pH)	CONTAINER & VOLUME	QC REQ'D *
958 6032	10/11/93	TOX	Sodium Thio	① 1 Hes	✓
6033	↓	↓	↓	↓	✓
6034	↓	↓	↓	↓	✓
6035	↓	↓	↓	↓	✓

* Many clients now request QA/QC data, if this column is checked please include this data with the report. If this is a problem, please contact BTL before accepting the sample.

RELINQUISHED BY (BTL)	DATE	TIME	RECEIVED BY	DATE	TIME
Cheryl Harris	10/12/93	4:00			
RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME

BROWARD TESTING LABORATORY, INC.

4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334

INTERLABORATORY TRANSFER OF SAMPLES

(Subcontract lab: Please sign off and return this form with report.)

BROWARD LAB ID #	DATE OF COLLECTION	REQUESTED ANALYSIS BY METHOD #	PRESERVATIVE (or pH)	CONTAINER & VOLUME	QC REQ'D *
9586032	10/11/93	TOX	Sodium Thio	① liter	✓
6033	↓	↓	↓	↓	✓
6034	↓	↓	↓	↓	✓
6035	↓	↓	↓	↓	✓

AA44802
AA44803
AA44804
AA44805

* Many clients now request QA/QC data, if this column is checked please include this data with the report. If this is a problem, please contact BTL before accepting the sample.

RELINQUISHED BY (BTL) Cheryl Harris	DATE 10/12/93	TIME 4:00	RECEIVED BY	DATE	TIME
RELINQUISHED BY	DATE	TIME	RECEIVED BY Jason McP	DATE 10-14-93	TIME 10:00 AM



LAW ENVIRONMENTAL, INC.
 NATIONAL LABORATORIES
 7215 PINE FOREST ROAD
 PENSACOLA, FLORIDA 32526
 (904) 944-9772

CHAIN OF CUSTODY RECORD

8216

SAMPLING INFORMATION	NAME OF FACILITY: _____
NPDES NUMBER _____	STREET ADDRESS: _____

PROJECT NAME		JOB NO.		TOTAL NO. OF CONTAINERS	CONTAINER TYPE														LENL LAB NO.																			
Edward Testing Laboratory		958-6032-35			40 ml G VOA HCl	1 L G - AMBER	8 oz. G. W/M	2 oz. G. W/M	1 L G (H ₂ SO ₄)	500 ml - AMBER	1 L. PL (HNO ₃)	1 L. PL (H ₂ SO ₄)	1 L. PL (NaOH+Ascorbic Acid)	1 L. PL (Zn Acetate + NaOH)	1 L. PL	4 oz. PL W/M	250 ml PL	1 L. TEFLON																				
SAMPLERS (SIGNATURE)																																						
SAMPLING DATE																																						
TIME	GRAB	COMP.	*SOURCE CODE	SAMPLE STATION DESCRIPTION																																		
—			W	AA44802	1	1																																
—			W	AA44803	1	1																																
—			W	AA44804	1	1																																
—			W	AA44805	1	1																																

RELINQUISHED BY: <i>Sharon Taha</i> (SIGNATURE)	DATE / TIME: 10/11/93 4:00	RECEIVED BY: _____ (SIGNATURE)	DATE / TIME: _____	RELINQUISHED BY: _____ (SIGNATURE)	RECEIVED BY LABORATORY: _____ (SIGNATURE)	DATE / TIME: _____
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DISTRIBUTION: ORIGINAL AND YELLOW COPIES ACCOMPANY SAMPLE SHIPMENT TO LABORATORY.
 PINK COPY RETAINED BY SAMPLERS. YELLOW COPY RETAINED BY LABORATORY.

REMARKS

Sent to Law-Kennesaw

- *SOURCE CODES**
- | | |
|---------------------------|----------------------|
| RECOVERY WELL - RW | NPDES DISCHARGE - ND |
| RCRA MONITORING WELL - MW | DRINKING WATER - DW |
| SOIL / SEDIMENT - SO | HAZARDOUS WASTE - HW |
| SLUDGE - SL | SURFACE WATER - SW |
| | NON-AQUEOUS - NA |



Law Environmental, Inc.
 7215 Pine Forest Road
 Pensacola, Florida 32526
 904/944-9772

Analytical Request Form

To: Law Environmental - Kenosha Attn: Gerald Pittman

From: Law Environmental - Pensacola Sham Taber
 (Branch/Company Name) (Dept or Name)

COC Number: 8216

Project Name: Brown Testing Laboratory Project Number: _____

Date Shipped: 10/15/93

Date results requested: 11/03/93

Sample ID	Analysis Requested	Detection Limits Req.	Sample Type	Method
AA44802	TOX			
AA44803				
AA44804				
AA44805				

Comments:

Data + invoice to above address