32 pg

RECEIVED

INFORMATION REQUEST NUMBER 20

JUL 15 1991

SAFE SECTION

0714

Site: Westover Landfill
ID #MAD079900932
Break: 11.6 Att 1
Other: Laidlaw
07-15-91

INFO REQ 20

40057641
SUPERFUND RECORDS

LAI 0290

#20 Laidlaw-Bridgeton

GROUNDWATER SAMPLING LOGSHEET

Monitoring Well # F-2

STANDING VOLUME REMOVAL

Date Sept. 6, 1990

Names of Field Personnel: J. Carr, W. Schmieder, J. Hillestad

Time

Stick-up 2.25 ft
Well Depth 27.70 ft
1303 Initial Depth to Water 17.90 ft
Water Column Length 9.80 ft
1312 Began Evacuation
Volume Expelled 8.00 gal
Was Well Bailed Dry? NO
1333 Final Depth to Water 17.90 ft

Well Diameter 2 inches
Groundwater Elev.(MSL)
1.5" Casing = 0.09 gal/ft
2.0" Casing = 0.16 gal/ft
2.5" Casing = 0.25 gal/ft
4.0" Casing = 0.66 gal/ft
6.0" Casing = 1.47 gal/ft
Standing Well Volume 1.59 gal
Method of Removal Teflon Bail/Pump

bail 7.95 gal

Water Conditions: Dark grey, turbid, strong garbage odor
Weather Conditions: sunny, hot, humid
Remarks/Observations:

Signature(s) Asserting Field Data Accuracy: Jeff Carr

GROUNDWATER SAMPLING

Date Sept. 6, 1990

Names of Sampling Personnel J. Carr, W. Schmieder, J. Hillestad

Time

1333 Initial Depth to Water 17.90 ft
1336 Began Sampling

Method of Collection Teflon Bailer
Groundwater Elev.(MSL)

Samples Collected:

Sample Type	Preserv.	Container Type
vol. organics	Cool to 4C	2 X 40 ml. vials
Pesticides/PCB's	Cool to 4C	Qt. Amber
Herbicides	Cool to 4C	Qt. Amber
Metals *	HNO3	Pt. Plastic
Cyanide	NaOH, Cool	Qt. Plastic
Phenols, TOC, COD, NH3, NO3NO2, T Phos - H2SO4, Cool -		Qt. Amber
Radioactivity	Cool to 4C	Qt. Plastic
CLD, SO4, F ELEC, B	Cool to 4C	Pt. Plastic

* These samples to be field filtered through 0.45 micron filter.

1343 Completed Sampling
1345 Final Depth to Water 17.90 ft

<Hardness	HNO3	1/2 Pt. Plastic
TOX	H2SO4, Cool	1/2 Pt. Amber
TDS *	Cool to 4C	1/2 Pt. Plastic

On-Site Analyses:

	Time	1	2	3	4	Signature
pH	1347	6.60				J. Carr
Spec. Cond.	1335	3900				J. Carr
Temperature	1335	21.1				J. Carr

Instruments Used: pH Fisher 107 Buffers 4.00, 7.00
Spec. Cond. YSI 3000 Standard 1413 umhos/cm
T-L-C Meter

Water Conditions: Grey turbid, garbage-sulfide odor
Weather Conditions: sunny, hot, humid
Remarks/Observations:

Signature asserting field equip. decontamination: Jeff Carr

Signature(s) Asserting Sampling Data Accuracy: Jeff Carr

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

September 13, 1990

Mr. Jim Dowse
York Laboratories
126 West Center Court
Schaumburg, IL 60195

Dear Jim,

Please analyze the fifteen (15) enclosed samples. Thesamples are identified below.

SAMPLE ID	LAB ID NO	TESTS REQUESTED
MW# D-89	1200206	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# F-2	1200207	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# F-3	1200208	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# I-66	1200209	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# I-55	1200301	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# I-68	1200302	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# S-51	11200509	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# I-62	1200604	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# S-52	1200605	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# S-82	1200714	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# I-59	1200715	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# S-53	1200716	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
MW# S-75	1200810	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

MW# I-58	1200811	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)
TRIP BLANK	1200812	Pesticides/PCB's(Meth.8080) Herbicides(Meth.8150)

If you haveany questions concerning this sample, please call me at (314) 921-4488.

Respectfully submitted,

Chris L. Segafredo
Project Manager

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

PAGE NO : 1
REPORT NO : 40388
DATE : 10/04/90
P.O. No. : 215047

MR. MIKE WHITLOCK
LAIDLAW WASTE SYSTEM
BRIDGETON LANDFILL
13570 ST. CHARLES ROCK RD
BRIDGETON MO 63044

REPORT OF ANALYSIS

SUBJECT : Analysis of waste samples in accordance with SW-846: Test Methods for Evaluating Solid Waste - Physical/Chemical Methods, 3rd Edition, 1986; where applicable.

LOG NUMBER	SAMPLE DESCRIPTION
1200206	MW#D-89 9/6/90 C
1200207	MW#F-2 9/6/90 C
1200208	MW#F-3 9/6/90 C
1200209	MW#I-66 9/6/90 C

RESULTS OF ANALYSIS APPEAR ON FOLLOWING PAGES

RESPECTFULLY SUBMITTED

R. M. FERRIS

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

LAIDLAW WASTE SYSTEM

REPORT NO : 40388
DATE : 10/04/90

RESULTS OF ANALYSIS

LOG NUMBER	SAMPLE DESCRIPTION	TEST NAME	RESULTS OF ANALYSIS	UNITS OF EXPRESSION
1200206	MW#D-89 9/6/90 c	Zinc	0.019	mg Zn/l
1200207	MW#F-2 9/6/90 c	Silver	<0.005	mg Ag/l
		Arsenic	0.005	mg As/l
		Boron	0.16	mg B/l
		Barium	<0.7	mg Ba/l
		Calcium	341	mg Ca/l
		Cadmium	<0.005	mg Cd/l
		Chloride	293	mg Cl/l
		Cyanide	0.001	mg CN/l
		Cobalt	<0.05	mg Co/l
		C.O.D.	89.9	mg/l
		Chromium	0.022	mg Cr/l
		Copper	0.024	mg Cu/l
		Fluoride (elec.)	0.51	mg F/l
		Iron	1.20	mg Fe/l
		Volatiles (GCMS)	See Attach	
		Prior Poll Pest/PCB	See Attach	
		Hardness as CaCO3	2280	mg/l
		Mercury	0.0003	mg Hg/l
		Magnesium	348	mg Mg/l
		Manganese	7.80	mg Mn/l
		Sodium	64.7	mg Na/l
		Ammonia Nitrogen	1.10	mg N/l
		Nitrate-Nitrite	<0.1	mg N/l
		Lead (GTF)	<0.005	mg Pb/l
		Phenols	0.010	mg/l
		Radium	See Attach	
		Alpha Radioactivity	See Attach	
		Selenium	<0.005	mg Se/l
		Sulfates	859	mg SO4/
		Total Phosphorus	0.88	mg P/l
		Dissolved Solids	3450	mg/l
		Total Organic Carbon	34.2	mg/l
		Total Org. Halogen	0.25	mg/l

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

LAIDLAW WASTE SYSTEM

REPORT NO : 40388
DATE : 10/04/90

RESULTS OF ANALYSIS

LOG NUMBER	SAMPLE DESCRIPTION	TEST NAME	RESULTS OF ANALYSIS	UNITS OF EXPRESSION
1200207	MW#F-2 9/6/90 c	Analytical Charges	5	man-hrs
		Zinc	<0.005	mg Zn/l
1200208	MW#F-3 9/6/90 c	Silver	<0.005	mg Ag/l
		Arsenic	0.107	mg As/l
		Boron	0.21	mg B/l
		Barium	0.9	mg Ba/l
		Calcium	92.1	mg Ca/l
		Cadmium	<0.005	mg Cd/l
		Chloride	143	mg Cl/l
		Cyanide	<0.001	mg CN/l
		Cobalt	<0.05	mg Co/l
		C.O.D.	28.9	mg/l
		Chromium	0.007	mg Cr/l
		Copper	0.017	mg Cu/l
		Fluoride (elec.)	0.61	mg F/l
		Iron	19.6	mg Fe/l
		Volatiles (GCMS)	See Attach	
		Prior Poll Pest/PCB	See Attach	
		Hardness as CaCO3	420	mg/l
		Mercury	<0.0002	mg Hg/l
		Magnesium	46.1	mg Mg/l
		Manganese	1.20	mg Mn/l
		Sodium	32.5	mg Na/l
		Ammonia Nitrogen	8.36	mg N/l
		Nitrate-Nitrite	<0.1	mg N/l
		Lead (GTF)	<0.005	mg Pb/l
		Phenols	<0.005	mg/l
		Radium	See Attach	
		Alpha Radioactivity	See Attach	
		Selenium	<0.005	mg Se/l
		Sulfates	57	mg SO4/
		Total Phosphorus	0.28	mg P/l
		Dissolved Solids	600	mg/l
		Total Organic Carbon	12.3	mg/l

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

METHOD SUMMARY

Except where noted, EAI employs the methods stated in the USEPA's current "Contract Laboratory Statement of work for Organics Analysis - Multi-Media Multi Concentration", Rev. 7/87.

VOLATILES

For a solid, 5 g of sample is taken and surrogate compounds are added. For a water sample, a 5 ml aliquot is taken with surrogates added. An inert gas is bubbled through the sample in a specifically designed purging chamber at ambient temperature. The purgeables are transferred to the vapor phase where they are swept through a sorbent column and trapped. The sorbent column is heated and backflushed with the inert gas to desorb the purgeables onto a gas chromatographic column. The gas chromatograph is temperature programmed to seperate the purgeables which are then detected with a mass spectrometer.

ACIDS/BASE NEUTRALS

For a solid, a weighed amount of sample is mixed with anhydrous sodium sulfate, surrogates are added and the sample is extracted with 1:1 acetone/methylene chloride using an ultrasonic probe. The extract is then concentrated. For a water sample, a measured volume plus surrogates is serially extracted with methylene chloride at a pH greater than 11 and again at a pH less than 2, using a seperatory funnel. The extracts are dried and concentrated. The extracts are injected onto a gas chromatographic column. The gas chromatograph is temperature programmed to seperate the compounds which are then detected with a mass spectrometer.

SURROGATES

Surrogate standards are deuterated compounds and/or select compounds which analytically mimic the response of certain analytes. A known concentration is added to the sample and the percent recovery calculated. This recovery acts as a barometer of the method efficiency for the individual sample matrix.

SOLID SAMPLES

Results for solid samples are reported on a an as received basis, unless noted otherwise.

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

EAI LAB #1200207
CLIENT CODE: LWS-BRI
SAMPLE ID: MW #F-2 9/6/90
REPORT NO: 40388

VOLATILES	Value	Units
Chloromethane	10 U	ug/l
Bromomethane	10 U	ug/l
Vinyl Chloride	35	ug/l
Chloroethane	10 U	ug/l
Methylene Chloride	5 U	ug/l
Acetone	50 U	ug/l
Carbon Disulfide	50 U	ug/l
1,1-Dichloroethene	5 U	ug/l
1,1-Dichloroethane	30	ug/l
1,2-Dichloroethene (total)	5 U	ug/l
Chloroform	5 U	ug/l
2-Butanone	50 U	ug/l
1,2-Dichloroethane	6	ug/l
1,1,1-Trichloroethane	5 U	ug/l
Carbon Tetrachloride	5 U	ug/l
Vinyl Acetate	50 U	ug/l
Bromodichloromethane	5 U	ug/l
1,2-Dichloropropane	5 U	ug/l
trans-1,3-Dichloropropene	5 U	ug/l
Trichloroethene	12	ug/l
Benzene	40	ug/l
Dibromochloromethane	5 U	ug/l

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

SAMPLE ID: MW #F-2 9/6/90

VOLATILES	Value	Units
cis-1,3-Dichloropropene	5 U	ug/l
1,1,2-Trichloroethane	5 U	ug/l
Bromoform	5 U	ug/l
2-Hexanone	50 U	ug/l
4-Methyl-2-pentanone	50 U	ug/l
Tetrachloroethene	5 U	ug/l
1,1,2,2-Tetrachlorothane	5 U	ug/l
Toluene	45	ug/l
Chlorobenzene	5 U	ug/l
Ethyl Benzene	10	ug/l
Styrene	5 U	ug/l
Total Xylenes	50	ug/l
Acrolein	100 U	ug/l
Acrylonitrile	50 U	ug/l
2-Chloroethylvinylether	10 U	ug/l
Heptyl hexyl ether	60 E*	ug/l
Decane	160 E*	ug/l
Undecane	180 E*	ug/l
Dodecane	110 E*	ug/l
4-methyl-1-undecane	60 E*	ug/l

* Estimated value: identification based on NBS library search, quantitation based on a response factor of one with nearest internal standard.

Surrogate recoveries	% Rec	Control Range Water %	Control Range Soil %
d4-1,2-Dichloroethane	102	(76-114)	(70-121)
d8-Toluene	96	(88-110)	(81-117)
4-Bromofluorobenzene	83	(86-115)	(74-121)

Environmental Analysis, Inc.
3278 N. Lindbergh Blvd. · Florissant, MO 63033 · 314-921-4488

SAMPLE ID: MW #F-2 9/6/90

VOLATILES

B=Analyte found in blank as well as sample, indicates possible blank contamination.

J=Estimated value-result is less than detection limit but greater than zero.

U=Indicates compound analyzed but not detected. Number reported is minimum detection limit for sample based on necessary concentration/dilution actions (not necessarily the instrument detection limit).

E=Identifies compounds whose concentrations exceed the calibration range of the GC/MS for that specific analysis.

Rocky Mountain
Analytical Laboratory

Enseco

ANALYTICAL RESULTS

FOR

LAIDLAW WASTE SYSTEMS

ENSECO-RMAL NO. 015307

JUNE 18, 1991

Reviewed by: Jean Zimmerman

Jean Zimmerman

Sue Dalla

Sue Dalla

Enseco Incorporated
4955 Yarrow Street
Arvada, Colorado 80002
303/421-6611 Fax: 303/431-7171

Enseco
A Coming Company

SAMPLE DESCRIPTION INFORMATION
for
Laidlaw Waste Systems

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
015307-0001-SA	Equipment Blank	AQUEOUS	06 JUN 91	13:00	07 JUN 91
015307-0002-SA	MW-F2	AQUEOUS	06 JUN 91	13:35	07 JUN 91
015307-0003-SA	Trip Blank	AQUEOUS			07 JUN 91

Enseco
A Corning Company

ANALYTICAL TEST REQUESTS
for
Laidlaw Waste Systems

Lab ID: 015307	Group Code	Analysis Description	Custom Test?
0001 - 0002	A	Volatile Organics	N
		Target Compound List (TCL)	N
		Screen - Volatile Organics	N
		PCBs	N
		Prep - PCBs by GC	N
0003	B	Volatile Organics	N
		Target Compound List (TCL)	N
		Screen - Volatile Organics	N

Enseco
A Corning Company

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Laidlaw Waste Systems
Client ID: Equipment Blank
Lab ID: 015307-0001-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 11 JUN 91 Analyzed: 11 JUN 91

Parameter	Result	Units	Reporting Limit
Acetone	19	ug/L	10
Benzene	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Bromomethane	ND	ug/L	10
2-Butanone (MEK)	31	ug/L	10
Carbon disulfide	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Chloroethane	ND	ug/L	10
Chloroform	ND	ug/L	5.0
Chloromethane	ND	ug/L	10
Dibromochloromethane	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
2-Hexanone	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10
Styrene	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery	
Toluene-d8	103	%
4-Bromofluorobenzene	102	%

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Mike Settell Approved By: Mark Dymerski

Enseco
A Corning Company

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Laidlaw Waste Systems
Client ID: Equipment Blank
Lab ID: 015307-0001-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 11 JUN 91 Analyzed: 11 JUN 91

Surrogate	Recovery	
1,2-Dichloroethane-d4	98	%

ND = Not detected
NA = Not applicable

Reported By: Mike Settell Approved By: Mark Dymerski

Enseco
A Corning Company

TENTATIVELY IDENTIFIED COMPOUNDS

FOR

LAIDLAW WASTE SYSTEMS

SAMPLE NUMBER 015307-0001

Compound Name	Fraction	Confidence Level	Estimated Concentration ug/L
None Detected	VOA		

NOTES:

Confidence Levels

Level 3 - Confirmed Identification
Level 2 - Confident Identification
Level 1 - Tentative Identification

Please refer to the discussion for further details.

Enseco
A Corning Company

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Laidlaw Waste Systems
Client ID: MW-F2
Lab ID: 015307-0002-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 11 JUN 91 Analyzed: 11 JUN 91

Parameter	Result	Units	Reporting Limit
Acetone	ND	ug/L	500
Benzene	ND	ug/L	250
Bromodichloromethane	ND	ug/L	250
Bromoform	ND	ug/L	250
Bromomethane	ND	ug/L	500
2-Butanone (MEK)	ND	ug/L	500
Carbon disulfide	ND	ug/L	250
Carbon tetrachloride	ND	ug/L	250
Chlorobenzene	ND	ug/L	250
Chloroethane	ND	ug/L	500
Chloroform	ND	ug/L	250
Chloromethane	ND	ug/L	500
Dibromochloromethane	ND	ug/L	250
1,1-Dichloroethane	ND	ug/L	250
1,2-Dichloroethane	ND	ug/L	250
1,1-Dichloroethene	ND	ug/L	250
1,2-Dichloroethene (total)	1100	ug/L	250
1,2-Dichloropropane	ND	ug/L	250
cis-1,3-Dichloropropene	ND	ug/L	250
trans-1,3-Dichloropropene	ND	ug/L	250
Ethylbenzene	ND	ug/L	250
2-Hexanone	ND	ug/L	500
Methylene chloride	ND	ug/L	250
4-Methyl-2-pentanone (MIBK)	ND	ug/L	500
Styrene	ND	ug/L	250
1,1,2,2-Tetrachloroethane	ND	ug/L	250
Tetrachloroethene	ND	ug/L	250
Toluene	ND	ug/L	250
1,1,1-Trichloroethane	ND	ug/L	250
1,1,2-Trichloroethane	ND	ug/L	250
Trichloroethene	ND	ug/L	250
Vinyl acetate	ND	ug/L	500
Vinyl chloride	ND	ug/L	500
Xylenes (total)	ND	ug/L	250

Surrogate	Recovery	
Toluene-d8	101	%
4-Bromofluorobenzene	97	%

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Mike Settell Approved By: Mark Dymerski

Enseco
A Coming Company

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Laidlaw Waste Systems
Client ID: MW-F2
Lab ID: 015307-0002-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 11 JUN 91 Analyzed: 11 JUN 91

Surrogate	Recovery	
1,2-Dichloroethane-d4	99	%

ND = Not detected
NA = Not applicable

Reported By: Mike Settell Approved By: Mark Dymerski

Enseco
A Corning Company

TENTATIVELY IDENTIFIED COMPOUNDS

FOR

LAIDLAW WASTE SYSTEMS

SAMPLE NUMBER 015307-0002

Compound Name	Fraction	Confidence Level	Estimated Concentration ug/L
None Detected	VOA		

NOTES:

Confidence Levels

Level 3 - Confirmed Identification
Level 2 - Confident Identification
Level 1 - Tentative Identification

Please refer to the discussion for further details.

Enseco
A Corning Company

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Laidlaw Waste Systems
Client ID: Trip Blank
Lab ID: 015307-0003-SA
Matrix: AQUEOUS Sampled: Unknown Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 11 JUN 91 Analyzed: 11 JUN 91

Parameter	Result	Units	Reporting Limit
Acetone	ND	ug/L	10
Benzene	ND	ug/L	5.0
Bromodichloromethane	ND	ug/L	5.0
Bromoform	ND	ug/L	5.0
Bromomethane	ND	ug/L	10
2-Butanone (MEK)	ND	ug/L	10
Carbon disulfide	ND	ug/L	5.0
Carbon tetrachloride	ND	ug/L	5.0
Chlorobenzene	ND	ug/L	5.0
Chloroethane	ND	ug/L	10
Chloroform	ND	ug/L	5.0
Chloromethane	ND	ug/L	10
Dibromochloromethane	ND	ug/L	5.0
1,1-Dichloroethane	ND	ug/L	5.0
1,2-Dichloroethane	ND	ug/L	5.0
1,1-Dichloroethene	ND	ug/L	5.0
1,2-Dichloroethene (total)	ND	ug/L	5.0
1,2-Dichloropropane	ND	ug/L	5.0
cis-1,3-Dichloropropene	ND	ug/L	5.0
trans-1,3-Dichloropropene	ND	ug/L	5.0
Ethylbenzene	ND	ug/L	5.0
2-Hexanone	ND	ug/L	10
Methylene chloride	ND	ug/L	5.0
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10
Styrene	ND	ug/L	5.0
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0
Tetrachloroethene	ND	ug/L	5.0
Toluene	ND	ug/L	5.0
1,1,1-Trichloroethane	ND	ug/L	5.0
1,1,2-Trichloroethane	ND	ug/L	5.0
Trichloroethene	ND	ug/L	5.0
Vinyl acetate	ND	ug/L	10
Vinyl chloride	ND	ug/L	10
Xylenes (total)	ND	ug/L	5.0

Surrogate	Recovery	
Toluene-d8	103	%
4-Bromofluorobenzene	97	%

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Mike Sattell Approved By: Mark Dymerski

Enseco
A Corning Company

Volatile Organics
Target Compound List (TCL)
Method 8240

Client Name: Laidlaw Waste Systems
Client ID: Trip Blank
Lab ID: 015307-0003-SA
Matrix: AQUEOUS Sampled: Unknown Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 11 JUN 91 Analyzed: 11 JUN 91

Surrogate	Recovery	
1,2-Dichloroethane-d4	97	%

ND = Not detected
NA = Not applicable

Reported By: Mike Settell Approved By: Mark Dymerski

Enseco
A Corning Company

PCBs

Method 8080

Client Name: Laidlaw Waste Systems
Client ID: Equipment Blank
Lab ID: 015307-0001-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 09 JUN 91 Analyzed: 13 JUN 91

Parameter	Result	Units	Reporting Limit
Aroclor 1016	ND	ug/L	0.50
Aroclor 1221	ND	ug/L	0.50
Aroclor 1232	ND	ug/L	0.50
Aroclor 1242	ND	ug/L	0.50
Aroclor 1248	ND	ug/L	0.50
Aroclor 1254	ND	ug/L	1.0
Aroclor 1260	ND	ug/L	1.0

ND = Not detected
NA = Not applicable

Reported By: Ann Steyart Approved By: Mike Hoffman

Enseco
A Corning Company

PCBs

Method 8080

Client Name: Laidlaw Waste Systems
Client ID: MW-F2
Lab ID: 015307-0002-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 07 JUN 91 Prepared: 09 JUN 91 Analyzed: 13 JUN 91

Parameter	Result	Units	Reporting Limit
Aroclor 1016	ND	ug/L	1.0
Aroclor 1221	ND	ug/L	1.0
Aroclor 1232	ND	ug/L	1.0
Aroclor 1242	ND	ug/L	1.0
Aroclor 1248	3.6	ug/L	1.0
Aroclor 1254	ND	ug/L	2.0
Aroclor 1260	ND	ug/L	2.0

ND = Not detected
NA = Not applicable

Reported By: Ann Steyert Approved By: Mike Hoffman

Rocky Mountain
Analytical Laboratory

Enseco

ANALYTICAL RESULTS

FOR

LAIDLAW WASTE SYSTEMS

ENSECO-RMAL NO. 015476

JUNE 27, 1991

Reviewed by: Debbie Fozio (for)
Jean Zimmerman

Sue Dalla
Sue Dalla

Enseco Incorporated
4955 Yarrow Street
Arvada, Colorado 80002
303/421-6611 Fax: 303/431-7171

Enseco
A Corning Company

SAMPLE DESCRIPTION INFORMATION
for
Laidlaw Waste Systems

Lab ID	Client ID	Matrix	Sampled Date	Sampled Time	Received Date
015476-0001-SA	MW-F2	AQUEOUS	06 JUN 91	13:35	07 JUN 91

Enseco
A Corning Company

ANALYTICAL TEST REQUESTS
for
Laidlaw Waste Systems

Lab ID: 015476	Group Code	Analysis Description	Custom Test?
0001	A	Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX)	N

Enseco
A Corning Company

Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX)

Method 8020

Client Name: Laidlaw Waste Systems
Client ID: MW-F2
Lab ID: 015476-0001-SA
Matrix: AQUEOUS Sampled: 06 JUN 91 Received: 07 JUN 91
Authorized: 20 JUN 91 Prepared: NA Analyzed: 24 JUN 91

Parameter	Result	Units	Reporting Limit
Benzene	100	ug/L	2.5
Toluene	48	ug/L	2.5
Ethylbenzene	95	ug/L	2.5
Xylenes (total)	93	ug/L	2.5

Surrogate	Recovery	
a,a,a-Trifluorotoluene	104	%

ND = Not detected
NA = Not applicable

Reported By: Bret Collins Approved By: Mike Hoffman

Enseco
A Corning Company

QC LOT ASSIGNMENT REPORT
Volatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
015476-0001-SA	AQUEOUS	602-A	20 JUN 91-P	24 JUN 91-P

Enseco
A Corning Company

DUPLICATE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	Measured AVG	Accuracy Average(%) DCS	Accuracy Average(%) Limits	Precision (RPD) DCS	Precision (RPD) Limit
Category: 602-A								
Matrix: AQUEOUS								
QC Lot: 20 JUN 91-P								
Concentration Units: ug/L								
Benzene	5.0	4.55	4.54	4.54	91	80-120	0.2	15
Toluene	5.0	4.56	4.54	4.55	91	80-120	0.4	15
Ethylbenzene	5.0	4.45	4.42	4.44	89	80-120	0.7	15
Xylenes (total)	5.0	4.49	4.45	4.47	89	80-120	0.9	15
1,3-Dichlorobenzene	5.0	4.75	4.59	4.67	93	80-120	3.4	15

Calculations are performed before rounding to avoid round-off errors in calculated results.

Enseco
A Corning Company

SINGLE CONTROL SAMPLE REPORT
Volatile Organics by GC

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) SCS	Accuracy(%) Limits
Category: 602-A				
Matrix: AQUEOUS				
QC Lot: 20 JUN 91-P QC Run: 24 JUN 91-P				
Concentration Units: ug/L				
a,a,a-Trifluorotoluene	30.0	31.1	104	20-160

Calculations are performed before rounding to avoid round-off errors in calculated results.

Enseco
A Corning Company

METHOD BLANK REPORT
Volatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: 602-BTEX-AP			
Matrix: AQUEOUS			
QC Lot: 20 JUN 91-P QC Run: 24 JUN 91-P			
Benzene	ND	ug/L	0.50
Toluene	ND	ug/L	0.50
Ethylbenzene	ND	ug/L	0.50
Xylenes (total)	ND	ug/L	0.50