



# PASCO COUNTY, FLORIDA

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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

June 3, 1994

D.E.P.

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

JUN 07 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 II 1994 monitoring requirement.

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Candia E. Mulhern".

Candia E. Mulhern  
Laboratory Manager

CEM/jb

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

## REPORT OF ANALYSES

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

DATE: 06/02/94  
 DHRS # 54237, E44123

(Page 1 of 3)

LAB No.	SAMPLE		SAMPLER	DELIVERY TO LAB	
	DATE	TIME		DATE	TIME MATRIX
23494	04/14/94	1045	CHRIS CHILDRESS	04/15/94	1610 LE
23495	04/14/94	1035	CHRIS CHILDRESS	04/15/94	1610 LE

CLIENT STATION ID: A-1 PRIMARY (RR A-1 SECONDARY ( )  
 )  
 LAB #: 23494 23495

PARAMETER	UNITS	23494	23495
WATER LEVEL	FEET	N/A	N/A
FIELD PH	STD. UNITS	7.39	7.01
FIELD TEMPERATURE	DEGREES C	26.14	25.13
FIELD CONDUCTIVITY	umhos/cm	3498	17383
DISSOLVED OXYGEN, FIELD	mg/L	3.28	1.72
ALKALINITY, BICARB.	mg/l	172	270
TOT. ORGANIC CARBON	mg/L	95.12	41.33
CHLORIDE	mg/L	6230	940
AMMONIA NITROGEN	mg/L	5.60	<0.07
UN-IONIZED AMMONIA N	mg/L	0.05	<0.02
TOTAL ORGANIC N	mg/L	1.68	0.98
NITRATE/NITRITE	mg/l	<0.10	<0.10
TOTAL NITROGEN	MG/L	7.28	0.98
OIL AND GREASE	mg/l	<3	<3
PH, LAB	std units	7.18	7.57
TOTAL PHENOLS	mg/L	<0.001	<0.001
TOTAL DISS. SOLIDS	mg/L	17000	3000
SPEC. CONDUCTIVITY	umhos	21100	4120
SULFATE	mg/L	206	27.2

LABORATORY DIRECTOR 



# PASCO COUNTY, FLORIDA

## REPORT OF ANALYSES

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

DATE: 06/02/94  
DHRS # 54237, E44123

(Page 2 of 3)

LAB No.	SAMPLE		SAMPLER	DELIVERY TO LAB	
	DATE	TIME		DATE	TIME MATRIX
23494	04/14/94	1045	CHRIS CHILDRESS	04/15/94	1610 LE
23495	04/14/94	1035	CHRIS CHILDRESS	04/15/94	1610 LE

CLIENT STATION ID: A-1 PRIMARY (RR A-1 SECONDARY (RR)  
LAB #: 23494 23495

TURBIDITY	NTU	1.1	2.1
TOTAL ORGANIC HALIDES	mg/l	0.250	0.200
ANTIMONY, TOTAL	mg/L	<0.005	<0.001
ARSENIC, TOTAL	mg/L	<0.005	<0.001
BERYLLIUM, TOTAL	mg/L	<0.002	<0.0005
CADMIUM, TOTAL	mg/L	<0.0005	<0.0005
CALCIUM, TOTAL	mg/L	4580	518
CHROMIUM, TOTAL	mg/L	<0.001	0.001
COPPER, TOTAL	mg/L	0.06	0.02
IRON, TOTAL	mg/L	0.21	0.22
LEAD, TOTAL	mg/L	<0.001	0.0034
MAGNESIUM, TOTAL	mg/L	7.60	9.10
MANGANESE, TOTAL	mg/L	0.06	<0.01
MERCURY, TOTAL	mg/L	<0.0005	<0.0005
NICKEL, TOTAL	mg/L	0.18	0.08
SELENIUM, TOTAL	mg/L	<0.001	<0.001
SILVER, TOTAL	mg/L	<0.0005	<0.0005
SODIUM, TOTAL	mg/L	1300	235
THALLIUM, TOTAL	mg/L	<0.001	<0.001

LABORATORY DIRECTOR





# PASCO COUNTY, FLORIDA

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QA/QC for Sample Nos: 23494, 23495,  
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
ALKALINITY, BICARB. EPA 310.1 mg/l		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
TOT. ORGANIC CARBON EPA 415.1 mg/L						KHP	10.000	10.230	102.30	
CHLORIDE EPA 325.3 mg/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
AMMONIA NITROGEN EPA 350.1 mg/L	940421	9.32	9.32	0	0.00					
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	23495	<0.10	<0.10	0.050	0.00		STANDARD	4.00	3.937	98.40
	23666					99.80	STANDARD	4.00	4.045	101.10



# PASCO COUNTY, FLORIDA

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QA/QC for Sample Nos: 23494, 23495,  
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
TOTAL NITROGEN CALC. MG/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
OIL AND GREASE EPA413.1 mg/l	32	17.0	17.3	0.30	1.75	-----	9952	84.2	67.6	80.30
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	-----	-----	-----	-----	-----	-----	STD	293	294	100.30
	-----	-----	-----	-----	-----	-----	STD	293	294	100.30
SPEC. CONDUCTIVITY EPA120.1 umhos		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								
SULFATE EPA375.4 mg/L		NO DUPLICATE, SPIKE, OR REFERENCE SAMPLES FOR THIS ANALYSIS								



# PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 23494, 23495,  
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
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	23494	0.25	0.20	0.050	22.22	106.10	-----	-----	-----	-----
ARSENIC, TOTAL 206.2 mg/L	23494	0.63	0.53	0.10	17.24	94.50	9954	7.79	8.66	111.00
BERYLLIUM, TOTAL 210.2 mg/L	23494	0.10	0.12	0.020	18.18	97.20	9954	5.96	7.1	119.00
CADMIUM, TOTAL 213.2 mg/L	23495	0.07	0.07	0	0.00	91.20	-----	-----	-----	-----
CALCIUM, TOTAL 215.1 mg/L	23495	517	518	1.0	0.19	100.90	-----	-----	-----	-----



# PASCO COUNTY, FLORIDA

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QA/QC for Sample Nos: 23494, 23495,  
Page 4

Analyte	LAB ID	Precision Data		Range	RPD %	Accuracy Data	Reference Sample Data		
		Replicate A	Replicate B			% Spike Recovery	Reference Sample ID	Target	Found
CHROMIUM, TOTAL 218.2 mg/L	23495	0.77	1.03	0.26	28.89	92.40	-----	-----	-----
COPPER, TOTAL 220.2 mg/L	23494	0.058	0.059	0.0010	1.71	-----	-----	-----	-----
IRON, TOTAL 236.2 mg/L	23494	0.24	0.3	0.070	25.45	94.20	-----	-----	-----
LEAD, TOTAL 239.2 mg/L	23495	3.39	3.60	0.21	6.01	81.10	-----	-----	-----
MAGNESIUM, TOTAL 242.1 mg/L	23495	0.92	0.91	0.010	1.09	116.30	-----	-----	-----
MANGANESE, TOTAL 243.2 mg/L	23494	0.63	0.61	0.020	3.23	87.80	-----	-----	-----
MERCURY, TOTAL 245.1 mg/L	23494	0.43	0.43	0	0.00	98.40	9952	9.45	8.36 88.50





# PASCO COUNTY, FLORIDA

QA/QC for Sample Nos: 23494, 23495,  
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
NICKEL, TOTAL 249.2 mg/L	23494	.178	.175	0.0030	1.70	103.10	9954	.313	.333	106.40
SELENIUM, TOTAL 270.2 mg/L	23494	<0.001	<0.001	0.00050	0.00	104.20	9954	10.3	9.88	95.90
SILVER, TOTAL 272.2 mg/L	23494	0.21	0.26	0.050	21.28	108.90	9954	14.6	14.5	99.30
SODIUM, TOTAL 273.1 mg/L	23494	13.07	13.03	0.040	0.31	103.50	-----	-----	-----	-----
THALLIUM, TOTAL 279.2 mg/L	23494	0.39	0.29	0.10	29.41	96.70	-----	-----	-----	-----
ZINC, TOTAL 289.1 mg/L	23494	.190	.188	0.0020	1.06	100.70	9954	.660	.667	101.00



# PASCO COUNTY, FLORIDA

## DATE, TIME, ANALYST REPORT

ANALYSIS	METHOD	ANALYSIS		ANALYST
		DATE	TIME	
AG/T/AA	272.2	05/02/94	0920	TER
AS/T/AA	206.2	05/02/94	1210	TER
BE/T/AA	210.2	05/02/94	1420	TER
BICARB. ALK	EPA310.1	04/18/94	1400	JK
CA/T/FLAA	215.1	04/26/94	1100	TER
CD/T/AA	213.2	05/02/94	0950	TER
CL-	EPA 325.3	04/15/94	1000	JK
COND	EPA120.1	04/14/94	1600	CSC
COND, FIELD	EPA 120.1	04/14/94	1035	CHR
CR/T/AA	218.2	04/26/94	1510	TER
CU/T/AA	220.2	04/19/94	0905	TER
DO, FIELD	EPA 360.1	04/14/94	1035	CHR
FE/T/AA	236.2	04/20/94	1135	TER
FIELD TEMP	EPA 170.1	04/14/94	1035	CHR
H2O LEVEL	FIELD	04/14/94	1035	CHR
HG/T/CVAA	245.1	05/03/94	0900	TER
MG/T/FLAA	242.1	04/26/94	1120	TER
MN/T/AA	243.2	04/26/94	1150	TER
NA/T/FLAA	273.1	04/20/94	1220	TER
NH3	EPA350.1	04/21/94	1600	TER
NH3-UNION	EPA 350.1	04/27/94	0800	CEM
NI/T/AA	249.2	05/02/94	1540	TER
NO2+NO3	EPA 353.2	04/27/94	1446	CEM
O+G	EPA413.1	04/20/94	1500	TER
PB/T/AA	239.2	04/19/94	1200	TER
PH	EPA150.1	04/14/94	1600	CSC
PH, FIELD	EPA 150.0	04/14/94	1035	CHR
PHENOLS	420.1,2,3	05/02/94	0800	DH
SB/T/AA	204.2	05/02/94	1250	TER
SE/T/AA	270.2	05/02/94	1120	TER
SO4	EPA375.4	04/19/94	1000	JK
TDS	EPA160.1	04/20/94	1500	JK
TL/T/AA	279.2	04/26/94	1430	TER
TN	CALC.	04/27/94	0800	CEM
TOC	EPA 415.1	04/15/94	0900	IF
TON	CALC-351.3	04/21/94	1600	TER
TOX	SM 506	04/27/94	0800	RJO
TURB	EPA180.1	04/14/94	1600	CSC
ZN/T/FLAA	289.1	05/02/94	1515	TER



# BROVARD TESTING LABORATORY, INC.

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



Potable Water Laboratory Certification Number STL#1-86137

Environmental Laboratory Certification Number 86035

D.E.P.

## LABORATORY PARAMETER ANALYSIS REPORT

JUN 07 1994

SOUTHWEST DISTRICT  
TAMPA

PROJECT: PASCO COUNTY UTILITIES

SOURCE: CLASS I LANDFILL @ HAYS RD., PRIMARY LEACHATE TANK    SAMPLE DATE: 4-14-94  
LAB NUMBER: 964-2514    SAMPLE TIME:  
SAMPLED BY: CLIENT    COMPLETION DATE: 5-19-94

PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
PHENOLS	420.1	<0.001	MG/L	5-2	D.H.
LEAD	239.2	0.001	MG/L	4-26	M.G.

TOX WAS SUBCONTRACTED TO LAW ENVIRONMENTAL SEE ATTACHED REPORTS.

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



# BROUARD TESTING LABORATORY, INC.

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



## QA/QC DATA ENTRY SHEET

SAMPLE NUMBER: 964-2514 & 964-2515

PARAMETER	Blank Value	% Recovery (matrix spike)	Rel. % Difference (dups)	Date	Init.
ANTIMONY					
ARSENIC					
BARIUM					
BERYLLIUM					
CADMIUM					
CHROMIUM					
LEAD	<0.001	81%	0	4.26	M.G.
MERCURY					
NICKEL					
SELENIUM					
SODIUM					
THALLIUM					

CYANIDE					
FLUORIDE					
NO3-N + NO2-N					
NITRATE					
NITRITE					
PHENOLS	0.000	101%	0	5-2	D.H.



# 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: CLASS I LANDFILL @ HAYS RD., SECONDARY LEACHATE TANK      SAMPLE DATE: 4-14-94  
 LAB NUMBER: 964-2515      SAMPLE TIME:  
 SAMPLED BY: CLIENT      COMPLETION DATE: 5-19-94

PARAMETER MONITORED	ANALYSIS METHOD	ANALYSIS RESULT	UNITS	DATE	ANALYST
PHENOLS	420.1	<0.001	MG/L	5-2	D.H.
LEAD	239.2	0.008	MG/L	4-26	M.G.

TOX WAS SUBCONTRACTED TO LAW ENVIRONMENTAL SEE ATTACHED REPORTS.

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

LAW ENVIRONMENTAL NATIONAL LABORATORIES

TEST DATA REPORT

05/13/94

--- Project Information ---

Ms. Jackie Kramer

Page 1

Broward Testing Laboratory, Inc.

Project Name: BROW5

1034 N.E. 44th Court

Client #32660 Project #4583330

Ft. Lauderdale, FL 33334

--- Sample Information ---

Station ID: BTL9642414

Date Sampled: 04/14/94

Lab ID: AA53041

Time Sampled:

Collector: UNKNOWN

Log In Date: 04/26/94

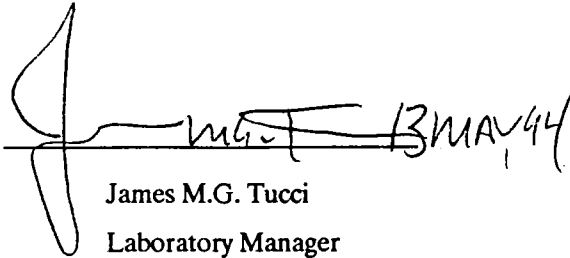
Log In Time: 15:52

--- Test Information ---

Analysis

Parameter	Units	Method	Det Lim	Result	Date	Tech
2220-Organic Halides EPA 9020	ug/L	EPA 9020	5.0	250	04/27/94	RJO

Remarks:

Signed:  13 MAY 94  
James M.G. Tucci  
Laboratory Manager

LAW ENVIRONMENTAL NATIONAL LABORATORIES

TEST DATA REPORT

05/13/94

--- Project Information ---

Ms. Jackie Kramer  
Broward Testing Laboratory, Inc.  
1034 N.E. 44th Court  
Ft. Lauderdale, FL 33334

Page 1  
Project Name: BROW5  
Client #32660 Project #4583330

--- Sample Information ---

Station ID: BTL9642415  
Lab ID: AA53042  
Collector: UNKNOWN

Date Sampled: 04/14/94  
Time Sampled:  
Log In Date: 04/26/94  
Log In Time: 15:52

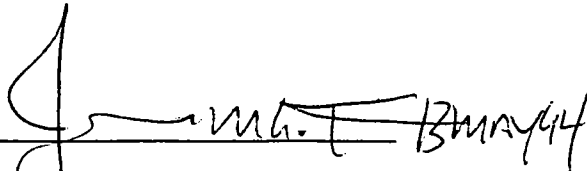
--- Test Information ---

Analysis

Parameter	Units	Method	Det Lim	Result	Date	Tech
2220-Organic Halides EPA 9020	ug/L	EPA 9020	5.0	200	04/27/94	RJO

Remarks:

Signed:



James M.G. Tucci  
Laboratory Manager