



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

September 23, 1993

D.E.P.

SEP 24 1993

**SOUTHWEST DISTRICT
TAMPA**

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

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 III 1993 monitoring requirement.

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

Sincerely,

Candia E. Mulhern
Laboratory Supervisor

CEM/mr

Enclosure

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



PASCO COUNTY, FLORIDA

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SEP 24 1993

SOUTHWEST DISTRICT
TAMPA

REPORT OF ANALYSES

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

DATE: 09/22/93
DHRS # 54237, E44123

RESOURCE RECOVERY ASH CELL LEACHATE - QIII 1993 (Page 1 of 2)

LAB No.	SAMPLE			DELIVERY TO LAB		
	DATE	TIME	SAMPLER	DATE	TIME	MATRIX
16444	07/15/93	1030	CHRIS CHILDRESS	07/15/93		LE
16445	07/15/93	1000	CHRIS CHILDRESS	07/15/93		LE

CLIENT STATION ID:	A-1 PRIMARY	A-1 SECONDARY
LAB #:	16444	16445

ALKALINITY, BICARB.	mg/l	206	248
TOT. ORGANIC CARBON	mg/L	70.35	28.62
CHLORIDE	mg/L	29050	837
AMMONIA NITROGEN	mg/L	28.31	0.10
UN-IONIZED AMMONIA N	mg/L	0.764	<0.02
TOTAL ORGANIC N	mg/L	1.87	0.73
NITRATE/NITRITE	mg/l	<0.10	0.422
TOTAL NITROGEN	MG/L	30.9	1.25
OIL AND GREASE	mg/l	<3	<3
PH, LAB	std units	6.92	7.88
TOTAL PHENOLS	mg/L	0.053	0.002
TOTAL DISS. SOLIDS	mg/L	62000	2820
SPEC. CONDUCTIVITY	umhos	60000	2460
SULFATE	mg/L	221.7	8.5
TURBIDITY	NTU	68.5	0.71
TOTAL ORGANIC HALIDES	mg/l	1.06	0.210
ANTIMONY, TOTAL	mg/L	0.0056	<0.001
ARSENIC, TOTAL	mg/L	0.0042	<0.001
BERYLLIUM, TOTAL	mg/L	<0.0005	<0.0005

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

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SOUTHWEST DISTRICT
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REPORT OF ANALYSES

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

DATE: 09/22/93
DHRS # 54237, E44123

RESOURCE RECOVERY ASH CELL LEACHATE - QIII 1993 (Page 2 of 2)

LAB No.	SAMPLE			DELIVERY TO LAB	
	DATE	TIME	SAMPLER	DATE	TIME MATRIX
16444	07/15/93	1030	CHRIS CHILDRESS	07/15/93	LE
16445	07/15/93	1000	CHRIS CHILDRESS	07/15/93	LE

CLIENT STATION ID:	A-1 PRIMARY	A-1 SECONDARY
LAB #:	16444	16445

CADMIUM, TOTAL	mg/L	0.0009	<0.0005
CALCIUM, TOTAL	mg/L	11800	505
CHROMIUM, TOTAL	mg/L	0.0017	0.0012
COPPER, TOTAL	mg/L	0.19	<0.02
IRON, TOTAL	mg/L	0.64	0.13
LEAD, TOTAL	mg/L	<0.001	<0.001
MAGNESIUM, TOTAL	mg/L	5.57	5.56
MANGANESE, TOTAL	mg/L	0.38	0.01
MERCURY, TOTAL	mg/L	<0.0005	<0.0005
NICKEL, TOTAL	mg/L	0.45	<0.07
SELENIUM, TOTAL	mg/L	0.005	<0.001
SILVER, TOTAL	mg/L	0.0012	<0.0005
SODIUM, TOTAL	mg/L	5800	150
THALLIUM, TOTAL	mg/L	<0.001	<0.001
ZINC, TOTAL	mg/L	0.14	0.03

LABORATORY DIRECTOR



PASCO COUNTY, FLORIDA

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DATE, TIME, ANALYST REPORT

SOUTHWEST DISTRICT
TAMPA

ANALYSIS	METHOD	ANALYSIS DATE	ANALYSIS TIME	ANALYST
AG/T/AA	272.2	07/27/93	1700	TER
AS/T/AA	206.2	07/28/93	1200	TER
BE/T/AA	210.2	07/28/93	0850	TER
BICARB. ALK	EPA310.1	07/16/93	1000	JK
CA/T/FLAA	215.1	07/30/93	1030	TER
CD/T/AA	213.2	07/28/93	0950	TER
CL-	EPA 325.3	07/16/93	1000	JK
COND	EPA120.1	07/15/93	1600	JK
CR/T/AA	218.2	07/27/93	1545	TER
CU/T/AA	220.2	07/28/93	1620	TER
FE/T/AA	236.2	07/30/93	0950	TER
HG/T/CVAA	245.1	07/27/93	1000	TER
MG/T/FLAA	242.1	07/30/93	1110	TER
MN/T/AA	243.2	07/30/93	1130	TER
NA/T/FLAA	273.1	07/30/93	0905	TER
NH3	EPA350.1	07/22/93	1600	TER
NH3-UNION	EPA 350.1	08/04/93	1400	CEM
NI/T/AA	249.2	07/30/93	1210	TER
NO2+NO3	EPA 353.2	07/16/93	1050	CEM
O+G	EPA413.1	09/14/93	1400	TER
PB/T/AA	239.2	07/28/93	1100	TER
PH	EPA150.1	07/15/93	1600	JK
PHENOLS	420.1, 2, 3	08/05/93	0800	DH
SB/T/AA	204.2	07/28/93	1415	TER
SE/T/AA	270.2	07/28/93	1245	TER
SO4	EPA375.4	07/22/93	1200	JK
TDS	EPA160.1	07/22/93	1500	JK
TL/T/AA	279.2	07/28/93	1500	TER
TN	CALC.	08/04/93	1400	CEM
TOC	EPA 415.1	07/20/93	0900	IF
TON	CALC-351.3	07/22/93	1600	TER
TOX	SM 506	07/20/93	0800	JT
TURB	EPA180.1	07/15/93	1600	JK
ZN/T/FLAA	289.1	07/30/93	1150	TER



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QA/QC for Sample Nos: 16444, 16445,
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SOUTHWEST DISTRICT
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Analyte	LAB ID	Precision Data		Accuracy Data		Reference Sample Data				
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
ALKALINITY, BICARB. EPA310.1 mg/l		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
TOT. ORGANIC CARBON EPA 415.1 mg/L	16506					97.46	KHP	20.0000	19.8000	99.00
CHLORIDE EPA 325.3 mg/L	16507	6.0	6.1	0.10	1.65	101.70	STD	20.0	20.6	103.00
AMMONIA NITROGEN EPA350.1 mg/L	930722	10.11	10.19	0.080	0.79	-----	-----	-----	-----	-----
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		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
NITRATE/NITRITE EPA 353.2 mg/l	16444	<0.10	<0.10	0.050	0.00	-----	STANDARD	4.00	4.146	103.60
						-----	STANDARD	20.0	19.771	98.90



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SOUTHWEST DISTRICT
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Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
TOTAL NITROGEN CALC. MG/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
OIL AND GREASE EPA413.1 mg/l	9951	29.0	25.8	3.2	11.68	-----	9951	37.8	29	76.70
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		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
SPEC.CONDUCTIVITY EPA120.1 umhos		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
SULFATE EPA375.4 mg/L	0	<1	<1	0.50	0.00	100.70	STD	20.0	21.0	105.10
						-----	STD	20.0	20.9	104.90



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SOUTHWEST DISTRICT
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QA/QC for Sample Nos: 16444, 16445,
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Analyte	LAB ID	Precision Data			Accuracy Data		Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
TURBIDITY EPA180.1 NTU NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
TOTAL ORGANIC HALIDES SM 506 mg/l NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS										
ANTIMONY, TOTAL 204.2 mg/L	16446	1.30	1.39	0.090	6.69	83.80	-----	-----	-----	-----
ARSENIC, TOTAL 206.2 mg/L	16446	2.48	2.36	0.12	4.96	90.50	-----	-----	-----	-----
BERYLLIUM, TOTAL 210.2 mg/L	16445	<0.05	<0.05	0.025	0.00	-----	-----	-----	-----	-----
CADMIUM, TOTAL 213.2 mg/L	16447	1.74	1.67	0.070	4.11	-----	-----	-----	-----	-----
CALCIUM, TOTAL 215.1 mg/L	16445	5.04	5.06	0.020	0.40	101.00	-----	-----	-----	-----



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QA/QC for Sample Nos: 16444, 16445,
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Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
CHROMIUM, TOTAL 218.2 mg/L	16446	1.22	1.25	0.030	2.43	98.30	-----	-----	-----	-----
COPPER, TOTAL 220.2 mg/L	16444	.192	.193	0.0010	0.52	99.10	-----	-----	-----	-----
IRON, TOTAL 236.2 mg/L	16444	1.03	1.01	0.020	1.96	96.50	-----	-----	-----	-----
LEAD, TOTAL 239.2 mg/L	16447	3.79	3.74	0.050	1.33	93.50	-----	-----	-----	-----
MAGNESIUM, TOTAL 242.1 mg/L	16447	.561	.561	0	0.00	99.40	-----	-----	-----	-----
MANGANESE, TOTAL 243.2 mg/L	16444	.385	.378	0.0070	1.83	-----	-----	-----	-----	-----
MERCURY, TOTAL 245.1 mg/L	16444	<0.0005	<0.0005	0.00025	0.00	-----	930727	0.63	0.72	114.30



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QA/QC for Sample Nos: 16444, 16445,
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Analyte	LAB ID	Precision Data				Accuracy Data	Reference Sample Data			
		Replicate A	Replicate B	Range	RPD %	% Spike Recovery	Reference Sample ID	Target	Found	% Recovery
NICKEL, TOTAL 249.2 mg/L	16444	.464	.447	0.017	3.73	95.00	-----	-----	-----	-----
SELENIUM, TOTAL 270.2 mg/L	16447	0.63	0.60	0.030	4.88	100.00	-----	-----	-----	-----
SILVER, TOTAL 272.2 mg/L	16445	0.45	0.47	0.020	4.35	95.40	-----	-----	-----	-----
SODIUM, TOTAL 273.1 mg/L	16445	149	150	1.0	0.67	105.10	-----	-----	-----	-----
THALLIUM, TOTAL 279.2 mg/L	NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS									
ZINC, TOTAL 289.1 mg/L	16444	.136	1.34	1.2	163.14	98.60	-----	-----	-----	-----
	16444	.136	.134	0.0020	1.48	-----	-----	-----	-----	-----



BROWARD TESTING LABORATORY, INC.
 4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334



D.E.P.
 SEP 24 1993
 SOUTHWEST DISTRICT
 TAMPA

Potable Water Laboratory Certification Number BTL#1-86137

Environmental Laboratory Certification Number 86035

LABORATORY PARAMETER ANALYSIS REPORT

PROJECT: PASCO COUNTY UTILITIES

RESOURCE RECOVERY

SOURCE: ASH CELL LEACHATE-PRIMARY

LAB NUMBER: 955-4065

SAMPLED BY: CLIENT

SAMPLE DATE: 7-15-93

SAMPLE TIME: 10:30

COMPLETION DATE: 8-5-93

STORET CODE	PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
32730	T. PHENOLS (as phenol)	420.1	.053	MG/L	7-28	D.H.

REVIEWED BY:

Gary J. Meyer
 Gary J. Meyer, Laboratory Director



BROWARD TESTING LABORATORY, INC.
 4416 N.E. 11TH AVE., FORT LAUDERDALE, FLORIDA 33334



D.E.P.
 SEP 24 1993
 SOUTHWEST DISTRICT
 TAMPA

Potable Water Laboratory Certification Number BTL#1-86137

Environmental Laboratory Certification Number 86035

LABORATORY PARAMETER ANALYSIS REPORT

PROJECT: PASCO COUNTY UTILITIES

RESOURCE RECOVERY

SOURCE: ASH CELL LEACHATE--SECONDARY

SAMPLE DATE: 7-15-93

LAB NUMBER: 955-4064

SAMPLE TIME: 10:00

SAMPLED BY: CLIENT

COMPLETION DATE: 8-5-93

STORET CODE	PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
32730	T. PHENOLS (as phenol)	420.1	.002	MG/L	7-28	D.H.

REVIEWED BY:

Gary J. Meyer
 Gary J. Meyer, Laboratory Director

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



August 3, 1993

D.E.P.

SEP 24 1993

Ms. Jackie Kramer
Broward Testing Laboratory
4416 N.E. 11th Avenue
Ft. Lauderdale, FL 33334
Client #32660 Project #4064/65

Dear: Ms. Kramer:

Below are the results of analysis of 2 samples received for examination on July 20, 1993:

Sample I.D. AA39686 Location code: BROW48
Purchase order number: 4064/65 Project account code: 32660
Location Description: 4064 Sample collector: NOT LISTED
Sample collection date: 07/15/93
Lab submittal date: 07/20/93 Time: 16:33

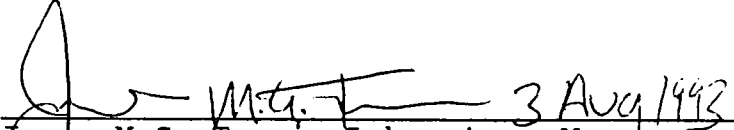
TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2220-Tot. Organic Halides W.	ug/L		210 5.0

Sample I.D. AA39687 Location code: BROW48
Purchase order number: 4064/65 Project account code: 32660
Location Description: 4065 Sample collector: NOT LISTED
Sample collection date: 07/15/93
Lab submittal date: 07/20/93 Time: 16:33

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2220-Tot. Organic Halides W.	ug/L		1060 5.0

Please advise should you have questions concerning these data.

Respectfully submitted,


James M.G. Tucci, Laboratory Manager 3 Aug 1993